



Report

Independent Environmental Audit: Charbon Colliery

SEPTEMBER 2012

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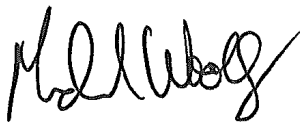
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Abbreviations

Abbreviation	Description
AQMP	Air Quality Management Plan
AEMR	Annual Environmental Management Report
BCA	Building Code of Australia
CCC	Community Consultative Committee
CCL	Consolidated Coal Lease
CoA	Condition of Approval
Council	Mid-Western Regional Council
CHMP	Compensatory Habitat Management Plan
CHPP	Coal Handling and Preparation Plant
DA	Development Application
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
OEH	Office of Environment and Heritage (formally, Department of Environment, Climate Change and Water (DECCW)).
Department	Department of Planning and Infrastructure
Director-General	Director-General of Department of Planning, or delegate
DP&I	Department of Planning and Infrastructure
DTIRIS-DRE	NSW Department of Trade and Investment, Regional Infrastructure and Services - Division of Resources and Energy
EA	Environmental Assessment. In this report the Environmental Assessment titled <i>Environmental Assessment Continued Operations of the Charbon Colliery</i> , dated November 2009
EC	Electrical Conductivity
EEC	Endangered Ecological Community as defined under the NSW <i>Threatened Species Conservation Act 1995</i>
Environmental consequences	Environmental consequences of Subsidence Impacts, including: damage to infrastructure, buildings and residential dwellings; loss of surface flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology, ponding etc.
EMP	Environmental Management Plan
EMS	Environmental Management System
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
Evening	Evening is defined as the period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build
HVAS	High Volume Air Sampler
I&INSW	Industry and Investment NSW (now NSW Department of Trade and Investment, Regional Infrastructure and Services)
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measure/criteria in the Project Approval
INP	Industrial Noise Policy
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of the Project Approval
LDPs	Licensed Discharge Points
LMP	Landscape Management Plan
LW	Longwall

Abbreviations

Abbreviation	Description
Mine Water	Water that accumulates within active mining areas, coal rejects emplacement areas, tailings dams and infrastructure areas, synonymous with dirty water
Mining Operations	Includes all coal extraction, processing, and transportation activities carried out on site
Minister	Minister for Planning, or delegate
Mtpa	Million tonnes per annum
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NMP	Noise Monitoring Plan
NOW	NSW Office of Water
Privately owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary).
Project	The development as described in the EA
Project Approval	Project Approval relating to Application No.08_0211 dated 7 September 2010
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential impacts.
Rehabilitation	The treatment or management of land disturbed by the project for the purpose of establishing a safe, stable and non-polluting environment
RMP	Rehabilitation Management Plan
RTA	NSW Roads and Traffic Authority
SoC	Statement of Commitments listed in Appendix 3 of the Project Approval
SOC	Southern Open Cut
SEWPAC	Department of Sustainability, Environment, Water, Population and Communities
TEOM	Tapered Element Oscillating Microbalance
WMP	Water Management Plan

Executive Summary

URS Australia Pty Ltd (URS) was engaged by Centennial Coal Pty Ltd (Centennial Coal) to carry out an Independent Environmental Audit of the Charbon Colliery (Charbon) located at Kandos in the Western Coalfield of New South Wales.

A condition of the Project Approval of Development Application (DA) 08_0211 (dated 7 September 2010) requires Centennial Coal to commission an independent environmental audit prior to 31 December 2011 and every three years thereafter.

This is the first independent audit to be carried out at Charbon as the new Project Approval for the Continued Operations of Charbon Colliery requiring this audit was approved in September 2010. For the purpose of this audit, the audit period has generally been defined as from the date of the Project Approval (7 September 2010) to 14 February 2012 (date of site visit conducted as part of this audit). This report presents the findings of this audit.

The audit was completed in accordance with the Condition of Approval (CoA) Schedule 5 No. 8 and the project brief (dated February 2010) as detailed in URS' proposal (dated 11 March 2010). The audit methodology comprised the following activities:

- Initial discussions with Charbon to organise the audit, including the provision of documentation, the site visit and timing;
- Review of site compliance register and other documentation provided by Charbon;
- A four-day site inspection and interviews with key site personnel, on 14 February to 17 February 2012.
- Consultation with key government agencies;
- Review of additional documentation provided by Charbon after the site inspection; and
- Submission of this Report to Charbon outlining the audit findings.

The independent environmental audit assessed compliance with relevant approvals, licences and other management plans applicable to Charbon. The detailed compliance assessment, including comments and recommendations, is presented in Appendix A. Non-compliance with relevant approvals is discussed in section 4 and section 13. The overall compliance status is summarised in **Table 1**.

Table 1 Overall Compliance Assessment

Relevant Approval	Percent Compliant (%) [*]	Number of Conditions Non-Compliant or Indeterminate
Project Approval DA 08_0211	91	8
Project Approval DA 08_0211 Appendix 3 Statement of Commitments	89	6
Environmental Protection Licence No. 528	86	9
Mining Lease 1545	90	4
Consolidated Coal Lease 732	87	5
Bore License 80BL243771 and 80BL620187	90	1
EPBC Approval	100	0

Executive Summary

In addition the scope of the audit included a review of the adequacy of the strategies, plans and programs required under the Project Approval. The findings of the adequacy review are presented in Section 6 and in Sections 7 to 11.

A summary of recommended actions to improve compliance status is presented in Section 12.

Introduction

1.1 Background

URS Australia Pty Ltd (URS) was engaged by Charbon Coal Pty Ltd (Charbon) of Centennial Coal Pty Ltd (Centennial Coal) to carry out an Independent Environmental Audit of the Charbon Colliery located at Kandos in the Western Coalfield of New South Wales.

A condition of the Project Approval (PA) of Development Application (DA) 08_0211 (dated 7 September 2010) requires Centennial Coal to commission an independent environmental audit prior to 31 December 2011 and every three years thereafter.

In association with this requirement, Centennial Coal's project brief (dated February 2010) required that the audit provide appropriate information to Charbon and Centennial Coal on environmental compliance to enable site management to identify opportunities for improvement.

The audit was completed in accordance with the Condition of Approval (CoA) Schedule 5 No.8 and the project brief (dated February 2010) as detailed in URS' proposal (dated 11 March 2010).

This is the first independent audit to be carried out at Charbon as the new Project Approval for the Continued Operations of Charbon Colliery requiring this audit was approved in September 2010. For the purpose of this audit, the audit period has generally been defined as from the date of the Project Approval (7 September 2010) to 14 February 2012 (date of site visit conducted as part of this audit). This report presents the findings of this audit.

1.2 Scope of Work

The audit was conducted in accordance with the requirements set out in the Project Approval of DA 08_0211, which required that the following scope of works be carried out.

By December 2011, and every three years thereafter, unless the Director General directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must:

- a) be conducted by a 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 relevant EPL or Mining Lease (including any assessment, plan or programs 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 assessment, plan or program required under these approvals*
- f) be completed within 2 months of the approval of the audit team.*

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director General.

The Department of Planning and Infrastructure (DP&I) provided advice to Charbon that the audit team was to include experts in the fields of noise, water, ecology and air. DP&I approved the URS audit team (including experts) in a letter dated 22 December 2011.

1 Introduction

1.3 Audit Methodology

The purpose of this Independent Environmental Audit was to assess compliance with CoA, licences and approvals that apply to the development and review the adequacy of strategies, plans or programs required under the Project Approval.

A site-based compliance register was supplied by Charbon. The compliance register formed the basis of the audit protocol. It included a list of conditions and commitments to be assessed for compliance, including Project Approval 08_0211), Consolidated Coal Lease 732, Mining lease (ML) No. 1545 and Environment Protection Licence (EPL) No.528.

The audit scope relates to activities undertaken on site between the approval of DA 08_0211 (dated 7 September 2010) and the date of the audit site inspection (14 February 2012). A summary of approvals assessed and a complete list of approvals relevant to Charbon is provided in Section 4.

In accordance with CoA Sch.5 No.8 and as specified by the Director General, the audit team was required to include experts in fields of noise, water, ecology and air. The findings of the expert's assessment are provided in Chapters 7, 8, 9 and 10.

The Audit was carried out in accordance with ISO 19011:2003 Guidelines for quality and/or environmental management systems auditing (ISO, 2002), which superseded the ISO 14000 series.

The audit methodology comprised:

- Initial discussions with Charbon to organise the audit, including the provision of documentation, planning the site visit and agreeing timing;
- Discussions with the DP&I to discuss any concerns and areas for particular focus during the audit;
- Review of site compliance register and other documentation provided by Charbon;
- A four-day site inspection and interviews with key site personnel, on 14 February to 17 February 2012. Tasks undertaken during the audit site inspection included:
 - Opening meeting;
 - Site inspection with the Charbon Environmental and Community Coordinator and others;
 - Review of relevant documentation provided by the Charbon Environmental Coordinator;
 - Interviews with key personnel including Charbon Environmental Coordinator, and others;
 - Presentation of a close out meeting;
- Consultation with key government agencies;
- Review of additional documentation provided by Charbon after the site inspection; and
- Submission of this Report to Charbon Coal outlining the audit findings.

This report presents a summary of findings including details of non-compliances identified in the audit, an audit score (percentage compliant) and recommended actions to improve compliance status.

1.3.1 Documents Reviewed

The following information was reviewed during the audit process:

- Regulatory approvals as listed in Section 4;
- Management Plans as listed in Section 6;
- Environment Protection Licence (EPL) No. 528;
- Approvals checklists supplied by Charbon;
- Site environmental plans, procedures and checklists;

1 Introduction

- Selected correspondence with relevant government agencies and stakeholders;
- Selected records of competency, induction and training;
- Selected meeting minutes;
- Selected reports; and
- Evidence of selected monitoring and review.

Documents used as part of the audit are referenced as part of the text discussing compliance status.

1.4 Personnel and Timing

The Independent Environmental Audit was conducted by suitably qualified, independent and experienced audit team approved by the DP&I. The team comprised:

- Michael Woolley, URS, lead auditor;
- Sean Flaherty, URS noise expert;
- Saul Martinez, URS water expert,
- Jane Murray, URS ecology expert; and
- Rhys Watson; URS air expert.

Michael Woolley is registered by RABQSA as a Certified Lead Auditor for Environmental Management, Site Contamination Assessment and Compliance Auditing.

The site visit for the audit was conducted by the team listed above between 14th February and 17th February 2011. Experts were on site for two of the four days of the overall visit. The Lead Auditor was on site for the whole period.

Personnel interviewed during the site visit included the following people:

- Matt Gray - Charbon Environmental and Community Coordinator;
- Brian Nicholls - Mine Manager;
- Rodney Dunlop – Graduate Environmental Scientist;
- Nigel Campbell – Environmental Scientist (Contractor to Centennial Coal);
- Robert Marshall – Mine Scheduler;
- Jacqueline Cook – Senior Mining Engineer;
- Greg Munday – Coal Preparation Plant Superintendent; and
- Geoff Hillier - Site Manager, Big Rim Contractors (Open Cut Operators).

1.5 Sensitive Information

It is understood that information collected during the audit may be sensitive. All documents used during the audit to verify compliance were kept secure and not distributed outside the relevant personnel involved in the audit.

1.6 Format of Report

The format of this report is as follows:

- Section 1 is introductory and defines the scope and nature of the audit;
- Section 2 describes the Charbon operations as observed during the site inspection;
- Section 3 summarises the consultation with key regulatory agencies

1 Introduction

- Section 4 provides an assessment of the environmental performance of the development and its effects on the surrounding environment;
- Section 5 describes the approach to the assessment against the relevant standards, performance measures and statutory requirements.
- Section 6 provides an overview of Charbon's approach to Environmental management and reviews the adequacy of overall management systems.
- Section 7 provides an overview of Charbon's approach to noise management and reviews the adequacy of noise management.
- Section 8 provides an overview of Charbon's approach to water management and reviews the adequacy of water management.
- Section 9 provides an overview of Charbon's approach to ecology and reviews the adequacy of ecological management.
- Section 10 provides an overview of Charbon's approach to air quality management and reviews the adequacy of air quality management.
- Section 11 provides an overview of Charbon's approach to Hydrocarbon management.
- Section 12 summarises the Non Compliances and Recommendations made throughout the report.

Appendix A is a tabulated review of the results of the assessment against the CoA, Statement of Commitments (SoCs), EPL conditions, and Mining Lease conditions.

Appendix B includes a selection of photographs from the audit site inspection.

Site Description

This section provides a brief overview of the development of Charbon Colliery and operations carried out on site.

2.1 Site location and history

The following is taken from the Charbon Environmental Strategy (March 2011).

Charbon Colliery is an underground (bord and pillar) and open-cut coal mine operated by Charbon Coal Pty Limited (Charbon Coal), a joint venture between Centennial Coal Company Limited (Centennial) (95%) and SK Energy Australia Pty Ltd (5%). Charbon Colliery is located in the Western Coalfields of NSW, approximately 87km north-west of Lithgow and 3km south of Kandos. The Colliery has been in operation since the 1920's and initially supplied coal for the former Charbon Cement Works until its closure in 1977. The mine continued to produce coal for local consumption until the Colliery was upgraded in 1985 to produce a washed coal for export. An Environmental Impact Statement (EIS) was prepared in 1992 to support an application to extend the underground lease, development of an additional mine entry (Third Entry) and associated infrastructure and upgraded coal processing systems. Planning Consent was issued by the Minister for Planning on 24 June 1993.

Open Cut extraction commenced following approval from Rylstone Shire Council on the 21st December 1995 following the preparation and display of an EIS. The open cut proceeded in accordance with the development consent producing approximately 1.2 Million tonnes of coal since commencing operations in early 1996.

The Third Entry Open Cut consent was subsequently modified on 25th June 2002 to allow additional open cut extraction along the main access road to the Third Entry. Extraction in this area commenced in October 2002 and is now complete.

In March 2003 a development application (DA-122-3-2003) was lodged with the former Department of Infrastructure, Planning and Natural Resources (now Department of Planning and Infrastructure) for a project known as the Southern Open Cut (SOC). The Minister granted development consent for the project on the 19th December 2003.

Charbon Coal received Project Approval for the continuation of operations at the Charbon Colliery on the 7th of September, 2010. The Project Approval is supported by the Continued Operation of the Charbon Colliery Environmental Assessment (EA) completed in November 2009.

2.2 Description of Site Operations

The Project Site in its current state covers an area of approximately 2,692ha and consists of: six open cut areas; two underground mine areas; rail loop & loading facilities; and a coal handling and processing plant (CHPP). Figure 1 (Attachment 2 of 2010 Annual Environmental Management Report - AEMR) provides detail of the layout of the mine. Figure 2 provides an aerial photo of the mine with cadastre overlaid (Attachment 6a of 2010 AEMR) and Figure 3 provides aerial photos of the mine (Attachment 6 of 2010 AEMR).

The approved activities undertaken within the Colliery include the following.

- Extraction of up to 900 000t of ROM coal by bord and pillar mining methods within the Charbon Underground.

2 Site Description

- Extraction of up to 600 000t of ROM coal by open cut mining methods from the existing Southern Open Cut and placement of waste rock material with an approved in-pit waste rock emplacement within the Southern Open Cut.
- Transportation of ROM coal to the CHPP by a combination of haul truck and underground conveyor.
- Processing of ROM coal and stockpiling of ROM and product coal at the Coal Handling and Preparation Plant (CHPP).
- Placement of fine and coarse reject material within the existing Reject Emplacement Area.
- Loading and transportation ROM and product coal using the existing approved methods, namely:
 - rail transportation using the rail loading facilities;
 - road transportation of ROM and product coal via public roads using road registered rigid and semi-trailer trucks; and
 - road transportation of ROM and product coal via a private road to the Charbon Lime Works using road registered rigid trucks.
- Use of site facilities and infrastructure, including the site offices, staff amenities, workshops, roads, waste water treatment plant, underground mine infrastructure, surface water management structures, Reedy Creek Dam and associated infrastructure.
- Progressive rehabilitation of the existing and approved areas of disturbance throughout the Colliery.

2.3 Activities occurring during site audit inspection

Generally the above activities were being carried out at the time of the site inspection as follows:

- Open cut mining was occurring in the Western Open Cut area. The Western Open Cut was almost complete and Charbon reported that this open cut would be made available for rehabilitation in the months following the audit inspection. Big Rim management indicated that they would be pushing overburden up to the highwall to generate a landform similar to the original landform, except in the area of the underground access which would remain open. All open cut operations were being managed by Contractors Big Rim;
- Open cut mining was occurring in the Southern Open Cut (SOC). Mining in this area has been occurring since 2005. Charbon indicated that due to delays in planning approvals in other areas, reworking had occurred in the open cut such that progressive rehabilitation had not been able to be completed in the SOC. As such, only limited rehabilitation has been conducted in the SOC to date. Charbon indicated that a large portion of the SOC was going to be available for rehab in early 2012, and that within 2-3 months of the audit site inspection, rehabilitation was to be conducted in this area. It was noted that soil/subsoil stockpiles were placed in areas within the SOC and these would be used in the upcoming rehabilitation.
- Open Cut mining was planned in the Trunk 8 Open Cut area. Charbon was waiting on Commonwealth Approvals prior to entering this area.
- Open Cut mining was planned in the future in the Southern and Western outliers. Limitations were experienced in accessing the Southern outlier due to a landholder restricting access.
- Underground mining was occurring in the Haystack (Western) area and the 600 panels. During the site inspection, this comprised first workings only. Two underground teams were working – one in each of the above areas.
- The CHPP was operating with rail being loaded.
- No rehabilitation was being undertaken across the site, and had not been since 2007 when the Trunk 3 open cut was rehabilitated. Rehabilitation works were planned for later in 2012.

2 Site Description

- Coal shipping was not occurring to Kandos cement works as the plant shut down in 2011. Coal shipping was terminated to the plant in mid 2011, and stockpiles of coal at the facility were taken back to Charbon by truck from 2011 with the last truckload occurring in the week of the audit inspection (15/2/2012).
- No coal had been shipped by public road to Wallerawang or Mt Piper.

Details on the layout of the site are provided in Appendix B and C.

Consultation

3.1 Consultation with Key Government Agencies

As part of the audit process, URS contacted key government agencies to seek their views on the environmental performance of Charbon.

3.1.1 NSW Department of Planning and Infrastructure (DP&I)

Discussions were held with Carl Dumbleton of the DP&I on 6 February 2012 and during the audit on 15 February 2012. The scope of the audit was discussed, with the commencement of the audit period agreed as the date of the project approval. DP&I did not indicate an awareness of specific issues relating to current operations however noted that some issues were raised during the EA process which was the basis for the number of experts in the audit team.

3.1.2 NSW Environment Protection Authority – EPA;

URS contacted Sheridan Ledger of the EPA during the week of the audit. The following observations were noted by Sheridan:

- Water management Pollution Reduction Programme (PRP). The requirement for the PRP related to a discharge with high sediments following extensive rainfall in late 2010. Many sites in the area were noted to have also had discharges. A two stage PRP process was established with the first being investigation; and the second being the development and implementation of an Action Plan to address issues. EPA conducted a site inspection late 2011 and observed that most actions were completed to the satisfaction of the EPA. One remaining action was noted as being the establishment of Licence Discharge Point 5 (LDP5); with another action, not part of the PRP, noted as being the requirement to ensure water from within disturbed areas of the rail loop was re-directed to the sediment treatment dam within the loop. The EPA indicated that Charbon had been responsive in addressing the water related issues.
- Dust PRP. The EPA indicated that this was a requirement for all mines in NSW to improve overall dust management and that the PRP did not indicate a specific dust issue at Charbon. Charbon was in the first round of sites to have to prepare a report under the PRP. The EPA acknowledged that the report had been received within the required timeframe.
- Licence Variation: it was acknowledged that both the EPA and Charbon are working toward a licence variation (a variation application was being prepared by Charbon) to ensure the licence is consistent with recent changes in LDPs; sampling points and other areas. This was expected to be finalised within weeks of the audit site visit.
- The EPA indicated that blasting was an issue previously, and complaints had been received at the time of Charbon blasting; however; that since blasting was stopped, no complaints had been received by EPA.
- No noise complaints had been received by the EPA during the audit period.
- No other specific issues were raised by the EPA.

In addition to the above, Charbon indicated that during a site inspection as part of the AEMR review process, the EPA raised three issues regarding hydrocarbon management. Charbon indicated that the issues were raised verbally only.

3 Consultation

3.1.3 NSW Department of Trade and Investment, Regional Infrastructure and Services - Division of Resources and Energy (DTIRIS-DRE)

URS called the relevant inspector of DTIRIS-DRE and emailed them requesting comment. No comment had been received from DTIRIS-DRE at time of writing this report.

Compliance with relevant Statutory Requirements

This Section fulfils the requirement to assess whether the project is complying with the relevant requirements in its Development Consent and any relevant mining lease and EPL.

4.1 Summary of Key Approvals and Licences held by Charbon

4.1.1 Project Approval and Statement of Commitments

Charbon received Project Approval (PA 08_0211) for the continuation of operations at Charbon Colliery on 7 September 2010 from the DP&I. The Project Approval is supported by the Continued Operation of Charbon Colliery Environmental Assessment (EA) completed in November 2009 by R.W. Corkery & Co Pty Limited (Corkery, 2009). No other previous consents were reviewed as part of this audit.

Other approvals exist for the mine, however were required to be surrendered under PA 08_0211 prior to the 7th of September 2011. Charbon applied for and received an extension from DP&I for surrendering all consents listed in **Table 4-1** in 2012.

Table 4-1 Summary of Existing Development Consents (to be surrendered)

Issuing Authority	Approval Number	Approval Date	Covering
Department of Planning	78/1465	21 March 2012	CHPP, rail loop, loading facilities and modifications to pit top
	S91 – 05681 – Z02	24 June 1993	Construction and operation of mine entry, infrastructure, fine reject and tailings disposal system and expansion of underground mining
Rylstone Shire Council	94/95	21 December 1995	Third Entry Open Cut
	94/95	25 June 2002	Modification for open cut mining north of the Third Entry Open Cut
	1999-65	29 June 1999	Mt View Access Road (consent lapsed 29/06/04 as approved activities were not commenced within the required time)
Department of Infrastructure, Planning and Natural Resources	122 – 3 – 2003	19 December 2003	Southern Open Cut including Areas 3 and 4

These consents have not been considered in this audit.

4 Compliance with relevant Statutory Requirements

4.1.2 Environment Protection Licence

Charbon operates under EPL 528, which is renewed annually on the 31st of October. As indicated in the 2010 AEMR, during 2011 EPL 528 received three variations:

- **3 March 2011** – EPL 528 varied to include a Pollution Reduction Program (PRP) requiring Charbon to engage an auditor to audit the water management system at the Mine;
- **10 June 2011** – EPL 528 varied to include a Water Management System Action Plan. The Action Plan outlines the works to be undertaken by the licensee to address the issues identified by the Water Management System Audit. The EPL variation also included minor changes to blasting conditions; and
- **8 August 2011** EPL 528 varied to include a PRP that requires Charbon to carry out a site specific determination of best practice particulate matter control.

4.1.3 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Approval

On 18 May 2010, Charbon provided a referral under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) to the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) to expand the existing open cut and underground mining operations at the Charbon Colliery. Approval was granted by SEWPaC on 19 November 2010.

This EPBC Act Approval was subject to a number of conditions as attached to the approval.

4.1.4 Consolidated Coal Lease and Mining Leases

A compliance assessment against Consolidated Coal Lease (CCL) No.732: Approval date 13th December 1989 Expiry Date: 18th November 2028 and Mining Lease No.1545 has been conducted as presented in Appendix A. Existing mineral authorities held by Charbon for the Charbon Colliery have been presented in **Table 4-2**.

Table 4-2 Mining Leases

Mineral Authority	Approval Date	Expiry Date
CCL726*	29 June 1982	18 November 2028
CCL732	13 December 1989	2 December 2025
ML1318	29 June 1993	29 June 2014
ML1384	19 January 1996	18 January 2017
ML1501	21 December 2001	20 December 2022
ML1524	28 October 2002	27 October 2023
ML1545	9 January 2004	8 January 2025
MPL270	29 April 1991	28 April 2012
MPL499	28 May 1925	27 May 2026
MPL505	11 August 1925	11 August 2026
MPL526	14 December 1925	14 December 2024
MPL670	26 March 1930	26 March 2024
MPL964	20 November 1939	20 November 2023

4 Compliance with relevant Statutory Requirements

Mineral Authority	Approval Date	Expiry Date
EL7123**	9 April 2008	9 April 2011
*CCL726 is subleased from Kandos Collieries Pty Limited		
**Renewal is pending		

Table 4-3 Other DTIRIS-DRE Approvals

Approval Type	Regulatory Authority	Approval Number	Approval Date	Expiry Date
Mining Operations Plan	DTIRIS	N/A	September 2010	August 2014
Subsidence Management Plan	DTIRIS	07-0975	19 April 2007	1 May 2014*

Given the high number of Mining leases and that most leases have very similar terms and conditions, URS has selected key approvals from which to assess compliance.

4.1.5 NSW Office of Water Approvals (NOW)

Table 4-4 provides a summary of all current surface water licences held by Charbon Coal under NOW.

Table 4-4 Surface Water Licences

Licence	Approval Date	Renewal Date	Details
80AE308402	6 February 2001	NA	Amnesty registration for Reedy Creek Dam, Southern Open Cut Pollution Control Dam and farm dams
80SL095832	27 May 2008	27 May 2013	Conservation of water and water supply for industrial purposes (Reedy Creek Dam)
80SL095833	27 May 2008	27 May 2013	Conservation of water and water supply for stock purposes (Southern Open Cut Pollution Control Dam and 50ML dam)

Charbon Coal currently holds four groundwater licences as outlined in **Table 4-5**.

Table 4-5 Groundwater Licences

Licence	Approval Date	Renewal Date	Details
80BL243771	22 March 2007	Perpetuity	Extraction of up to 5ML per year from the Charbon Underground
80BL244068	22 March 2007	21 March 2012	Extraction of up to 30ML per year from production bore PB2 and PB3
80BL244069	22 March 2012	21 March 2012	Extraction of up to 30ML per year from production bore PB2 and PB3
80BL244070	22 March 2012	21 March 2012	Extraction of up to 30ML per year from production bore PB2 and PB3

Not all water licences have been assessed under this audit.

4 Compliance with relevant Statutory Requirements

4.2 Summary of major approvals and licences reviewed as part of this audit

As defined in the scope of work for the audit, the audit has focussed on the Project Approval, the EPL and selected Mining Leases as considered the most relevant. Selected Water Licences were also considered. **Table 4-6** identifies the major approvals, licences and leases assessed as part of this audit. Other approvals and licences as listed above have not been considered in the audit.

Table 4-6 Summary of major approvals and licences reviewed as part of this audit

Approval	Authority
Charbon Colliery Project (08_0211) Project Approval and Statement of Commitments. Approval date - 7 th September 2010.	NSW Department of Planning and Infrastructure (DP&I)
Environment Protection Licence (EPL) 528	During the audit period the relevant authority was NSW Office of Environment and Heritage (OEH). Since 29 February the relevant authority was the Environment Protection Authority (EPA).
Consolidated Coal Lease No.732: Approval date 13 th December 1989 Expiry Date: 18 th November 2028	NSW Department of Trade and Investment, Regional Infrastructure and Services - Division of Resources and Energy (DTIRIS-DRE)
Mining Lease No.1545	NSW Department of Trade and Investment, Regional Infrastructure and Services - Division of Resources and Energy (DTIRIS-DRE)
EPBC Act Expansion of Charbon Colliery 2010/5498	Department of Sustainability, Environment, Water, Population and Communities (SEWPaC)
Surface Water Licences: 80SL095832 80SL095833. These cover Reedy Creek Dam 2 x Bywash Dam	NSW Office of Water (NOW). (not all licences assessed)
Bore Licences: 80BL243771, 80BL244068, 80BL244069, 80BL244070. These cover Mine dewatering Groundwater Bore	NSW Office of Water (NOW). (not all licences assessed)

4.3 AEMR and Annual Regulatory Site Inspection

Consolidated Coal Lease No.732: and Mining Lease No.1545 require the preparation of an AEMR. Various agencies conduct site inspections as part of the review of the AEMR. Site inspections for the 2010 AEMR were carried out on 12th May 2011 by DTIRIS-DRE Regional Environmental Officer Sarah Pollock, and DTIRIS Environment Central West Team Leader Michael Young who also reviewed the AEMR. Following this inspection Charbon Coal were informed that the 2010 AEMR was accepted by the Department.

Written correspondence from DTIRIS requested that the 2011 AEMR provide additional information with respect to rehabilitation progress as detailed in a letter from Michael Young dated the 26th October 2010. **Table 4-7** below outlines the status of activities as outlined in the 2010 AEMR that were proposed to be undertaken during the 2011 reporting period.

4 Compliance with relevant Statutory Requirements

Table 4-7 Status of 2010 AEMR Actions (Source 2011 AEMR)

Activities Proposed for 2011	Status as of December 2011 (as reported by Charbon in the 2011 AEMR)
Weed spraying according to Weed Management Plan	Weed spraying was completed in 2011, See Section 3.9 of the AEMR.
30ha of Rehabilitation	No rehabilitation was completed during 2011 due to mining logistics and unfavourable weather. A spring/summer 2012 rehabilitation program has been proposed and is outlined in Section 5.0 of the AEMR.
Feral Animal Control	Feral goats are occasionally hunted. The Central North Livestock Health and Pest Authority (LHPA) have proposed a dog/fox baiting program for 2012.
Implementation of September 2010 planning approval and management plans.	All management plans were completed and submitted by 7 th September 2011. All PA 08_0211 conditions were met during 2011.
Variation of EPL 528 to reflect development in accordance with Project Approval PA 08_0211	Variation process ongoing.
Implementation of the Statement of Commitments made by Charbon	Ongoing.

The Charbon 2010 AEMR noted “The NSW Department of Primary Industries – Mineral Resources (DPI-DMR), in minutes of a meeting to review the Charbon 2009 AEMR onsite with mine staff and DECCW officer, stated that the Department was satisfied with the (site) inspection and the detail provided in the report.”

4.4 Assessment of Compliance

The status of Charbon’s performance during the audit, in respect of each of the CoA, EPL conditions, Mining Lease conditions, CCL conditions, and selected Water Licences is presented in Appendix A. Conditions considered to be not complied with, or indeterminate, have been listed in Section 12 of this report.

Performance categories in respect of compliance are defined as follows:

- Compliant currently in compliance;
- Non-compliant currently not in compliance;
- Not applicable condition of consent not applicable at time of audit;
- Indeterminate it has not been possible to determine whether compliance exists; and
- Not Assessed the condition has not been assessed as part of the scope of this audit.

Comments are listed beside each condition to explain aspects of the audit review. Where considered relevant, observations have been made regarding specific compliance issues.

Where compliance with a condition had not been achieved during the audit period, but the site could demonstrate current compliance, this has been recorded as such.

In general, (unless otherwise stated) no specific or rigorous assessment of documents required as part of meeting the CoA has been undertaken during the assessment, particularly where they have been signed off by other parties (for example, DP&I).

Environmental Performance

This Section addresses the requirement of the scope of works to “assess the environmental performance of the project”.

The auditors based the assessment of the environmental performance of the Project on the assessment of implementation of the management and monitoring plans as well as the assessment of compliance with the CoA, SOC, EPL, CCL and Mining Lease. The findings of this assessment are provided in the Compliance Matrix presented in Appendix A with the identified non compliances and associated recommendations summarised in Section 12. Section 6 provides an overview of environmental management documents and an assessment of the adequacy of selected documents. A detailed discussion of the site’s performance for Noise, Water, Ecology and Air is presented in Chapters 7, 8, 9 and 10.

In addition, to further gauge the Project’s environmental performance, the auditors reviewed the environmental incidents and complaints recorded during the audit period. The discussion of incidents and complaints is provided below.

5.1 Incident Management

Centennial Coal has developed Minimum Environmental Performance Standards for incident reporting (ECMS 03) and accompanying Guidance Notes. These documents summarise reporting obligations and outline the management process for different incident categories. Centennial Coal classifies incidents using the following categories:

- Category 1: Prosecution (Major) – major actual or potential material harm, major remediation required.
- Category 2: Offence (Significant) – significant potential or actual material harm, significant remediation required.
- Category 3: Reportable (Moderate) – reportable incident of actual or potential material harm to the environment, recurrent licence / approval exceedance or non-compliance, multiple / recurrent complaint
- Category 4: Technical (Minor) – licence / approval / standard exceedance or non-compliance, minor matter with no ecological damage evident, one off complaint, spill emission incident exceeding control system limits
- Category 5 Incident (Low) – on site only within limits of approved control systems, no environmental harm with little need for remediation.

Incidents are logged within Lotus Notes (using the ECD system). **Table 5-1** summarises the number of incidents recorded by category.

Table 5-1 Summary of incidents recorded by category for the audit period

Category	No. of incidents
1: Prosecution (Major)	0
2. Offence (Significant)	0
3. Reportable (Moderate)	1
4. Technical (Minor)	0
5. Incident (Low)	2

5 Environmental Performance

As shown in **Table 5-1**, Charbon recorded one Reportable (Moderate) incident during the audit period. This related to a surface water discharge event and is discussed further below.

Surface Water Discharges – December 2010

A surface water discharge event occurred over a number of days in December 2010 during a prolonged rainfall event. The discharges were reported to the EPA in a letter dated 12/1/2011 which reported the following:

“A high rainfall event over period 01/12/10 to 10/12/10 (186mm) led to continual discharge, from the 2nd December to the 10th December, of water from 1 dam which is LDP 3 and intermittent discharge from LDP 2. Daily sampling and analysis (at an independent laboratory) from both sites showed average TSS of 270 mg/l at LDP2 and >999 mg/l at LDP3. EPL limit is 50 mg/l. Volumes were estimated at an average of 4-5 ML/Day with a maximum of approximately 14 ML/day from LDP3 and approximately 10ML/day from LDP2.

Water tested downstream from the discharges showed suspended solids had dropped out before entering the general catchment, with an average TSS of 17.5 mg/l at Mt View Dam and 17 mg/l at DS LD2. (See plan of sampling sites, attached). This leads to my view that there was no material harm to the environment as a result of this incident.”

As a result of the incident the EPA visited the site and discussions were held as to how surface water management could be improved on the site. A PRP was placed on the EPL which Charbon undertook in 2011. This has minimised subsequent discharges from site and discussions with the EPA as part of this audit confirmed that all actions had been completed, with the exception of some further diversion works. This is discussed in more detail in Section 8.

Other than this event, no other incidents were reported to regulatory authorities during the reporting period.

A breakdown of the Category 5 incidents by nature of the incident reported by Charbon is provided in **Table 5-2**. Charbon indicated that there was no environmental harm caused by the events.

Table 5-2 Number and nature of Category 5 (low) incidents for the audit period

Date of Incident	Nature of incident
13/5/2011	An oil sheen was noted on the pollution control dam above License Discharge Point 2 (LDP2). Booms were placed in the dam to contain and treat the oil sheen. No discharge was reported to have occurred while the sheen was evident.
19/9/2011	A neighbour (located 2km from the mine) called to report visual dust occurring at the open cut and also reported cracking in his house. Charbon did not indicate they were the cause of the cracks, however did address the issue with the neighbour. Charbon indicated that this was not treated as a complaint as the phone call was vexatious in nature with the complainant seeking financial compensation.

5.2 Complaint Management

Charbon reported that they had not received a complaint since March 2009. Therefore there were no complaints recorded for the reporting period – i.e. since the date of the Project Approval.

5 Environmental Performance

A Complaints Handling and Resolution section exists in the Environmental Management Strategy for Charbon that defines the complaints handling approach. Charbon maintains a complaints line which is detailed on the Centennial Coal website (6357 9206). The number is to the Environment Coordinator's phone. If he is not there, calls will go to message bank that details the Environment Coordinator's mobile phone number. URS identified that there could be delays in responding to complaints if the Environment Coordinator is not on site and does not check the site phone message bank. It is recommended that a backup system is developed and implemented to check for complaints left on the message bank of the Environment Coordinator during his being absent from site.

It was noted that the number in the Strategy was 6357 9200 which is different to that of the website.

Recommendation: It is recommended that the phone number in the Strategy be consistent with the number on the Centennial Coal website.

Complaints are logged by Environmental Coordinator within Lotus Notes (using the ECD system). The log includes the following information: reference number, complainant details, complaint type, date and time of occurrence, complaint details, investigation / cause, remediation details, implementation process, implementation date and details of consultation.

The Environmental Coordinator discusses any complaints received during his Environment and Planning presentation at the CCC meetings. The 2009 and 2010 AEMRs were reviewed and noted to include a summary and discussion of the complaints received during the year. The 2010 and 2011 AEMRs do not report complaints having occurred.

Review of Environmental Management System

This Section fulfils the requirement to assess the adequacy of strategies, plans or programs required under the Project Approval. The implementation of the management plans / programs is discussed in in Sections 7, 8, 9 and 10, as well as in Appendix A.

6.1 Environmental Management Overview

Charbon operates beneath Centennial Coal's Environmental Policy, Environmental Management Strategy and Centennial Environmental Management System (EMS). In addition Centennial Coal has developed a number of Environment and Community Standards to provide guidance to Centennial's sites for the development of their own Environmental Management Systems.

Charbon have adopted the following Centennial Coal Standards:

- Environmental Risk Assessment Protocol (ECMG 02)
- Environmental Incident Reporting (ECMG 03)
- Audit and Inspection (ECMG 06)
- Minimum Standards Incident Reporting (ECMS 03)
- Minimum Standards Newsletter (ECMS 05)
- Environmental Assessment Standard (ECMS 14)

Charbon has developed an Environmental Management Strategy, as part of the Project Approval conditions as well as a number of environmental management plans. This is described below.

The following area was identified where general environmental management can be improved:

Whilst it was reported that environmental inspections were being undertaken by the Environmental Coordinator on a regular basis, these were not documented and as such formalised. It is recommended that formal inspections are conducted that are documented, have corrective actions listed and assess implemented actions. It is recommended that a checklist be developed to assist the documenting of inspections that is based on the requirements of the EMS and environmental management plans.

6.2 Environmental Management Strategy

An Environmental Management Strategy was prepared in March 2011 to satisfy the requirements of Schedule 5, Condition 1 of the Project Approval. The Strategy was submitted to the DP&I on 3 March 2011, however had not been approved at the time of the site inspection for the audit. This was the case for many management plans submitted to DP&I. Discussions held with DPI during the audit acknowledged that the various plans submitted had not been approved at that time.

Figure 2 of the Strategy provides a schematic of the EMS Framework, however this did not indicate where the Strategy fitted into the EMS.

6.3 Environmental Management System (EMS)

Charbon has developed an EMS incorporating the following four components:

- EMS Framework Document (Volume 1)
- EMS Procedures (Volume 2)
- Environment and Community Management Standards (Volume 3)
- Environment and Community Management Plans (Volume 4)

6 Review of Environmental Management System

The EMS has been developed to be consistent with the International Standard for Environmental Management Systems ISO 14001. The EMS Framework document outlines the following elements:

- Commitment and Policy
- Identification of Aspects and Impacts
- Legal and other requirements
- Objectives and targets
- Management Plans
- Responsibility for implementing the EMS
- Training, Awareness and Competence
- Communication
- Documentation and Document Control
- Operational Control
- Emergency Preparedness and Response
- Measurement and Evaluation
- Management Review

The EMS Framework document provides the strategic context and a good overview of Charbon's system for managing the environmental impacts of its operations.

A full review of the Environmental Management System (EMS) and its implementation was not conducted as part of the audit. Commentary in this audit is focussed on the adequacy and implementation of the various management plans and the Environmental Strategy. Based on site observations, it did not appear that sufficient resources existed on site to maintain the EMS along with other requirements of the Environmental Coordinator.

6.4 Management Programs and Plans

Charbon has developed the following management / monitoring plans to monitor the environmental performance of the project and mitigate its effects on the surrounding environment. Many of the Plans have been developed under the Project Approval requirements.

- Environment Management Strategy
- Subsidence Monitoring and Contingency Plan
- Noise Monitoring Plan
- Air Quality Monitoring Plan
- Water Management Plan, including:
 - Site Water Balance Report
 - Erosion and Sediment Control Plan
 - Salinity Balance
 - Surface Water Monitoring Program
 - Groundwater Monitoring Program
 - Use of Effluent by Irrigation Assessment
- Fauna Handling Management Plan
- Compensatory Habitat Plan
- Blast Monitoring Plan
- Transportation Management Plan
- Rehabilitation and Offsets Management Plan

6 Review of Environmental Management System

- Aboriginal Cultural Heritage Management Plan
- Landscape Management Plan
- Other SMP Management Plans

6.4.1 Adequacy Review

With regards to noise, water, ecology and air, where an expert was required by the Director General to be included within the audit team. The relevant management plans / programs were reviewed by the expert and the findings provided within a dedicated chapter for that issue.

The findings of the review of the adequacy of the remaining management plans / monitoring programs and subsequent recommendations are provided in **Table 6-1**.

Table 6-1 Adequacy review of management plans / monitoring programs and recommendations

Management Plan / Monitoring Program	Adequacy Review and Recommendations
Noise Monitoring Plan	Refer to Section 7.1
Water Management Plan, including: <ul style="list-style-type: none"> — Site Water Balance Report — Erosion and Sediment Control Plan — Salinity Balance — Surface Water Monitoring Program — Groundwater Monitoring Program — Use of Effluent by Irrigation Assessment 	Refer to Section 8.1
Fauna Handling Management Plan Compensatory Habitat Plan Rehabilitation and Offsets Management Plan Landscape Management Plan	Refer to Section 9.1
Air Quality Monitoring Plan	Refer to Section 10.1
Environment Management Strategy	<p>Charbon, through its consultants GSS Environmental, submitted an Environmental Management Strategy for the project to DP&I on the 3.03.11.</p> <p>Page 8 of the Strategy defines where in the strategy the various requirements of the CoA are addressed in the document. Generally the Strategy included the elements required of the relevant CoA.</p> <p>It is noted that the Strategy was dated March 2011, hence there had been less than one year of implementation time (at the time of the site inspection). As such, many of the higher level requirements of the Strategy, such as annual review, audits of the Strategy update of plans etc., had not been triggered.</p> <p>It is noted that the Strategy does not recognise Big Rim as a contractor on site, hence does not address how they are responsible for management of environmental aspects or take into account their management processes.</p> <p>Much of the monitoring as required of the Strategy is defined in the various management plans - implementation of these is discussed in the relevant sections of the Strategy and the management plans.</p>
	<p>Recommendation:</p> <p>It is recommended the Strategy be reviewed to recognise Big Rim and the management of Big Rim by Charbon. This should include the identification of risks relating to Big Rim, defining of</p>

6 Review of Environmental Management System

Management Plan / Monitoring Program	Adequacy Review and Recommendations
	<p>Big Rim and Charbon responsibilities and accountabilities for Big Rim operations, inspection regimes, meetings and other contractor management processes.</p> <p>It is recommended that Charbon undertake periodic audits of their EMS and Strategy</p>
Blast Monitoring Plan	<p>Blasting has not been undertaken at the site for the majority of the audit period and is not planned. As such this plan was not considered relevant for review.</p>
Transportation Management Plan	<p>This Plan was developed to assist compliance with CoA (See Appendix A) and to address concerns regarding road haulage of coal. Road haulage of coal from the site to power stations had not occurred during the audit period. Haulage of coal to the Kandos cement works ceased in 2011, and on closure of the cement works some coal was loaded back to the mine. This ceased during the week of the site inspection for the audit. Given no coal was planned to be moved from site, URS has not completed an assessment of the adequacy of this Plan.</p>
Aboriginal Cultural Heritage Management Plan	<p>An Aboriginal Cultural Heritage Management Plan was developed by RPS and submitted to DP&I on 6.09.11. No comments had been received on the Plan from EPA or DP&I at the time of the audit site inspection. Section 10.2 of the Plan describes the consultation with the Aboriginal Community conducted as part of the development of the Plan. The Plan was developed prior to disturbance of known aboriginal sites or Sensitive Archaeological Landforms (SALs) within 8 Trunk Open Cut. Page 2 of the Plan defines where each of the CoA requirements is defined in the document. The Plan includes a response to the condition requirements.</p> <p>The Plan includes the following:</p> <ul style="list-style-type: none"> • Aboriginal heritage context; • Assessment of sensitive archaeological landforms; • Salvage program of aboriginal sites within the impact area; • Management of aboriginal sites in close proximity to 8 trunk open cut; • Aboriginal cultural heritage monitoring program; and • Roles and responsibilities. <p>The Plan was observed to meet the requirements of the CoA. A detailed technical assessment of the Plan was not undertaken as part of this audit. No experts in Archaeology were involved in the audit.</p>

6 Review of Environmental Management System

Management Plan / Monitoring Program	Adequacy Review and Recommendations
Subsidence Monitoring and Contingency Plan	<p>The Subsidence Monitoring and Contingency Plan for the Western Underground was submitted to the DP&I on 26.7.11. The Plan was prepared by GSS Environmental. The Plan had not been approved by DP&I at the time of the site inspection for the audit.</p> <p>The Plan includes a section of monitoring pillar stability in Section 7.2 and other forms of monitoring in sections 7.3, 7.4 and 7.5. Section 9 of the plan details reporting requirements and processes. Section 8 of the Plan includes contingency measures.</p> <p>Discussions were held with the Senior Mining Engineer regarding implementation of the Plan. Given the very recent commencement of activities at the Western Underground, limited evidence of implementation of the Plan was available for review e.g. there was limited availability of surveying work to demonstrate pillar design was in compliance with the Plan requirements, although evidence of surveys were sighted. Evidence of implementation included:</p> <ul style="list-style-type: none"> - installation of monitoring points on cliff lines; - conduct of visual surveys of steep slopes prior to mining commencing. <p>No tilt meter survey had been completed and Charbon indicated this would not be undertaken as was indicated in the Plan as this is now considered to have little value in assessing cliff failure potential.</p> <p>Recommendation</p> <p>It is recommended that Charbon update the Subsidence Monitoring and Contingency Plan so that it only reflects monitoring that will be conducted by Charbon and not monitoring that is not planned to be undertaken such as installation of tilt meters.</p>
Other SMP Management Plans	<p>At the time of the audit only first workings were being undertaken under the Subsidence Monitoring and Contingency Plan. As such, the adequacy of other SMPs was not assessed during the audit.</p>

Noise

As required by the DP&I, the audit team included a noise expert. This section reports on the findings of the review of noise management at Charbon.

7.1 Noise management overview

A Noise Management Plan (NMP) entitled *Charbon Coal Pty Ltd - Noise Management Plan - Report Number 630.10115.00020-R1*, dated 11 March 2011, prepared by SLR Consulting Australia Pty Ltd (SLR) is currently used as a basis for noise management on site. An adequacy review of this plan is provided in Section 7.3.

As stated by the NMP, its objectives are to fulfil the requirement of Schedule 3, Condition 9 of the Charbon Colliery Project Approval and Section 3 of the Statement of Commitments contained within the Charbon Colliery Environmental Assessment (RW Corkery November 2009).

Specifically the identified objectives set out by the NMP are defined as follows:

- *Ensure all relevant statutory requirements and Standards are met;*
- *Identify potential noise sources and their relative contribution to noise impacts from the development;*
- *Outline the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, monitoring locations, periods and times of measurements, the design of any noise modelling or other studies, including the means for determining the noise levels emitted by the development;*
- *Manage and minimise the impact of noise from mining operations at nearby residences;*
- *Maintain reasonable levels of amenity for surrounding residents;*
- *Maintain an effective response mechanism to deal with issues and complaints; and*
- *Ensure the results of noise monitoring comply with applicable criteria.*

In addition to the NMP, other relevant management tools not specifically aimed at noise which include noise components exist in the form of:

- An Environmental Management System for the Site, including an Environmental Risk Register;
- Documented weekly and monthly internal inspections of operational areas;
- Non-documented inspections; and
- Non-conformance documentation.

7.1.1 Key Noise Sources

The NMP identifies the principal noise sources on site as follows:

- *Excavation activities within extraction area;*
- *Drilling and blasting activities;*
- *Materials processing and handling;*
- *Train and truck loading for product distribution;*
- *Movement of heavy vehicles within the Project Site; and*
- *Indicative Mining Equipment Fleet.*

During the audit, Charbon staff confirmed that only two blasts occurred during the audit period in 2011 and that this activity has been discontinued on site. Blast monitoring records, prepared by blasting contractor Downer EDI Mining, have been reviewed and no overpressure or vibration exceedances were noted.

7 Noise

Charbon staff confirmed that there was no intention to resume blasting in the future. On this basis, the Blast Management Plan has not been reviewed in detail for adequacy or implementation.

7.1.2 Noise Sensitive Receptors

A number of rural residential dwellings are situated in the area surrounding the Project Site. The noise management plan identifies the nearest sensitive receptor locations as Residences A to S. These are presented in Figure 3 of the plan.

With the exception of Receptor S, which is located to the east of the Great Divide mountain range, the close vicinities of the identified receptors were visited during the audit site inspection carried out between 16 and 17 February 2012 and the selected noise monitoring locations were found to be appropriate.

Quarterly noise monitoring, in accordance with the NMP has been carried out by SLR and formerly by Atkins Acoustics Pty Ltd (Atkins). A review of the quarterly noise monitoring reports (provided in Section 7.5) and complaints register (provided in Section 7.6) indicate that noise is not a major concern, with no non-compliances or substantiated complaints reported.

Whilst the quarterly noise monitoring reports do not indicate any non-compliances, it is noted that Charbon has future plans to commence mining within the Southern and Western Outliers. Mining in these locations would significantly reduce the effective separation distance between mining noise sources and the sensitive receptors located to the south-west of the mining lease.


Mining noise emanating from within the Southern Open-cut area was observed to be clearly audible at Location H and surrounding receptors during a site walk undertaken during the morning of 16 February. The noise was observed to be generated principally by truck loading by front end loader.

Whilst no monitoring was undertaken during the audit, and hence the compliance status of this event was not assessed, noise levels would be expected to increase at these locations with commencement of the planned mining of the Southern and Western Outliers.



7.2 Site inspection

Observations from the site inspection conducted at the time of the site audit directly relating to noise are detailed within **Table 7-1**.

Table 7-1 Summary of Observations Relating to Noise

Observation	Photo
<p>Various heavy vehicles were seen in operation on haul roads and open cut areas during the site visit. These included semi-trailers and various Caterpillar fleet such as front end loaders, dozers, tipper trucks and water carts of varying capacities. These were observed as the principal noise generators during the visit.</p> <p>No rail movements were observed during the site visit.</p> <p>Charbon staff confirmed that all mobile mechanical plant undergo daily inspection to ensure they are in good working order and are regularly serviced as required.</p> <p>Charbon staff confirmed that factory new rolling stock fleet locomotives have recently been purchased.</p>	

7 Noise

Observation	Photo
	
<p>In terms of the stationary noise sources, the Coal Handling and Processing Plant (CHPP) was observed as a key noise generator.</p> <p>Charbon staff indicated that the CHPP had been re-walled with 60% new cladding during the Easter 2011 shutdown (22-26/4/11) - This was sighted and appeared to be in a good state of repair and an effective and practicable means of noise reduction from the plant.</p>	

7 Noise

Observation

A number of rural residential dwellings are situated in the area surrounding the Project Site. The NMP identifies the nearest sensitive receptor locations as Residences A to S. These are presented in Figure 3 of the plan.

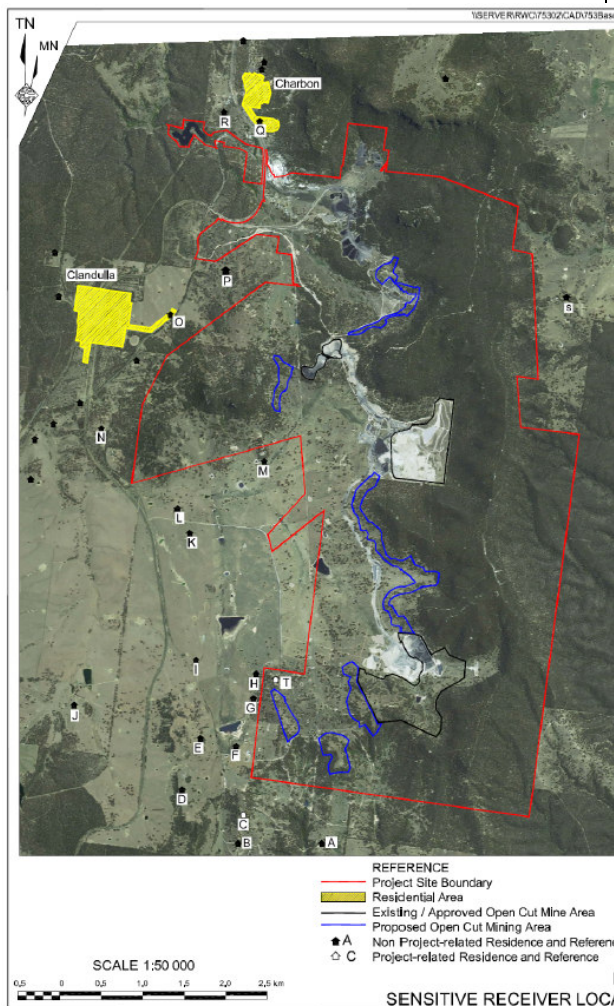
With the exception of Receptor S, which is located to the east of the Great Divide mountain range, the close vicinities of the identified receptors were visited during the audit carried out between 16 and 17 February 2012.

No noise from the colliery was audible at the northernmost receptors Q/R; at these localities only the limeworks located to the north of the project site was audible.

Of the colliery noise sources, only the CHPP was observed to be audible at location P. At this location the CHPP was barely audible, whilst the limeworks had greater influence on ambient noise levels.

Mining machinery noise emanating from within the Southern Open-cut area was observed to be clearly audible at Location H and surrounding receptors during a site walk undertaken during the morning of 16 February. The noise was observed to be generated principally by truck loading by front end loader.

Photo





Note: Figure extracted from SLR NMP



As noted above the limeworks located to the north of the mining lease was observed to influence ambient noise levels to the north and north-west of the mining lease.



7 Noise

Observation	Photo
<p>As noted above, mining noise emanating from within the Southern open-cut area was observed to be clearly audible at Location H and surrounding receptors during a site walk undertaken during the morning of 16 February. The noise was observed to be generated principally by truck loading by front end loader.</p> <p>The photo depicts a truck tipping its load as seen from the entrance to resident T, which is currently mine owned. It has a boundary with the privately owned residence H.</p>	
<p>The photos show the Western Open-cut (Haystack) area (above) and the Southern Open-cut area (below). At the time of the site inspection a large part of the Southern Open-cut area was in the process of being reformed and contoured, prior to revegetation.</p>	

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Observation	Photo
Charbon staff indicated that the Bradford Breaker, a principal noise generator, is no longer used on site.	
<p>A single meteorological station was observed onsite, located near the workshop areas. The meteorological station consists of a propeller and vane anemometer, rain gauge and other associated infrastructure. The meteorological station measures:</p> <ul style="list-style-type: none"> • Rainfall; • Air temperature; • Humidity; • Wind direction; • Wind Speed; • Sigma Theta; • Solar Radiation; <p>The meteorological station is maintained by ALS Laboratory, who also provides a database management system. The web based database management system was observed during the site inspection.</p>	

7.3 Noise Management Plan adequacy review

In accordance with CoA, Schedule 5, Condition 2, Table 1 of the NMP shows information to be included within the NMP and the relevant Section of document where it has been addressed, as set out in **Table 7-2** below.

Table 7-2 Management Plan Requirements from Schedule 5 - Condition 2 of the Project Approval

Condition	Condition Requirement	Section Addressed in NMP
2(a)	Detailed baseline data	4
2(b)	Statutory requirements, relevant limits and performance indicators	5

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Condition	Condition Requirement	Section Addressed in NMP
2(c)	Measures to be implemented to comply with the relevant requirements, limits or performance indicators	6, 13
2(d)	Noise monitoring program	7
2(e)	A contingency plan to manage any unpredicted impacts and their consequences	11
2(f)	A program to investigate and implement ways to improve the environmental performance of the project over time	15
2(g)	Protocol for managing and reporting any: <ul style="list-style-type: none"> Incidents Complaints Non-compliances with statutory requirements; and Exceedance of the impact assessment criteria and/or performance criteria 	11
2(h)	Periodic review	14
Note	Schedule 5 - Condition 2 of the Project Approval notes that at the discretion of the Director General, some of these requirements may be waived where they are either not relevant or necessary.	

Each of the identified components is discussed under the following sub-headings.

7.3.1 Baseline Data

Section 4 of the NMP provides some context about the rural setting of the project and identifies the locations of sensitive receptors; however baseline noise data, as indicated in Table 1 of the NMP, is not provided or discussed. This omission is not considered significant on the basis that it would have provided little value to the context of the NMP.

7.3.2 Statutory requirements, relevant limits and performance indicators

Section 5 of the NMP sets out the Schedule 3 Noise Conditions 1-7 relating to:

- Impact assessment criteria (Condition 1);
- Land acquisition criteria (Condition 2);
- Operating hours (Condition 3); and
- Noise mitigation measures (Conditions 4, 5, 6 and 7).

Performance Indicators nominated under Section 13 of the NMP to demonstrate compliance of the NMP with the Project Approval conditions and any other relevant agency requirements comprise:

- Compliance with relevant noise criteria at monitoring locations;
- The frequency and nature of complaints reported to the mine in relation to noise;
- Contractor and employee awareness of the company's Environmental Policy and this NMP; and
- Compliance with this NMP, as indicated by statutory reporting.

It is considered that the NMP adequately and appropriately sets out the statutory requirements, relevant limits and performance indicators.

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7.3.3 Measures to be implemented to comply with the relevant requirements, limits or performance indicators

Mitigation measures addressed under Section 6 of the NMP comprise:

- limiting noise emissions from major items of plant and equipment, by pre-commissioning monitoring to ensure sound power levels set out in Table 4 of the Project Approval are achieved; and
- limiting the hours of open cut mining operations in accordance with Schedule 3 Condition 4 of the Project Approval.

These are considered to be practicable and implementable measures.

7.3.4 Noise monitoring program

Section 4 of the NMP provides the key details about the noise monitoring program, including general requirements, monitoring locations and noise level parameters to be recorded during operator attended surveys. The NMP stipulates that the noise measurement procedures employed throughout the monitoring program shall be guided by the requirements of AS 1055-1997 “Acoustics - Description and Measurement of Environmental Noise” and the NSW Industrial Noise Policy.

It states that noise monitoring should be conducted initially on a quarterly basis and consist of operator attended noise monitoring. The frequency of monitoring will be reviewed after the first 12 months of operating the monitoring program in order to determine future requirements.

The NMP nominates operator attended noise surveys to be conducted at up to six (6) potentially most affected receiver locations relevant to mining operations at the time of monitoring and specifies locations Q, P, M, H, F and A.

The nominated monitoring locations are considered adequate and appropriate. Charbon staff have, however, indicated that Location M has been acquired by the colliery since the NMP was written. Recent SLR monitoring reports indicate that monitoring has been discontinued at this location, which is considered appropriate.

It is recommended that attended monitoring continues on a quarterly basis, with this frequency increasing to at least monthly during the proposed open cut mining of the Western and Southern Outliers to confirm on-going compliance with the Approval noise limits.

7.3.5 A contingency plan to manage any unpredicted impacts and their consequences

Section 11 of the NMP provides the following contingency to manage any unpredicted impacts:

In the event of a potential exceedance of the relevant noise emission criteria, an investigation will be undertaken. Consideration will be given to the margin of exceedance and the source of emission, if it has been identified. The noise, weather and plant operating data shall be documented so that the matter can be investigated and appropriate actions undertaken accordingly.

Additional noise measurement methods such as near field monitoring or unattended directional noise monitoring may be utilised to investigate noise emissions in relation to noise complaints, or to determine compliance with the Project Approval conditions where potential non-compliances have been measured or are difficult to quantify from operator-attended or unattended noise measurements.

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The results of noise monitoring will be included in the AEMR. Details of any exceedances and results of related investigations will be reported to the relevant authorities.

Whilst the contingency plan provides discussion about investigative monitoring and reporting, it is considered that the plan lacks clear direction and fails to identify actions to be put into immediate effect – such as nominating to cease activities until they can be resumed without causing any nuisance to affected parties.

7.3.6 A program to investigate and implement ways to improve the environmental performance of the project over time

Section 15 of the NMP discusses continual improvement in accordance with Condition 8 of the Approval. It nominates to continue to improve on the mine's acoustic performance *“through the effective application of best practice principles to mining operations including, where cost effective and practicable, the adoption of best practice technologies and noise mitigation and management measures*. It nominates that progress will be monitored against the identified performance indicators (set out in Section 7.3.2).

The identified continual improvement measures are considered adequate with consideration to the demonstrated compliance with the established noise limits. It is noted, however, that the measures are not particularly prescriptive.

7.3.7 Protocol for managing and reporting any incidents, complaints and exceedances

Section 11 of the NMP provides protocol for managing and reporting any incidents, complaints and exceedances. The details provided are clear and considered to be adequately prescriptive.

7.3.8 Periodic review

Section 14 of the NMP states, *“in line with Condition 8 of Schedule 5 of the Project Approval, by 31 December 2011 and every 3 years thereafter, an Independent Environmental Audit shall be carried out by Charbon Colliery.*

Review of the management plan will also take place if monitoring records indicate that it is warranted or in the event of any significant change to noise quality management procedures at the Project Site.

Any modifications to the NMP will be undertaken in consultation with the appropriate government agencies”.

This extent of review is considered adequate.

7.4 Noise Management Plan Implementation

The audit process has indicated that the requirements of the NMP are generally being complied with, with only the following minor exception:

- Section 8.3 of the NMP requires that during the attended noise measurements, in addition to recording any significant mine generated noise sources (i.e. haul trucks, dozers, etc), the operator shall obtain copies of the relevant fixed plant and mobile equipment mining operating shift logs to be included in the noise monitoring report. The shift logs have not been included.

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7.5 Noise monitoring

7.5.1 Off-Site Noise Monitoring

Evidence of quarterly noise monitoring, prepared in accordance with the requirements of Approval Condition 9 has been sighted. No exceedance of the noise impact assessment criteria set out in Table 1 of the Approval have been reported during the Audit Period. SLR has undertaken the monitoring since August 2011. Prior to this time Atkins Acoustics conducted the monitoring. It is noted that some minor exceedances occurred before this Audit Period, with exceedances of up to 1 dB occurring at Location R2 reported by Atkins Acoustics during noise monitoring carried out on 18/11/09.

No exceedance of the land acquisition criteria set out in Table 2 of the Approval have been reported in the quarterly noise monitoring reports commissioned during the Audit Period.

Whilst no exceedances of the identified limits have been noted, during site inspection, relatively high noise levels were observed at Locations T and H. It was reported by Charbon that since the date of the audit inspection, additional monitoring has been undertaken by Charbon and exceedences of the criteria at these residences were recorded (this occurred after the audit period and hence has not been assessed in full in this report). Charbon indicated that the recorded exceedence has triggered an acquisition process for the relevant properties.

Whilst no monitoring was undertaken during the audit, and hence the compliance status of this event was not assessed, noise levels would be expected to increase at these locations with commencement of the planned mining of the Southern and Western Outliers.

The NMP requires all routine monitoring results to be documented and reported initially on a quarterly basis with quarterly reports to include the following:

- Summary of all attended and unattended noise monitoring results;
- Predicted noise levels at each assessment location from the compliance noise model (if necessary);
- Measured/calculated and/or operator estimated Charbon Colliery $L_{Aeq(15\text{minute})}$ contributed noise levels for each monitoring location;
- Measured/ calculated and/or operator estimated Charbon Colliery $L_{A1(1\text{minute})}$ contributed noise levels for each monitoring location;
- Statement of compliance/ non-compliance; and
- Details of any complaints relating to noise and their state of resolution.

All of the above details have been provided in the recent monitoring reports.

It is noted that monitoring has been undertaken at locations not entirely consistent with the NMP. It would appear that monitoring is now being undertaken at location L in lieu of location M, which is considered appropriate given the recent acquisition of property M. Monitoring has also been undertaken at location G which is considered appropriate as relatively high noise emissions from the mining lease were observed in the vicinity.

7.5.2 On-site Sound Power Level Measurements

A verification report prepared by Spectrum Acoustics has been provided. This presents the results of plant noise tests conducted on Tuesday 3 May 2011 at the Charbon Colliery and identifies that the modelled sound power levels listed in Table 4 of the Approval have been achieved, with the exception

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of the 'Drill 10'. The reported sound power levels of the plant items were less than or equal to the required maximum values specified in Condition 4 of Project Approval. It notes that no drill was on site at the time of the measurements. This is discussed in more detail below in Section 7.7.

The report states testing was conducted generally in accordance with ISO 6396-2008 "Earth-moving machinery – Determination of sound power levels – Dynamic test conditions" and ISO 6393-2008 "Earth-moving machinery – Determination of sound power levels – Stationary test conditions".

The verification report is dated 6/7/11 and therefore outside the eight month (from date of approval) window stipulated by Condition 5. A registered post receipt to the Department of Planning (Carl Dumpleton) was sighted, however, no evidence that the report was submitted to DECCW was provided.

7.6 Noise Complaints

A review of the Charbon complaints register indicates that no complaints (with relation to noise) were received since the project approval to the date of the audit.

7.7 Compliance with Regulatory Requirements

The following non-compliances in relation to the Project Approval noise conditions have been noted. In addition, one condition related to the EPL was not assessed.

Project Approval - Condition 4

Full compliance with the sound power levels set out in Table 4 of the Approval has not been provided due to the omission of 'Drill 10' measurements. It is noted that the verification report provided by Spectrum Acoustics identifies that the drill was not on site at the time of the measurements. On this basis, it is recommended to undertake the drill noise measurements during the next scheduled site visit and to update the verification report, to confirm full compliance with the levels set out in the Approval.

The Spectrum Acoustics verification report was dated 6/7/11 and identifies that measurements were undertaken on 3/5/11; outside the six month (from date of approval) window.

Project Approval - Condition 5

As noted above, the Spectrum Acoustics verification report is dated 6/7/11 and therefore outside the eight month (from date of approval) window.

A registered post receipt to the substantiate submission to DP&I was sighted, however, no evidence that the report was submitted to DECCW (now EPA) was provided.

Environmental Protection License

The EPL noise limits were noted to be inconsistent with Project Approval limits and URS did not assess compliance with the EPL criteria.

Members of the audit team discussed this with EPA Officer Sheridan Ledger on site during the audit on 17 February 2012 and confirmed that the EPA were aware of this and that the EPL is to be varied to maintain consistency with the Project Approval. Charbon was in the process of preparing the licence variation at the time of the audit site visit.

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7.8 Noise Recommendations

Charbon were assessed to be largely compliant with Approval and other requirements relating to noise, hence recommendations for continuous opportunities were limited. The following recommendations relating to Noise Management are provided:

- Whilst the contingency plan provides discussion about investigative monitoring and reporting, the Plan lacks clear direction and fails to identify actions to be put into immediate effect – such as nominating to cease activities until they can be resumed without causing any nuisance to affected parties. It is recommended that at the next review of the Plan, further detail is provided to address the identified issues.
- It is recommended that attended monitoring continues on a quarterly basis, with this frequency increasing to at least monthly during the proposed open cut mining of the Western and Southern Outliers to confirm on-going compliance with the Project Approval noise limits at nearby receptors.
- It was noted that the 2010 Annual Environmental Management Report (AEMR) does not report on investigations or implementation and effectiveness of measures 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 (as required by Approval Condition 3.10). Charbon indicated that these matters would be addressed in the 2011 AEMR. It is recommended that (as indicated as proposed by Charbon), the 2011 AEMR include the information as indicated by the Condition.
- It is recommended that the site's EPL is modified to ensure consistency between the EPL and the Project Approval in respect of noise monitoring locations and noise limits. This was being actioned by Charbon at the time of the site audit.

Water Management

8.1 Water management overview

Mining at Charbon Colliery commenced in the 1920's and has undertaken a number of transformations (most recently expansion) since that time.

From a water management perspective, review of documents indicates an evolution of water management practices as the mine operation progressed. Up to 2009, water was managed through a series of discrete documents and plans. In 2009 Charbon Colliery conducted an Environmental Assessment and as part of this a series of technical studies were commissioned and completed. Since that time, further updates to the water management planning and documentation have been undertaken and presently the site's water is managed through:

- Charbon Water Management Plan, September 2011 (WMP, GHD). This plan also incorporates:
 - Revised Detailed Water Balance Assessment
 - Salinity Balance
 - Erosion and Sediment Control Plan (completed by GSSE)
 - Surface Water Monitoring Programme
 - Groundwater Monitoring Programme
 - Assessment of onsite Irrigation of Effluent (GSSE)
 - This is a single document which contains the required management procedures and policies to manage water on site and brings together previous documentation under one plan.

The above plan has been prepared with reference to the following(as stated in the plan):

- The requirements of Charbon Colliery Project Approval 08_0211;
- EPL 528 which licenses Charbon to apply effluent to land (O4), and discharge to Licensed LDPs as listed;
- Relevant legislation; and
- Statement of Commitments as appended to the Project Approvals.

In terms of water management, other relevant tools or plans not specifically aimed at water quality/quantity but relevant to water management include:

- An Environmental Management System for the Site, including an Environmental Risk Register;
- Regular (albeit not formally documented) inspections by site personnel of operational areas; and
- Non-conformance documentation (as documented in the AEMR).




The majority of the site's discharge is directed to Reedy Creek dam (northern portion of the mine), with the balance reporting to Rileys Creek.

8.2 Site inspection

Observations from the site inspection conducted at the time of the site audit directly relating to water management are detailed within **Table 8-1**. The auditor was escorted around the site on two separate occasions on consecutive days by mine personnel who made themselves available for this purpose.

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Table 8-1 Summary of Observations Relating to Water Management

Observation	Photo
<p>An area of old rejects is located to the north of the CHPP and is a legacy from previous mine owners (Northern Tailings Area). The management of this area was not addressed in the WMP and is the subject of further recommendations in this audit report.</p>	
<p>Downstream of the old rejects facility at the Northern Tailings Area is a dam which collects rainfall and seepage from direct runoff onto the rejects. This dam does not feature in the site's inventory. The auditors were unable to sight 'as built' plans for this facility, however a cursory inspection suggests a relatively large capacity (estimated dam wall height > 10m) which does feature a side spillway. Photos from the top show:</p> <ul style="list-style-type: none"> • Dam crest • Captured runoff with old rejects seen in the background 	 

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- Side spillway

Further, proactive management of this area is recommended through the development and implementation of a Plan of Management for the area. Refer to Section 8.4.



Typical road table drain detail. Erosion to varying degrees is present along most roadways within the site, particularly in places where the roadways steepen.



Photograph of extraction Bore 2. Discussion with site personnel suggests that these bores are seldom used, except when pumps are started for operational maintenance and upkeep. Review of site records confirms this statement.



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Photograph of GW bore 2 flow meter used to record GW discharges. This meter was read once a month as per site protocols.



ROM Coal washed down drainage channel from the 2-Trunk facility. Sediment fences are inadequate to manage the volume and size of sediment (in this case coal) being discharged from stockpiles across the road.



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Area downstream of the previously noted coal deposition issues at the 2-Trunk facility. The drainage channel was constructed over coarse rejects which have eroded (down cutting) down to natural ground. This area requires immediate repair to stabilise the channel.



View of pipe dewatering the underground working at the 2-Trunk facility. LDP2 is located downstream of this point. Of note is the erosion occurring around the pipe and downstream channel.



The total discharge volume was measured downstream of this point. This monitoring location receives both the underground flows (emanating from the pipe) plus local runoff thereby resulting in an inaccurate representation of the total underground discharge.



View of Southern Open Cut pollution control dam. Some erosion of the dam's side batters is noticed. The dam's main spillway was repaired after damage from spills as a result of heavy rain.



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<p>View of newly constructed LDP3. Site discussions suggest that this dam leaks and requires repair. At the time of the site inspection for the audit the dam required draining to enable the repairs. Charbon was monitoring the water quality until such time as the suspended solids load is adequate for discharge. Once this is achieved the dam was to be drained and the repairs effected.</p>	

Other findings and observations made during the time of the audit site inspection included:

- Areas of notable erosion were observed in specific areas throughout the site, particularly along roadways;
- Significant erosion was observed at the Southern Open Cut at non-rehabilitated batters. Discussions during the site inspections indicated that these areas were scheduled for rehabilitation and repair later in 2012, and that the repair would address this erosion;
- Some recommendations presented in the assessment of LDP1 by consultants GSSE have been followed: a flow meter has been installed; and regular mowing of the area is taking place. Site personnel stated that treatment of the effluent with chlorine (as per GSSE's recommendations) is being considered but had not been implemented at the time of the audit site inspection;
- There is a small catchment around the CHPP coal stockpiles that bypasses the water management system and discharges directly to Reedy Creek Dam. This has been identified by the EPA (letter dated 5 January 2012) and at the time of the audit site inspection, Charbon was planning to address this through redirecting flows to the LDP;
- Reedy Creek Dam was also inspected. Mine personnel indicated that the volume of the dam stated in the documentation is inferred (probably from the original design). The dam is not inspected regularly and has not undergone a risk assessment as per the Dam Safety Committee.

In addition to the above discussion on observations on water management, observations on hydrocarbon management are made in Section 11 of this report.

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8.3 Water Management Plan adequacy review

8.3.1 Overview of the Water Management Plan

The Charbon Colliery Water Management Plan (WMP) was prepared in September 2011 by consultants GHD to satisfy the PA 08_0211. The WMP was prepared in accordance with Schedule 3, Condition 29 of the PA and through consultation with relevant government bodies DP&I and OEH (now the EPA). Feedback on the approved WMP was also received from the NOW in the form of a letter dated 12 October 2011.

URS has reviewed the above documentation and offer the following comments:

- The WMP has been comprehensively prepared by GHD and brings together a series of discrete plans and documents. The site has been operating since the 1920s which means that there are a number of legacy issues with respect to water management. The WMP recognises this and acts as an overarching document on how to effectively manage water on site and this is considered an improvement on the previous management approach.
- The WMP has been prepared to satisfy safety and environment legislative requirements and as such is noted to have been developed to comply with the following legislation:
 - Coal Mines Health and Safety Act 2002 (NSW),
 - Occupational Health and Safety Act 2000 (NSW)
 - Water Management Act 2000 (NSW),
 - Water Act 1912 (NSW),
 - Dams Safety Act 1978 (NSW),
 - Protection of the Environment Operations Act 1997 (NSW),
 - EPL 528

This is considered appropriate (URS has not assessed compliance with the requirements of this legislation in detail).

- The stated objectives of the WMP are:
 - *Maximise the separation of clean and dirty water systems.*
 - *Manage water discharge from site, in terms of volume and quality, to a level that is acceptable for environmental management and community expectations.*
 - *Minimise water discharges from the premises by maximising, where practicable, opportunities for the reuse and recycling of water on site.*
 - *Minimise discharges of dirty water from the premises.*
 - *Manage discharge to natural waterways in accordance with the EPL 528 conditions or as agreed with the OEH (EPA).*

The above objectives are in line with current approaches to water management and are therefore considered adequate as general goals of the plan. Commentary of how well these principles are being applied is presented in Section 8.4.

- Feedback was received from NOW on 12 October 2011 in the form of a letter to Charbon Colliery. In their feedback, NOW raise a number of concerns regarding the management of water as detailed below:

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- The letter refers to correspondence from GSSE requesting review of Charbon's WMP. The WMP was prepared by consultants GHD and not GSSE (who were part contributors to the overall WMP);
- The feedback was provided after the WMP was issued in its final form on 5 September 2011, however the consultation is recognised to be in accordance with CoA 29 The letter states that the feedback provided requires addressing before final comments can be issued by NOW;
- There is some confusion regarding the bore license nomenclature;
- There is a discrepancy between the stated capacity of Reedy Creek dam and that stated in the license;
- There are observations regarding licensing of dewatering of the underground in terms of location and volume;
- There are observations regarding licensing of surface water dams and new/old LDPs in terms of location/volume and various water uses;
- Comments and further requirements are offered regarding ground and surface water monitoring, which require amendment to the provisions contained in the WMP.

It is understood that the above letter and comments had not been formally addressed by Charbon at the time of the site inspection for the audit.

Additionally, a review of the site records was conducted with observations made regarding the following components of the WMP:

- Baseline monitoring data;
- Quantity and location of monitoring points, specifically LDPs;
- The adequacy of surface and groundwater water quality monitoring programmes.

Each is discussed in turn below.

8.3.1.1 *Baseline monitoring data*

Charbon provided URS auditors with records of monitoring in a spreadsheet format. These have been reviewed together with statements contained in the WMP, Surface Water Monitoring Program (SWMP) report, and Groundwater Monitoring Program (GWMP) report in the WMP (both by GHD).

The requirement of EPL 528 for sampling and recording of pollutants is limited to pH, oil and grease, total suspended solids and conductivity at the LDPs. The monitoring data provided demonstrates that monitoring as required by the EPL was being conducted. In addition, Charbon undertakes similar monitoring at a range of locations such as dams and internal drainage lines. Periodic monitoring is also undertaken at these locations for a range of analytes including metals, hardness, Biological Oxygen Demand (BOD), and Nitrogen.

Surface water

Baseline water quality was established from water quality data between August 2005 and May 2011, collected at a number of locations across the mine. The number of sample dates for each location varied considerably as did the recorded sampling results.

Generally Charbon operates the mine so that discharge from the LDPs is minimised. A focus of the PRP and licence variations has been to improve water storage capacities and water management to reduce discharge events. Review of the water quality data collected for LDP2 and LDP3 (which have few discharge records due to limited discharge through these points), indicated that the water quality

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discharged from the mine at these locations typically satisfies the limits of EPL 528 with the exception of TSS. The TSS limit of 50 mg/L was exceeded during periods of heavy rain. Discharges occurred over a number of days in December 2010. This was reported to the EPA at the time and also in the AEMR 2010 (as discussed in Section 5.1 of this report).

Groundwater

Four groundwater extraction bores were installed in early 2007 of which only two were successful (PB2 and PB3). These two bores were licensed and have a total cumulative extraction limit of 30ML/year. There are an extra four registered bores in the vicinity of the colliery. Of these, groundwater quality monitoring is limited to samples from PB2 and PB3 that was conducted in 2007.

Despite this lack of data, comparing the groundwater quality results with the ANZECC (2000) and NHMRC (2004) guidelines and trigger levels indicates that the groundwater quality from the Charbon Underground as well as PB2 and PB3 is not suitable for direct discharge into streams, and is too saline for use as drinking water, however it could be used for irrigation and livestock purposes (as noted by GeoTerra (2009)).

Stream Health

It is noteworthy that the WMP considers stream health in its assessment. Whilst this is not an explicit requirement of EPL 528, the WMP recommends measures to monitor stream health through assessment of the potential geomorphic impacts of the LDPs (in terms of flow volume and quality), on stream stability, riparian vegetation and fauna. Recommendations are also provided in the WMP to monitor potential effects on site stream health through annual reviews of water quality data, creek geomorphic conditions and stream biota abundance and diversity.

8.3.1.2 Quantity and location of monitoring points, specifically Licensed Discharge Points (LDP)

GHD undertook a review of Water Licensing in April 2011 as part of the preparation of the WMP. This document was reviewed as part of this audit by URS and together with a review of the monitoring data, records obtained and the site observations made during the audit, the following comments are made:

- The Charbon Colliery's water monitoring programme requires re-structuring and a greater degree of method, QA and documentation, and a greater degree of sampling consistency;
- A number of proposed amendments to existing licenses and obtaining of new licenses were recommended by GHD in their review. The recommendations were based on outputs from the water balance model as opposed to actual data records which support the previous observation;
- With regards to amendments to licenses the following was recommended by GHD:
 - For EPL 528: addition of LDP4, LDP5, LDP6 (3 additional points with respective volumetric allowances) to cater for the Rail Loop dam, Western Open Cut dam, and Central Open Cut dam respectively
 - Groundwater licenses: combine existing groundwater licenses to enable the mine greater flexibility on groundwater use
 - Surface water license: obtain additional license for (i) Erosion Dam, (ii) proposed Rail Loop Dam, (iii) proposed Central Primary Pollution Control Dam, (iv) proposed Western Primary

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Pollution Control Dam. It was recommended that licensing of the Third Entry Evaporation Dam be investigated with EPA.

- Whilst groundwater sampling is not a requirement of EPL 528, the development of both surface and groundwater monitoring programs is a consent condition of 08_0211. As such, it was recommended that a groundwater monitoring program be implemented.
- Additionally, the GHD assessment recommended that the surface water monitoring points be revised and consolidated into an appropriately setup system of monitoring points with monitoring undertaken under a set protocol. These requirements are presented as recommendations in Section 8.3.1.4.

Based on the GHD review and the site observations the auditors concur with GHD's recommendations to licence changes as these will complement the baseline data already established and will enable monitoring of surface water from the various site mining areas.

The 2011 AEMR reported that

"During the (2011) reporting period the EPA issued, as a variation in EPL 528, a Water Management System Audit Pollution Reduction Program (PRP) on 3 March 2011. The requirements of this variation were fully complied with. Consequent to the submission of the audit report, the EPA issued a Water Management System Action Plan, again as a variation to EPL 528 on 10 June 2011. Each of the actions in the plan were fully complied with, with the exception of creating a Licensed Discharge Point (LDP) at the Western Primary Pollution Control Dam. While the LDP had been installed, it has not been created on the EPL and resulted in a technical non-compliance with EPL 528. The new LDP had not been created on the EPL as the site was awaiting a site visit that had been scheduled for 21 December 2011. A variation application commenced following the December meeting, in consultation with the EPA."

Little to no commentary is offered on LDP1 by GHD as this is dealt with by the assessment of effluent disposal by GSSE. GSSE makes recommendations that will enhance the effectiveness of LDP1, however offers no commentary on the location of LDP1 downstream from the area of old rejects. As stated earlier this area has not been considered anywhere in the WMP. Further recommendations on this issue are offered in Section 8.3.1.4.

8.3.1.3 Results of the ongoing GW and SW monitoring programmes

Baseline data from 2005 to 2010 was assessed as part of preparation of the WMP (September 2011). Since that time, monitoring has continued however limited sampling results additional to these were available due to the audit's timeframe (February 2012).

Review of site data suggests that the recommendations presented in the WMP in terms of changes to the licence and LDPs and implementation of recommended monitoring programs had not been fully implemented at the time of the site inspection for the audit. Monitoring of surface water (quality and quantity) and groundwater (quantity) has continued and is documented and reported through spreadsheets as discussed below.

8.3.1.4 Adequacy of surface and groundwater water monitoring programmes

The WMP provides a good framework for Charbon to improve its management of water and allows the mine to effectively comply with its obligations under the CoA.

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URS found that there was limited groundwater information (quality and quantity), and that the surface water quality monitoring information was presented in a spreadsheet format with little reference to quality procedures for sampling and analysis. Whilst this presentation does not in itself result in a non-compliance against conditions, it does highlight the challenges that the mine has in raising the standard in its documentation of environmental management.

The WMP provides clear guidance on the surface and groundwater monitoring programmes with specific recommendations as presented below. Further recommendations regarding QA/QC of the monitoring programmes are presented in Section 8.5.

Surface water

Additional surface water monitoring points (summarised in **Table 8-2**) have been proposed in the WMP, however not all of these had been implemented at the time of the audit site inspection.

Table 8-2 Additional surface water monitoring points proposed in WMP

Sampling point ID	Location
MP1	Upstream of Reedy Creek
MP2	Downstream of Pit Top
MP3	Upstream of Pit Top
MP4	LDP 2 (Third Entry Pollution Control Dam)
MP5	Downstream of LDP 2 and LDP 3 of Rileys Creek (New)
MP6	LDP 3 (LDP 3 Discharge Dam)

In addition to the water quality monitoring requirements of EPL 528 the WMP recommends monthly sampling of analytes at each of the proposed monitoring locations identified above:

- General: pH, TSS, TDS, turbidity, EC, oil and grease, BOD, total hardness.
- Major cations: Ca, Mg, Na, K.
- Major anions: sulfate, chloride, total alkalinity (CaCO₃).
- Nutrients: TP, TN, NO_x, ammonia as N.
- Total: Cu, Pb, Hb, Ni, Co, Se, Ag, Zn, Al, As, Ba, B, Cd, Fe, Mn, Cr.
- Filtered: Cu, Pb, Hg, Ni, Co, Se, Ag, Zn, Al, As, Ba, B, Cd, Fe, Mn, Cr.
- Other: cyanide and fluoride.

It is also recommended by URS that Charbon Colliery undertakes a risk assessment of the area of old rejects at the north of the mine and in close proximity to LDP1. An addition of an extra monitoring location in this area is considered beneficial as it will enable monitoring of impacts (if any) without compromising the monitoring of LDP1 as an effluent disposal location.

Groundwater

Additional groundwater monitoring points have been proposed in the WMP (summarised in **Table 8-3**), however were not implemented at the time of the audit site inspection.

Table 8-3 Additional groundwater monitoring points proposed in the WMP

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Sampling point ID	Frequency	Analytes
GW800781	Monthly	pH, EC, major cations /anions Water Level & Table 6-2 parameters.
PB2	Monthly	pH, EC, major cations /anions Water Level & Table 6-2 parameters.
PB3	Monthly	pH, EC, major cations /anions Water Level & Table 6-2 parameters.
Charbon Underground	As required	pH, EC, major cations /anions Water Level & Table 6-2 parameters.

According to ANZECC (2000), a minimum of 24 data values (generally taken over the previous two years over a number of seasons and flow conditions) should exist for a reference site in order to calculate site specific criteria. Given the limited information available, the WMP recommends to use default trigger values as summarised in **Table 8-4**.

Table 8-4 Default trigger values recommended in WMP

Parameter	Trigger Value	Comments
pH	6.5-9.0	Table 8.2.8 ANZECC (2000). pH 6.5 and 8.0 are the lower and upper limit trigger values respectively.
EC	350 μ S/cm	Table 8.2.9 ANZECC (2000)
Standing Water Level	Statistically significant decreasing trend in the underlying time trend, (that is, independent of natural variation in rainfall)	In the EA GeoTerra (2009) proposed a trigger for further investigation would occur if a drop of over 10m below the rolling 12 month average in groundwater levels in any piezometer or private bore occurs over a minimum 3 month period.

The WMP also recommends analysing for:

- General parameters (TSS, turbidity);
- Nutrients
- Metals (dissolved)

The above recommendations are supported by URS.

Stream health

Stream health is proposed to be monitored through parameters such as:

- Bank Stability Monitoring on all major creek and drainage lines, specifically downstream of the LDPs. The monitoring should be undertaken in accordance with riparian vegetation monitoring, on a quarterly frequency and following the occurrence of intense or prolonged rainfall.
- Riparian Vegetation and Macro-invertebrate monitoring within reed vegetation areas as identified in the WMP.

The above recommendations are supported by URS.

8.4 Water quality monitoring results

As stated above, the monitoring records were summarised and documented by GHD in their preparation of the WMP. The auditors have reviewed and assessed these and concur with the conclusions that:

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- A number of TSS non-compliances for LDP2 and LDP3 were recorded in 2010 as a result of above average rainfall. LDP2 features the more complete record as there have been instances of no data from LDP3;
- Water sampling was undertaken at a number of other locations however these were not the required LDPs and varied in position;
- Other analytes required by the License (pH, Oil and Grease) were within limits for all instances;
- Water quantity from Bore #2 exceeded permissible volumes.

The auditors also reviewed the monitoring records from 2010 to February 2012 and the following comments are made relating to exceedence of EPL criteria:

- Exceedances at both LDP2 and LDP3 were recorded in the water quality monitoring spreadsheet for the period September 2011 and February 2012. As noted above, the main exceedence of the criteria occurred in December 2010 over a number of days during a heavy and prolonged rain event. This incident is discussed in detail Section 5 of the report. The 2011 Annual Return for Charbon indicated the following non-compliance: *“Exceedence of TSS limits due to significant rainfall event in Dec 2010. EPA issued a PRP requiring and site water management system audit and upgrade. The requirements of the PRP were completed within the specified time frame.”*

There have been numerous events of elevated TSS for samples taken at other monitoring locations (outside of LDPs) including: SOC Sedimentation Dam, Pit Top - Downstream, Western pollution control dam. These provide the mine with an understanding of water quality across the site. High EC concentrations were also reported at these locations (1000 – 2000 $\mu\text{S}/\text{cm}$).

Some discharge water from site reports to the Reedy Creek dam for storage and reuse in the mine. It was noted that EC levels in dam water has ranged up to 2020 $\mu\text{S}/\text{cm}$. Some of the salinity in the dam may have origins from Charbon, particularly the mine discharge.

8.5 Water Management Recommendations

Compliance against the requirements of the EPL, CoA and Bore licences are described in Appendix A with non compliances and associated recommendations discussed in Section 12. In addition to these specific items of non-compliance, URS has noted other areas where continuous improvement opportunities exist throughout this audit document as follows:

- Conduct a risk assessment in the area of old rejects including a Dam safety evaluation as per Dam Safety Committee guidelines and identify if further controls are required. If so, implement these controls and consider installing an additional monitoring location in this area.
- Conduct a risk assessment on Reedy Creek dam and provide (as a minimum)
 - An updated volume of the dam;
 - A dam safety evaluation and following recommendations as per Dam Safety Committee guidelines;
 - As required, implement these recommendations.
- Address soil erosion at key areas, especially downstream of the 2-Trunk coal stockpile (refer Photos in **Table 8-1** showing erosion of drainage channel and inadequate sediment fences) and along roadways;
- Address soil erosion at the Southern Open Cut at non-rehabilitated batters;

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- Redirect/capture small catchment around the CHPP coal stockpiles that bypasses the water management system and discharges directly to Reedy Creek Dam as requested by the EPA (letter dated 5 January 2012);
- Address feedback/queries received from NOW in letter of 12 October 2011;
- Pursue amendments to LDPs as per WMP's recommendations.
- Implement the recommendations made in the WMP with regards to surface water, groundwater and stream health monitoring.
- Implement the surface water and ground water monitoring programs and protocols (including level of documentation required) as stated in the WMP and summarised below. .. :

Surface water monitoring

Some inconsistencies were noted in respect of the collection and storage of data relating to surface monitoring. It is recommended that Charbon ensure the following requirements are enforced and confirmed through regular review processes:

- All surface water monitoring, testing and assessment is to be undertaken in accordance with the following standards/guidelines (as stated in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 2000):
 - Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC, 2000).
 - Australian Standard AS 5667.1998 Water Quality Sampling.
- Data Recording Monitoring work is to be appropriately documented and will include the following (as required under section M1.3 of EPL 528):
 - Sample date and time.
 - Sample location.
 - Name of person who collected sample.
 - Field sampling records.
 - Instrument calibration records.
 - Sample Chain of Custody records.
 - Analytical requests.
- Field sampling records are to include observations regarding the condition of the monitoring locations, weather conditions at the time of sampling, and other additional field measurements. All laboratory analysis is to be undertaken at a NATA accredited laboratory under chain of custody.
- EPL 528, specifically section M1.2, also specifies that all records required to be kept by the licence must be:
 - (a) In a legible form, or in a form that can readily be reduced to a legible form.
 - (b) Kept for at least 4 years after the monitoring or event to which they relate took place.
 - (c) Produced in a legible form to any authorised officer of the EPA who asks to see them.

Groundwater monitoring

Upon receipt of water quality monitoring result from the laboratory, the WMP recommends that the following review process will be undertaken:

- Data will be compared to the EPL 528 concentration limits and ANZECC default trigger values (Table 6-1 of the WMP) where applicable.
- If an anomalous result(s) is suspected a re-test by the laboratory may be requested or the site may be resampled.

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- Where monitoring results exceed the relevant concentration limits, the proponent must notify the EPA by telephone as soon as practicable (as specified in section R2 of EPL 528).

Where monitoring results exceed the relevant concentration limits an appropriate investigation into the cause of the exceedance should be conducted to determine the potential cause. Any corrective actions or ameliorative measures that may be taken to prevent future discharge limit exceedances should be identified as part of the investigation process.

A written report on the discharge exceedance event should be compiled if requested by the EPA as outlined in section R2 of EPL 528. The results of the monitoring should be included as part of the site's AEMR and should detail as required:

- Refinements of the water quality objectives (once sufficient data is obtained to establish an appropriate baseline).
- Initiation of remedial action in the event of non-compliance.
- Alterations to monitoring frequency, parameters, or locations if appropriate.

It is recommended that the above program guidelines are implemented without delay.

Rehabilitation and Landscapes Management




9.1 Rehabilitation and Landscape overview

As required by DP&I, the audit team included rehabilitation and landscape related specialists and this section reports on the findings of the review into rehabilitation and landscape management at Charbon. This specialist area of the audit comprised a document review, site inspection and reporting component which include rehabilitation and landscape related recommendations.





9.2 Site inspection

Observations from the site inspection conducted on February 14th and 15th and guided by Environment Coordinator, Matt Gray, directly relating to rehabilitation and landscape has been detailed within **Table 9-1**.




Table 9-1 Summary of Observations Relating to Rehabilitation and landscape

Observation	Photo
During the site inspection the audit team was shown a range of newly constructed nest boxes, ready for installation as well as nest boxes positioned within remnant areas of vegetation along the eastern side of the SOC.	
The audit team were shown the seed bank, held with in an old powder storage room. The conditions of the room were ideal for native seed stock (dry, cool). Seed stock totalled 38 species varieties. Most seeds had been locally collected.	
During the site inspection between the CHPP and the Northern Tailings area there appeared to be a lack of weed control focus for declared noxious weeds: St Johns Wort and Blackberry. The two pictures here show examples in this area of St Johns Wort (above) and Blackberry (below).	





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Observation	Photo
	
<p>During the site inspection near the CHPP, it was noticed that there were exotic plantings of White Cedar (<i>Thuja occidentalis</i>) on the road edge, as opposed to locally occurring native species.</p>	
<p>During the site inspection within rehabilitation Areas 1 and 2 (2007 rehabilitation), soil was assessed as having good organic matter and moisture content. These areas were subject to the following rehabilitation methods regarding soil:</p> <ol style="list-style-type: none"> 1. Shaping the rehabilitation area for effective drainage with previously stockpiled subsoils. 2. Application of topsoils over the subsoil layer from previously stockpiled topsoils. 3. Application of 'biosolids' (treated and spread over the topsoil) as part of a trial program. 4. Helicopter seeding of locally collected seed from seed bank. 	
<p>During the site inspection there was evidence of regeneration of understory species in Areas 1 and 2 (2007 rehabilitation), as pictured here (above and below), including key grass species such as <i>Poa</i> spp. and <i>Themeda australis</i>. Given that this area was regenerated with shrub and canopy species only, this shows direct evidence that the seed bank is naturally regenerating through application of pre-existing topsoil from the original area.</p>	


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Observation	Photo
	
<p>Conversely, when compared with the above pictures there are other rehabilitation sites where the topsoil application had not been spread in the same manner, nor had biosolids been used. At these sites subsoils can be seen on the surface such as large chunks of clay. Consequently the understory has not regenerated of its own accord and will require further assistance (soil works and/or seed application) for establishment.</p>	
<p>During the site inspection within Areas 1 and 2 (2007 rehabilitation) coarse woody debris (above) and rocky outcrops (below) had been placed to create supplementary habitat. Through inspection it could be seen that these areas of supplementary habitat was being utilised by invertebrates, reptiles and small mammals.</p>	

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Observation	Photo
<p>During the site inspection the pasture rehabilitation area (third opening area) was found to contain a large array of various common weeds. The Environment Coordinator explained that this area will be part of upcoming rehabilitation works which will see the area re-sown with pasture grasses. This will be the best approach as, if left, this area is going to become more dense with weeds, the topsoil contaminated with weed seed and weed seed dispersed through wind and waterways, etc.</p>	
<p>During the site inspection the tree planting that was undertaken in the past year in western area of the pasture rehabilitation area (third opening area) showed low uptake of seedlings. However, the efforts here to create connectivity within the landscape were discussed and are commendable. This exercise demonstrated that rehabilitation methods other than pasture may achieve higher success rates for this site.</p>	
<p>The Landscaping in the Southern Open Cut (SOC) was inspected and the current progressive rehabilitation demonstrated in terms of staged landscaping and planting works.</p>	
<p>Topsoil stockpiles were seen in some areas within Charbon to be contaminated with dirty coal and courser subsoils.</p>	

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Observation	Photo
<p>Rehabilitation efforts for 2012 in the SOC were inspected to assess against the indicative final landform plans (Table 2 and Figure 3 of the LMP). The SOC was also inspected in terms of the progressive rehabilitation and the associated usage of subsoil and topsoil during rehabilitation. Evidence of the initial subsoil spreading and landscaping was witnessed as well as the preparation of topsoil piles for final cover before seed spread.</p>	

Other findings and observations made during the time of the audit included:

- Throughout the site inspection it was evident that large scale rehabilitation and landscaping efforts had occurred throughout 2007 at Charbon with little rehabilitation taking place until the current 2011/2012 efforts, pictured above. The 2007 rehabilitation and landscaping areas were inspected and the positive establishment and progression noted.
- Goats were witnessed on the eastern fringe of Kandos State Forest to the east of the 8 Trunk Open Cut Area. It was highlighted by the Environmental Coordinator that there are annual pest control programs to shoot feral animals.
- The 8 Trunk Open Cut Area was visited as part of the site inspection to have a look at the vegetation, subject of the *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act) Approval 2010/5498. The vegetation mapped in 2009 (AES Environmental Consultancy and Gingra Ecological Surveys, 2009, *Continued Operation of the Charbon Colliery - Ecology Assessment*) as *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*, was observed in only a few areas however the quality of this ecological community did not look, at the time (February 2012) to meet EPBC guidelines for this community in terms of understorey diversity of forbs and grasses. This may be due to seasonal changes. It should be noted that there were however dominant canopy species present and the patch size is greater than 0.1 Ha. It would therefore be likely this community meets NSW Threatened Species Conservation Act, 1995 guidelines for this endangered ecological community.
- Rehabilitation areas that were inspected during the site visit where direct seeding had been applied coupled with sound topsoil application and/or 'biosolids' trials were seen to be regenerating well, with good species diversity and health.
- Fauna and invertebrate quadrats were visited during site inspections with ecologists seen out on site conducting regular monitoring as part of ecological monitoring requirements.

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- The auditors were shown a remnant patch of Capertee Stringybark (*Eucalyptus macrorhyncha* subsp. *cannonii*). During the visit the Environment Coordinator explained that seed had recently been collected for these specimens and was planned for spreading over the SOC as part of 2012 rehabilitation efforts. Evidence of Capertee Stringybark regeneration was also noted though the flora quadrat monitoring undertaken by Gingra Ecological Surveys.
- The management of topsoils and subsoils was observed to be largely informal and not to the standard as described in the Landscape Management Plan. For example stockpiles were observed to be colonised by weed species; erosion was evident on stockpiles; a formal management system did not appear to be in place to track volumes and use of topsoils; and the size of stockpiles was not limited to promote longevity of the seed bank.
- Rehabilitation efforts have occurred in the SOC on an informal basis by the contractor Big Rim and without coordination with Charbon management. It was observed that the Open Cut Manager (Big Rim) had undertaken the spreading of topsoils in large areas of the SOC without coordination with the Charbon Environmental Coordinator'. As such, these areas were not seeded and have been colonised by weeds. The value of these topsoils was potentially compromised by the weeds.
- The formation of topsoil stockpiles appeared ad-hoc, with one stockpile observed being formed during the audit site inspections during construction of a road in the Trunk 8 Open Cut area without input from Charbon management.
- Erosion and sediment control of topsoil and subsoil stockpiles was inadequate in some areas at the SOC.

9.3 Landscape Management Plan adequacy review

The Charbon Colliery Landscape Management Plan (LMP) was prepared in September 2011 by Charbon Coal, GSSE and RPS Australia (RPS), to satisfy Project Approval 08_211. The LMP had not however been approved by the Director-General at the time of site inspection for the audit. The LMP was prepared in accordance with Schedule 4, Condition 6 and broadly Schedule 5, Condition 2 of the CoA, through consultation with the relevant government bodies (DP&I, DTIRIS, NOW, OEH, Mid-Western Regional Council and Forests NSW).

The LMP includes; the Rehabilitation and Management Plan (RMP) in accordance with Schedule 4, Condition 4, 5 and 7 and Statement of Commitment's 4.3; the Compensatory Habitat Management Plan (CHMP) in accordance with Schedule 4, Condition 1, 2, 3 and 7 and Statement of Commitment's 4.4; as well as the Mine Closure Plan in accordance with Schedule 4, Condition 8. A review of the LMP was conducted with observations made regarding the following components of the LMP:

- Rehabilitation Management Plan;
- Compensatory Habitat Management Plan;
- Mine Closure Plan; and
- General LMP comments.

Each of these LMP components is discussed below.

9.3.1 Rehabilitation Management Plan

The broad RMP objectives, performance criteria and implementation measures relative to the site have been included as per the CoA (Schedule 4, Conditions: 4, 5, 7) in **Section 6** of the LMP. In addition, RMP monitoring, review and implementation responsibilities are also outlined as per CoA requirements. The RMP outlines the rehabilitation objectives for Charbon and includes a range of

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short and long term measures to achieve these objectives. The RMP also outlines the monitoring program for rehabilitation, in accordance with Schedule 4, Condition 7 and the Statement of Commitments 4.2.

Through the RMP review it was noted some that some minor gaps exist in the RMP and recommendations to address these gaps are detailed below:

- In terms of the integration of rehabilitation with the surrounding land use, this component of the RMP is fairly brief in content, it is recommended that greater detail could be provided such as, the Indicative Final Landform figure (Figure 3, LMP), referenced in Table 2 (LMP) should show vegetation communities, as indicated.
- It would be worthwhile for the addition of other Figures to outline each of the rehabilitation areas and the measures planned in these areas to illustrate the short term and long term measures outlined in the report.

9.3.2 Compensatory Habitat Management Plan

The Compensatory Habitat Management Plan (CHMP), referred to as a Biodiversity Offset Strategy within the CoA, has been developed and is provided within the LMP as per Schedule 4, Condition 1, 2, 3 and 7; Statement of Commitment's 4.4; and EPBC 2010/5498, Condition 4. The CHMP however is not relevant for this audit period as the offset strategy was not required until December 2012 and the offset final details, including approval of the CHMP had not been finalised with Department of Sustainability /Environment Water Populations and Community (SEWPaC) at the time of the audit site inspection.

Recommendations for the CHMP as it was presented in the LMP at the time of the audit include:

- It is recommended that the species selection for rehabilitation provided within the CHMP should be enhanced to include a greater diversity within all structures, therefore more forbs, herbs and grass species are needed to; improve the diversity within the understorey, reduce weed uptake and increase general rehabilitation diversity.
- It is recommended that the CHMP mapping **Figure 1-1** be amended to add the vegetation communities, in order to better demonstrate the communities within and around the compensatory habitat areas.
- It is also recommended that the CHMP show a Figure outlining the physical locations of the mapped threatened biota on site, e.g. Capertee Stringybark and fauna.

9.3.3 Mine Closure Plan

The Mine Closure Plan has been developed and provided within the LMP in accordance with CoA Schedule 4, Condition 8. The broad mine closure objectives, options, socio-economic, implementation and relative performance measures are discussed within Section 8 of the LMP. It is noted that Charbon intends for the Mine Closure Plan to adhere to DTIRIS guidelines for DPI EDG03: *Mining, Rehabilitation, and Environmental Management Process* (DPI-MR 2006) in terms of the requirement for progressive reviews and updates over the remaining life of the mine.

The Mine Closure Plan appeared to be comprehensive in terms addressing each of the Schedule 4, Condition 8 requirements for rehabilitation and landscape related issues.

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9.3.4 General LMP Comments

The auditors have reviewed the LMP documentation and offer the following comments:

- The LMP has been comprehensively prepared by Charbon, GSSE and RPS to bring together a series of plans and documents. The site has been operating since the 1920s which means that there are a number of legacy issues with respect to rehabilitation, landscape and offset management. The LMP recognises this and acts as an overarching document on how to effectively manage rehabilitation, landscape and offset issues on site.
- The LMP has been written to specifically address CoA; Schedule 4, Condition 6, 7, 8, Statement of Commitment's 4.3 and 4.4 and more broadly CoA Schedule 5, Condition 2 requirements. The LMP had been well constructed in terms of layout and clarity in addressing CoA requirements.
- The LMP outlines linkages with existing Charbon documents; Environment Management Strategy 2011, Continued Operations Environmental Assessment 2009, and the Mine Operations Plan (MOP) 2010-2014.
- The LMP has been prepared to satisfy safety and environment legislative requirements and as such is noted to have been developed to comply with the following guidelines, policies and other applicable documents:
 - DPI EDG03: Guidelines to the Mining, Rehabilitation and Environmental Management Process (DPI-MR 2006);
 - DPI ESB20: Rehabilitation Security Deposit Requirements for Mining and Petroleum Titles (DPIMR, 2006);
 - DPI EDG14: Reporting Requirements for Mine Closure and Lease Relinquishment (currently undergoing review);
 - ESG1: Rehabilitation cost estimate guidelines (I & I, 2010);
 - Strategic Framework for Mine Closure (ANZMEC & MCA, 2000);
 - Leading Practice Sustainable Development Program for the Mining Industry: Mine Closure and Completion (DITR, 2006); as well as
 - Internal Centennial Coal documents; Project Evaluation Standard, AEMRs; and Monthly Environment Reports.
- The LMP had not been formally approved following submission in September 2011. DP&I were contacted during the audit and confirmed that the Plan was still to be formally approved at that time.

Following review of the LMP documentation it was noted some that some gaps exist in the RMP and recommendations to address these gaps are detailed below:

- It was noted that Schedule 5, Condition 2(e) had not been addressed within the LMP and should be revised to include: *"A contingency plan to manage any unpredicted impacts and their consequences"*.
- It is recommended that the section numbering needs attention throughout the Plan as inconsistencies were evident.

9.4 Other Rehabilitation and or Landscape Related Plans

A range of other plans / reports have also been reviewed due to their relevance with the CoA and/or with rehabilitation and landscape matters for Charbon. These plans are discussed in terms of their adequacy, with comments below:

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9.4.1 Annual Environmental Management Report, 2010

The 2010 AEMR provides a short annual summary of activities, relevant to rehabilitation and landscape such as; flora and fauna monitoring results, weed management and rehabilitation works (erosion control, revegetation, weed control activities, soil works etc.) undertaken in the reporting period. The AEMR provides a basic, however adequate summary of 2010 activities. It was noted that the AEMR could be improved to include greater detail in terms of rehabilitation efforts across the mine site locations and greater detail in terms of rehabilitation timing, effort and performance measures.

9.4.2 Fauna handling and management plan / Pre-clearance Plan

The Fauna Handling and Management Plan (FHMP), developed by Aquila Ecological Surveys, 2010 in accordance with Project Approval Statement of Commitment 4.1 was viewed and found to be comprehensive. It was noted that the FHMP had not been formally signed off at the time of the audit site inspection, similarly to the LMP.

The FHMP outlines that instruction will be given to all personnel undertaking vegetation clearing operations, to advise personnel of the importance of environmental protection, including:

- The protection of completed rehabilitation areas and delineation of important retained habitat;
- The protection of the site's threatened plant populations;
- The importance of habitat features such as rock outcrops, woody debris and tree hollows;
- Procedures in the event of encountering injured fauna;
- Matters in regard to bushfire management; and
- The need for control of spreading pollutants that may affect habitat and/or water quality.

It is noted that there was no clearing conducted during the audit period, therefore whilst the plan is adequate the implementation of this plan has not been formally assessed.

9.4.3 Bushfire Risk Management Plan

The Bushfire Risk Management Plan, June 2007 was viewed and found to be brief in terms of length of document, covering fire history and frequency, risk, management strategies and hazard reduction. The plan was developed following a scoping session held on the 8th December, 2003 with representatives of the Mudgee and Rylstone Rural Fire Service.

It was noted some that some minor gaps exist in the Bushfire Risk Management Plan and recommendations to address these gaps are detailed below:

- The 2007 Plan had been finalised four years after key input was provided by the Mudgee and Rylstone Rural Fire Service in 2003. This plan should therefore be updated to reflect current bushfire history and frequency information, so to guide the risk and severity related issues for Charbon Colliery.
- The Fire History figure (Figure 3) provided in the plan is basic nature and appears to have been produced pre 2003. If new data is available this should be re-produced.
- It is not clear looking at the Bush Fire Management Plan (Figure 4) what this map is identifying as there is no legend. This map should be re-produced and legend details provided.
- The plan discussed hazard reduction in 2008 and 2009, after the completion of the plan in 2007. The plan itself should therefore be reviewed, updated by technical specialists and resubmitted.
- Revision and sign off of the document in terms of document and quality control would be recommended.

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9.5 Implementation of Landscape Management Plan

During the audit site inspection it was evident that the implementation of rehabilitation and landscape works were a key focus for Charbon and the Environmental Coordinator. Implementation of the LMP was witnessed through a range of documents and site observations including:

- CHMP implementation in terms of CoA Schedule 4, Condition 4 (h). Habitat boxes were observed to be installed in CHMP areas, as well as woody debris and rock placement for fauna habitat.
- Correspondence was underway to secure an offset in order to meet, CoA Schedule 4, Condition 1.
- Documents were observed showing authorisation, invoicing and time frames for works including; weed control, costing for rehabilitation efforts (aerial seeding, earthmoving, fertiliser, soil ameliorants, composting, etc.), seed collection and biosolids trailing.
- The Charbon Colliery seed bank was inspected.
- Rehabilitation conference materials for the HSEC 2012 presentation given to outline rehabilitation works at Charbon were observed.
- Formal applications for vegetation clearance CoA Schedule 2, Condition 9, were sighted.
- Provision of funding was observed to support the Hawkesbury - Nepean Catchment Management Authority for Regent Honeyeater habitat restoration, EPBC Act 2010/5498.
- Monitoring sites for flora and fauna and macro-invertebrates were visited during the site inspection and ecological staff seen surveying for birds and invertebrates.
- Aerial photography, showing forecast 2012 rehabilitation areas were viewed.

In addition to the above, the auditors have noted other areas where continuous improvement opportunities exist for the implementation of the LMP (RMP and CHMP):

- It is recommended that current weed control efforts be increased and seasonally focused across all areas of the mine for noxious weeds under the Noxious Weeds Act, 1993 for the Mid-Western Regional Council area (recorded through the NSW DPI). This could be emphasised within the LMP.
-
- Monitoring data evidence for the macro-invertebrate/stream health Schedule 3, Condition 32 was very basic in nature with minimal detail provided. It is recommended that the data collected for each future monitoring effort be provided by technical specialists in a more detailed manner, with field sheets, stored and filed.
- Following the site inspection it was evident that there is room for improvement in document management, in terms of file naming and version control details.
- Further training in topsoil management and erosion and sediment control procedures be conducted for all relevant personnel and built into 'tool box' meetings to ensure key staff work towards a common topsoil management process.

9.6 Rehabilitation and Landscape Monitoring

Monitoring data as required by CoA Schedule 4, Condition 7 and Statement of Commitments 4.2 has been supplied by Charbon. A review of the data has been conducted from the date of the project approval 7th September 2010 to 27th January 2012. The review of the relevant, flora and fauna monitoring as well as the macro-invertebrate monitoring is outlined below.

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9.6.1 Flora and fauna monitoring

The LMP details a monitoring program to meet the requirements of CoA Schedule 4, Condition 7 and Statement of Commitments 4.2 for flora and fauna monitoring.

During the audit period flora monitoring was conducted by: Gingra Ecological Surveys who have been monitoring at Charbon since 2006. Flora monitoring reports show results from monitoring of the SMP area and Compensatory Habitat Area undertaken in spring and autumn 2010/2011 in terms of species richness and exotic species presence.

The fauna monitoring was undertaken by AES Environmental Consultancy and Aquila Ecological Surveys, who have been monitoring at Charbon in accordance with the CoA. The fauna monitoring reports show results from monitoring of the SMP area and Compensatory Habitat Area, each autumn to monitor; mammals, birds, reptiles and frogs.

In addition the AEMR 2010/2011 summarises flora and fauna monitoring undertaken at Charbon Colliery.

Some of the gaps identified with the monitoring have been outlined below and recommendations provided:

- The file naming of the flora and fauna monitoring reports was often not consistent with the report, attention to file naming, storing and document control recommended.
- Descriptions of the flora and fauna monitoring methods/requirements within the LMP should be more detailed, as per the methodologies provided by: Gingra Ecological Surveys, AES Environmental Consultancy and Aquila Ecological Surveys.

9.6.2 Macroinvertebrate / Stream Health Monitoring

The Surface Water Monitoring Program, GHD, September 2011 and monitoring data (excel spread sheets) were reviewed against CoA, Schedule 3, Condition 32 which requires:

b) surface water and stream health impact assessment criteria;

c) bank stability, riparian vegetation and macro-invertebrate populations along the creek lines and ephemeral drainage lines downstream of all license discharge points;

Following a review of the documents the information provided was compliant with the Condition, however some gaps were identified with the monitoring and have been outlined below with recommendations provided:

- Monitoring data evidence (Spread sheets and pictures: Crustacean Survey 2009 and 2010) is very basic in nature with the 2010 data not presented with sufficient detail - perhaps other evidence was available but was not provided in the report. Future monitoring data should be provided by technical specialists in a more formal manner.
- It is recommended that the data collected for each monitoring effort be provided from ecologists in a more detailed manner, perhaps with field sheets, stored and filed.

9.7 Compliance with Regulatory Requirements

The approval condition checklist (provided in Appendix A) indicates that Charbon was assessed as being compliant with the majority of conditions related to rehabilitation and landscape, with one condition being assessed as indeterminate (i.e. unable to determine compliance), outlined below.

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Some CoA were assessed as not applicable due largely to the timing of the requirement not having been triggered at the date of the audit.

CoA, Schedule 4, Condition 7 regarding progressive rehabilitation has been assessed as being Indeterminate. During the audit there was insufficient information provided in order to demonstrate what progressive rehabilitation had been undertaken since 2007, or demonstration of the issues that have led to a lack of 'progressive rehabilitation' during the audit period. It was noted that the AEMR (2010), mentions weather delays impacting erosion control and weed control works during the audit period.

9.8 Rehabilitation and Landscape Recommendations

Following the rehabilitation and landscape audit a range of recommendations have been provided to address areas for continual improvement at Charbon and are summarised below.

- Current weed control efforts to be more seasonally targeted across all areas of the mine, especially areas not often frequented for a range of weeds including, but not limited to: St John's Wort, Blackberry, Sweet Briar, Spear Thistle, Paterson's Curse and Thistles.
- During the audit period Charbon was undertaking an annual pest control program to shoot feral animals, it is recommended that this program is formalised into a plan with clear target species (goats, pigs, rabbits, foxes etc) and seasonal timeframes.
- In terms of the integration of rehabilitation with the surrounding land use, the RMP should provide greater detail, such as, the Indicative Final Landform figure (Figure 3, LMP), referenced in Table 2 (LMP) should show vegetation communities.
- It would be beneficial if additional Figures were included within the RMP to show the short term and long term measures in each of the rehabilitation areas.
- Monitoring data evidence for the macro-invertebrate/stream health Schedule 3, Condition 32 requiring was very basic in nature with minimal detail provided. It is recommended that the data collected for each future monitoring effort be provided by technical specialists in a more detailed manner, with field sheets, stored and filed.
- The management of topsoils and subsoils needs to be formalised to meet standards outlined within the LMP(Section 6.1.9) and coordinated by Charbon Environmental Coordinator so to not compromise the value of the topsoil stockpiles.
- Further training in topsoil management and erosion and sediment control procedures is recommended for all relevant personnel and built into 'tool box' meetings to ensure key staff work towards a common topsoil management process.
- Based on the site inspection, it is evident that the knowledge and experience of the current Environment Coordinator, Matt Grey has been key to the success of many aspects of the rehabilitation works that were observed on site. It would be pertinent for Charbon to ensure that the processes used to achieve this success is captured in company procedures, processes and records so that, in the event of personnel changeover, future staff can continue rehabilitation efforts with the same standard of rehabilitation outcomes as the successful areas sighted.
- At the time of the site inspection there was a Graduate Environmental Scientist assisting the Environmental Coordinator. This person has since moved on with no replacement. In order to carry out continued effective rehabilitation efforts, as well as maintain all other environmental coordinator functions, it is considered further environmental resources are required.
- Following the site inspection it was evident that there is room for improvement document management, in terms of file naming and version control details.

9 Rehabilitation and Landscapes Management

- The Bush Fire Risk management Plan, 2007 should be reviewed and updated by technical specialists and resubmitted and approved to reflect current baseline bushfire history and frequency information and management approaches, including revised figures (refer Section 9.4.3).
- The AEMR could be improved to include greater detail in terms of rehabilitation efforts across the mine site locations and greater detail in terms of rehabilitation timing, effort and performance measures.
- It was noted that Schedule 5, Condition 2(e) had not been addressed within the LMP and should be revised to include: “A contingency plan to manage any unpredicted impacts and their consequences” for Charbon.
- It is recommended that the section numbering needs attention throughout the LMP as inconsistencies were evident.
- Descriptions of the flora and fauna monitoring methods/requirements within the LMP should be more detailed, as per the methodologies provided by: Gingra Ecological Surveys, AES Environmental Consultancy and Aquila Ecological Surveys.
- It is recommended that the CHMP mapping **Figure 1-1** be amended to add the vegetation communities, in order to better demonstrate the communities within and around the compensatory habitat areas. It is also recommended that the CHMP show a Figure outlining the physical locations of the mapped threatened biota on site, e.g. Capertee Stringybark and fauna.
- Recommendations include the addition of forb, grass and herbaceous species into the rehabilitation species list and site seed bank collection to improve diversity and structure within all future rehabilitation efforts and to reduce weed problems. A range of area and ecological community appropriate species have been suggested in **Table 9-2**.

Table 9-2 Forb, herb and grass species to broaden current collection list

Scientific Name	Common Name
<i>Aristida ramose</i>	Purple Wiregrass
<i>Arthropodium milleflorum</i>	Vanilla-lily
<i>Austrodanthonia caespitose</i>	Common Wallaby-grass
<i>Austrodanthonia racemosa</i>	Slender Wallaby Grass
<i>Austrodanthonia setacea</i>	Bristly Wallaby Grass
<i>Austrostipa nodosa</i>	Knotty Speargrass
<i>Austrostipa scabra</i>	Corkscrew Speargrass
<i>Billardiera scandens</i>	Hairy Apple Berry
<i>Bothriochloa macra</i>	Red-leg Grass
<i>Brachyscome multifida</i>	Cut-leaf Daisy
<i>Bulbine bulbosa</i>	Native Leek
<i>Calotis cuneifolia</i>	Purple Burr-daisy
<i>Centella asiatica</i>	Pennywort
<i>Cheilanthes austrotenuifolia</i>	Rock Fern
<i>Chloris truncata</i>	Windmill Grass
<i>Chloris ventricosa</i>	Tall Windmill Grass
<i>Chrysocephalum apiculatum</i>	Common Everlasting
<i>Dampiera stricta</i>	
<i>Dianella longifolia</i>	Smooth Flax Lily

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Scientific Name	Common Name
<i>Dianella revoluta</i>	Blue Flax Lily
<i>Dichelachne hirtella</i>	Slender Plumegrass
<i>Dichelachne micrantha</i>	Short-hair Plumegrass
<i>Dichondra repens</i>	Kidney Wee
<i>Dichopogon fimbriatus</i>	Chocolate Lily
<i>Entolasia stricta</i>	Wiry Panic
<i>Geranium retrorsum</i>	Common Cranes-bill
<i>Geranium solanderi</i>	Native Geranium
<i>Glycine clandestina</i>	Twining Glycine
<i>Glycine tabacina</i>	
<i>Goodenia bellidifolia</i>	Daisy-leaved Goodenia
<i>Goodenia hederacea</i>	Forest Goodenia
<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia
<i>Juncus australis</i>	Austral Rush
<i>Lomandra filiformis</i>	Wattle Matt-rush
<i>Lomandra multiflora</i>	Many-flowered Matrush
<i>Microlaena stipoides</i>	Wallaby Grass
<i>Monotoca elliptica</i>	Tree Broom-heath
<i>Opercularia hispida</i>	Hairy Stinkweed
<i>Pandorea pandorana</i>	Wonga Wonga Vine
<i>Panicum effusum</i>	Hairy Panic
<i>Poa labillardierei</i>	Tussock Grass
<i>Poa sieberiana</i>	Snow Grass
<i>Pratia purpurascens</i>	Whiteroot
<i>Rumex brownii</i>	Swamp Dock, Slender Dock
<i>Themeda australis</i>	Kangaroo Grass
<i>Thysanotus tuberosus</i>	Common Fringe Lily
<i>Tricoryne elatior</i>	Yellow Rush-lily
<i>Viola hederacea</i>	Native Violet
<i>Wahlenbergia stricta</i>	Tall Bluebell
<i>Xerochrysum bracteatum</i>	Golden Everlasting

Air Quality

10.1 Air Quality management overview

Air quality issues for the site are generally handled under the Air Quality Management Plan (AQMP) which has been developed by SLR Consulting Australia Pty Ltd (SLR). The AQMP covers:

- The air quality criteria relevant to the site. This criteria comprises Particulate Matter in the form of particulate matter less than 10 µm in aerodynamic diameter (PM₁₀), Total Suspended Particulates (TSP) and deposited dust, which are all generated from operations at the site;
- The air quality monitoring program. The program includes high volume air samplers (HVAS) for PM₁₀ and TSP, dust deposition gauges, and real time monitors. As mining at the Western Outlier was yet to begin, real time monitoring was not being undertaken at the time of the audit site inspection. Charbon environmental staff indicate that they were in the process of obtaining quotations for a Tapered Element Oscillating Microbalance (TEOM) for conducting real time PM₁₀ and TSP measurements;
- Requirements for the analysis and reporting of data obtained through the monitoring program; and
- Details regarding control measures, response procedures and complaints handling.

The ambient air monitoring was conducted by ALS Environmental Division (ALS) in Mudgee.

Other management tools not specifically aimed at air quality however may include air quality components exist in the form of:

- An Environmental Management System for the Site, including an Environmental Risk Register;
- Documented weekly and monthly internal inspections of operational areas;
- Non-documented inspections and informal discussions; and
- Non-conformance documentation;

A number of off-site receivers surround the site, primarily to the west. A state forest borders a majority of the site to the east, hence no off-site receivers are located in this area. The mine has recently obtained receivers M (west of the Haystack open cut), T (north of the Western Outlier) and C (south of the Western Outlier). A lime works exist north of the site.

Particulate matter releases are generally observed to remain within the confines of the open cut mining areas, and in some instances can be observed at the mine area from off-site locations. One enquiry regarding dust generation was made by a neighbour 2km from the mine on 19 September 2011. The monitoring data that was available at the time of the audit site inspection indicated minimal off-site impacts, however impacts could become more pronounced as open cut operations extend closer to receivers to the south west (i.e. during operation of the Western and Southern Outliers).




The facility had its EPL varied to include a PRP to identify where improvements in particulate matter control can be implemented. This particulate matter PRP is a new approach by the EPA and Charbon was one of the first mines to have been engaged to enter into this program. Charbon had met the requirements of the PRP at the time of the audit site inspection.

10.2 Site inspection




Observations from the site inspection conducted at the time of the site audit directly relating to air quality are detailed within **Table 10-1**.

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Table 10-1 Summary of Observations Relating to Air Quality

Observation	Photo
<p>A water cart was observed to be wetting down internal haul roads to minimise dust impacts. Discussions with site personnel indicate that three water carts were available for use onsite. Staff indicated that a 30 kL and a 50 kL water truck was made available for the open cut areas, whilst an 11 kL truck was available for the coal preparation plant and export stockpile area. Only the 50 kL truck was observed in operation during the audit site inspection.</p>	
<p>Charbon own and operated two HVAS, one of which was fitted with a PM₁₀ selective filter head, and the other one was for TSP. Both HVAS' were located adjacent to resident T (mine owned). Samples were collected on a 6 day cycle by ALS.</p> <p>Calibration, maintenance and field documentation was observed indicating that Australian Standards 3580.1.1:2007, 3580.9.3:2003 and AS/NZS 3580.9.6:2003 are utilised for auditing the location of the HVAS by ALS.</p> <p>ALS <i>Certificate of Analysis</i> documentation was observed that indicates sampling and analysis of TSP and PM₁₀ was conducted in accordance with AS 3580.9.3 and AS 3580.9.6 respectively.</p>	
<p>A single meteorological station was observed onsite, located near the workshop areas. The meteorological station consisted of a propeller and vane anemometer, rain gauge and other associated infrastructure. The meteorological station measured:</p> <ul style="list-style-type: none"> • Rainfall; • Air temperature; • Humidity; • Wind direction; • Wind Speed; • Sigma Theta; • Solar Radiation; <p>The meteorological station was maintained by ALS Laboratory, who also provides a database management system. The web based database management system was observed during the site inspection.</p>	

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Observation	Photo
<p>Five dust deposition gauges were located on site, with sampling done on a monthly basis for deposited dust. ALS were engaged to conduct the collection and laboratory analysis of each deposition gauge.</p> <p>Dust deposition audit documentation provided to Charbon by ALS indicated that site sampling locations were inspected and maintained regularly to criteria outlined within Australian Standards AS 3580.1.1:2007 and AS 3580.10.1:2003.</p> <p>A Certificate of Analysis report provided to Charbon by ALS indicated that sampling of dust was conducted in accordance with AS 3580.10.1</p>	
<p>During the site inspection particulate matter releases were noticed predominantly from haul roads, and the loading and unloading of haul trucks. Charbon was at the time of the audit site inspection undertaking a trial period of using a dust suppressant (magnesium chloride) on a nominated haul road. Particulate matter releases to atmosphere were generally observed to be lower on this trial area than other haul road areas. However, no comment can be drawn on the effectiveness and feasibility of this control from the audit site inspection. The photo shows observed particulate matter releases from the haul roads.</p> <p>Particulate matter releases through wind erosion was minimal during the audit, however it is noted that little to no wind was apparent at the time</p>	
<p>In some instances a dusty haze could be seen directly near the southern open cut mine area. The plume did not appear at adjacent residences that were inspected at the time of the audit. The photo depicts the plume as seen from the entrance to resident T, which is currently mine owned and where particulate matter monitoring is conducted by high volume air samplers.</p>	

Other findings and observations made during the time of the audit included:

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- Particulate matter controls existing on site were generally associated with haul road emissions. As mentioned, the colliery has three available water trucks for controlling haul road emissions and was at the time of the audit undergoing a trial run of a dust suppressant (magnesium chloride) on a select portion of haul roads;
- Particulate matter controls on exposed surfaces (other than haul roads) and stockpiles were minimal. No wetting or seeding of exposed surfaces was undertaken. Emissions from wind erosion were observed to be minimal during the time of the audit, as no wind was apparent;
- Particulate matter controls at the CHPP area were minimal. It is understood a water cannon was available if needed, however was rarely used. A water truck was also available for this area. CHPP staff indicated that due to the wet process associated with the coal washing, requirements for dust controls were considered minimal. No dust releases from the CHPP area were observed during the time of the audit;
- Above ground conveyors were typically enclosed on three sides. No pronounced particulate matter releases were observed from the conveyors during the site inspection. Charbon staff indicated that no wet suppression is used on the crusher or other conveying equipment.
- During the site walk around at offsite locations it was noted that in some areas, a white plume could be seen emanating from the nearby lime plant (not owned or operated by Charbon).

10.3 Air Quality Management Plan adequacy review

A review of the AQMP was conducted with observations made regarding the following components of the AQMP:

- Baseline air quality data;
- Quantity and location of monitoring points, specifically dust deposition gauges;
- The determination of TSP through estimation rather than monitoring;
- The air quality monitoring protocol for evaluating compliance with relevant criteria; and
- The protocols to ensure that air monitoring and meteorological monitoring data are assessed regularly.

Each of the identified components is discussed below.

10.3.1 Baseline Data

No baseline data for particulate matter (TSP, PM₁₀ or deposited dust) had been nominated for the project and/or site. Baseline data should be nominated within the AQMP and is of importance when determining incremental air impacts associated with the Charbon Colliery operations. CoA, Schedule 5, Condition 2 requires that all management plans must include detailed baseline data.

Recommendation:

It is recommended that the AQMP be revised to include baseline data where appropriate.

10.3.2 Monitoring Points

The following discussions were drawn from the review of the monitoring program contained within the AQMP.

Dust Deposition Gauges

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The number and location of dust deposition gauges was considered inadequate for a project of this type and size (in terms of footprint). Whilst current deposition gauges may capture potential impacts from current operations, there are currently limited deposition gauges adequately positioned to establish impacts associated with operations within other areas (predominately the Western and Southern Outliers).

Recommendation:

It is recommended that the AQMP be revised to provide dust deposition monitoring gauges at key areas surrounding the Western and Southern Outliers. At the time of the site inspection for the audit only one deposition gauge existed in this area (referred to as Nioka) and was positioned north of the Western Outlier. This location may not be suitable for establishing impacts from operations (at the Western and Southern Outlier) on residents H, G, F, B or A.

The AQMP only accounted for four of the five existing deposition gauges. It is recommended the AQMP be updated to include all current gauges and any future gauges proposed (established from the above recommendation).

Consideration should also be given to the use of deposition gauges at other locations around the site. It is understood that some open cut operations are winding down, whilst other areas will open. Duplication of sampling at site should also be considered, however contamination of gauges through bird droppings, insects or organic matter hasn't presented an issue since project approval.

High Volume Air Samplers

Currently HVAS are utilised adjacent to Residence T.

Recommendation:

Consideration should be given to the use of HVAS at other locations and at varying frequencies, especially during the Operations within the Western and Southern Outliers. The following factors may play a part in the consideration:

- The provision of power to the samplers maybe restricted;
- Access to other locations may also be restricted;
- A small network of upwind / downwind monitors may provide useful information on the impact of the Western Outlier. Receptors T and C maybe suitable;
- The frequency of high volume samples taken maybe elevated at the beginning of the mining of outlier areas, but may decrease as the operations at the Outliers reach the end of the life; and
- The use of HVAS at specific locations as a response mechanism to complaints or observations.

Real Time Instruments

The AQMP includes the use of real time measurement of particulate matter, specifically to be used during the mining of the Western Outlier. The AQMP states:

- In Section 6.2 that a *"Tapered Element Oscillating Microbalance (TEOM) will be installed at residence G in order to measure PM₁₀ concentration to the east of the Western Outlier"*. It is believed that Residence G is west of the Western Outlier, and hence there appears to be a typographic error within this section;
- Table 7 describes the TEOM location as the Eastern boundary of the Western Outlier. This appears to be a typographic error, as it is understood that the TEOM is proposed to assess impacts on the receivers west of the Western Outlier;

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Recommendation:

It is recommended that the TEOM be utilised as a dichotomous air monitoring station (i.e. to monitor both PM₁₀ and TSP). It is understood that Charbon staff were obtaining quotes for instruments to measure both PM₁₀ and TSP at the time of the site inspection for the audit.

Consideration should also be given to the inclusion of an anemometer and wind vane within the TEOM setup, so as to adequately capture wind direction and wind speed at the same location as real time particulate matter data.

10.3.3 Total Suspended Particulate Monitoring

Section 6.2 of the AQMP states that *"PM₁₀ monitoring data from the real-time monitors is used to estimate annual average TSP levels. Monitored annual average PM₁₀ levels will be approximately 40% of annual average TSP levels. This estimation method for the determination of annual average TSP levels is recognised by the DECCW"*.

Given the proximity of receivers to the Western Outlier the estimation of TSP concentrations from PM₁₀ concentrations is not considered suitable. Compliance with impact assessment criteria and land acquisition criteria would be difficult to establish if TSP concentrations were estimated.

Recommendation:

It is recommended that the TEOM be utilised as a dichotomous air monitoring station. Whilst it is understood that the Western Outlier may only occur for a number of months, and the TSP criteria is stipulated over an annual average, the overall site operations is expected to continue for some years.

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10.3.4 Evaluating Compliance with Relevant Criteria

Section 7.1 of the AQMP provides the methodology for determining compliance with air quality criteria, specifically for PM₁₀ over a 24 hour averaging period. The method describes how compliance is demonstrated by subtracting the results recorded from the upwind monitors from the results recorded at the relevant downwind monitors. The air quality monitoring program consists of only one real time monitor currently; hence it is unclear how this protocol is applied.

Recommendation:

It is recommended that the AQMP be updated to provide:

- A more accurate protocol for evaluating compliance with relevant criteria. The protocol should provide an accurate representation of the air quality monitoring conducted at the facility, and have separate procedures for high volume, real time, and deposition sampling instruments where differences in the data analysis exists; and
- Provide more detail on the determination of regional dust events given that only one real time instrument is proposed;

10.3.5 Protocols for Assessing Data Regularly

Recommendation:

It is recommended that the AQMP provide a more detailed procedure / protocol for assessing data regularly, specifically in relation to the real time monitoring to be undertaken. The protocol should give specific details and may include:

- The naming of key personnel and their responsibilities;
- The use of trigger levels from real time instrumentation. The trigger levels may consider the use of a 24 hour rolling average, however a short-term (e.g. 30 minute average of 150 µg/m³) trigger level may allow for suitable site responses. Trigger levels may also be linked to meteorological data (i.e. high wind speed) if deemed appropriate;
- The use of telemetry to notify environmental personal should be considered and described within the AQMP. The notifications may directly relate to the trigger levels nominated; and
- Additional response mechanisms should also be outlined (i.e. additional monitoring and additional controls) or when a stop work notice should be issued;

10.4 Air Quality monitoring

Air quality monitoring data was provided to the auditors by Charbon in a spreadsheet format. A review of the data has been conducted from the date of project approval (7th September 2010) to 27th January 2012. The review of the data is outlined below.

10.4.1 Dust Deposition

CoA, Schedule 3 Condition 19 (Table 10) and Condition 20 (Table 13) detail the deposited dust impact assessment criteria. The impact assessment criteria of deposited dust are as follows:

- Maximum increase in deposited dust level: 2 g/m²/month (annual averaging period)
- Maximum total deposited dust level: 4 g/m²/month (annual averaging period)

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A Dust Audit Certificate document was cited (ALS document ID: MF62.03) providing a summary of the compliance of each gauge with Australian Standards AS/NZS 3580.1.1:2007 (*Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment*) & AS/NZS 3580.10.1:2003 (*Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method*). This indicated that dust gauges were regularly inspected, and corrective actions noted if needed. Certificate of Analysis reports provided to Charbon by ALS indicated that depositional dust sampling was being conducted in accordance with AS 3580.10.1.

As the criteria were established on an annual averaging period, only the analytical results for 2011 have been reviewed in detail. During 2011 deposited dust levels were collected at four of the five dust gauges. It was noted that monitoring at one of the gauge locations had ceased (Tanhausen residence, referred to as “DM – Tanhausen”), and the gauge was relocated to another location at the end of 2011 (Craze residence, referred to as “DM – Craze”). The annual average dust deposition levels (as insoluble solids) for each gauge for 2011 is provided in **Table 10-2**.

Table 10-2 Summary of Deposition Data for 2011

Location	Deposited Dust (g/m ² /month, annual average)	Compliance Achieved
Pit Top	0.7	Yes
DM – South	1.3	Yes
DM – West	0.4	Yes
Nioka	0.6	Yes

As the annual average deposited level was below the maximum allowable increase of 2 g/m²/month, the site was considered to be in compliance for the audit period. However it is unclear to what extent the mine has attributed to the local deposited dust levels as baseline data has not been nominated within the AQMP.

10.4.2 High Volume Air Samplers

CoA, Schedule 3, Condition 19 (Tables 8 and 9) details the impact assessment criteria for TSP and PM₁₀.

The short-term impact assessment criteria for particulate matter is:

- 24 hour PM₁₀ concentration: 50 µg/m³

The long term impact assessment for particulate matter is:

- Mean annual TSP concentration: 90 µg/m³; and
- Mean annual PM₁₀ concentration: 30 µg/m³

ALS Certificate of Analysis documentation (issue date 6/2/2012) indicated that high volume air sampling was conducted in accordance with AS 3580.9.3 (*Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method*) and AS 3580.9.6 (*Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM₁₀ high volume sampler with size-selective inlet – Gravimetric method*).

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Figure 10-1 provides a summary of the PM₁₀ and TSP concentrations from the high volume air samples located adjacent to receptor T. **Table 10-3** details the relevant monitoring results and their compliance with relevant criteria.

Table 10-3 Summary of Particulate Matter Data for 2011

Pollutant & Averaging Period	Concentration (µg/m ³)	Compliance Achieved
PM ₁₀ – Maximum 24 hour average ¹	19.7	Yes
PM ₁₀ – Annual average ²	9.3	Yes
TSP – Annual average ³	16.8	Yes

Notes: ¹ Maximum concentration of PM₁₀ samples from 10/09/2010 to 27/01/2012
² Annual average of PM₁₀ samples from 2/01/2011 to 28/12/2011 (i.e. for 2011)
³ Annual average of TSP samples from 2/01/2011 to 28/12/2011 (i.e. for 2011)

10.4.3 Real-Time Monitoring

Condition 22 of Schedule 3 describes the use of real-time monitors to monitor impacts during mining operations for the Western Outlier. At the time of the audit, mining operations at the Western Outlier had not begun, nor had real-time instrumentation been installed. At the time of the audit site inspection Charbon staff were in the process of obtaining quotes for the installation of a PM₁₀ and TSP real time instrument.

10.5 Air Quality Complaints

A review of the Charbon complaints register indicated that no complaints (with relation to air quality) were received since the project approval to the date of the audit site inspection.

10.6 Compliance with Regulatory Requirements

The approval condition checklist (Appendix A) indicates that Charbon was assessed as being compliant or indeterminate (i.e. unable to determine compliance) with the majority of conditions. Two non-compliances were recorded relating to the adequacy of the AQMP. The inadequacies determined from the review are largely discussed above however as a general comment the AQMP specifically lacks overall detail (e.g. no roles and responsibilities have been nominated). Consideration should also be given to providing more detail in the AQMP to describe key air quality issues and response mechanisms (i.e. through the deployment of additional monitoring) for specific mining areas of the site (i.e. the Western and Southern Outliers). A detailed assessment of compliance is provided in Appendix A. Many recommendations are based around continuous improvement opportunities identified during the audit and do not necessarily represent immediate or potential non-compliance issues.

10.7 Air Quality Recommendations

A number of recommendations have been made in this Chapter and are summarised in brief below:

- It is recommended that the AQMP be revised, especially in relation to the following areas:
 - Inclusion of baseline data (refer Section 10.3.1);
 - Installation of additional dust deposition gauges and inclusion in the AQMP of all existing dust gauges (refer Section 10.3.2);

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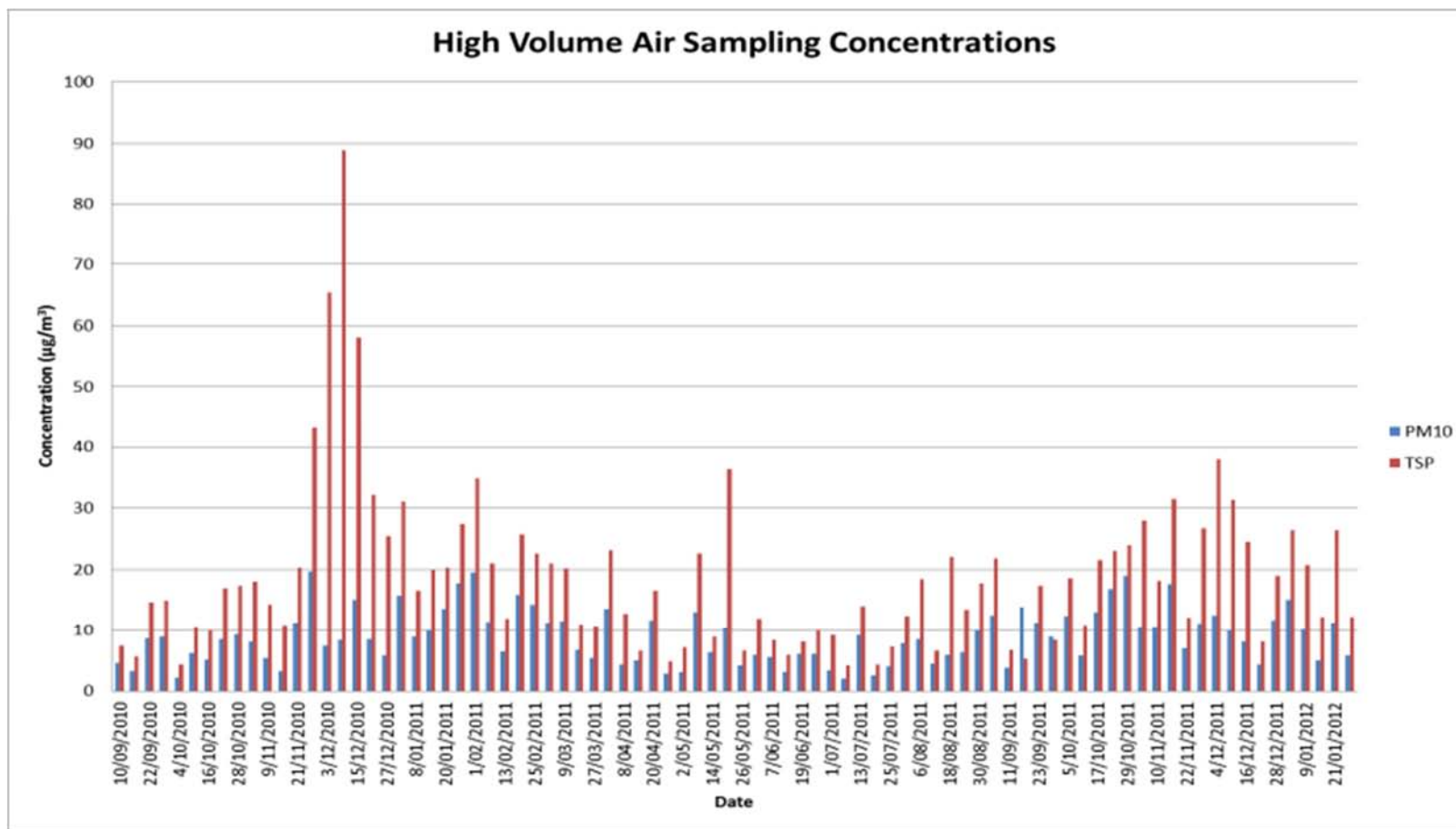
- Consideration of additional HVAS monitoring locations (refer Section 10.3.2);
- Consideration of using the TEOM to monitor both PM₁₀ and TSP and inclusion of an anemometer and wind vane within the TEOM;
- Sampling methodologies for real-time measurement of TSP;
- Protocol for assessing compliance (refer Section 10.3.4; and
- Protocol for assessing real-time data regularly (refer Section 10.3.5).

In addition to the recommendations and considerations previously discussed the following is provided.

Particulate matter issues are expected to become more pronounced as the mine operations extend closer to residential areas (i.e. adjacent to the Western and Southern Outliers). Particulate matter controls are likely to become essential to ensuring ongoing compliance in these locations. It is recommended that consideration be given to additional control measures & management (i.e. limiting stockpile sizes and/or seeding of exposed surfaces). As part of the ongoing management of air quality, consultation with the open mining contractors will become critical. The pollution reduction scheme issued under the EPL for the site and the ongoing discussions with the EPA and other key experts is aimed at assisting the implementation of such controls and management practices. Specifically, the open cut contractors need to ensure they adequately adopt any control measures that are required.

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Figure 10-1 Summary of Particulate Matter Sample Results





Hydrocarbon Management

This section discusses observations and considerations in regard to hydrocarbon management at Charbon. While this audit did not comprise a hydrocarbon or hazardous goods audit, some observations were made on the management of hydrocarbons and are presented below.

10.8 Observations

Hydrocarbon management observations are discussed in **Table 11-1**. Both Charbon and Big Rim have various hydrocarbon stores and workshops where hydrocarbons are used across the site. The standard of hydrocarbon management varied across the site.

Table 0-1 Summary of Observations Relating to Hydrocarbon Management

Observation	Photo
<p>Pit Top Compressors:</p> <p>Compressors showing a decommissioned compressor that had been a source of hydrocarbon contamination of soils as identified by EPA in the 2010 AEMR Inspection. A new compressor has been installed to address the source of the problem. Some surface staining of soils was evident.</p>	
<p>Pit Top Hydrocarbon Storage Area. Oil is stored in a bunded location and no staining from spills was observed in this location.</p>	

11 Hydrocarbon Management

Big Rim Workshop and Hydrocarbon Storage Areas.
Bulk containers stored in bunded container.



Above Ground diesel fuel tanks and filling point with some spills of diesel evident.



Drums and bulk containers stored adjacent the diesel bunded area at the Big Rim workshop.



11 Hydrocarbon Management

Wash water drainage from the wash bay at the Trunk 8 workshop. Washwater from the wash bay drains over the surface to a flat low point where wetland plants have established.



The Trunk 8 Workshop and washdown bay.



Drainage Area downstream of Trunk 8 Workshop. The large flat area downstream of the workshop provides for some water treatment by settlement of fines. It was reported that runoff from the area does not generally occur.



11 Hydrocarbon Management

The photos above indicate that the standard of hydrocarbon management was mixed across the site. In some areas, such as at the Pit Top area and at the Big Rim workshop, there were self bunded containers for bulk storage of hydrocarbons. In other areas, particularly the Trunk 8 Workshop area, hydrocarbon management was poor with evidence of lack of containment of hydrocarbons, hydrocarbon staining of soils and generally poor housekeeping.

10.9 Soil and Groundwater Contamination Investigations

Charbon indicated that a Phase 1 Contamination Assessment was carried out in 2010. The 2011 AEMR stated that *"In August 2010 AECOM was engaged to complete a Phase 1 Environmental Site Assessment (ESA) at Charbon Colliery. The work undertaken for the Phase 1 ESA comprised a desktop review of available information to assess the environmental setting and identify potential sources of contamination resulting from current and historical land use. A site inspection was also conducted. Additionally a qualitative risk assessment was also undertaken based on the findings of the desktop review and site inspection, ranking the potential risks that the site poses to human health and the environment."*

The Phase 1 ESA identified areas of environmental concern predominantly relating to past storage/handling of fuel and oil; and equipment storage and maintenance. The Phase 1 ESA recommended that an additional Phase 2 ESA be undertaken to investigate areas not previously assessed that have been identified in this Phase 1 ESA as being potentially contaminated. The additional Phase 2 ESA may also include a groundwater investigation in previously identified and potentially contaminated areas. Following a Phase 2 ESA, the current Remedial Action Plan for the Third Entry Workshop, artificial wetland and Main Pit Top Area Fuel Storage and Handling Area would be revised as appropriate and implemented.

In accordance with the recommendations of the Phase 1 ESA, Charbon Coal will engage a specialist consultant to complete a Phase 2 ESA in 2012.

URS did not sight the Phase 1 report. Charbon indicated that a number of measures had been undertaken to improve hydrocarbon management at Charbon, and that a number of initiatives were still to be implemented. Ongoing improvements were recognised by Charbon management to be required and indicated it would be a process of continual improvement over a period of time to get the site to a suitable standard.

It is noted that in the 2010 AEMR inspection (conducted on site in 2011) the EPA had concerns with three areas regarding hydrocarbon pollution. Charbon indicated that the concerns were raised verbally only.

10.10 Recommendations

URS has not completed a detailed hydrocarbon audit at the site and has not reviewed reports on contamination of soils on site. URS recommends that further initiatives are developed and implemented to reduce the potential for hydrocarbon contamination on site and to clean up existing areas of contamination. This will include the provision of further infrastructure and a change in existing management practices for hydrocarbons. Notwithstanding this, it was noted that Charbon are aware of the issues and have made some good progress towards addressing these, such as installation of bunded storage areas for bulk containers.

Summary of Non Compliances and Recommendations

Some Non compliances have been identified with the CoA, EPL conditions and Mining Lease conditions. These Non compliances as well as the requirements assessed as Indeterminate and the associated recommendations have been consolidated and are summarised in **Table 12-1**. For a number of requirements that were assessed as Compliant or Not Applicable, recommendations were made where continuous improvements were identified. These requirements and recommendations are summarised in **Table 12-2**. Recommendations relating to the adequacy of the various plans / programs are discussed in **Chapters 7 – 11** and in **Table 6-1** and have not been reproduced in this Section.

12 Summary of Non Compliances and Recommendations

Table 11-1 Summary of conditions / requirements assessed as Non-Compliant or Indeterminate and Recommendations

Condition No.	Condition	Comments	Compliance Status/Recommendations																		
Project Approval 08_0211																					
2.8	Within 12 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents for the project in accordance with sections 75YA and 104A of the EP&A Act and clause 97 of the EP&A Regulation, to the satisfaction of the Director-General.	Charbon requested an extension of the timeframe for the surrender of existing development consents in a letter dated 5.9.11. An extension until the 31.10.11 was granted by DP&I by letter dated 5.11.11. Charbon requested a further extension in a letter dated 28.10.11 on the basis of delays in obtaining third party land owner consent to surrender development consents. Approval for an extension until the 21.2.12 was granted. At the time of writing Charbon indicated that it was still waiting for landowner consent. Given this, Charbon could not demonstrate compliance with the Condition.	Non-Compliant																		
3.4	<p>The Proponent must achieve the modelled sound power levels for the equipment listed (or equivalent) in Table 4 below, within 6 months of the date of approval, or as otherwise agreed by the Director-General.</p> <p><i>Table 4: Modelled Plant Noise Sound Power Levels</i></p> <table><tr><th>Plant and Equipment</th><th>Make and Model</th><th>Modelled LA_{max} sound power level (SWL)</th></tr><tr><td>Coal Processing Plant</td><td>N/A</td><td>107 dB(A)</td></tr><tr><td>Haul Truck</td><td>CAT 775</td><td>116 dB(A)</td></tr><tr><td>Dozer</td><td>CAT D11</td><td>122 dB(A)</td></tr><tr><td>Front-end Loader</td><td>CAT 992</td><td>121 dB(A)</td></tr><tr><td>Drill 10</td><td>N/A</td><td>116 dB(A)</td></tr></table>	Plant and Equipment	Make and Model	Modelled LA _{max} sound power level (SWL)	Coal Processing Plant	N/A	107 dB(A)	Haul Truck	CAT 775	116 dB(A)	Dozer	CAT D11	122 dB(A)	Front-end Loader	CAT 992	121 dB(A)	Drill 10	N/A	116 dB(A)	Verification Report prepared by Spectrum Acoustics (Neil Pennington) has been sighted. This identifies that the modelled sound power levels listed in Table 4 have been achieved, with the exception of the 'Drill 10'. The report noted that no drill was on site at the time of the measurements. The verification report is dated 6.7.11 and identifies that measurements were undertaken on 3.5.11; outside the six month (from date of approval) window.	Non-Compliant - with respect to Drill 10 omission and timing of deliverable. Recommendation: Charbon to carry out sound power level measurements of Drill 10 to confirm full compliance with this condition.
Plant and Equipment	Make and Model	Modelled LA _{max} sound power level (SWL)																			
Coal Processing Plant	N/A	107 dB(A)																			
Haul Truck	CAT 775	116 dB(A)																			
Dozer	CAT D11	122 dB(A)																			
Front-end Loader	CAT 992	121 dB(A)																			
Drill 10	N/A	116 dB(A)																			
3.5	<p>The Proponent shall provide a verification report to ensure that the sound power levels in condition 4 are achieved to the satisfaction of the Director-General. This report must be:</p> <ul style="list-style-type: none">submitted to DECCW and the Department within 8 months of this approval or as otherwise agreed by the Director-General; andprepared by a suitably qualified expert, whose appointment is approved by the Director-General.	Verification Report prepared by Spectrum Acoustics (Neil Pennington) has been sighted. This identifies that the modelled sound power levels listed in Table 4 have been achieved, with the exception of the 'Drill 10'. The report noted that no drill was on site at the time of the measurements. The verification report is dated 6.7.11 and therefore outside the eight month (from date of approval) window. A registered post receipt to the DP&I (Carl Dumbleton) was sighted. No evidence that the report was submitted to OEH was provided.	Non-Compliant - with respect to timing. Recommendation: Charbon to ensure that the Verification Report prepared by Spectrum Acoustics has been submitted to EPA.																		
3.28	The Proponent shall not discharge any water from the site or irrigate any waste water except as may be expressly provided by an EPL, or in accordance with section 120 of the Protection of the Environment Operations Act 1997.	Charbon discharges water (effluent) to land at locations listed in its EPL (O4). The EPL lists licensed discharge points. Refer to assessment of compliance with the EPL. Some incidents have occurred where discharges were outside of licence criteria. These are detailed in the assessment against the EPL.	Non – Compliant See EPL Compliance Assessment																		
3.33	<p>The Groundwater Monitoring Program must include:</p> <p>(a) baseline data of the natural variation in groundwater levels, yield and quality;</p> <p>(b) groundwater impact assessment criteria (including for monitoring bores and privately-owned bores);</p> <p>(c) a program to monitor the impacts of underground or open cut mining on groundwater resources.</p>	Auditor has sighted the GWMP prepared by GHD dated September 2011. The plan addresses the requirements of items (a) to (c) of the condition. No regular groundwater monitoring takes place on site, and out of the 2 bores listed in the plan only one is operable.	Non-Compliant. Recommendation: Implement groundwater monitoring requirements as detailed in the program.																		
3.43	<p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the project;</p> <p>(b) ensure no outdoor lights shine above the horizontal; and</p> <p>(c) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Director-General.</p>	<p>Charbon has not formally assessed visual and off site lighting impacts of the project and no formal process has been followed to mitigate any impacts.</p> <p>Charbon could not demonstrate that outdoor lights do not shine above the horizontal or that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting; to the satisfaction of the Director-General.</p> <p>Charbon has sought and received a proposal to conduct the required assessments to meet compliance with this condition. The proposal had not been formalise with a work order prior to the audit.</p> <p>Charbon notes that there have been no complaints regarding lighting or visual impacts from the mine in the period of the approval. It also noted that lights not required are turned off as part of a site Energy Savings Action Plan.</p>	Non-Compliant Recommendation: Conduct a lighting assessment to demonstrate compliance with this condition.																		

12 Summary of Non Compliances and Recommendations

Condition No.	Condition	Comments	Compliance Status/Recommendations
4.5	To the extent that mining operations permit, the Proponent shall carry out rehabilitation progressively, that is, as soon as reasonably practicable following the disturbance.	Charbon last conducted rehabilitation activities in 2007. Since this time operations have been focussed in the Southern Open Cut. Charbon reported that the mine had not been progressively rehabilitated since 2007 "To the extent that mining operations permit", due to what it has indicated are DP&I approval delays. Charbon indicated that these delays have meant going back into the open cut to extract coal from other seams, and hence preventing rehabilitation occurring. Progressive rehabilitation was evident within planned 2012 works (visually and via documents such as; Rehabilitation Provisioning Spread sheet, 2012, invoices, correspondence etc.), however this is not part of this audit period. During the audit site inspection the following was noted: Progressive rehabilitation has been assessed as being Indeterminate. During the audit there was insufficient information provided in order to demonstrate what progressive rehabilitation has been undertaken since 2007, or demonstration of the issues that have led to a lack of 'progressive rehabilitation' during the audit period. It was noted that the AEMR (2010), mentions weather delays impacting erosion control and weed control works during the audit period. Over a longer term view, the 2007 rehabilitation could be defined as progressive, particularly if proposed rehabilitation planned for 2012 is undertaken.	Indeterminate
5.6	The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	An incident comprising an exceedance of Total Suspended Solids occurred between 1-10th of December 2010. While the incident was reported to OEH at the time, Charbon did not report the incident to DP&I until 29.01.11, which was outside the requirement of within 7 days.	Non-Compliant Recommendation: Include the requirement to report incidents to the DP&I within 7 days in the relevant notification and reporting procedures. .
Statement of Commitment			
3.2	Prepare an Updated Noise Model within 12 months of the Project Approval	No evidence was sighted of the noise model having been updated.	Non-Compliant Recommendation: Update the Noise Model for the project.
5.2	Prepare an Updated Air Quality Model within 12 months of the Project Approval	No evidence was sighted of the noise model having been updated.	Non-Compliant Recommendation: Update the Air Quality Model for the project.
6.1	Prepare an Energy Savings Action Plan in accordance with the requirements of DECCW.	No ESAP was sighted during the audit.	Non-Compliant Recommendation: Prepare and Implement an Energy Savings Action Plan.
13.1	Prepare and Implement a Soil Management Plan.	A Plan was developed as part of the Landscape Management Plan, however some findings regarding the management of topsoils were made in the assessment of implementation of this Plan.	Non-Compliant – see recommendations for the Project Approval – Landscape Management Plan.
14.2 and 14.3	Monitor all accessible registered bores in the vicinity of the Project site, subject to landholder approval, for laboratory based water quality analysis (Monthly and Annually).	No evidence was sighted of monitoring of adjacent bores as per the condition.	Non-Compliant Recommendation: Conduct monitoring as required of the condition.
EPL 528			
P1.1	Location of monitoring/discharge points and areas The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	Noted. Refer to comments in condition P1.2 L 2.4	Indeterminate (see below)

12 Summary of Non Compliances and Recommendations

Condition No.	Condition	Comments	Compliance Status/Recommendations																				
P1.2	<p>The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.</p> <table border="1"> <thead> <tr> <th colspan="4">Water and land</th></tr> <tr> <th>EPA Identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr> </thead> <tbody> <tr> <td>1</td><td>Discharge to utilisation area</td><td>Discharge to utilisation area</td><td>Utilisation area labelled as 'Sewer Irrigation Area' on Charbon Colliery Plan dated 26/06/01.</td></tr> <tr> <td>2</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring</td><td>Discharge point (LDP2) from sedimentation dam to Reillys Creek as indicated in figure named "Charbon Colliery LDP2 and associated pollution control structures" received by the EPA 23/2/11</td></tr> <tr> <td>3</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring.</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring.</td><td>Discharge point from southern open cut sedimentation dam labelled as 'LD3' in 'Figure 2: Charbon Colliery Environmental Monitoring Locations' in the 'Charbon Coal Annual Environmental Management Report Jan-Dec 2007' dated January 2008.</td></tr> </tbody> </table>	Water and land				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Discharge to utilisation area	Discharge to utilisation area	Utilisation area labelled as 'Sewer Irrigation Area' on Charbon Colliery Plan dated 26/06/01.	2	Discharge to waters; Discharge quality monitoring; Volume monitoring	Discharge to waters; Discharge quality monitoring; Volume monitoring	Discharge point (LDP2) from sedimentation dam to Reillys Creek as indicated in figure named "Charbon Colliery LDP2 and associated pollution control structures" received by the EPA 23/2/11	3	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge point from southern open cut sedimentation dam labelled as 'LD3' in 'Figure 2: Charbon Colliery Environmental Monitoring Locations' in the 'Charbon Coal Annual Environmental Management Report Jan-Dec 2007' dated January 2008.	<p>At the time of the audit these discharges were noted.</p> <p>GHD undertook a review of Water Licensing in April 2011 as part of the preparation of the WMP. This document was reviewed and together with review of the monitoring data, records obtained and the site observations made during the audit, the following amendments to licenses was recommended by GHD:</p> <ul style="list-style-type: none"> - For EPL 528: addition of LDP4, LDP5, LDP6 (3 additional points with respective volumetric allowances) to cater for the Rail Loop dam, Western Open Cut dam, and Central Open Cut dam respectively - Surface water license: obtain additional license for (i) Erosion Dam, (ii) proposed Rail Loop Dam, (iii) proposed Central Primary Pollution Control Dam, (iv) proposed Western Primary Pollution Control Dam. It was recommended that licensing of the Third Entry Evaporation Dam be investigated with DECCW (now OEH). <p>Members of the audit team spoke with EPA Officer (Sheridan Ledger) and confirmed that the EPA was aware that Charbon was to request a licence variation to modify the locations and numbers of the LDPs. Charbon was in the process of developing a licence variation application at the time of the audit.</p> <p>Given the process in place to vary the licence this condition is considered Indeterminate.</p>	<p>Indeterminate</p> <p>Recommendation:</p> <p>Proceed with Licence Variation to finalise actions as per the GHD water licence review including location and number of LDPs.</p>
Water and land																							
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																				
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3	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge point from southern open cut sedimentation dam labelled as 'LD3' in 'Figure 2: Charbon Colliery Environmental Monitoring Locations' in the 'Charbon Coal Annual Environmental Management Report Jan-Dec 2007' dated January 2008.																				
L1.1	<p>Pollution of waters</p> <p>Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.</p>	<p>It is noted that the licence does not have limits for EC and metals. Levels for EC are elevated in some results (in ranges from up to 2000 uS, often above 800 uS). Some metals analysis has been completed, however data has not been interpreted to judge if results are outside of normal criteria for these analytes.</p> <p>On this basis there is a potential for interpretation of pollution outside this condition to have occurred. This is a legal consideration and not considered further in this report. On this basis the condition is deemed Indeterminate.</p>	<p>Indeterminate</p> <p>Recommendation:</p> <p>It is recommended that Charbon review water quality results outside of the licence requirements (including EC and metals, and any discharges not within LDPs) to confirm that this condition is being complied with.</p>																				
L2.1	<p>Concentration limits</p> <p>For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.</p>	<p>URS sighted a number of Annual Return reports documenting the results of monitoring as well as raw monitoring data records kept on site (Environment and Community Database –ECD). The records show a number of TSS concentration exceedances, during the discharge event over a number of days in December 2010.</p> <p>A letter to the EPA dated 12/1/2011 reported the following:</p> <p><i>A high rainfall event over period 01/12/10 to 10/12/10 (186mm) led to continual discharge, from the 2nd December to the 10th December, of water from 1 dam which is LDP 3 and intermittent discharge from LDP 2. Daily sampling and analysis (at an independent laboratory) from both sites showed average TSS of 270 mg/l at LDP2 and >999 mg/l at LDP3. EPL limit is 50 mg/l. Volumes were estimated at an average of 4-5 ML/Day with a maximum of approximately 14 ML/day from LDP3 and approximately 10ML/day from LDP2.</i></p> <p><i>Water tested downstream from the discharges showed suspended solids had dropped out before entering the general catchment, with an average TSS of 17.5 mg/l at Mt View Dam and 17 mg/l at DS LD2. (See plan of sampling sites, attached). This leads to my view that there was no material harm to the environment as a result of this incident.</i></p> <p>As indicated elsewhere in this report, Charbon undertook a number of initiatives as required in the PRP under this licence. This has minimised subsequent discharges from site.</p> <p>While the ECD data indicates general compliance with the requirements, on the basis that Charbon have not met the criteria on all sampling occasions (such as during the December 2010 discharge event), it is considered that Charbon are not compliant with this condition.</p>	<p>Non-Compliant. I</p> <p>Recommendations:</p> <p>It is recommended that Charbon continue to complete required actions to improve water quality, and to monitor the performance of existing controls to assess the effectiveness of the controls.</p> <p>It is recommended that the water quality monitoring program as stipulated in the WMP be implemented paying particular attention to improving QA/QC procedures for sampling and reporting of data.</p>																				

12 Summary of Non Compliances and Recommendations

Condition No.	Condition	Comments	Compliance Status/Recommendations																																																
L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.	Charbon also test for other pollutants as BOD, EC, metals, and other analytes with the date reported in the ECD. The auditors note that this testing appears to be random and inconsistent and may not have been sufficient at the time of the audit to be definitive. There is an opportunity to improve the consistency of testing for the above analytes to be better able to link potential pollution impacts with water quality monitoring. A review of the ECD test records reveal levels for EC are elevated in some results (in ranges from up to 2000 uS, often above 800 uS). On this basis there is a potential for interpretation of pollution outside this condition to have occurred. This is a legal consideration and not considered further in this report. On this basis the condition is deemed Indeterminate.	Indeterminate Recommendation: It is recommended that Charbon consider potential pollution impacts when conducting water monitoring outside of monitoring requirements of the EPL.																																																
L2.4	Water and/or Land Concentration Limits POINT 2 <table><tr><th>Pollutant</th><th>Units of Measure</th><th>-</th><th>90 percentile concentration limit</th><th>3DGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td></td><td></td><td></td><td>50</td></tr></table> POINT 3 <table><tr><th>Pollutant</th><th>Units of Measure</th><th>-</th><th>90 percentile concentration limit</th><th>3DGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td></td><td></td><td></td><td>50</td></tr></table>	Pollutant	Units of Measure	-	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	Pollutant	Units of Measure	-	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	As per L2.1.	Non-Compliant. As per L2.1.
Pollutant	Units of Measure	-	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit																																														
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L3.1	Volume and mass limits For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a) liquids discharged to water; or; b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area. <table><tr><th>Point</th><th>Unit of Measure</th><th>Volume/Mass Limit</th></tr><tr><td>2</td><td>kilolitres per day</td><td>5000</td></tr><tr><td>3</td><td>kilolitres per day</td><td>5000</td></tr></table>	Point	Unit of Measure	Volume/Mass Limit	2	kilolitres per day	5000	3	kilolitres per day	5000	URS sighted the results of the monitoring as presented in the Annual Return and raw data records. Records for 2011 and 2012 (to date of audit inspection) records show compliance throughout, however records for 2010 shows non-compliant discharges due to excessively heavy rain in December which overtopped all dams. This was reported in the AEMR. A letter to the EPA dated 12/1/2011 reported the following: <i>A high rainfall event over period 01/12/10 to 10/12/10 (186mm) led to continual discharge, from the 2nd December to the 10th December, of water from 1 dam which is LDP 3 and intermittent discharge from LDP 2. Daily sampling and analysis (at an independent laboratory) from both sites showed average TSS of 270 mg/l at LDP2 and >999 mg/l at LDP3. EPL limit is 50 mg/l. Volumes were estimated at an average of 4-5 ML/Day with a maximum of approximately 14 ML/day from LDP3 and approximately 10ML/day from LDP2.</i> Based on the non-compliances in December 2010, this condition is considered non-compliant. Since 2010, a number of actions have been put in place as part of a PRP to reduce the risk of further discharges. This is discussed in this checklist below and in the main report.	Non-Compliant Recommendation: It is recommended that Charbon continue to complete required actions to improve water quality, and to monitor the performance of existing controls to assess the effectiveness of the controls.																																							
Point	Unit of Measure	Volume/Mass Limit																																																	
2	kilolitres per day	5000																																																	
3	kilolitres per day	5000																																																	
O3.1	Dust The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Particulate matter controls existing at the site are limited to wet suppression of haul roads. Whilst additional controls that prevent the emission of dust maybe conducted, it is unclear to the feasibility and or benefit from such controls, given that monitoring data to date suggest no elevated dust levels.	Indeterminate																																																

12 Summary of Non Compliances and Recommendations

Condition No.	Condition	Comments	Compliance Status/Recommendations
M3.1	Testing methods - concentration limits Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	ALS is commissioned to conduct most of the monitoring activities at Charbon. ALS is a NATA accredited organisation and was expected to follow industry standard procedures. Notwithstanding this, Charbon were not able to demonstrate the all methods are done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing.	Indeterminate Recommendation: Charbon should confirm with ALS that the Approved methods or other methods as approved by the EPA are used by ALS for all Charbon analyses.
CCL 732			
1.	Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice. If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.	The CCL was renewed in 1989 (1st granted) at this time the only notifiable landholder was the State Forest. No evidence of notification was able to be provided. The lease was most recently renewed on 28th of January 2005. No evidence of renewal was able to be provided.	Non-Compliant Recommendation: It is recommended that with future licence renewals, notification of renewal is issued to the surrounding landholders as a formal written letter. This letter must include an adequate plan and description of the lease.
7.	The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year, The report must be to the satisfaction of the Director-General and contain the following: a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period; b) Details of expenditure incurred in conducting that exploration; c) A summary of all geological findings acquired through mining or development evaluation activities; d) Particulars of exploration proposed to be conducted in the next twelve months period; e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.	No formalised drilling activities organised by Charbon Management were reported to have been undertaken since the 1980's. DTIRIS is kept informed that no exploration is undertaken through yearly AEMR reports, however no formal reports are submitted indicating exploration is not carried out. Evidence was sighted that Big Rim contractors had undertaken some informal drilling in the SOC (pers.comm Big Rim personnel) to see if there was a seam under the seam being mined. In addition, a drilling hole that was not filled in and recently drilled was observed in the Proposed 8 Trunk Open Cut. The drill rig was observed nearby. Charbon environmental management were not aware of this drilling having taken place, although suggested it was for delineating the coal resource to plan for the open cut mine. It did not appear that the hole had been installed using DTIRIS guidelines. On the basis that the drilling had taken place and that no exploration reports had been submitted to DTIRIS; Charbon was seen as non-compliant with this condition.	Non-Compliant Recommendation: It is recommended that Charbon seek confirmation that DTIRIS do not require Exploration reports if no exploration works are conducted. Recommendations regarding the lack of notification to DTIRIS for drilling activities are provided in other conditions.
13.	(a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that:- – there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion. – the state of the land is compatible with the surrounding land and land use requirements; – the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land. – in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density. – the land does not pose a threat to public safety. – (b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.	Rehabilitation is covered in detail in the main report. The quality of rehabilitation was found to be generally to a very good standard. At the time of the audit the rehabilitation Areas 1 and 2 (rehabilitated in 2007) were observed as well as the areas within the Southern Open Cut area that are in preparation for the 2012 rehabilitation works. The 2007 rehabilitation works appear to be largely compliant with this condition (a) in terms of land use, landform, soils, and flora. Some issues relating to rehabilitation include: - Old drill sites have reportedly not been rehabilitated. Site inspection required to check them as close out as relevant. - Topsoil stockpiles were not considered to be stored or managed to an acceptable standard. See main report for comments. On the basis of topsoil stockpiles not being managed to an appropriate standard, URS considers that Charbon is not compliant with part b) of the condition.	Generally Compliant, however Non-Compliant - Part b) Recommendation: It is recommended that requirements of the Landscape Management Plan in relation to topsoil management are implemented. Recommendation regarding part (b) of this condition in terms of topsoil, collection, storage, usage and spreading. Charbon to manage topsoil with a more rigid approach to ensure topsoil is managed in accordance with LMP (Section 6.1.9, Topsoil Management) guidelines, which state: – clear separation of topsoil, – minimising of stockpile requirements, favouring direct placement – topsoil piles get treated for weeds, – maximum stockpile depth of approximately 3m for long term (greater than 6 month storage).

12 Summary of Non Compliances and Recommendations

Condition No.	Condition	Comments	Compliance Status/Recommendations
15	<p>(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Infrastructure, Planning and Natural Resources regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</p> <p>(2) If the lease holder drills exploratory drill holes he must satisfy the Director- General that-</p> <ul style="list-style-type: none"> a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established; b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface; c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters; d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape; e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers. f) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General. g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition. 	<p>No formalised drilling activities organised by Charbon Management were reported to have been undertaken since the 1980's.</p> <p>DTIRIS is kept informed that no exploration is undertaken through yearly AEMR reports, however no formal reports are submitted indicating exploration is not carried out.</p> <p>Evidence was sighted that Big Rim contractors had undertaken some informal drilling in the SOC (pers. comm Big Rim personnel) to see if there was a seam under the seam being mined. In addition, a drilling hole that was not filled in and recently drilled was observed in the Proposed 8 Trunk Open Cut. The drill rig was observed nearby.</p> <p>Charbon environmental management were not aware of this drilling having taken place, although suggested it was for delineating the coal resource to plan for the open cut mine.</p> <p>It did not appear that the exploratory drill holes had been reported to DTIRIS or to have met the requirements of this condition. On this basis Charbon was seen as non-compliant with this condition.</p>	<p>Non-Compliant</p> <p>Recommendation:</p> <p>It is recommended that Charbon ensure that no further exploration drilling is conducted without meeting the requirements of this condition.</p> <p>It is recommended that Charbon report to DTIRIS on exploration activities as required.</p>
16.	<p>Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.</p>	<p>Charbon are generally compliant with this condition, however there were some exceptions noted:</p> <p>Some rain events have occurred on the site leading to discharge of sediment. These are discussed in the main report.</p> <p>A Phase 1 Assessment has been conducted at Charbon, which identified a number of areas of the site with hydrocarbon contamination. Site's observed to have hydrocarbon staining of surface soils were around workshops in the 8 Trunk area, and other locations. Charbon indicated that a Phase 1 Contamination Assessment had been completed that identified contaminating sources to include workshops and other areas where hydrocarbons are stored. A copy of the Phase 1 Assessment was not made available and hence no further comment can be provided.</p> <p>On the basis of the high turbidity water discharges, and the hydrocarbon contamination observed on site and identified in a Phase 1 Assessment in some specific areas, Charbon was considered Not Compliant with the condition.</p> <p>It is noted that events discussed above related to water discharges have largely been addressed, and that EPA acknowledge the significant amount of works done to improve water management on site. With respect to hydrocarbon staining, this is seen as quite localised and specific to the sources observed such as workshops etc.</p>	Non-Compliant
ML 1545			
25.	<p>The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.</p>	See CCL Condition 16 on pollution.	Non-Compliant
33.	<p>(a) Operations shall be carried out in such a way as not to cause any pollution of the Macquarie River or the Hawkesbury River Catchment Areas.</p> <p>(b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Areas the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.</p> <p>(c) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Areas.</p>	<p>a and c) Refer to EPL Condition 3 for detailed discussion of non-compliance.</p> <p>b) Not triggered.</p>	Non-Compliant

12 Summary of Non Compliances and Recommendations

Condition No.	Condition	Comments	Compliance Status/Recommendations
46.	Within a period of three (3) months from the date of this authority or within such further time as the Director General may allow, the lease holder shall serve on each landholder within the subject area notice in writing indicating that this authority has been granted and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten (10) or more landholders affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	The ML was first granted in 1989. At this time the only notifiable landholder was the State Forest. No evidence of notification was able to be provided. The lease was most recently renewed on 28th of January 2005. No evidence of renewal was able to be provided.	Non-Compliant Recommendation: It is recommended that the upon future licence renewals notification of renewal is issued to the surrounding landholders as a formal written letter. This letter must include an adequate plan and description of the lease.
50.	(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations. (b) Where the lease holder notifies the Director General pursuant to sub paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.	No formalised drilling activities organised by Charbon Management were reported to have been undertaken since the 1980's. DTIRIS is kept informed that no exploration is undertaken through yearly AEMR reports, however no formal reports are submitted indicating exploration is not carried out. Evidence was sighted that Big Rim contractors had undertaken some informal drilling in the SOC (pers. comm Big Rim personnel) to see if there was a seam under the seam being mined. In addition, a drilling hole that was not filled in and recently drilled was observed in the Proposed 8 Trunk Open Cut. The drill rig was observed nearby. Charbon environmental management were not aware of this drilling having taken place, although suggested it was for delineating the coal resource to plan for the open cut mine. It did not appear that the exploratory drill holes had been reported to DTIRIS or to have met the requirements of this condition. On this basis Charbon was seen as non-compliant with this condition.	Non-Compliant Recommendation: It is recommended that Charbon ensure that no further exploration drilling is conducted without meeting the requirements of this condition. It is recommended that Charbon report to DTIRIS on exploration activities as required.
Bore License 80BL243771			
10	The licensee shall within three (3) months of being called upon by the department of water and energy to do so, install to the satisfaction of the department in respect of location, type and construction an appliance(s) to measure the quantity of water extracted from the works....	CC state that the volume dewatered from the underground workings is approximately 1.2 ML/day (as shown by records which commenced on Nov 2011) which is in exceedance of this condition. In order to comply with the criteria the licence would need to be revised.	Non-Compliant Recommendation: It is recommended that license limit is increased (and/or condition revised). Additionally it is recommended that flow monitoring at the u/g pump is installed to accurately monitor the u/g pumping volumes.
Bore License 80BL620187			
1-6	Abandoning of bore license	Bore relating to License # 80BL620187 was abandoned and grouted on 13/10/2011 (sighted Borehole cementing record sheet). NOW had not been notified at the time of the audit.	Non-Compliant Recommendation: Notify NOW at the earliest opportunity of the details regarding the abandonment of this bore.

12 Summary of Non Compliances and Recommendations

Table 11-2 has been reproduced from Appendix A. For details on the requirement, and for further discussion of the issue, please refer directly to the table in Appendix A. Many recommendations are based around continuous improvement opportunities identified during the audit and do not necessarily represent immediate potential non-compliance issues. Not all recommendations made in this report are reflected below. Some recommendations are made throughout the document such as in sections 7-11. These sections should be referenced for detailed discussion of the context of the recommendation.

Table 11-2 Summary of additional Recommendations from Independent Environmental Audit (not related to Non compliances)

Condition / Requirement No.	Recommendation
Project Approval 08_0211	
3.1 and 3.2	Charbon carry out monthly noise monitoring to the south-west of the mining lease to confirm on-going compliance with the noise criteria.
3.8	Report on investigations or implementation and effectiveness of measures 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 in the AEMR.
3.25	Update the Subsidence Monitoring and Contingency Plan so that it only reflects monitoring that will be conducted by Charbon and not monitoring that is not planned to be undertaken such as installation of Tilt meters.
3.31	There is an opportunity for improving the documentation on ESCP implementation, paying particular attention to record keeping and internal auditing of site practices.
3.32	That the riparian vegetation and macro-invertebrate population data collected for each monitoring effort be provided from ecologists in a more detailed manner, for example they could include field sheets, and be stored and filed.
3.46	It is recommended that the Waste Management Plan be updated to reflect any changes since it was developed in 2009 and that it incorporates the activities and reporting of new waste contractors JR Richards.
3.47	It is recommended that Charbon review and update the Bushfire Management Plan. It is recommended that the RFS and local fire brigade are invited on site regularly to familiarise themselves with Charbon infrastructure and fire fighting equipment. This could also include carrying out emergency scenarios to practice a combined response to an incident (it is acknowledged that employees of Charbon are members of the RFS and Fire Brigade).
4.4	LMP Recommendation: – The Final Landform Figure - Table 2 and Figure 3 (LMP) does not show vegetation communities, as per Table 2. Site Recommendations: – Further diversity to be added to species collection and rehabilitation list – Topsoil collection, storage, usage and spreading practices to be improved. Charbon to manage topsoil with a more rigid approach to ensure topsoil is managed in accordance with LMP (Section 6.1.9, Topsoil Management) guidelines, which state: • clear separation of topsoil, • minimising of stockpile requirements, favouring direct placement, • topsoil piles get treated for weeds, and • maximum stockpile depth of approximately 3m for long term greater than 6 month storage.
4.7	It is recommended that when reviewing the LMP, the Final Landform Figure - Table 2 and Figure 3 (LMP) shows vegetation communities, as per Table 2.

12 Summary of Non Compliances and Recommendations

Condition / Requirement No.	Recommendation
5.1	The Strategy be reviewed to recognise Big Rim and the management of Big Rim by Charbon. This should include defining of responsibilities and accountabilities, inspection regimes, meetings and other contractor management processes.
5.3	Maintain all sediment fences free of sediment and confirm controls downstream of 2 trunk ROM were adequate. Ensure that future AEMRs/Annual reviews include more detailed information on rehabilitation as required by DTIRIS-DRE and from DP&I as required. For future AEMRs Charbon should further clarify where the requirements of this condition have been addressed, and should provide more detail to support findings of compliance or otherwise.
5.7	In consultation with DP&I consider what other approvals would be suitable for inclusion on the website.
Statement of Commitments	
4.3	Recommendations include the addition of; forb, grass and herbaceous species into the rehabilitation species list and site seed bank to improve diversity and structure within the rehabilitation and reduce weed problems.
EPL 528	
L4.4	It is recommended that the wording from the PA is adopted in the revised EPL for consistency.
O1.1	It is recommended that Charbon continue to implement improvements in the management of hydrocarbons across the site. Strategies should focus on the key risk areas as identified in the Phase 1 report.
M2.1	There are opportunities to improve the sampling and reporting methodologies and it is therefore recommended that Charbon implement the recommendations for water quality sampling as stipulated in the WMP.
M5.1	It is recommended that a formal process is put in place to allow for calls to be forwarded to an available Charbon team member to record complaints in the event the Environmental Coordinator is not available.
EPBC Act Expansion of Charbon Colliery 2010/5498	
15	Improvements could be made to electronic files in terms of file naming and version control details.
Bore Licence 80BL243771	
10	It is recommended that a formal method of measuring the water from underground de-watering be implemented to enable accurate measure of volumes. In the current scenario, volumes are measured at LDP2 which also captures surface water runoff thereby increasing then recorded volumes and potentially triggering volumetric non-compliances.

Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Centennial Coal and only those third parties who have been authorised in writing by URS to rely on the report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report.

It is prepared in accordance with the scope of work and for the purpose outlined in URS' proposal (dated 11 March 2010).

Where this Report indicates that information has been provided to URS by third parties, URS has made no independent verification of this information except as expressly stated in the Report. URS assumes no liability for any inaccuracies in or omissions to that information.

This report was prepared between February and September 2012 and is based on the conditions encountered and information reviewed at the time of the site inspection conducted in February 2012. URS disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Except as required by law, no third party may use or rely on, this report unless otherwise agreed by URS in writing. Where such agreement is provided, URS will provide a letter of reliance to the agreed third party in the form required by URS.

To the extent permitted by law, URS expressly disclaims and excludes liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this report. URS does not admit that any action, liability or claim may exist or be available to any third party.

Except as specifically stated in this section, URS does not authorise the use of this Report by any third party.

It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the site.

Appendix A Detailed Compliance Assessment

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	2.1	Obligation to Minimise Harm to the Environment	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	It is considered that in general Charbon has implemented reasonable measures across the mine to prevent and/or minimise harm to the environment. This audit report describes these measures and provides recommendations for improvement where considered relevant.	Compliant
Project Approval 08_0211	2.2	Terms of Approval - Relevant documents	The Proponent shall carry out the project generally in accordance with the: (a)EA; (b)Statement of Commitments; and (c)conditions of this approval. <i>Note: The general layout of the project is shown in Appendix 2.</i>	The operation is considered to be generally carried out in accordance with the EA, however URS has not completed a detailed assessment of compliance against the EA. An assessment of compliance against the Statement of Commitments is provided below. An assessment of compliance with the conditions of this approval is provided below.	Compliant
Project Approval 08_0211	2.3	Terms of Approval - Inconsistencies	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted. No inconsistencies were observed.	Not Applicable
Project Approval 08_0211	2.4	Terms of Approval - Comply with requirements	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.	Charbon reported that no requirements have been issued by the Director General.	Not Applicable
Project Approval 08_0211	2.5	Limits on Approval - Approval lapse	Mining operations may take place until 31 August 2025: <i>Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Director-General and I&I NSW. Consequently this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.</i>	Noted. This condition has not yet been triggered.	Not Applicable
Project Approval 08_0211	2.6	Limits on Approval - Production Tonnage	The Proponent shall not extract or process more than 1.5 million tonnes of run-of-mine coal in a calendar year.	Charbon reported that the maximum volume of production for any yearly period has been 1.3 million tonnes of run of mine coal in one calendar year. The reported volume for 2011 was 1.2 million tonnes.	Compliant

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	2.7	Limits on Approval - Transport Tonnage	The Proponent shall not transport more than 250,000 tonnes of product coal from the site by public roads in a calendar year.	<p>It was reported that coal transported by trucks could potentially go to a total of four places within the approval:</p> <ul style="list-style-type: none"> - Mt Piper; - Wallerawang; - the adjacent lime works; and - the Kandos cement works. <p>It was reported that coal has not been transported to Mt Piper or Wallerawang and that Kandos cement works ceased taking coal prior to June 2011 and closed soon after.</p> <p>During the audit period coal was transported to the lime works on a private road. This was reported to be in the order of 20,000 tonnes, which is well under the condition limit.</p>	Compliant
Project Approval 08_0211	2.8	Surrender of Consents	Within 12 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents for the project in accordance with sections 75YA and 104A of the EP&A Act and clause 97 of the EP&A Regulation, to the satisfaction of the Director-General.	Charbon requested an extension of the timeframe for the surrender of existing development consents in a letter dated 5.9.11. An extension until the 31.10.11 was granted by DP&I by letter dated 5.11.11. Charbon requested a further extension in a letter dated 28.10.11 on the basis of delays in obtaining third party land owner consent to surrender development consents. Approval for an extension until the 21.2.12 was granted. At the time of writing Charbon indicated that it was still waiting for landowner consent. Given this, Charbon could not demonstrate compliance with the Condition.	Non-Compliant
Project Approval 08_0211	2.9	Kandos State Forests	The Proponent shall notify State Forests at least six months prior to clearing trees within each area of Kandos State Forests proposed to be mined by open cut methods or otherwise disturbed, to enable forestry operations to take place.	Sighted letter to State Forests dated 13.07.11 notifying intent to clear 15 ha. This was more than 6 months prior to mining operations commencing in the State Forests, which had not yet commenced at the time of the audit.	Compliant
Project Approval 08_0211	2.10	Structural Adequacy	<p>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 Building Code of Australia.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> •Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; •Part 8 of the EP&A Regulation sets out the requirements for the certification of the project. 	No new structures have been constructed during the audit period.	Not Applicable
Project Approval 08_0211	2.11	Demolition	The Proponent shall ensure that all demolition work is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	No structures have been demolished during the audit period.	Not Applicable

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	2.12	Protection of Public Infrastructure	The Proponent shall: (a)repair, or pay the full costs associated with repairing, any publicly-owned infrastructure that is damaged by the project; and (b)relocate, or pay the full costs associated with relocating, any publicly-owned infrastructure that needs to be relocated as a result of the project.	There has been no damage to public infrastructure. The only owned public infrastructure on site is utilities to bring communications and power to the site.	Not Applicable
Project Approval 08_0211	2.13	Operation of Plant and Equipment	The Proponent shall ensure that all plant and equipment used at the site is: (a)maintained in a proper and efficient condition; and (b)operated in a proper and efficient manner.	URS did not assess this condition in full. Discussion was held with the Mine Manager and the Logistics expert that indicated a planned maintenance management system was implemented at Charbon. The system (PULSE) was sighted and the manager of the system was well versed in its use. Comments are made throughout this report where issues of concern were noted.	Compliant
Project Approval 08_0211	2.14	Planning Agreement	Within 12 months of the date of this approval, unless otherwise agreed by the Director-General, the Proponent shall enter into a planning agreement with the Council in accordance with Division 6 of Part 4 of the EP&A Act, that provides for contributions to the Council for general community enhancement to address social amenity and community infrastructure requirements arising from the project. The agreement must provide for (at a minimum) those matters set out in general terms in Appendix 6. If there is any dispute between the Proponent and Council relating to the preparation or implementation of the planning agreement, then either party may refer the matter to the Director-General for resolution.	Charbon requested an extension of the timeframe for meeting this condition in a letter dated 4.8.11. An extension until the 30.11.11 was granted by DP&I in a letter dated 18.8.11. Charbon requested a further extension in a letter dated 28.10.11 on the basis that a planning agreement had been submitted to Council who were reviewing the agreement. An extension until the 31.3.12 was granted by DP&I in a letter dated 23.12.11. Charbon provided a Voluntary Planning Agreement dated 29 March 2012 hence met this extension of time requirement.	Compliant
Project Approval 08_0211	2.15	Staged Submission of Strategies, Plans or Programs-New	With the approval of the Director-General, the Proponent may submit any management plan, strategy or monitoring program required by this approval on a progressive basis, or for a discrete component of the project. <i>Note: The conditions of this approval require certain strategies, plans, and programs to be prepared for the project. They also require these documents to be reviewed and audited on a regular basis to ensure they remain effective. However, in some instances, it will not be necessary or practicable to prepare these documents for the whole project at any one time, particularly as these documents are intended to be dynamic and improved over time. Consequently, the documents may be prepared and implemented on a progressive basis, subject to the conditions of this approval. In so doing, the Proponent will need to demonstrate that it has suitable documents in place to manage the existing operations of the project.</i>	Noted. Charbon has submitted all plans as required by the approval.	Not Applicable

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations																									
Project Approval 08_0211	2.16	Staged Submission of Strategies, Plans or Programs- Previous	All approved management and monitoring strategies, plans and programs required under previous development consents continue to have effect until replaced by an equivalent approved strategy, plan or program prepared and approved under this approval.	All plans as required by the consent have been submitted to DoPI. At the time of the audit there had been no plans approved by DoPI. During the audit URS contacted DoPI regarding the application of this condition to Charbon. It was indicated that URS should audit the revised management plans rather than refer to the previous management plans.	Noted - see comment.																									
Project Approval 08_0211	2.17	Revision of Strategies, Plans or Programs	Within 3 months of any modification to this approval, the Proponent shall review and if necessary revise all management and monitoring strategies, plans and programs required under the approval which are relevant to the modification to the satisfaction of the Director-General.	Noted. There has not been any modification to this approval.	Not Applicable																									
Project Approval 08_0211	3.1	Noise-Impact Assessment Criteria	<p>The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 1 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.</p> <table><caption>Table 1: Noise Impact Assessment Criteria dB(A) LAeq (15min)</caption><thead><tr><th>Location</th><th>Day</th><th>Evening</th><th>Night</th><th>Night (LA1 (1 min))</th></tr></thead><tbody><tr><td>Residence P</td><td>35</td><td>39</td><td>39</td><td>45</td></tr><tr><td>All residences within 150 m of, and including, Residence Q</td><td>38</td><td>38</td><td>38</td><td>45</td></tr><tr><td>Residence M</td><td>36</td><td>37</td><td>35</td><td>45</td></tr><tr><td>All remaining locations</td><td>35</td><td>35</td><td>35</td><td>45</td></tr></tbody></table> <p>Notes:</p> <ul style="list-style-type: none">•To determine compliance with the LAeq(period) noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy) may be accepted. The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.•To determine compliance with the LA1(1 minute) noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy) may be accepted.	Location	Day	Evening	Night	Night (LA1 (1 min))	Residence P	35	39	39	45	All residences within 150 m of, and including, Residence Q	38	38	38	45	Residence M	36	37	35	45	All remaining locations	35	35	35	45	<p>Evidence of quarterly noise monitoring, prepared in accordance with the requirements of Approval Condition 9 has been sighted. No exceedance of the noise limits set out in Table 1 were reported during the audit period. SLR has undertaken the monitoring since August 2011. Prior to this time Atkins Acoustics conducted the monitoring. It is noted that some minor exceedances occurred before this audit period, with exceedances of up to 1 dB occurring at Location R2 reported by Atkins Acoustics during noise monitoring carried out on 18.11.09.</p> <p>During one occasion on the site inspection, relatively high noise levels were observed at Locations T and H. It would be expected that noise levels would increase at the receptors to the south-west of the mining lease with the encroachment of mining activities associated with the proposed southern and western outlier works.</p>	<p>Compliant</p> <p>Recommendation:</p> <p>Charbon carry out monthly noise monitoring to the south-west of the mining lease to confirm on-going compliance with the noise criteria.</p>
Location	Day	Evening	Night	Night (LA1 (1 min))																										
Residence P	35	39	39	45																										
All residences within 150 m of, and including, Residence Q	38	38	38	45																										
Residence M	36	37	35	45																										
All remaining locations	35	35	35	45																										

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations																									
			<ul style="list-style-type: none">•The noise emission limits identified in the above table apply under meteorological conditions of:<ul style="list-style-type: none">- wind speeds of up to 3 m/s at 10 metres above ground level; or- temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level, determined in accordance with the NSW Industrial Noise Policy, including that exceedances of the criteria must be “systemic”.•For the locations of residences/properties named in this approval, see Appendices 1 and 4.•These limits do not apply if the Proponent has an agreement with the relevant owner/s of these residences to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.																											
Project Approval 08_0211	3.2	Noise-Land Acquisition Criteria	<p>If the noise generated by the project exceeds the criteria in Table 2 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 4-6 of schedule 6.</p> <table><caption>Table 2: Land Acquisition Criteria dB(A) L_{Aeq} (15min)</caption><thead><tr><th>Location</th><th>Day</th><th>Evening</th><th>Night</th></tr></thead><tbody><tr><td>All residences within 150 m of, and including, Residence Q</td><td>43</td><td>43</td><td>43</td></tr><tr><td>All other locations</td><td>40</td><td>40</td><td>40</td></tr></tbody></table> <p><i>Note: Noise generated by the project is to be measured in accordance with the notes below in Table 1. For this condition to apply, the exceedances of the criteria must be systemic.</i></p>	Location	Day	Evening	Night	All residences within 150 m of, and including, Residence Q	43	43	43	All other locations	40	40	40	No exceedance of the noise criteria set out in Table 2 have been reported in the quarterly noise monitoring reports commissioned during the audit period. During one occasion on the site inspection, relatively high noise levels were observed at Locations T and H. It would be expected that noise levels would increase at the receptors to the south-west of the mining lease with the encroachment of mining activities associated with the proposed southern and western outliers works.	Compliant Recommendation: Charbon carry out monthly noise monitoring to the south-west of the mining lease to confirm on-going compliance with the noise criteria.													
Location	Day	Evening	Night																											
All residences within 150 m of, and including, Residence Q	43	43	43																											
All other locations	40	40	40																											
Project Approval 08_0211	3.3	Noise-Operating Hours	<p>The Proponent shall comply with the operating hours in Table 3:</p> <table><caption>Table 3: Operating Hours</caption><thead><tr><th>Activity</th><th>Day</th><th>Time</th></tr></thead><tbody><tr><td rowspan="3">Open cut mining</td><td>Monday – Friday</td><td>7.00 am to 8.00 pm¹</td></tr><tr><td>Saturday</td><td>7.00 am to 6.00 pm</td></tr><tr><td>Sunday and Public Holidays</td><td>None</td></tr><tr><td>Underground mining, coal processing, run-of-mine coal management and maintenance</td><td>Any day</td><td>Any time</td></tr><tr><td>Blasting</td><td>Monday – Friday</td><td>9.00 am to 5.00 pm</td></tr><tr><td>Vegetation clearing and soil handling</td><td>Monday – Saturday</td><td>7.00 am to 5.00 pm</td></tr><tr><td>Truck dispatch</td><td>Any day</td><td>7:00 am to 6:00 pm</td></tr><tr><td>Train loading and dispatch</td><td>Any day</td><td>Any time</td></tr></tbody></table> <p><i>Note: Open cut mining operations on Monday – Friday must cease at 6:00 pm during Autumn months.</i></p>	Activity	Day	Time	Open cut mining	Monday – Friday	7.00 am to 8.00 pm ¹	Saturday	7.00 am to 6.00 pm	Sunday and Public Holidays	None	Underground mining, coal processing, run-of-mine coal management and maintenance	Any day	Any time	Blasting	Monday – Friday	9.00 am to 5.00 pm	Vegetation clearing and soil handling	Monday – Saturday	7.00 am to 5.00 pm	Truck dispatch	Any day	7:00 am to 6:00 pm	Train loading and dispatch	Any day	Any time	Shift registers demonstrating compliance with approved operating hours were sighted confirming (for the days sighted) that operating hours were within the hours stated in the condition.	Compliant
Activity	Day	Time																												
Open cut mining	Monday – Friday	7.00 am to 8.00 pm ¹																												
	Saturday	7.00 am to 6.00 pm																												
	Sunday and Public Holidays	None																												
Underground mining, coal processing, run-of-mine coal management and maintenance	Any day	Any time																												
Blasting	Monday – Friday	9.00 am to 5.00 pm																												
Vegetation clearing and soil handling	Monday – Saturday	7.00 am to 5.00 pm																												
Truck dispatch	Any day	7:00 am to 6:00 pm																												
Train loading and dispatch	Any day	Any time																												

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations																		
Project Approval 08_0211	3.4	Noise Mitigation Measures	<p>The Proponent must achieve the modelled sound power levels for the equipment listed (or equivalent) in Table 4 below, within 6 months of the date of approval, or as otherwise agreed by the Director-General.</p> <p><i>Table 4: Modelled Plant Noise Sound Power Levels</i></p> <table><tr><th>Plant and Equipment</th><th>Make and Model</th><th>Modelled LA_{max} sound power level (SWL)</th></tr><tr><td>Coal Processing Plant</td><td>N/A</td><td>107 dB(A)</td></tr><tr><td>Haul Truck</td><td>CAT 775</td><td>116 dB(A)</td></tr><tr><td>Dozer</td><td>CAT D11</td><td>122 dB(A)</td></tr><tr><td>Front-end Loader</td><td>CAT 992</td><td>121 dB(A)</td></tr><tr><td>Drill 10</td><td>N/A</td><td>116 dB(A)</td></tr></table>	Plant and Equipment	Make and Model	Modelled LA _{max} sound power level (SWL)	Coal Processing Plant	N/A	107 dB(A)	Haul Truck	CAT 775	116 dB(A)	Dozer	CAT D11	122 dB(A)	Front-end Loader	CAT 992	121 dB(A)	Drill 10	N/A	116 dB(A)	Verification Report prepared by Spectrum Acoustics (Neil Pennington) has been sighted. This identifies that the modelled sound power levels listed in Table 4 have been achieved, with the exception of the 'Drill 10'. The report noted that no drill was on site at the time of the measurements. The verification report is dated 6.7.11 and identifies that measurements were undertaken on 3.5.11; outside the six month (from date of approval) window.	Non-Compliant - with respect to Drill 10 omission and timing of deliverable. Recommendation: Charbon to carry out sound power level measurements of Drill 10 to confirm full compliance with this condition..
Plant and Equipment	Make and Model	Modelled LA _{max} sound power level (SWL)																					
Coal Processing Plant	N/A	107 dB(A)																					
Haul Truck	CAT 775	116 dB(A)																					
Dozer	CAT D11	122 dB(A)																					
Front-end Loader	CAT 992	121 dB(A)																					
Drill 10	N/A	116 dB(A)																					
Project Approval 08_0211	3.5	Noise Mitigation Measures (Verification Report)	<p>The Proponent shall provide a verification report to ensure that the sound power levels in condition 4 are achieved to the satisfaction of the Director-General. This report must be:</p> <ul style="list-style-type: none">submitted to DECCW and the Department within 8 months of this approval or as otherwise agreed by the Director-General; andprepared by a suitably qualified expert, whose appointment is approved by the Director-General.	Verification Report prepared by Spectrum Acoustics (Neil Pennington) has been sighted. This identifies that the modelled sound power levels listed in Table 4 have been achieved, with the exception of the 'Drill 10'. The report noted that no drill was on site at the time of the measurements. The verification report is dated 6.7.11 and therefore outside the eight month (from date of approval) window. A registered post receipt to the DoPI (Carl Dumpleton) was sighted. No evidence that the report was submitted to OEH was provided.	Non-Compliant with respect to timing. Recommendation: Charbon to ensure that the Verification Report prepared by Spectrum Acoustics has been submitted to OEH.																		
Project Approval 08_0211	3.6	Noise Mitigation Measures	<p>Upon receiving a written request from:</p> <ul style="list-style-type: none">the landowner of property P; orthe landowner of privately-owned land where noise monitoring shows the noise generated by the project exceeds the criteria in Table 5, <p>then the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the property in consultation with the landowner.</p> <p>These additional mitigation measures must be reasonable and feasible.</p> <p>If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.</p> <p><i>Table 5: Noise Mitigation Measures Criteria dB(A) L_{day} (15min)</i></p> <table><tr><th>Location</th><th>Day</th><th>Evening</th><th>Night</th></tr><tr><td>All residences within 150 m of, and including, Residence Q</td><td>40</td><td>40</td><td>40</td></tr><tr><td>All other locations, excluding Residence P</td><td>37</td><td>37</td><td>37</td></tr></table> <p><i>Note: Noise generated by the project is to be measured in accordance with the notes below Table 1. For this condition to apply at locations other than property P, the monitored exceedances of the criteria must be</i></p>	Location	Day	Evening	Night	All residences within 150 m of, and including, Residence Q	40	40	40	All other locations, excluding Residence P	37	37	37	Matt Gray confirmed that no written requests from landowners have been received with respect to noise mitigation measures.	Compliant						
Location	Day	Evening	Night																				
All residences within 150 m of, and including, Residence Q	40	40	40																				
All other locations, excluding Residence P	37	37	37																				

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<i>systemic.</i>		
Project Approval 08_0211	3.7	Noise Mitigation Measures (Landowner Notification)	Within 3 months of the date of this approval the Proponent shall notify the landowner of Property P that they are entitled to receive additional noise mitigation measures, to the satisfaction of the Director-General.	Letter to Bob Cook, dated 16.11.10 sighted and included the required information.	Compliant
Project Approval 08_0211	3.8	Continuous Improvement	The Proponent shall: (a) implement all reasonable and feasible noise mitigation measures; (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 (c) report on these investigations and the implementation and effectiveness of these measures in the Annual Review, to the satisfaction of the Director-General.	Matt Gray confirmed that the CHPP had been re-walled with 60% new cladding during the Easter 2011 shutdown (22-26.4.11) - This was sighted during the audit site inspection and appeared to be in good condition; Matt Gray and Geoff Hillier (Open Cut Examiner - Big Rim Contractor) confirmed that all mobile mechanical plant undergo daily inspection to ensure they are in good working order and are regularly serviced as appropriate; Matt Gray confirmed that brand new rolling stock fleet locomotives have recently been purchased; The 2010 Annual Environmental Management Report (AEMR) does not report on investigations or implementation and effectiveness of measures 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. Charbon indicated that these matters would be addressed in the 2011 AEMR.	Compliant Recommendation: Report on investigations or implementation and effectiveness of measures 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 in the AEMR.
Project Approval 08_0211	3.9	Noise Management	The Proponent shall prepare and implement a detailed Noise Management Plan for the project to the satisfaction of the Director-General. This Plan must: (a) be prepared in consultation with DECCW by a suitably qualified expert whose appointment has been approved by the Director-General; (b) be submitted to the Director-General for approval within 6 months of this approval; (c) include a Noise Monitoring Program; (d) include detailed procedures for identifying noise-enhancing meteorological conditions using real-time meteorological data; and (e) include reactive noise control measures to manage noise impacts for sensitive receivers.	A detailed Noise Management Plan (NMP) for the project, dated 11.03.11 has been prepared by SLR. This plan has been reviewed for adequacy and found to be appropriate. An adequacy review is provided in Section 7 of the main report.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations								
Project Approval 08_0211	3.10	Air blast Overpressure Limits	<div><p>The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 6 at any residence on privately-owned land:</p><table><tr><th colspan="2">Table 6: Airblast Overpressure Impact Assessment Criteria</th></tr><tr><th>Airblast overpressure level (dB(Lin Peak))</th><th>Allowable exceedance</th></tr><tr><td>115</td><td rowspan="2">5% of the total number of blasts in a 12 month period</td></tr><tr><td>120</td><td>0%</td></tr></table><p>Notes:</p><ul style="list-style-type: none">The overpressure values in Table 6 apply when the measurements are performed with equipment having a lower cut-off frequency of 2 Hz or less. If the instrumentation has a higher cut-off frequency a correction of 5 dB should be added to the measured value. Equipment with a lower cut-off frequency exceeding 10 Hz should not be used.The airblast overpressure noise limits do not apply if the Proponent has an agreement with the relevant owner/s of these residences/land to generate higher airblast overpressure noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</div>	Table 6: Airblast Overpressure Impact Assessment Criteria		Airblast overpressure level (dB(Lin Peak))	Allowable exceedance	115	5% of the total number of blasts in a 12 month period	120	0%	Matt Gray confirmed that only two blasts occurred during the audit period in 2011 and that this activity has been discontinued on site. Blast monitoring records, prepared by blasting contractor Downer EDI Mining, have been reviewed. No overpressure exceedance has been noted:	Compliant
Table 6: Airblast Overpressure Impact Assessment Criteria													
Airblast overpressure level (dB(Lin Peak))	Allowable exceedance												
115	5% of the total number of blasts in a 12 month period												
120		0%											
Project Approval 08_0211	3.11	Ground Vibration Impact Assessment Criteria	<div><p>The Proponent shall ensure that the ground vibration level from blasting, or any other activity at the project, does not exceed the levels in Table 7 at any residence on privately-owned land.</p><table><tr><th colspan="2">Table 7: Ground Vibration Impact Assessment Criteria</th></tr><tr><th>Peak particle velocity (mm/s)</th><th>Allowable exceedance</th></tr><tr><td>5</td><td rowspan="2">5% of the total number of blasts in a 12 month period</td></tr><tr><td>10</td><td>0%</td></tr></table><p>Note: The ground vibration limits do not apply if the Proponent has an agreement with the relevant owner/s of these residences/land to generate higher ground vibration levels, and the Proponent has advised the Department in writing of the terms of this agreement.</p></div>	Table 7: Ground Vibration Impact Assessment Criteria		Peak particle velocity (mm/s)	Allowable exceedance	5	5% of the total number of blasts in a 12 month period	10	0%	Matt Gray confirmed that only two blasts occurred during 2011 and that this activity has been discontinued on site. Blast monitoring records, prepared by blasting contractor Downer EDI Mining, have been reviewed. No vibration exceedance has been noted. Records indicate that no blasts were initiated within the audit period:	Compliant
Table 7: Ground Vibration Impact Assessment Criteria													
Peak particle velocity (mm/s)	Allowable exceedance												
5	5% of the total number of blasts in a 12 month period												
10		0%											
Project Approval 08_0211	3.12	Surface Blasting Location and Frequency	The Proponent may conduct surface blasting of coal or overburden only within the Southern Open Cut Pit and Southern Open Cut Extension Pit, and shall not carry out more than 1 surface blast in a day or 2 surface blasts per week, unless otherwise directed by I&I NSW to ensure the safety of the mine and its workers.	Downer EDI Blast Records show blasts were only carried out within the Southern Open Cut Pit and Southern Open Cut Extension Pit. Records indicate that the requirement to limit blasts to no more than 1 surface blast in a day or 2 surface blasts per week has been complied with. Charbon has discontinued blasting on-site and reported that it has no intention to resume blasting in the future.	Compliant								
Project Approval 08_0211	3.13	Property Inspections	Unless previously notified under conditions of an existing consent, within 3 months of the date of this approval, the Proponent shall advise 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 to establish the baseline condition of the property.	Dilapidation reports were reportedly provided for all properties within 2 km (not sighted by URS). Not carried out for Receptor A, as this was considered to be outside the original 2 km radius. Letter of offer to provide inspection/report to Receptor A (dated 19.11.10) sighted. Records indicate that only two blasts were initiated within the audit period. Charbon has discontinued blasting on-site and reported that it has no intention to resume blasting in the future.	Compliant								

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	3.14	Property Inspections	<p>If the Proponent receives a written request for a property inspection from a landowner within 2 km of proposed blasting activities, who has not previously been provided with an inspection under conditions of an existing consent, the Proponent shall:</p> <p>(a) commission a suitably qualified person within 21 days of the request, whose appointment has been approved by the Director-General, to inspect and report on 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>	<p>Matt Gray confirmed that no written request for a property inspection has been received from any landowner.</p> <p>Records indicate that only two blasts were initiated within the audit period.</p> <p>Charbon has discontinued blasting on-site and reported that it has no intention to resume blasting in the future.</p>	Compliant
Project Approval 08_0211	3.15	Property Investigations	<p>If any landowner within 2 km of proposed blasting activities, or any other landowner nominated by the Director-General, claims that 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:</p> <p>(a) commission a suitably qualified person whose appointment has been approved by the Director-General to investigate the claim and prepare a property investigation report; and</p> <p>(b) give the landowner a copy of the report within 6 weeks of initiating the investigation.</p> <p>If the investigation confirms the landowner's claim, and both parties accept the findings, then the Proponent shall repair the damage to the satisfaction of the Director-General.</p> <p>If the Proponent or landowner disagrees with the findings of the investigation, then either party may refer the matter to the Director-General for resolution.</p>	<p>Matt Gray confirmed that no landowner within 2 km of blasting has claimed any vibration induced damage.</p> <p>Records indicate that only two blasts were initiated within the audit period.</p> <p>Charbon has discontinued blasting on-site and reported that it has no intention to resume blasting in the future.</p>	Compliant
Project Approval 08_0211	3.16	Operating Conditions	<p>During mining operations on-site, the Proponent shall implement best blasting practice to:</p> <p>(a) protect the safety of people, property, public infrastructure, and livestock;</p> <p>(b) protect items of Aboriginal and non-indigenous cultural heritage significance; and</p> <p>(c) minimise the dust and fume emissions from blasting at the project, to the satisfaction of the Director-General.</p>	<p>A detailed Blast Monitoring Program for the project, dated November 2010 has been prepared by Charbon Coal Pty Limited. This plan has been reviewed for adequacy and found to be generally appropriate. A brief adequacy review is provided in the main Environmental Audit report.</p> <p>Records indicate that only two blasts were initiated within the audit period.</p> <p>Charbon has discontinued blasting on-site and reported that it has no intention to resume blasting in the future.</p> <p>For the two blasts conducted the conditions were generally met based on data provided, however no assessment was made as to whether it comprised best blasting practice.</p>	Compliant (at time of audit due to no further blasting being carried out)

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations																							
Project Approval 08_0211	3.17	Public Notice	Within 3 months of the date of this approval, the Proponent shall: (a) notify the landowner/occupier of any residence within 2 kilometres of blasting operations who registers an interest in being notified about the blasting schedule at the mine, or any other landowner nominated by the Director-General; and (b) publish an up-to-date blasting schedule on its website, to the satisfaction of the Director-General.	Matt Gray confirmed that no landowner/occupier of any residence has registered an interest in being notified about the blasting schedule at the mine. Records indicate that only two blasts were initiated within the audit period. Charbon has discontinued blasting on-site and reported that it has no intention to resume blasting in the future.	Compliant																							
Project Approval 08_0211	3.18	Blast Monitoring Program	The Proponent shall prepare and implement a Blast Monitoring Program for the project to the satisfaction of the Director-General. This program must: (a) be prepared in consultation with DECCW, and be submitted to the Director-General for approval within 3 months of the date of this approval; and (b) include a protocol for evaluating blast-related impacts on, and demonstrating compliance with the blasting criteria in this approval for: • privately-owned residences and structures; • items of Aboriginal and non-indigenous cultural heritage significance; and • publicly-owned infrastructure.	A detailed Blast Monitoring Program for the project, dated November 2010 has been prepared by Charbon Coal Pty Limited. This plan has been reviewed for adequacy and found to be generally appropriate. A brief adequacy review is provided in the main Environmental Audit report. Charbon has discontinued blasting on-site and reported that it has no intention to resume blasting in the future.	Compliant																							
Project Approval 08_0211	3.19	Impact Assessment Criteria	<p>The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 8, 9, and 10 at any residence on privately owned land, or on more than 25 percent of any privately owned land.</p> <p><i>Table 8: Long-term Impact Assessment Criteria for Particulate Matter</i></p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>30 µg/m³</td></tr></table> <p><i>Table 9: Short-term Impact Assessment Criteria for Particulate Matter</i></p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>50 µg/m³</td></tr></table> <p><i>Table 10: Long-term Impact Assessment Criteria for Deposited Dust</i></p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>Deposited dust</td><td>Annual</td><td>2 g/m²/month</td><td>4 g/m²/month</td></tr></table> <p><small>Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3590 (a 1:2003) Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.</small></p>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90 µg/m³	Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m³	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m²/month	4 g/m²/month	Particulate matter monitoring (in the form of deposition gauges and high volume air samplers) results, as supplied by Charbon, for the audit period indicate that all concentrations are below each of the criteria stipulated in Tables 8, 9 and 10 within the project approval. No mining of the Western Outlier had begun at the time of the audit, and real time monitors were yet to be purchased and installed.	Compliant
Pollutant	Averaging period	Criterion																										
Total suspended particulate (TSP) matter	Annual	90 µg/m³																										
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m³																										
Pollutant	Averaging period	Criterion																										
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m³																										
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																									
Deposited dust	Annual	2 g/m²/month	4 g/m²/month																									

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations																																
Project Approval 08_0211	3.20	Land Acquisition Criteria	<p>If the dust emissions generated by the project exceed the criteria in Tables 11, 12 and 13 at any residence on privately owned land, or on more than 25 percent of any privately owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 4-6 of schedule 6.</p> <p><i>Table 11: Long-term Land Acquisition Criteria for Particulate Matter</i></p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>30 µg/m³</td></tr></table> <p><i>Table 12: Short-term Land Acquisition Criteria for Particulate Matter</i></p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th><th>Percentile¹</th><th>Basis</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>150 µg/m³</td><td>99²</td><td>Total³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>50 µg/m³</td><td>96.6</td><td>Increment⁴</td></tr></table> <p>¹Based on the number of block 24 hour averages in an annual period. ²Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with DECCW. ³Background PM₁₀ concentrations due to all other sources plus the incremental increase in PM₁₀ concentrations due to the mine alone. ⁴Incremental increase in PM₁₀ concentrations due to the mine alone.</p> <p><i>Table 13: Long-term Land Acquisition Criteria for Deposited Dust</i></p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>Deposited dust</td><td>Annual</td><td>2 g/m²/month</td><td>4 g/m²/month</td></tr></table> <p><i>Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3500 10.1:2003 Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.</i></p>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³	Pollutant	Averaging period	Criterion	Percentile ¹	Basis	Particulate matter < 10 µm (PM ₁₀)	24 hour	150 µg/m ³	99 ²	Total ³	Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³	96.6	Increment ⁴	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month	The monitoring results reviewed, as supplied by Charbon, for the audit period are below criteria in Tables 11, 12 and 13.	Compliant
Pollutant	Averaging period	Criterion																																			
Total suspended particulate (TSP) matter	Annual	90 µg/m ³																																			
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³																																			
Pollutant	Averaging period	Criterion	Percentile ¹	Basis																																	
Particulate matter < 10 µm (PM ₁₀)	24 hour	150 µg/m ³	99 ²	Total ³																																	
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Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																																		
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month																																		
Project Approval 08_0211	3.21	Air Quality Mitigation Measures	Twelve months prior to the commencement of mining activities associated with the Western Outlier, and provided that a written request is received from the landowner of property G (refer Appendix 1), or any other affected residence approved by the Director-General, unless the landowner has requested acquisition under the terms of this approval, the Proponent shall implement air quality mitigation measures, such as air conditioning, at any residence on the property, in consultation with the landowner. These additional mitigation measures must be reasonable and feasible.	Interviews with site environmental personnel indicate that no written request has been received from property G or any other affected residence. Hence no air quality mitigation measures have been required to be installed at any residence on the mentioned properties.	Not Applicable																																
Project Approval 08_0211	3.22	22.Air Quality Management	<p>The Proponent shall prepare and implement a detailed Air Quality Management Plan for the project to the satisfaction of the Director-General. This Plan must:</p> <p>(a) be prepared in consultation with DECCW by a suitably qualified expert whose appointment has been approved by the Director-General;</p> <p>(b) be submitted to the Director-General for approval within 6 months of this approval and prior any mining activities in either the Southern or Western Outlier Pits;</p>	<p>An Air Quality Management Plan (AQMP) was prepared by <i>SLR Global Environmental Solutions</i> dated 12.05.11 (Revision 1).</p> <p>A review of the adequacy and implementation of the AQMP is provided in the main report.</p> <p>a) SLR Consulting Australia was approved by the DoPI as suitably qualified experts to prepare the AQMP (letter dated 5.04.11). A letter from GSS Environmental to OEH dated 31.05.11 requesting comments on the AQMP was sighted. It was reported that no response was provided by OEH.</p>	Compliant (generally) Non-Compliant (with regards to adequacy of AQMP - Refer to adequacy assessment and recommendations in main report).																																
			<p>(c) include an Air Quality Monitoring Program that includes:</p> <ul style="list-style-type: none">a combination of real-time monitors (to monitor the impacts	b) A photo copy of a registered post receipt was sighted during the site audit. The package was addressed to																																	

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<p>during mining operations for the Western Outlier), high volume samplers and dust deposition gauges to monitor the dust emissions of the project; and</p> <ul style="list-style-type: none"> an air quality monitoring protocol for evaluating compliance with the relevant air quality impact assessment and land acquisition criteria in this approval; <p>(d) include protocols to ensure that the real-time air quality monitoring and meteorological monitoring data are assessed regularly, and that operations are relocated, modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and</p> <p>(e) all reasonable and feasible measures are implemented to minimise off-site dust, odour or fume emissions generated by the project.</p>	<p>DoPI and noted as containing the AQMP and NMP.</p> <p>c) The AQMP includes a monitoring program which includes:</p> <ul style="list-style-type: none"> - a single real-time instrument, high volume air samplers and dust deposition gauges; and - an air quality monitoring protocol. <p>The monitoring program is not considered adequate for the nature and scale of Charbon's operations. Refer to the review of the adequacy of the AQMP provided within the main report and associated recommendations.</p> <p>d) It is considered that the AQMP does not adequately address this requirement. Recommendations are provided in the main report.</p> <p>e) Sections 8 and 9 of the AQMP summarise measures to minimise off-site dust emissions. The control measures implemented on site are generally restricted to wet suppression of haul roads only. Given that no elevated particulate matter concentrations have been apparent from the monitoring program (since project approval) the existing controls may have been considered adequate by Charbon personnel. The site has an environmental risk register as part of the EMP which addresses the adequacy of environmental controls. Additionally the site has entered into a Pollution Reduction Program (PRP) through a variation to its EPL. The PRP includes a schedule of particulate matter reductions to be implemented by the site</p>	
Project Approval 08_0211	3.23	Meteorological Monitoring	During the life of the project, the Proponent shall ensure that there is a suitable meteorological station on the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.	A meteorological station has been installed on site and was inspected during the audit site visit. The station is maintained by ALS, who also provides a data management system for obtaining the meteorological data. The data management system was also inspected during the audit site inspection. An ALS report dated 12.10.11 detailing an upgrade to the Automatic Weather Station states that the station meets the NSW Approved Methods AM-1, AM-2 and AM-4.	Compliant
Project Approval 08_0211	3.24	Subsidence	The Proponent shall ensure that surface subsidence resulting from underground mining at the Western Underground is less than 20 mm.	<p>The western underground comprises first workings only. At the time of the audit 3 cross panels had been completed. Baseline monitoring had been completed as per the requirements of the Subsidence Monitoring and Contingency Plan.</p> <p>Discussions with the Mining Engineer indicated some monitoring had taken place and no subsidence was indicated by the monitoring results.</p>	Compliant
Project Approval	3.25	Subsidence Monitoring and	The Proponent shall prepare and implement a Subsidence Monitoring and Contingency Plan for the Western Underground	The Subsidence Monitoring and Contingency Plan for the Western Underground was submitted to the DoPI on	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
08_0211		Contingency Plan Development	to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with I&I NSW and submitted to the Director-General for approval 3 months prior to the commencement of mining operations at the Western underground; (b) include a program for monitoring pillar stability in the Western Underground; (c) include a program for baseline recording and later inspection of cliff faces and steep slopes and investigation of any occurrences or evidence of mass rock movements on the surface of the land which may be affected by mining the Western Underground; (d) provide for regular reporting to I&I NSW and the Department; and (e) include contingency measures to address any significant subsidence-related impacts.	<p>26.7.11. The Plan was prepared and submitted by GSS Environmental.</p> <p>a) the plan was submitted more than 3 months prior to commencement of mining operations in November 2011.</p> <p>b) the Plan includes a section of monitoring pillar stability in Section 7.2.</p> <p>c) the Plan includes monitoring as required in sections 7.3, 7.4 and 7.5.</p> <p>d) Section 9 of the plan details reporting requirements and processes.</p> <p>e) Section 8 of the Plan includes contingency measures. Discussions were held with the Senior Mining Engineer regarding implementation of the Plan. Given the very recent commencement of activities at the Western Underground, limited evidence of implementation of the Plan was available for review e.g. there was limited availability of surveying work to demonstrate pillar design was in compliance with the Plan requirements, although evidence of surveys were sighted. Evidence of implementation included:</p> <ul style="list-style-type: none"> - installation of monitoring points on cliff lines; - conduct of visual surveys of steep slopes prior to mining commencing. <p>However no Tiltmeter survey had been done and Charbon did not indicate this would be completed as was indicated in the Plan as this is now considered to have little value in assessing cliff failure potential.</p> <p>On the basis that mining has recently commenced, Charbon are considered in compliance with the Plan, however the plan needs to be amended to only include the monitoring that Charbon plans to undertake, so as to avoid non-compliance in the future.</p>	<p>Recommendation:</p> <p>Update the Subsidence Monitoring and Contingency Plan so that it only reflects monitoring that will be conducted by Charbon and not monitoring that is not planned to be undertaken such as installation of Tiltmeters.</p>

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	3.26	Subsidence - Existing Operations	The Proponent shall ensure that underground mining operations within the "Existing / Approved Underground Mine Area" as shown in Figure 2 of Appendix 2 are only conducted in accordance with a Subsidence Management Plan approved by I&I NSW.	Mining operations at the date of the audit inspection included first workings only, with one crew in the Haystack or Western underground, and another in the eastern workings (600 headings). First workings do not require an SMP, hence these activities were not occurring under an SMP. An SMP existed for the 8 Trunk 9 Trunk 901,902,903,904 and 905 Panels. The application for this SMP was dated November 2006 with the Approval dated 19.4.07. Two variations to the approval existed with one dated 4.11.10 and the other not dated. The Subsidence Management Plan was not assessed for adequacy and compliance against the Plan was not assessed on the basis that mining was not occurring under the Plan at the time of the audit.	Compliant (Not Assessed in full)
Project Approval 08_0211	3.27	Water Supply	The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its licensed water entitlements, to the satisfaction of the Director-General.	Charbon has completed a Water Balance Model (WBM) as part of the Water Management Plan (WMP) which outlines the water supply and demand for the project. The WBM predicts a water consumption of 120ML/annum and the available water is 270 ML/annum with extraction licenses of 231ML/annum plus bore licenses of 30ML/annum, demonstrating sufficient water availability.	Compliant
Project Approval 08_0211	3.28	Discharge Limits	The Proponent shall not discharge any water from the site or irrigate any waste water except as may be expressly provided by an EPL, or in accordance with section 120 of the Protection of the Environment Operations Act 1997.	Charbon discharges water (effluent) to land at locations listed in its EPL (O4). The EPL lists licensed discharge points. Refer to assessment of compliance with the EPL. Some incidents have occurred where discharges were outside of licence criteria. These are detailed in the assessment against the EPL.	Non – Compliant See EPL Compliance Assessment
Project Approval 08_0211	3.29	Prepare Site Water Management Plan	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with NOW and DECCW, and be submitted to the Director-General for approval within 12 months of the date of this approval; and (b) include a: • Site Water Balance; • Erosion and Sediment Control Plan; and • Surface Water and Groundwater Monitoring Programs.	The auditor sighted a WMP prepared by consultants GHD in September 2011. URS sighted letters to NOW and OEH seeking comments. NOW provided comments in writing, It was reported that OEH provided verbal comments stating they were satisfied with NOW's assessment of the WMP.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	3.30	Site water Balance	<p>The Site Water Balance must:</p> <p>(a) include details of:</p> <ul style="list-style-type: none"> • sources and security of water supply; • water use on-site; • water management on-site; • any off-site water transfers; • a program for the ongoing verification and refinement of the site water balance model; • reporting procedures; and <p>(b) undertake the first model verification within 12 months of the granting of project approval; and</p> <p>(c) investigate and implement all reasonable and feasible measures to minimise water use by the project.</p>	<p>(a) The auditor has sighted water balance modelling report by GHD dated September 2011 addressing condition requirements;</p> <p>(b) model verification has not taken place since project approval is within the 12-month timeframe;</p> <p>(c) although there is no documented provisions for water recycling, Charbon has constructed a new dam (Mine Dam 4, located at the proposed LDP4) where seepage from the tailings dams will be collected and reused in the CHPP.</p>	Compliant
Project Approval 08_0211	3.31	Erosion and Sediment Control Plan	<p>The Erosion and Sediment Control Plan must:</p> <p>(a) be consistent with the requirements of Managing Urban Stormwater: Soils and Construction, Volume 1 and 2E, 4th Edition, 2004 (Landcom);</p> <p>(b) identify activities that could cause soil erosion and generate sediment;</p> <p>(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;</p> <p>(d) describe the location, function, and capacity of erosion and sediment control structures; and</p> <p>(e) describe what measures would be implemented to maintain the structures over time.</p>	<p>The auditor has sighted an Erosion and Sediment Control Plan (ESCP) prepared by GSS Environmental dated September 2011. The ESCP addresses all points (a) to (e) of the condition. Charbon reportedly maintains erosion and sediment control measures after significant rain events, however these are not formally documented. Refer also to main report for assessment of implementation of WMP.</p>	<p>Compliant.</p> <p>Recommendation: There is an opportunity for improving the documentation on ESCP implementation, paying particular attention to record keeping and internal auditing of site practices.</p>
Project Approval 08_0211	3.32	Surface Water Monitoring Program	<p>The Surface Water Monitoring Program must include:</p> <p>(a) baseline data of surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project;</p> <p>(b) surface water and stream health impact assessment criteria;</p> <p>(c) a program to monitor and assess:</p> <ul style="list-style-type: none"> • impacts on surface water flows and quality; • impacts on the surface water supply of potentially affected landowners; • bank stability, riparian vegetation and macro-invertebrate populations along creek lines and ephemeral drainage lines downstream of all license discharge points; • potential acid mine drainage; • potential leakage or spillage from reject emplacement area and effluent irrigation; <p>(d) a program for the ongoing verification and refinement of the surface water model; and</p> <p>(e) reporting procedures for the results of the monitoring program and model verification.</p>	<p>Auditor has sighted SWMP prepared by GHD and dated September 2011. The program addresses items (a) to (e) of the condition.</p> <p>Riparian vegetation and macro-invertebrate population monitoring data evidence (excel spread sheets) provided by Charbon to cover 2009 and 2010 was very basic in nature. The 2010 data (excel spread sheet) did not include suitable detail. Potentially other evidence is available however was not provided.</p>	<p>Compliant</p> <p>Recommendation: That the riparian vegetation and macro-invertebrate population data collected for each monitoring effort be provided from ecologists in a more detailed manner, for example they could include field sheets, and be stored and filed.</p>

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	3.33	Groundwater Monitoring Program	The Groundwater Monitoring Program must include: (a) baseline data of the natural variation in groundwater levels, yield and quality; (b) groundwater impact assessment criteria (including for monitoring bores and privately-owned bores); (c) a program to monitor the impacts of underground or open cut mining on groundwater resources.	Auditor has sighted the GWMP prepared by GHD dated September 2011. The plan addresses the requirements of items (a) to (c) of the condition. No regular groundwater monitoring takes place on site, and out of the 2 bores listed in the plan only one is operable.	Non-Compliant. Recommendation: Implement groundwater monitoring program.
Project Approval 08_0211	3.34	Aboriginal Cultural Heritage Management Plan (Plan development)	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: (a) be prepared in consultation with DECCW and the Aboriginal community, and be submitted to the Director-General for approval within 12 months of the date of this approval and prior to any activities that would disturb either known Aboriginal sites or Sensitive Archaeological Landforms within the 8 Trunk Open Cut Pit area; (b) include a: <ul style="list-style-type: none"> detailed assessment of the Sensitive Archaeological Landform located within the 8 Trunk Open Cut pit area; detailed salvage program and management plan for Aboriginal sites and potential archaeological deposits within the project disturbance area and measures to provide a keeping place for any salvaged objects; detailed description of the measures that would be implemented to protect and monitor Aboriginal sites outside the project disturbance area; description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project; and protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site. 	An Aboriginal Cultural Heritage Management Plan was developed by RPS and submitted to DoPI on 6.09.11 which was prior to the required date of 7.09.11 as defined by the condition. A) the Plan was submitted to NSW OEH on 6.09.11 to satisfy this requirement. Charbon reported that it did not receive comments on the Plan from OEH. Section 10.2 of the Plan describes the consultation with the Aboriginal Community conducted as part of the development of the Plan. The Plan was developed prior to disturbance of known aboriginal sites or SALs within 8 Trunk Open Cut. b) Page 2 of the Plan defines where each of the condition requirements are defined in the document. The Plan includes a response to the condition requirements.	Compliant
Project Approval 08_0211	3.34	Aboriginal Cultural Heritage Management Plan Implementation	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: (a) be prepared in consultation with DECCW and the Aboriginal community, and be submitted to the Director-General for approval within 12 months of the date of this approval and prior to any activities that would disturb either known Aboriginal sites or Sensitive Archaeological Landforms within the 8 Trunk Open Cut Pit area; (b) include a: <ul style="list-style-type: none"> detailed assessment of the Sensitive Archaeological Landform located within the 8 Trunk Open Cut pit area; 	Site observations confirmed that actions as described in the Plan are generally being carried out.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<ul style="list-style-type: none"> detailed salvage program and management plan for Aboriginal sites and potential archaeological deposits within the project disturbance area and measures to provide a keeping place for any salvaged objects; detailed description of the measures that would be implemented to protect and monitor Aboriginal sites outside the project disturbance area; description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project; and protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site. 		
Project Approval 08_0211	3.35	Road Construction	<p>Prior to 31 August 2011, the Proponent shall seal Charbon Road:</p> <p>(a) to the north of its intersection with Standard Avenue for a distance 50 m; and</p> <p>(b) for a distance of 100 m either side of any other residential driveways north of Standard Avenue, to the satisfaction of the Director-General.</p>	Site inspection observations confirmed that Charbon Road is sealed as required of the condition.	Compliant
Project Approval 08_0211	3.36	Contributions for Road Infrastructure	<p>The Proponent shall pay Council:</p> <p>(a) an annual road maintenance contribution of \$0.05 per tonne per kilometre for coal hauled on public roads to Cement Australia's Kandos facility, to be paid by 31 July each year for coal hauled in the previous financial year;</p> <p>(b) a road maintenance contribution fee at a rate of \$0.77 per tonne of coal transported from the mine to the Castlereagh Highway en route to Mount Piper or Wallerawang Power Stations; and</p> <p>(c) a contribution of \$210,000 to the Carwell Creek Bridge upgrade, to be paid within 30 days of any commencement of upgrade works by Council, to the satisfaction of the Director-General.</p> <p><i>Note: The contributions referenced in paragraphs (a) and (b) of this condition shall be indexed in accordance with the Consumer Price Index.</i></p>	<p>a) receipts were sighted indicating payment to Council of \$8,606.77 for haulage routes.</p> <p>b) No coal reported to be hauled to the power stations</p> <p>c) A remittance advice 7915 dated 31.08.11 was sighted with an amount of \$210,000 included.</p>	Compliant
Project Approval 08_0211	3.37	Contributions to Road Infrastructure	<p>Within 30 days of this approval, the Proponent shall pre-pay Council a road maintenance contribution bond of \$75,000. Once the progressive fee calculated on the basis of actual coal road haulage to the Castlereagh Highway reaches \$75,000, the Proponent shall again pre-pay Council \$75,000, and so on, until the mine ceases production. Once mining ceases, the road contribution maintenance fee total, at that time, shall be deducted from the bond and the outstanding amount shall be refunded by Council to the Proponent.</p>	A receipt from Mid-Western City Council dated 6.10.10 was sighted with an amount of \$75,000 for the first payment. Charbon indicated that the progressive fee did not reach \$75,000 as no hauling has been carried out to Mt Piper or Wallerawang, hence no further payments were required.	Compliant

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Project Approval 08_0211	3.38	Road Haulage	From 1 September 2011, or as otherwise agreed by the Director-General, the Proponent shall ensure that mine-related coal haulage traffic accessing Cement Australia's Kandos facility, does so via Charbon Road only.	Since this date, Charbon reported that mine related haulage traffic has used Charbon Road. Haulage to Kandos stopped in mid 2011 due to the closure of the cement plant. On 12.09.11 Charbon requested approval for back hauling of surplus coal to Charbon. Approval was gained in a letter dated 5.10.11. This coal haulage was completed on 15.02.12.	Compliant
Project Approval 08_0211	3.39	Road Haulage	Except with the prior approval of the Director-General, the Proponent shall not dispatch more than 20 laden coal trucks per day from the site to Cement Australia's Kandos facility.	Charbon reported that no more than 20 trucks were dispatched to Kandos per day. This was not able to be fully verified by URS, however as the actions had stopped it was considered of minimal consequence.	Compliant
Project Approval 08_0211	3.40	Road Haulage	The Proponent shall not dispatch more than 100 laden coal trucks per day from the site to either or both Wallerawang or Mount Piper power stations.	It was reported that no trucks had been dispatched to either Wallerawang or Mount Piper power stations within the audit period.	Compliant
Project Approval 08_0211	3.41	Road Haulage	The Proponent shall not haul coal by public roads to destinations other than Cement Australia's Kandos facility and Mount Piper and Wallerawang Power Stations.	Charbon reported that no coal has been hauled by road to any other location other than the Lime plant which is by private road or Kandos, which was completed mid 2011.	Compliant
Project Approval 08_0211	3.42	Road Safety Audit and Action Plan	Prior to 1 March 2011, the Proponent shall: (a) undertake a road safety audit of the public roads forming the coal haulage route from Charbon mine to the Castlereagh Highway, and provide a copy of this audit report to both Council and the Department; and (b) provide an action plan for the implementation of reasonable and feasible recommendations of the study (if any), to the satisfaction of the Director-General. <i>Note: The timing of the commencement of individual actions in the action plan may be influenced by the timing and extent of road haulage to power stations.</i>	An extension of time for the road safety audit was sighted dated 28.02.11. No response was sighted allowing the extension. A cover letter dated 2.05.11 was sighted for the Road Safety Audit as submitted to the Mid-Western Council. A postal receipt dated 4 May 2011 was sighted as evidence indicating the report was issued to DOPI. The requirement to truck coal was only in the event of another Centennial mine not being able to support a power station contract. This event has not happened to date. The Road Safety Audit report dated February 2011 was sighted and includes an Action Plan. A letter responding to the Audit from council was sighted and did raise some comments on the audit report. Charbon indicated they will not act on the audit plan until such time as road haulage is required.	Compliant
Project Approval 08_0211	3.43	Visual Amenities and Lighting	The Proponent shall: (a) implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the project; (b) ensure no outdoor lights shine above the horizontal; and (c) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Director-General.	Charbon has not formally assessed visual and off site lighting impacts of the project and no formal process has been followed to mitigate any impacts. Charbon could not demonstrate that outdoor lights do not shine above the horizontal or that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting; to the satisfaction of the Director-General.	Non-Compliant Recommendation: Conduct a lighting assessment to demonstrate compliance with this condition.

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				<p>Charbon has sought and received a proposal to conduct the required assessments to meet compliance with this condition. The proposal had not been formalise with a work order prior to the audit.</p> <p>Charbon notes that there have been no complaints regarding lighting or visual impacts from the mine in the period of the approval. It also noted that lights not required are turned off as part of a site Energy Savings Action Plan.</p>	
Project Approval 08_0211	3.44	Greenhouse Gas and Energy Efficiency	The Proponent shall implement all reasonable and feasible measures to minimise: (a) energy use on site; and (b) scope 1 and 2 greenhouse gas emissions produced by the project, to the satisfaction of the Director-General.	<p>(a) Charbon has developed a Greenhouse Gas and Energy Management Plan for the project which aims to identify energy saving opportunities at the facility. Additionally Charbon has engaged Blue Diamond Energy Solutions to assist in energy saving opportunities. Centennial Coal documentation (titled <i>Energy Efficiency opportunities project Evaluation Sheet Charbon</i>) was sighted during the audit. The minimisation of energy use on site is considered an ongoing process.</p> <p>(b) Currently scope 2 greenhouse emissions directly relate to electricity use, and hence are covered under the above mentioned documentation. Charbon staff indicate that methane content of the coal extraction is extremely low, hence limiting the potential for reduction. A maintenance management and maintenance program exists at the facility to facilitate energy efficiencies in site vehicles and equipment. The minimisation of all these factors is considered an ongoing process.</p> <p>Energy use and greenhouse gas emissions are reported in the AEMR which is submitted the Director General. (confirm)</p>	Compliant
Project Approval 08_0211	3.45	Greenhouse Gas and Energy Efficiency	The Proponent shall prepare and implement a Greenhouse Gas and Energy Management Plan for the project, to the satisfaction of the Director-General. This plan must be submitted to the Director-General for approval within 12 months of the date of this approval.	A letter from GSS Environmental to DoPI dated 6.09.11 detailing the lodgement of a Greenhouse Gas and Energy Management Plan was sighted during the audit.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	3.46	Waste Minimisation	The Proponent shall: (a) minimise the waste generated by the project; (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; (c) manage on-site sewage treatment and disposal in accordance with the requirements of the applicable EPL; and (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Director-General.	Charbon has developed a Waste Management Plan dated 2009. Charbon reported that JR Richards has a Centennial wide contract that includes the management and disposal of wastes at Charbon. JR Richards provide monthly reports tracking waste and recycling volumes. This information is entered into EOD to provide overall results for Charbon and other Centennial mines. a) waste is minimised through recycling of steel, paper and cardboard, and waste oils. b) based on site observations, solid wastes were observed to be placed in bins marked for general wastes and recyclable wastes (paper, cardboard and steel). c) This is discussed in the EPL. d) waste management is reported on in AEMR's.	Compliant Recommendation: It is recommended that the Waste Management Plan be updated to reflect any changes since it was developed in 2009 and that it incorporates the activities and reporting of new waste contractors JR Richards.
Project Approval 08_0211	3.47	Bushfire Management	The Proponent shall: (a) ensure that the project is suitably equipped to respond to fires on site; and (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the project.	a) Charbon management considers that there is sufficient infrastructure and equipment to respond to fires. URS has not undertaken a separate adequacy assessment of this equipment. A Bushfire Management Plan has been prepared and details some of this equipment. b) The last time RFS were on site was to manage a fire started by lightning in 2010. An event has not occurred whereby the RFS has required the assistance of Charbon.	Compliant (not fully assessed) Recommendation: Review the Bushfire Management Plan. It is recommended that the RFS and local fire brigade are invited on site regularly to familiarise themselves with Charbon infrastructure and fire fighting equipment. This could also include carrying out emergency scenarios to practice a combined response to an incident (it is acknowledged that employees of Charbon are members of the RFS and Fire Brigade).

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations																
Project Approval 08_0211	4.1	Biodiversity Offsets	<p>Prior to 31 December 2012, or clearing of any EEC vegetation in the 8 Trunk Open Cut Pit area, or as otherwise approved by the Director-General, the Proponent shall implement a Biodiversity Offset Strategy, as summarised in Table 1, to the satisfaction of the Director-General.</p> <table><tr><td colspan="2">Table 1: Biodiversity Offset Strategy areas</td></tr><tr><td>Vegetation Community</td><td>(ha)</td></tr><tr><td>Grey Gum–Stringybark Forest</td><td>41</td></tr><tr><td>Mountain Grey Gum–Grey Gum–Mountain Hickory Sheltered Forest</td><td>13</td></tr><tr><td>Stringybark–Blakely’s Red Gum–Yellow Box Woodland</td><td>13</td></tr><tr><td>Yellow Box – Blakely’s Red Gum Woodland (EEC)</td><td>57</td></tr><tr><td>Cleared Land (to be revegetated)</td><td>47</td></tr><tr><td>Total</td><td>171 ha</td></tr></table> <p>Notes: The quality of the areas selected to be offset is a key consideration in the Director-General’s consideration.</p>	Table 1: Biodiversity Offset Strategy areas		Vegetation Community	(ha)	Grey Gum–Stringybark Forest	41	Mountain Grey Gum–Grey Gum–Mountain Hickory Sheltered Forest	13	Stringybark–Blakely’s Red Gum–Yellow Box Woodland	13	Yellow Box – Blakely’s Red Gum Woodland (EEC)	57	Cleared Land (to be revegetated)	47	Total	171 ha	<p>At the time of the audit Charbon was in the process of finalising and securing the offset through submission of the Compensatory Habitat Management Plan (CHMP) (Biodiversity Offset Strategy) and negotiations with the Department of Sustainability Environment Water Populations and Communities (SEWPaC).</p> <p>This condition item is due prior to 31 December 2012 or before EEC vegetation clearance in the 8 Trunk Open Cut area, therefore this is not a requirement for action within the audit period being assessed.</p> <p>The CHMP was submitted 18.11.12 - email evidence sighted and is awaiting approval.</p>	Not Applicable
Table 1: Biodiversity Offset Strategy areas																					
Vegetation Community	(ha)																				
Grey Gum–Stringybark Forest	41																				
Mountain Grey Gum–Grey Gum–Mountain Hickory Sheltered Forest	13																				
Stringybark–Blakely’s Red Gum–Yellow Box Woodland	13																				
Yellow Box – Blakely’s Red Gum Woodland (EEC)	57																				
Cleared Land (to be revegetated)	47																				
Total	171 ha																				
Project Approval 08_0211	4.2	Biodiversity Offsets	<p>Prior to 31 December 2012, the Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas to the satisfaction of the Director-General.</p>	As above for Condition 4.1	Not Applicable																
Project Approval 08_0211	4.3	Biodiversity Offsets	<p>Within 6 months of the approval of the Landscape Management Plan (see condition 6 below), the Proponent shall lodge a conservation and biodiversity bond with the Department to ensure that the Biodiversity Offset Strategy is implemented in accordance with the performance and completion criteria of the Landscape Management Plan. The sum of the bond shall be determined by:</p> <p>(a) calculating the full cost of implementing the offset strategy; and</p> <p>(b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Director-General.</p> <p>Notes:</p> <ul style="list-style-type: none">• If the offset strategy is completed to the satisfaction of the Director-General, the Director-General will release the conservation bond.• If the offset strategy is not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.• If amendments to the Mining Act 1992 allow the Minister for Mineral Resources to require rehabilitation securities under a mining lease which apply to the implementation of rehabilitation works outside the boundary of a mining lease, then the Proponent may transfer the conservation bond required under this approval to the Minister of Mineral Resources, provided the Director-General and I&I NSW agree.	Not yet triggered as the Landscape Management Plan (LMP) had not been approved at the time of the audit.	Not Applicable																

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations												
Project Approval 08_0211	4.4	Rehabilitation Objectives	<p>The Proponent shall rehabilitate the site to the satisfaction of the Director-General and I&I NSW in accordance with the rehabilitation objectives in</p> <table><caption>Table 2: Rehabilitation Objectives</caption><tr><th>Domain</th><th>Rehabilitation objective</th></tr><tr><td>Surface facilities and infrastructure areas</td><td>Revegetate cleared areas with forest woodland and grassland communities similar to those in surrounding areas and consistent with the final landform (as reproduced in Appendix 5).</td></tr><tr><td>Other land affected by the project, including open cut areas</td><td>Progressively rehabilitate disturbed areas to:<ul style="list-style-type: none">• create a stable post-mining landform that is consistent with the final landform in the EA (as reproduced in Appendix 5) and surrounding areas;• restore ecosystem function, including maintaining or establishing self-sustaining native ecosystems;• maintain the diversity of local flora;• maintain and enhance habitat of native fauna;• minimise the risk of erosion; and• ensure that there is no safety hazard beyond that existing prior to mining.</td></tr><tr><td>Built features</td><td>Restore or repair public infrastructure and other built features to pre-mining condition or equivalent, except with:<ul style="list-style-type: none">• the written agreement of the owner; or• where the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>.</td></tr><tr><td>Community</td><td>Minimise the adverse socio-economic effects associated with mine closure including the reduction in local and regional employment.</td></tr><tr><td></td><td>Ensure public safety.</td></tr></table> <p><i>Note: The Proponent may be required to define other rehabilitation objectives in management plans or strategy required under this schedule.</i></p>	Domain	Rehabilitation objective	Surface facilities and infrastructure areas	Revegetate cleared areas with forest woodland and grassland communities similar to those in surrounding areas and consistent with the final landform (as reproduced in Appendix 5).	Other land affected by the project, including open cut areas	Progressively rehabilitate disturbed areas to: <ul style="list-style-type: none">• create a stable post-mining landform that is consistent with the final landform in the EA (as reproduced in Appendix 5) and surrounding areas;• restore ecosystem function, including maintaining or establishing self-sustaining native ecosystems;• maintain the diversity of local flora;• maintain and enhance habitat of native fauna;• minimise the risk of erosion; and• ensure that there is no safety hazard beyond that existing prior to mining.	Built features	Restore or repair public infrastructure and other built features to pre-mining condition or equivalent, except with: <ul style="list-style-type: none">• the written agreement of the owner; or• where the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>.	Community	Minimise the adverse socio-economic effects associated with mine closure including the reduction in local and regional employment.		Ensure public safety.	<p>The LMP inclusive of the Rehabilitation Management Plan covers all aspects outlined in this condition.</p> <p>The LMP, had not been formally approved following submission in September 2011 at the time of the audit. Discussions with the DoPI during the site inspection indicated that it had not approved the LMP at that time.</p> <p>Refer below for progressive rehabilitation information pertaining to Schedule 4, Condition 5 below.</p> <p>A number of recommendations are made with regards to the implementation of the LMP.</p>	<p>Compliant</p> <p>Refer to main report for further discussion.</p> <p>LMP Recommendation:</p> <ul style="list-style-type: none">- The Final Landform Figure - Table 2 and Figure 3 (LMP) does not show vegetation communities, as per Table 2. <p>Site Recommendations:</p> <ul style="list-style-type: none">- Further diversity to be added to species collection and rehabilitation list- Topsoil collection, storage, usage and spreading practices to be improved. <p>Charbon to manage topsoil with a more rigid approach to ensure topsoil is managed in accordance with LMP (Section 6.1.9, Topsoil Management) guidelines, which state:</p> <ul style="list-style-type: none">* clear separation of topsoil,* minimising of stockpile requirements, favouring direct placement,* topsoil piles get treated for weeds, and* maximum stockpile depth of approximately 3m for long term greater than 6 month storage.
Domain	Rehabilitation objective																
Surface facilities and infrastructure areas	Revegetate cleared areas with forest woodland and grassland communities similar to those in surrounding areas and consistent with the final landform (as reproduced in Appendix 5).																
Other land affected by the project, including open cut areas	Progressively rehabilitate disturbed areas to: <ul style="list-style-type: none">• create a stable post-mining landform that is consistent with the final landform in the EA (as reproduced in Appendix 5) and surrounding areas;• restore ecosystem function, including maintaining or establishing self-sustaining native ecosystems;• maintain the diversity of local flora;• maintain and enhance habitat of native fauna;• minimise the risk of erosion; and• ensure that there is no safety hazard beyond that existing prior to mining.																
Built features	Restore or repair public infrastructure and other built features to pre-mining condition or equivalent, except with: <ul style="list-style-type: none">• the written agreement of the owner; or• where the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>.																
Community	Minimise the adverse socio-economic effects associated with mine closure including the reduction in local and regional employment.																
	Ensure public safety.																
Project Approval 08_0211	4.5	Progressive Rehabilitation	<p>To the extent that mining operations permit, the Proponent shall carry out rehabilitation progressively, that is, as soon as reasonably practicable following the disturbance.</p>	<p>Charbon last conducted rehabilitation activities in 2007. Since this time operations have been focussed in the Southern Open Cut.</p> <p>Charbon reported that the mine had not been progressively rehabilitated since 2007 "To the extent that mining operations permit", due to what it has indicated are DoPI approval delays. Charbon indicated that these delays have meant going back into the open cut to extract coal from other seams, and hence preventing rehabilitation occurring.</p> <p>Progressive rehabilitation was evident within planned 2012 works (visually and via documents such as; Rehabilitation Provisioning Spread sheet, 2012, invoices, correspondence etc.), however this is not part of this audit period.</p>	<p>Indeterminate</p>												

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
				During the audit site inspection the following was noted: Progressive rehabilitation has been assessed as being Indeterminate. During the audit there was insufficient information provided in order to demonstrate what progressive rehabilitation has been undertaken since 2007, or demonstration of the issues that have led to a lack of 'progressive rehabilitation' during the audit period. It was noted that the AEMR (2010), mentions weather delays impacting erosion control and weed control works during the audit period. Over a longer term view, the 2007 rehabilitation could be defined as progressive, particularly if proposed rehabilitation planned for 2012 is undertaken.	
Project Approval 08_0211	4.6	Landscape Management Plan	The Proponent shall prepare a Landscape Management Plan for the project to encompass all proposed mine activities and potential impacts associated with landscape management for the site and subsequently implement this Plan to the satisfaction of the Director-General. This plan must: (a) be submitted to the Director-General for approval within 12 months of the date of this approval; (b) be prepared by suitably qualified expert/s whose appointment/s have been endorsed by the Director-General; (c) be prepared in consultation with I&I, NOW, DECCW and Council; and (d) include a: • Rehabilitation and Offsets Management Plan; and • Mine Closure Plan.	The LMP, had not been formally approved following submission in September 2011. Discussions with the DoPI during the site inspection indicated that they had not approved the LMP at that time. Evidence contained within LMP document was sighted to cover a), b), c) and d). Comments on adequacy of the plan are provided in the main report.	Compliant
Project Approval 08_0211	4.7	Rehabilitation and Offsets Management Plan	The Rehabilitation and Offsets Management Plan must include: (a) the rehabilitation objectives for the site, including those listed in Table 2 above, and as otherwise proposed for offset areas; (b) a strategic description of how the rehabilitation of the site would be integrated with surrounding land use; (c) detailed performance and completion criteria for site rehabilitation and the implementation of the offset strategy; (d) a detailed description of the short and long-term measures that would be implemented to: • rehabilitate the site in accordance with the rehabilitation objectives; • implement the offset strategy (see condition 1 above); and • manage the remnant vegetation and habitat on the site and in the offset areas, including the existing Compensatory Habitat Area (see Appendix 2); (e) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: • progressively rehabilitating disturbed areas; • implementing revegetation and regeneration within the disturbance areas and offset areas	The Rehabilitation Management Plan (RMP) and Compensatory Habitat Management Plan (CHMP) are provided within the LMP. The LMP addresses each of these condition items in the following areas: a) listed in LMP Section 6, Section 1 and 3 (CHMP) b) LMP c) LMP, Section 1 & Appendix 1 (CHMP) d) Section 3 (CHMP) e) LMP, Section 3 (CHMP) f) LMP, Section 4 (CHMP) g) LMP, Section 4 (CHMP) h) LMP, Section 3.4 (CHMP) In addition the Charbon Colliery Bushfire Risk Management Plan, June 2007, was also viewed with respect to this condition item and found to be sufficient. The Final Landform Figure - Table 2 and Figure 3 (LMP) does not show vegetation communities, as per Table 2.	Compliant Recommendation: It is recommended that when reviewing the LMP, the Final Landform Figure - Table 2 and Figure 3 (LMP) shows vegetation communities, as per Table 2.

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<ul style="list-style-type: none"> protecting vegetation and soils outside the disturbance areas; undertaking pre-clearance surveys; managing remnant vegetation and habitat on site; minimising impacts on fauna; minimising visual impacts; conserving and reusing topsoil, timber, seed and habitat resources (rocks and logs); controlling weeds, feral pests, and access; rehabilitating creeks and drainage lines, both within and outside of disturbance areas on the site; managing potentially acid-forming materials (including effective isolation of these materials in reject emplacement areas); managing bushfires; and managing any potential conflicts between the rehabilitation works and Aboriginal cultural heritage; <p>(f) a detailed description of how the performance of the rehabilitation works and offsets would be monitored over time to achieve the stated objectives and against the relevant performance and completion criteria;</p> <p>(g) a program to review this plan at least every 3 years; and</p> <p>(h) details of who is responsible for monitoring, reviewing and implementing the plan;</p>		
Project Approval 08_0211	4.8	Mine Closure Plan	<p>The Mine Closure Plan must:</p> <p>(a) define the objectives and criteria for mine closure;</p> <p>(b) investigate options for the future use of the site;</p> <p>(c) investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local and regional employment levels;</p> <p>(d) describe the measures that would be implemented to minimise or manage the on-going environmental effects of the project; and</p> <p>(e) describe how the performance of these measures would be monitored over time.</p> <p><i>Note: The plan should reflect the indicative Final Landform shown in Appendix 5.</i></p>	The Mine implementation measure and Closure Plan as part of the LMP was found to be compliant with each of the Project Approval Items a) to e) in terms of; objective definition, future use options, socio-economic effects, implementation measures and performance criteria.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	5.1	Environmental Management Strategy	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must:</p> <p>(a) be submitted to the Director-General for approval within 6 months of the date of this approval;</p> <p>(b) provide the strategic framework for environmental management of the project;</p> <p>(c) identify the statutory approvals that apply to the project;</p> <p>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</p> <p>(e) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> 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; and respond to emergencies; and (f) include: copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and a clear plan depicting all the monitoring currently being carried out within the project area. 	<p>Charbon, through its consultants GSS Environmental, submitted an Environmental Management Strategy for the project to DoPI on the 3.03.11. This was within the 6 months timeframe for the submission.</p> <p>Page 8 of the Strategy defines where in the strategy the various requirements are located in the document. Generally the Strategy included the elements required of the Condition.</p> <p>Comments relating to the adequacy of the Strategy are provided in the main report.</p> <p>It is noted that the Strategy is dated March 2011, hence there has been less than one year of implementation time. As such, many of the higher level requirements of the Strategy, such as annual review, update of plans etc., have not been triggered.</p> <p>It is noted that the Strategy does not recognise Big Rim as a contractor on site, hence does not address how they are responsible for management of environmental aspects.</p> <p>Much of the monitoring as required of the Strategy is defined in the various management plans - implementation of these is discussed in the relevant section.</p> <p>Comment on Implementation of the Strategy is provided in the main report.</p>	<p>Compliant</p> <p>See comments in the main report relating to Implementation and adequacy of the Strategy</p> <p>Recommendation:</p> <p>The Strategy be reviewed to recognise Big Rim and the management of Big Rim by Charbon. This should include defining of responsibilities and accountabilities, inspection regimes, meetings and other contractor management processes.</p>
Project Approval 08_0211	5.2	Management Plan Requirements	<p>The Proponent shall ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines by a suitably qualified expert/s whose appointment has been endorsed by the Director-General. The Plans must include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> the relevant statutory requirements (including any relevant approval, licence or lease conditions); any relevant limits or performance measures/criteria; and the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p>	<p>An adequacy assessment of the key relevant plans has been undertaken and presented in the main part of the report. Generally plans have been developed by experts as approved by the Director -General.</p> <p>Reference is made to the main report for details of compliance with this section.</p>	<p>Refer to main report for adequacy assessments of plans.</p>

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> impacts and environmental performance of the project; and effectiveness of any management measures (see (c) above); <p>(e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria; and <p>(h) a protocol for periodic review of the plan.</p> <p><i>Note: At the discretion of the Director-General, some of these requirements may be waived where they are either not relevant or necessary.</i></p>		
Project Approval 08_0211	5.3	Annual Review	<p>By 31 March 2011, and annually thereafter, the Proponent shall submit a report to the Director-General reviewing the annual environmental performance of the project to the satisfaction of the Director-General. This review must:</p> <p>(a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> the relevant statutory requirements, limits or performance measures/criteria; the monitoring results of previous years; and the relevant predictions in the EA; <p>(c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.</p>	<p>Charbon has prepared Annual Environmental Management Reports (AEMRs) and URS sighted AEMRs for 2006, 2007, 2008, 2009 and 2010.</p> <p>An Annual Review for 2011 has not yet been completed, however Charbon plans to finalise the Review prior to the due date of 31 March 2012.</p> <p>The 2010 AEMR was reported to have been developed to meet the requirement of the Approval, and the requirements of the various Mining Leases for DTIRIS-DRE. A cover letter for the Annual review dated 30 March 2011 was sighted, indicating the Review was sent to DTIRIS-DRE, Mid West Regional Council, Forests NSW and OEH.</p> <p>Invitations for a site inspection as part of the AEMR process were also sent at this time and an onsite meeting and inspection was held on 12 May 2011. The meeting was attended by DTIRIS-DRE and OEH.</p> <p>The AEMR was accepted by DTIRIS_DRE in a letter dated 7.11.11, however it noted that additional information is required for 2011 on rehabilitation progress (copied in recommendations).</p> <p>OEH sent a letter to Charbon following the site inspection with the following comments:</p> <ul style="list-style-type: none"> - OEH noted works done to address water management at the mine such as new dam at LDP2, removal of sediment form LDP3 and water levels in LDP3 being kept to a minimum. 	<p>Compliant</p> <p>Recommendations:</p> <p>Maintain all sediment fences free of sediment and confirm controls downstream of 2 trunk ROM were adequate.</p> <p>Ensure the 2011 AEMR/Annual review includes more detailed information on rehabilitation as required by DTIRIS-DRE and from DoPI as required.</p> <p>For future AEMRs Charbon should further clarify where the requirements of this condition have been addressed, and should provide more detail to support findings of compliance or otherwise.</p>

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
				<p>- some issue were identified that required rectification. These included:</p> <ul style="list-style-type: none"> -oil/lubricant spill in the vicinity of generators near the bath house; - erosion and sediment controls at 2 trunk ROM loading facility were inadequate; and - sediment build up in sediment fences located to the south of the entrance road to Haystack mountain box cut. <p>These works were to be completed by 30 June 2011. URS noted that the works had been done, however did note sediment building up in sediment fences down gradient of the 2 trunk ROM loading facility.</p> <p>New generators had been installed to replace older units that were identified to be the source of the oils.</p> <p>Section 3.19.2 of the AEMR noted that Table 18 defined where in the AEMR each sub-condition of the approvals was addressed, however the Table sighted by URS did not include this detail. URS' review of the AEMR found that the report was brief, that correlation of the report to the condition requirements was not clear hence it was difficult to assess that all of the DoPI requirements had been addressed in full. For example, compliance related to dust and noise were noted, however compliance was not assessed for general conditions of the DA, EPL or Mining Leases.</p>	
Project Approval 08_0211	5.4	Revision of Strategies, Plans and Programs	<p>Within 3 months of the submission of an:</p> <p>(a) audit report under condition 8 of schedule 5; and</p> <p>(b) incident report under condition 6 of schedule 5; and</p> <p>(c) annual review under condition 3 of schedule 5, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i></p>	<p>This condition had not been triggered during the audit period. .</p> <p>Whist one incident has occurred on the site that would warrant a review, this occurred prior to finalisation of the plan (water discharge event in 2010).</p>	Not Applicable

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	5.5	Community Consultative Committee	<p>The Proponent shall establish a Community Consultative Committee (CCC) for the Charbon Coal Project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version) to the satisfaction of the Director-General.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval. In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, affected councils, recognised environmental groups and the general community in the area of the project. • In establishing the CCC, the Department will accept the continued representation from existing CCC members, however the Proponent should ensure that adequate representation is achieved for landowners within the area surrounding the Project. 	<p>A new Charbon Colliery Community Consultative Committee (CCC) has been established since the 2010 Approval. A letter dated 10.03.11 from DoPI was sighted approving Ms Margaret MacDonald-Hill to position of Independent Chair for the CCC. One CCC meeting has been held on 5.09.11. Charbon demonstrated an awareness of the DoPI Guidelines for CCC's and indicated that the CCC were happy for 2 yearly meetings.</p> <p>Minutes of the first meeting were observed on the Charbon/Centennial website.</p>	Compliant
Project Approval 08_0211	5.6	Incident Reporting	<p>The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.</p>	<p>An incident comprising an exceedance of Total Suspended Solids occurred between 1-10th of December 2010. While the incident was reported to OEH at the time, Charbon did not report the incident to DoPI until 29.01.11, which was outside the requirement of within 7 days.</p>	<p>Non-Compliant</p> <p>Recommendation: Include the requirement to report incidents to the DoPI within 7 days in the relevant notification and reporting procedures. .</p>
Project Approval 08_0211	5.7	Access to Information	<p>From 31 August 2011, the Proponent shall make the following information publicly available on its website to the satisfaction of the Director-General:</p> <ul style="list-style-type: none"> (a) all current statutory approvals; (b) all approved strategies, plans and programs required under this approval; (c) quarterly environmental reports, which include a comprehensive summary of all monitoring results required under any strategy, plan or program approved under this approval; (d) a complaints register, updated on a quarterly basis; (e) minutes of CCC meetings; (f) Annual Reviews under this approval; (g) any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit; and (h) any other matter required by the Director-General. <p>The information on the website shall be kept up to date to the satisfaction of the Director-General. Information required to be placed on the website under (c)-(h) above must remain on the website for a period of not less than five years.</p>	<p>Charbon generally held the required documents on the Charbon/Centennial website as defined by the condition.</p> <p>One potential omission was that only the Project Approval was included under requirement a). There are a number of approvals, licences and permits that the mine are required to hold. Charbon should consider other approvals as appropriate to be included on the website.</p>	<p>Compliant</p> <p>Recommendation: In consultation with DoPI consider what other approvals would be suitable for inclusion on the website.</p>

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	5.8	Independent Environmental Audit	<p>By 31 December 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must:</p> <p>(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;</p> <p>(e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and</p> <p>(f) be completed within 2 months of the approval of the audit team.</p> <p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.</i></p>	This audit report demonstrates compliance with this requirement. The audit team were approved in a letter from DoPI dated 22.12.11. The audit report has addressed conditions b) to e). The audit site inspection was completed within 2 months of approval of the audit team.	Compliant
Project Approval 08_0211	5.9	Independent Environmental Audit	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.	This cannot be verified at the time of writing. The report will be provided to Charbon within the timeframe required. It is assumed Charbon will submit the report with responses to recommendations within the date required.	Not Applicable – to be assessed in future audits
Project Approval 08_0211	6.1	Notification of Landowners	If the results of monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall, within 2 weeks of obtaining the monitoring results, notify the Director-General, the affected landowners and tenants (including tenants of mine-owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3.	A review of noise and dust monitoring information indicated that impacts had not been in excess of the relevant impact assessment criteria.	Compliant
Project Approval 08_0211	6.2	Independent Review	<p>If a landowner of privately-owned land considers the project to be exceeding the impact assessment criteria in schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land. If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General's decision:</p> <p>(a) consult with the landowner to determine his/her concerns;</p>	Based on Condition 6.1 above, this condition has not been triggered.	Not Applicable

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<p>(b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to:</p> <ul style="list-style-type: none"> • determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and • identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and <p>(c) give the Director-General and landowner a copy of the independent review.</p>		
Project Approval 08_0211	6.3	Independent Review	<p>If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.</p> <p>If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, then the Proponent shall:</p> <p>(a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Director-General.</p> <p>If the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria, then the Proponent may discontinue the independent review with the approval of the Director-General.</p>	Not Triggered - see 6.1.	Not Applicable
Project Approval 08_0211	6.4	Land Acquisition	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project, having regard to the:</p> <ul style="list-style-type: none"> • existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and • presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 6 of schedule 3 or additional 'air quality mitigation measures' in condition 21 of schedule 3; 	Not Triggered - see 6.1.	Not Applicable

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> • relocating within the same local government area, or to any other local government area determined by the Director-General; and • obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.</p> <p>Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> • consider submissions from both parties; • determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; • prepare a detailed report setting out the reasons for any determination; and • provide a copy of the report to both parties. <p>Within 14 days of receiving the independent valuer's report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p> <p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Director-General shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above and the independent valuer's report. Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General's determination.</p> <p>If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Director-General determines otherwise.</p>		

Appendix A - Compliance Assessment: Project Approval 08_0211

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Project Approval 08_0211	6.5	Land Acquisition	The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 4 above	Not Triggered - see 6.1.	Not Applicable
Project Approval 08_0211	6.6	Land Acquisition	If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall also pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.	Not Triggered - see 6.1.	Not Applicable

Appendix A - Compliance Assessment: Statement of Commitments

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
Note: Conditions in the Statement of Commitments are reported on by exception where a Non Compliance was identified, hence not all conditions are discussed line by line.				
Statement of Commitments	3.2	Prepare an Updated Noise Model within 12 months of the Project Approval	No evidence was sighted of the noise model having been updated.	Non-Compliant Recommendation: Update the Noise Model for the project.
Statement of Commitments	5.2	Prepare an Updated Air Quality Model within 12 months of the Project Approval	No evidence was sighted of the noise model having been updated.	Non-Compliant Recommendation: Update the Air Quality Model for the project.
Statement of Commitments	6.1	Prepare an Energy Savings Action Plan in accordance with the requirements of DECCW.	No ESAP was sighted during the audit.	Non-Compliant Recommendation: Prepare and Implement an Energy Savings Action Plan.
Statement of Commitments		Prepare and Implement a Soil Management Plan.	A Plan was developed as part of the Landscape Management Plan, however some findings regarding the management of topsoils were made in the assessment of implementation of this Plan.	Non-Compliant – see recommendations for the Project Approval – Landscape Management Plan.
Statement of Commitments	4.1	Prepare a Fauna Handling and Management Plan.	The Fauna Handling and Management Plan (FHMP), May 2010 was viewed and found to be comprehensive. It was noted that the FHMP had not yet been signed off by NSW DoPI. During the site inspection the Environment Coordinator explained that the Open Cut Manager runs through the pre-clearance procedure in terms of fauna issues prior to tree clearance to include the procedure for; removal of hollow bearing tree procedure and placement of nesting boxes. It should be noted that vegetation clearance had not been triggered during audit period being assessed. Clearance had been restricted to the Western Underground since 2010.	Compliant However as there had been no clearing during this audit period it is not possible to determine the implementation of this plan.
Statement of Commitments	4.3	Prepare a detailed Rehabilitation and Vegetation Management Plan.	A detailed Landscape Management Plan has been developed to address rehabilitation and vegetation management at Charbon Refer to Schedule 4, Condition 4 and 7, above. This LMP outlines rehabilitation procedures, short and long term measures and performance criteria to be implemented. The LMP also outlines the species for rehabilitation	Compliant. Recommendations: It is recommended that Charbon include the addition of; forb, grass and herbaceous species into the rehabilitation species list and site seed bank to improve diversity and structure within the rehabilitation and reduce weed problems.
Statement of Commitments	14.2 and 14.3	Monitor all accessible registered bores in the vicinity of the Project site, subject to landholder approval, for laboratory based water quality analysis (Monthly and Annually).	No evidence was sighted of monitoring of adjacent bores as per the condition.	Non-Compliant Recommendation: Conduct monitoring as required of the condition.

Appendix A: Compliance Assessment: EPL 528

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations									
Environment Protection Licence No.528	A1.1	<p>What the licence authorises and regulates</p> <p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table><tr><th>Scheduled Activity</th><th>Fee Based Activity</th><th>Scale</th></tr><tr><td>Coal Works</td><td>Coal works</td><td>0 - 2000000 T handled</td></tr><tr><td>Mining for Coal</td><td>Mining for coal</td><td>> 500000 - 2000000 T produced</td></tr></table>	Scheduled Activity	Fee Based Activity	Scale	Coal Works	Coal works	0 - 2000000 T handled	Mining for Coal	Mining for coal	> 500000 - 2000000 T produced	Noted.	Compliant
Scheduled Activity	Fee Based Activity	Scale											
Coal Works	Coal works	0 - 2000000 T handled											
Mining for Coal	Mining for coal	> 500000 - 2000000 T produced											
Environment Protection Licence No.528	A2.1	<p>Premises or plant to which this licence applies</p> <p>The licence applies to the following premises:</p> <table><tr><td>Premises Details</td></tr><tr><td>CHARBON COAL PTY LIMITED</td></tr><tr><td>CHARBON ROAD</td></tr><tr><td>CHARBON</td></tr><tr><td>NSW 2848</td></tr><tr><td>LOT 1 DP 46452, LOT 10 DP 259893, LOT 11 DP 259893, LOT 12 DP 259893, LOT 13 DP 259893, LOT 23 DP 259893, LOT 6 DP 259893, LOT 7 DP 259893, LOT 8 DP 259893, LOT 9 DP 259893, LOT 1 DP 593624, LOT 4 DP 593625, LOT 1 DP 626060, LOT 2 DP 709449, LOT 146 DP 755765, LOT 76 DP 755765, LOT 90 DP 755765</td></tr><tr><td>PORTION 7; PORTION 134; LOT 1 DP 626060; LOT 1 DP 593624; LOT 1 DP 46452, PARISH OF CLANDULLA, COUNTY OF ROXBURGH. LOT 6 DP 259893; LOT 4 DP 593625; LOT 2 DP 709449; LOTS 76 AND 146 DP 755765; PORTION 86; PORTION 146; MINING PURPOSES LEASES NO'S 1237, 1916, 1227 AND 160; MINING PUPOSES LEASE APPLICATION NO.'S 203 AND 231; MINERAL LEASE NO.'S. 509; AND 1384; PARISH OF CLANDULLA, COUNTY OF ROXBURGH. LOT 7, 8, 9, 10, 11, 12, 13 DP 259893; LOT 76, 90, 146 DP 755765; LOT 23 DP 259893, PARISH OF CLANDULLA, COUNTY OF ROXBURGH.</td></tr></table>	Premises Details	CHARBON COAL PTY LIMITED	CHARBON ROAD	CHARBON	NSW 2848	LOT 1 DP 46452, LOT 10 DP 259893, LOT 11 DP 259893, LOT 12 DP 259893, LOT 13 DP 259893, LOT 23 DP 259893, LOT 6 DP 259893, LOT 7 DP 259893, LOT 8 DP 259893, LOT 9 DP 259893, LOT 1 DP 593624, LOT 4 DP 593625, LOT 1 DP 626060, LOT 2 DP 709449, LOT 146 DP 755765, LOT 76 DP 755765, LOT 90 DP 755765	PORTION 7; PORTION 134; LOT 1 DP 626060; LOT 1 DP 593624; LOT 1 DP 46452, PARISH OF CLANDULLA, COUNTY OF ROXBURGH. LOT 6 DP 259893; LOT 4 DP 593625; LOT 2 DP 709449; LOTS 76 AND 146 DP 755765; PORTION 86; PORTION 146; MINING PURPOSES LEASES NO'S 1237, 1916, 1227 AND 160; MINING PUPOSES LEASE APPLICATION NO.'S 203 AND 231; MINERAL LEASE NO.'S. 509; AND 1384; PARISH OF CLANDULLA, COUNTY OF ROXBURGH. LOT 7, 8, 9, 10, 11, 12, 13 DP 259893; LOT 76, 90, 146 DP 755765; LOT 23 DP 259893, PARISH OF CLANDULLA, COUNTY OF ROXBURGH.	URS did not assess if the land mentioned in the EPL was consistent with the mine operational footprint.	Not Assessed		
Premises Details													
CHARBON COAL PTY LIMITED													
CHARBON ROAD													
CHARBON													
NSW 2848													
LOT 1 DP 46452, LOT 10 DP 259893, LOT 11 DP 259893, LOT 12 DP 259893, LOT 13 DP 259893, LOT 23 DP 259893, LOT 6 DP 259893, LOT 7 DP 259893, LOT 8 DP 259893, LOT 9 DP 259893, LOT 1 DP 593624, LOT 4 DP 593625, LOT 1 DP 626060, LOT 2 DP 709449, LOT 146 DP 755765, LOT 76 DP 755765, LOT 90 DP 755765													
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Appendix A: Compliance Assessment: EPL 528

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations																				
Environment Protection Licence No.528	A3.1	Information supplied to the EPA Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: (a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and (b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.	The licence application was not made available; hence URS did not assess the proposal contained in the licence application.	Not Assessed																				
Environment Protection Licence No.528	P1.1	Location of monitoring/discharge points and areas The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	Noted. Refer to comments in condition P1.2 L 2.4	Indeterminate (see below)																				
Environment Protection Licence No.528	P1.2	<p>The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.</p> <table><thead><tr><th colspan="4">Water and land</th></tr><tr><th>EPA Identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr></thead><tbody><tr><td>1</td><td>Discharge to utilisation area</td><td>Discharge to utilisation area</td><td>Utilisation area labelled as 'Sewer Irrigation Area' on Charbon Colliery Plan dated 26/06/01.</td></tr><tr><td>2</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring</td><td>Discharge point (LDP2) from sedimentation dam to Reillys Creek as indicated in figure named "Charbon Colliery LDP2 and associated pollution control structures" received by the EPA 23/2/11</td></tr><tr><td>3</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring.</td><td>Discharge to waters; Discharge quality monitoring; Volume monitoring.</td><td>Discharge point from southern open cut sedimentation dam labelled as 'LD3' in 'Figure 2: Charbon Colliery Environmental Monitoring Locations' in the 'Charbon Coal Annual Environment Management Report Jan-Dec 2007' dated January 2006.</td></tr></tbody></table>	Water and land				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Discharge to utilisation area	Discharge to utilisation area	Utilisation area labelled as 'Sewer Irrigation Area' on Charbon Colliery Plan dated 26/06/01.	2	Discharge to waters; Discharge quality monitoring; Volume monitoring	Discharge to waters; Discharge quality monitoring; Volume monitoring	Discharge point (LDP2) from sedimentation dam to Reillys Creek as indicated in figure named "Charbon Colliery LDP2 and associated pollution control structures" received by the EPA 23/2/11	3	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge point from southern open cut sedimentation dam labelled as 'LD3' in 'Figure 2: Charbon Colliery Environmental Monitoring Locations' in the 'Charbon Coal Annual Environment Management Report Jan-Dec 2007' dated January 2006.	<p>At the time of the audit these discharges were noted. GHD undertook a review of Water Licensing in April 2011 as part of the preparation of the WMP. This document was reviewed and together with review of the monitoring data, records obtained and the site observations made during the audit, the following amendments to licenses was recommended by GHD:</p> <p>- For EPL 528: addition of LDP4, LDP5, LDP6 (3 additional points with respective volumetric allowances) to cater for the Rail Loop dam, Western Open Cut dam, and Central Open Cut dam respectively</p> <p>- Surface water license: obtain additional license for (i) Erosion Dam, (ii) proposed Rail Loop Dam, (iii) proposed Central Primary Pollution Control Dam, (iv) proposed Western Primary Pollution Control Dam. It was recommended that licensing of the Third Entry Evaporation Dam be investigated with DECCW (now OEH).</p> <p>Members of the audit team spoke with EPA Officer (Sheridan Ledger) and confirmed that the EPA was aware that Charbon was to request a licence variation to modify the locations and numbers of the LDPs. Charbon was in the process of developing a licence variation application at the time of the audit. Given the process in place to vary the licence this condition is considered Indeterminate.</p>	Indeterminate Recommendation: Proceed with Licence Variation to finalise actions as per the GHD water licence review including location and number of LDPs.
Water and land																								
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																					
1	Discharge to utilisation area	Discharge to utilisation area	Utilisation area labelled as 'Sewer Irrigation Area' on Charbon Colliery Plan dated 26/06/01.																					
2	Discharge to waters; Discharge quality monitoring; Volume monitoring	Discharge to waters; Discharge quality monitoring; Volume monitoring	Discharge point (LDP2) from sedimentation dam to Reillys Creek as indicated in figure named "Charbon Colliery LDP2 and associated pollution control structures" received by the EPA 23/2/11																					
3	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge to waters; Discharge quality monitoring; Volume monitoring.	Discharge point from southern open cut sedimentation dam labelled as 'LD3' in 'Figure 2: Charbon Colliery Environmental Monitoring Locations' in the 'Charbon Coal Annual Environment Management Report Jan-Dec 2007' dated January 2006.																					

Appendix A: Compliance Assessment: EPL 528

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
Environment Protection Licence No.528	L1.1	Pollution of waters Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	It is noted that the licence does not have limits for EC and metals. Levels for EC are elevated in some results (in ranges from up to 2000 uS, often above 800 uS). Some metals analysis has been completed, however data has not been interpreted to judge if results are outside of normal criteria for these analytes. On this basis there is a potential for interpretation of pollution outside this condition to have occurred. This is a legal consideration and not considered further in this report. On this basis the condition is deemed Indeterminate.	Indeterminate Recommendation: It is recommended that Charbon review water quality results outside of the licence requirements (including EC and metals, and any discharges not within LDPs) to confirm that this condition is being complied with.
Environment Protection Licence No.528	L2.1	Concentration limits For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	URS sighted a number of Annual Return reports documenting the results of monitoring as well as raw monitoring data records kept on site (Environment and Community Database –ECD). The records show a number of TSS concentration exceedances, during the discharge event over a number of days in December 2010. A letter to the EPA dated 12/1/2011 reported the following: <i>A high rainfall event over period 01/12/10 to 10/12/10 (186mm) led to continual discharge, from the 2nd December to the 10th December, of water from 1 dam which is LDP 3 and intermittent discharge from LDP 2. Daily sampling and analysis (at an independent laboratory) from both sites showed average TSS of 270 mg/l at LDP2 and >999 mg/l at LDP3. EPL limit is 50 mg/l. Volumes were estimated at an average of 4-5 ML/Day with a maximum of approximately 14 ML/day from LDP3 and approximately 10ML/day from LDP2.</i> <i>Water tested downstream from the discharges showed suspended solids had dropped out before entering the general catchment, with an average TSS of 17.5 mg/l at Mt View Dam and 17 mg/l at DS LD2. (See plan of sampling sites, attached).</i> <i>This leads to my view that there was no material harm to the environment as a result of this incident.</i> As indicated elsewhere in this report, Charbon undertook a number of initiatives as required in the PRP under this licence. This has minimised subsequent discharges from site. While the ECD data indicates general compliance with the requirements, on the basis that Charbon have not met the criteria on all sampling occasions (such as during the December 2010 discharge event), it is considered that Charbon are Non-Compliant with this condition.	Non-Compliant. I Recommendations: It is recommended that Charbon continue to complete required actions to improve water quality, and to monitor the performance of existing controls to assess the effectiveness of the controls. It is recommended that the water quality monitoring program as stipulated in the WMP be implemented paying particular attention to improving QA/QC procedures for sampling and reporting of data.
Environment Protection Licence No.528	L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Auditor sighted a number of Annual Return reports documenting the results of monitoring plus raw monitoring data records kept on site. These show that pH has remained within the required limits during the audit period.	Compliant

Appendix A: Compliance Assessment: EPL 528

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations																																																
Environment Protection Licence No.528	L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.	<p>Charbon also test for other pollutants as BOD, EC, metals, and other analytes with the date reported in the ECD.</p> <p>The auditors note that this testing appears to be random and inconsistent and may not have been sufficient at the time of the audit to be definitive.</p> <p>There is an opportunity to improve the consistency of testing for the above analytes to be better able to link potential pollution impacts with water quality monitoring.</p> <p>A review of the ECD test records reveal levels for EC are elevated in some results (in ranges from up to 2000 uS, often above 800 uS).</p> <p>On this basis there is a potential for interpretation of pollution outside this condition to have occurred. This is a legal consideration and not considered further in this report. On this basis the condition is deemed Indeterminate.</p>	Indeterminate Recommendation: It is recommended that Charbon consider potential pollution impacts when conducting water monitoring outside of monitoring requirements of the EPL.																																																
Environment Protection Licence No.528	L2.4	<div>Water and/or Land Concentration Limits POINT 2</div> <table><tr><th>Pollutant</th><th>Units of Measure</th><th>-</th><th>90 percentile concentration limit</th><th>3DGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td></td><td></td><td></td><td>50</td></tr></table> <div>POINT 3</div> <table><tr><th>Pollutant</th><th>Units of Measure</th><th>-</th><th>90 percentile concentration limit</th><th>3DGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td></td><td></td><td></td><td>50</td></tr></table>	Pollutant	Units of Measure	-	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	Pollutant	Units of Measure	-	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	As per L2.1.	Non-Compliant. As per L2.1.
Pollutant	Units of Measure	-	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit																																															
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Appendix A: Compliance Assessment: EPL 528

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations																																
Environment Protection Licence No.528	L3.1	Volume and mass limits For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a) liquids discharged to water; or; b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area.	URS sighted the results of the monitoring as presented in the Annual Return and raw data records. Records for 2011 and 2012 (to date of audit inspection) records show compliance throughout, however records for 2010 shows non-compliant discharges due to excessively heavy rain in December which overtopped all dams. This was reported in the AEMR. A letter to the EPA dated 12/1/2011 reported the following: <i>A high rainfall event over period 01/12/10 to 10/12/10 (186mm) led to continual discharge, from the 2nd December to the 10th December, of water from 1 dam which is LDP 3 and intermittent discharge from LDP 2. Daily sampling and analysis (at an independent laboratory) from both sites showed average TSS of 270 mg/l at LDP2 and >999 mg/l at LDP3. EPL limit is 50 mg/l. Volumes were estimated at an average of 4-5 ML/Day with a maximum of approximately 14 ML/day from LDP3 and approximately 10ML/day from LDP2.</i> Based on the non-compliances in December 2010, this condition is considered non-compliant. Since 2010, a number of actions have been put in place as part of a PRP to reduce the risk of further discharges. This is discussed in this checklist below and in the main report.	Non-Compliant Recommendation: It is recommended that Charbon continue to complete required actions to improve water quality, and to monitor the performance of existing controls to assess the effectiveness of the controls.																																
		<table><tr><th>Point</th><th>Unit of Measure</th><th>Volume/Mass Limit</th></tr><tr><td>2</td><td>kilolitres per day</td><td>5000</td></tr><tr><td>3</td><td>kilolitres per day</td><td>5000</td></tr></table>			Point	Unit of Measure	Volume/Mass Limit	2	kilolitres per day	5000	3	kilolitres per day	5000																							
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2	kilolitres per day	5000																																		
3	kilolitres per day	5000																																		
Environment Protection Licence No.528	L4.1	Noise limits Noise from the premises must not exceed the limits specified in the following table:	The Project Approval defines more up to date noise criteria relevant to the site. The EPL has not been updated to reflect the revised noise limits or monitoring locations. Therefore, the EPL noise limits were noted to be inconsistent with Project Approval limits. Members of the audit team spoke with EPA Officer (Sheridan Ledger) and confirmed that the EPA was aware of this and that the EPL is to be varied to reflect the Project Approval. Charbon was in the process of developing a licence variation application at the time of the audit.	Not Assessed (as criteria is considered to be superceded by the 2011 DA conditions). Recommendation: It is recommended that the site's EPL is modified to ensure consistency between the EPL and the Development Approval in respect of noise monitoring locations and noise limits. This was being actioned by Charbon at the time of the site audit.																																
		<table><tr><th>Day (dBA LAeq(15 minute))</th><th>Evening (dBA LAeq (15 minute))</th><th>Night (dBA LAeq (15 minute))</th><th>Land Number</th></tr><tr><td>36</td><td>35</td><td>35</td><td>R1 - North West of Areas 3 & 4</td></tr><tr><td>36</td><td>35</td><td>35</td><td>R2 - Tannhausen</td></tr><tr><td>36</td><td>35</td><td>35</td><td>R3 - South West of Areas 3 & 4</td></tr><tr><td>35</td><td>35</td><td>35</td><td>R4 - Nioka</td></tr><tr><td>35</td><td>35</td><td>35</td><td>R5 - Mount View</td></tr><tr><td>35</td><td>35</td><td>35</td><td>R6 - West of Southern Open Cut - Brogans Creek Road</td></tr><tr><td>35</td><td>35</td><td>35</td><td>R7 - Eagleview</td></tr><tr><td>35</td><td>35</td><td>35</td><td>All other land</td></tr></table> Note: The land references (R1, R2, etc.) used in the above table corresponds to those used in map labelled as 'Figure 2' in the 'Charbon Coal Annual Environmental Management Report' dated November 2006.			Day (dBA LAeq(15 minute))	Evening (dBA LAeq (15 minute))	Night (dBA LAeq (15 minute))	Land Number	36	35	35	R1 - North West of Areas 3 & 4	36	35	35	R2 - Tannhausen	36	35	35	R3 - South West of Areas 3 & 4	35	35	35	R4 - Nioka	35	35	35	R5 - Mount View	35	35	35	R6 - West of Southern Open Cut - Brogans Creek Road	35	35	35	R7 - Eagleview
Day (dBA LAeq(15 minute))	Evening (dBA LAeq (15 minute))	Night (dBA LAeq (15 minute))	Land Number																																	
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35	35	35	R7 - Eagleview																																	
35	35	35	All other land																																	
Environment Protection Licence No.528	L4.2	For the purpose of the table above: a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays; b) Evening is defined as the period from 6pm to 10pm; c) Night is defined as the period from 10pm to 7am Monday to Saturday	The timeframes are consistent with those identified under Section 2.2.1 of the NSW Industrial Noise Policy (INP) and are therefore considered appropriate.	Compliant																																

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
		and 10pm to 8am Sundays and Public Holidays.		
Environment Protection Licence No.528	L4.3	To determine compliance with condition(s) L4.1 noise must be measured at, or computed for, the locations listed in the above table. A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the "Environmental Noise Management - NSW Industrial Noise Policy (January 2000)".	The Project Approval defines more up to date noise criteria relevant to the site. The EPL has not been updated to reflect the revised noise limits or monitoring locations. Therefore, the EPL noise limits were noted to be inconsistent with Project Approval limits. Members of the audit team spoke with EPA Officer (Sheridan Ledger) and confirmed that the EPA was aware of this and that the EPL is to be varied to reflect the Project Approval. Charbon was in the process of developing a licence variation application at the time of the audit. Application of modifying factor correction for tonal, impulsive or intermittent noise in accordance with the NSW INP is considered appropriate. No such audible characteristic has been reported in the relevant monitoring reports.	Compliant
Environment Protection Licence No.528	L4.4	The noise emission limits identified in this licence apply under all meteorological conditions except: a) during rain and wind speeds (at 10m height) greater than 3m/s; and b) under "non-significant weather conditions". <i>Note: Field meteorological indicators for non-significant weather conditions are described in the NSW Industrial Noise Policy, Chapter 5 and Appendix E in relation to wind and temperature inversions.</i>	The Project Approval notes the noise emission limits apply under meteorological conditions of: - Wind speeds of up to 3m/s at 10 metres above ground level; or - Temperature inversion conditions of up to 3C/100m, and wind speeds of up to 2m/s at 10 metres above ground level. <i>Determined in accordance with the NSW Industrial Noise Policy, including that exceedances of the criteria must be "systemic".</i>	Compliant Recommendation: It is recommended that the wording from the PA is adopted in the revised EPL for consistency.
Environment Protection Licence No.528	L5.1	Blasting The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Records indicate that only two blasts were initiated within the audit period. These did not generate exceedances of the identified overpressure criteria. Centennial Charbon has discontinued blasting on-site and has no intention to resume blasting in the future.	Compliant
Environment Protection Licence No.528	L5.2	The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Records indicate that only two blasts were initiated within the audit period. These did not generate exceedances of the identified overpressure criteria. Centennial Charbon has discontinued blasting on-site and has no intention to resume blasting in the future.	Compliant
Environment Protection Licence No.528	L5.3	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Records indicate that only two blasts were initiated within the audit period. These did not generate exceedances of the identified vibration criteria. Centennial Charbon has discontinued blasting on-site and has no intention to resume blasting in the future.	Compliant
Environment Protection Licence No.528	L5.4	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in	Records indicate that only two blasts were initiated within the audit period. These did not generate exceedances of the identified vibration criteria. Centennial Charbon has discontinued blasting on-site and has	Compliant

Appendix A: Compliance Assessment: EPL 528

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations																					
		determining whether or not the limit has been exceeded. <i>Note: "Noise sensitive locations" includes buildings used as a residence, hospital, school, child care centre, places of worship and nursing homes. A noise sensitive location includes the land within 30 metres of the building.</i>	no intention to resume blasting in the future.																						
Environment Protection Licence No.528	L6.1	Hours of operation Activities at the premises may only be undertaken within the times as specified in the table below:	Site observations indicated compliance with this condition.	Compliant																					
		<table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td>Open Cut Mining</td><td>Monday - Friday</td><td>7 am - 8 pm</td></tr><tr><td></td><td>Saturday</td><td>7 am - 8 pm</td></tr><tr><td></td><td>Sunday and Public Holidays</td><td>None</td></tr><tr><td>Underground mining, coal processing, run-of-mine coal management and maintenance</td><td>Any day</td><td>Any time</td></tr><tr><td>Blasting</td><td>Monday - Friday</td><td>9 am - 5 pm</td></tr><tr><td>Vegetation clearing</td><td>Monday - Saturday</td><td>7 am - 5 pm</td></tr></table>			Activity	Day	Time	Open Cut Mining	Monday - Friday	7 am - 8 pm		Saturday	7 am - 8 pm		Sunday and Public Holidays	None	Underground mining, coal processing, run-of-mine coal management and maintenance	Any day	Any time	Blasting	Monday - Friday	9 am - 5 pm	Vegetation clearing	Monday - Saturday	7 am - 5 pm
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Environment Protection Licence No.528	O1.1	Activities must be carried out in a competent manner Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	The commentary in this report and compliance assessment has noted some comments and provided recommendations for improvement. Notwithstanding this, the site is considered to be generally meeting this condition. A possible exception to this is hydrocarbon management and storage. The Phase 1 as well as site observations indicated that in some areas the management and containment of hydrocarbons (particularly wastes) could be improved to prevent soil and water contamination.	Compliant Recommendation: It is recommended that Charbon continue to implement improvements in the management of hydrocarbons across the site. Strategies should focus on the key risk areas as identified in the Phase 1 report.																					
Environment Protection Licence No.528	O2.1	Maintenance of plant and equipment All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	URS did not assess this condition in full. Discussion was held with the Mine Manager and the Logistics expert that indicated a planned maintenance management system was implemented at Charbon. The system (PULSE) was sighted and the manager of the system was well versed in its use. Comments are made throughout this report where issues of concern were noted. Generally Charbon was considered to comply with this condition (subject to the comments in this report).	Compliant (Subject to the general findings made in this report).																					
Environment Protection Licence No.528	O3.1	Dust The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Particulate matter controls existing at the site are limited to wet suppression of haul roads. Whilst additional controls that prevent the emission of dust maybe conducted, it is unclear to the feasibility and or benefit from such controls, given that	Indeterminate																					

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
			monitoring data to date suggest no elevated dust levels.	
Environment Protection Licence No.528	O3.2	Haulage rucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading. The tailgates of all haulage trucks leaving the premises must be securely fixed prior to loading or immediately after unloading to prevent loss of material.	Interviews with site environmental personnel indicate that export of coal via truck is limited at this stage of the project. A majority of export is by rail. URS did not witness any trucks entering or leaving the site during the site inspection. URS visually saw a road truck loading procedure (SWP Document Number: CHB-SWP-0076T2) which directly references the need for tarping to be installed prior to leaving site.	Compliant
Environment Protection Licence No.528	O4.1	Effluent application to land Effluent application must not occur in a manner that causes surface runoff.	No surface runoff was observed during the site inspection. Charbon indicated that the area was managed so as to prevent surface runoff from occurring.	Compliant
Environment Protection Licence No.528	O4.2	Spray from effluent application must not drift beyond the boundary of the premises.	Charbon indicated that the area was managed so as to prevent surface spray from effluent application to drift beyond the boundary of the premises. During the site inspection the irrigation system was not operable, hence URS was not able to verify controls. The location of the irrigation area was significant distances from the boundary and any receptors.	Compliant
Environment Protection Licence No.528	O4.3	The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids. For the purpose of this condition, 'effectively utilise' includes the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.	No indications were observed that the quantity of effluent/solids applied to the utilisation area exceeded the capacity of the area to effectively utilise the effluent/solids.	Compliant
Environment Protection Licence No.528	M1.1	Monitoring records The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Monitoring results were noted to be recorded and retained.	Compliant
Environment Protection Licence No.528	M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Monthly data and laboratory reports were sighted from 2002 through to 2012. Data is kept electronically. Exceedences were recorded in Annual Returns, which are submitted to the EPA.	Compliant
Environment Protection Licence No.528	M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Excel data spread sheets were sighted for water, dust and other monthly results. It was noted that the date, time, point of sampling and name of person collecting sample was recorded for each sample taken.	Compliant
Environment Protection	M2.1	Requirement to monitor concentration of pollutants discharged For each monitoring/discharge point or utilisation area specified below	Refer to comments in condition L 2.4 regarding results of the water quality sampling. As far as sampling is concerned	Compliant.

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations																																								
Licence No.528		(by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Charbon are complying with this condition as sampling is undertaken as required. The site monitors these parameters on a regular basis and through uses a NATA licensed contractor/laboratory.	Recommendation: There are opportunities to improve the sampling and reporting methodologies and it is therefore recommended that Charbon implement the recommendations for water quality sampling as stipulated in the WMP.																																								
Environment Protection Licence No.528	M2.2	Water and/ or Land Monitoring Requirements POINT 2 <table><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr><tr><td>Conductivity</td><td>microsiemens per centimetre</td><td>Daily during any discharge</td><td>Grab sample</td></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td>Daily during any discharge</td><td>Grab sample</td></tr><tr><td>pH</td><td>pH</td><td>Daily during any discharge</td><td>Grab sample</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td>Daily during any discharge</td><td>Grab sample</td></tr></table> POINT 3 <table><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr><tr><td>Conductivity</td><td>microsiemens per centimetre</td><td>Daily during any discharge</td><td>Grab sample</td></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td>Daily during any discharge</td><td>Grab sample</td></tr><tr><td>pH</td><td>pH</td><td>Daily during any discharge</td><td>Grab sample</td></tr><tr><td>Total suspended solids</td><td>milligrams per litre</td><td>Daily during any discharge</td><td>Grab sample</td></tr></table>	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Daily during any discharge	Grab sample	Oil and Grease	milligrams per litre	Daily during any discharge	Grab sample	pH	pH	Daily during any discharge	Grab sample	Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Daily during any discharge	Grab sample	Oil and Grease	milligrams per litre	Daily during any discharge	Grab sample	pH	pH	Daily during any discharge	Grab sample	Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample	As above	As above
Pollutant	Units of measure	Frequency	Sampling Method																																									
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Environment Protection Licence No.528	M3.1	Testing methods - concentration limits Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	ALS is commissioned to conduct most of the monitoring activities at Charbon. ALS is a NATA accredited organisation and was expected to follow industry standard procedures. Notwithstanding this, Charbon were not able to demonstrate the all methods are done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing.	Indeterminate Recommendation: Charbon should confirm with ALS that the Approved methods or other methods as approved by the EPA are used by ALS for all Charbon analyses.																																								
Environment Protection Licence No.528	M4.1	Recording of pollution complaints The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Complaints are recorded on the Environment and Community Database (ECD). The database was sighted and is a Centennial based system.	Compliant																																								
Environment Protection Licence No.528	M4.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	Complaints records were noted to generally include the requirements as listed.	Compliant																																								

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
Environment Protection Licence No.528	M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Complaints records are kept on the ECD system for greater than 4 years. Compliant records back to 2005 were observed during site visit.	Compliant
Environment Protection Licence No.528	M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	The EPA did not request any records of complaints during the audit period; therefore this condition was not triggered. However, Charbon indicated the data is available should it be requested by an EPA officer.	Compliant
Environment Protection Licence No.528	M5.1	Telephone complaints line The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Charbon do reportedly have a complaints line in operation. Complaints are directed to the mobile phone of Matt Gray, Environmental Coordinator. It was noted during the audit that if the Environment and Community Coordinator (Matt Gray) is not available to take the call (such as being off site) there is no formal process for the person making the complaint to be forwarded on to another appropriate Charbon person.	Compliant\ Recommendation: It is recommended that a formal process is put in place to allow for calls to be forwarded to an available Charbon team member to record complaints in the event the Environmental Coordinator is not available.
Environment Protection Licence No.528	M5.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	The complaints hotline number was published in the Mudgee Guardian Newspaper. The newspaper articles were not sighted, however the request for the advertisement from Charbon to the Mudgee Guardian was sighted. The complaints hotline is listed on the Charbon website and in the White Pages. From the website it notes that people are also able to email complaints.	Compliant
Environment Protection Licence No.528	M5.3	The preceding two conditions do not apply until 3 months after: a) the date of the issue of this licence or b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	Noted.	Noted
Environment Protection Licence No.528	M6.1	Requirement to monitor volume or mass For each discharge point or utilisation area specified below, the licensee must monitor: a) the volume of liquids discharged to water or applied to the area; b) the mass of solids applied to the area; c) the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below.	Review of records, site discussions and review of the GHD water balance assessment confirms that Charbon volume discharges are monitoring the volume of discharge at the nominated points.	Compliant

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations																		
		<table><tr><td colspan="3">POINT 2</td></tr><tr><td>Frequency</td><td>Unit of Measure</td><td>Sampling Method</td></tr><tr><td>Daily during any discharge</td><td>kilolitres per day</td><td>In line instrumentation</td></tr></table> <table><tr><td colspan="3">POINT 3</td></tr><tr><td>Frequency</td><td>Unit of Measure</td><td>Sampling Method</td></tr><tr><td>Daily during any discharge</td><td>kilolitres per day</td><td>In line instrumentation</td></tr></table>	POINT 2			Frequency	Unit of Measure	Sampling Method	Daily during any discharge	kilolitres per day	In line instrumentation	POINT 3			Frequency	Unit of Measure	Sampling Method	Daily during any discharge	kilolitres per day	In line instrumentation		
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Environment Protection Licence No.528	M7.1	Blasting To determine compliance with condition(s) L5.1 to L5.4 a) Airblast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and electronically for all blasts carried out in or on the premises; i) Lot 16 DP259893 - "Mount View" Mount View Road Clandulla b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006. <i>Note: A breach of the licence will still occur when airblast overpressure or ground vibration levels from the blasting operations at the premises exceeds the limit specified in conditions L5.1 to L5.4 at any "noise sensitive locations" other than the locations identified in the above condition.</i> <i>The airblast overpressure and ground vibration levels in conditions L5.1 to L5.4 do not apply at noise sensitive locations that are owned by the licensee of subject to a private agreement, relating to airblast overpressure and ground vibration levels, between the licensee and land owner.</i>	Records indicate that only two blasts were initiated within the audit period. Airblast overpressure and ground vibration generated by these events were monitored at the identified site using instrumentation meeting the requirements of AS 2187.2-2006. No exceedances of the identified overpressure or ground vibration criteria were reported. Centennial Charbon has discontinued blasting on-site and has no intention to resume blasting in the future.	Compliant																		
Environment Protection Licence No.528	R1.1	Annual return documents The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	Annual Returns were sighted as having been prepared in general accordance with the condition.	Compliant																		
Environment Protection Licence No.528	R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	Noted. Annual Returns are prepared for each reporting period.	Compliant																		
Environment Protection Licence No.528	R1.3	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	Not applicable as the licence has not been transferred during the audit period.	Not Applicable																		

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
Environment Protection Licence No.528	R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Not applicable was the licence has not been surrendered or revoked during the audit period.	Not Applicable
Environment Protection Licence No.528	R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	A search of the EPA website indicated that Annual Returns had been issued within the 60 day period.	Complaint
Environment Protection Licence No.528	R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Copies are kept on the EPA website and Charbon holds records of Annual returns for the period required.	Compliant
Environment Protection Licence No.528	R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	The 2010 Annual return was sighted as being signed by the Director and Company Secretary.	Compliant
Environment Protection Licence No.528	R1.8	A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence. <i>Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.</i> <i>Note: An application to transfer a licence must be made in the approved form for this purpose.</i>	The 2010 Annual return was sighted as being signed by the Director and Company Secretary.	Compliant
Environment Protection Licence No.528	R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	The EPA was notified on the Environmental Hotline on the 02 December 2010 (Ref No. 125261) of a water discharge event, which resulted in an exceedance of Total Suspended Solids levels. No other events of environmental harm reportedly occurred during the audit period. Based on this information, Charbon are deemed compliant with this condition.	Compliant

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
Environment Protection Licence No.528	R2.2	Notification of environmental harm The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. <i>Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</i>	Following the water discharge event, which resulted in an exceedence of Total Suspended Solids on the 02 December 2010 (Ref No. 125261) Charbon notified the EPA via a letter dated 07/12/2010, within 7 days of the event occurring. (A copy was not provided). A follow up letter was sent to the EPA on the 12 January 2011 with notification to upgrade and expand dam capacities, and a flocculation system was to be established at LD3 to allow for capacity gains on a more regular basis. Following the event the EPL was varied to include a PRP for stormwater to address water management issues at the mine. Charbon implemented these actions (see condition U1.1). In November 2011 Charbon had a similar event however due to the increase in capacity of the dams from PRP actions undertaken after the previous discharge event no discharge occurred.	Compliant
Environment Protection Licence No.528	R3.1	Written report Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Not applicable as no event had occurred during the audit period.	Not Applicable
Environment Protection Licence No.528	R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Not applicable as no event had occurred during the audit period.	Not Applicable

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
Environment Protection Licence No.528	R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	Not applicable as no event had occurred during the audit period.	Not Applicable
Environment Protection Licence No.528	R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Not applicable as no event had occurred during the audit period.	Not Applicable
Environment Protection Licence No.528	G1.1	Copy of licence kept at the premises or plant A copy of this licence must be kept at the premises to which the licence applies.	Noted. Charbon management were observed to hold a copy of the licence.	Compliant
Environment Protection Licence No.528	G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Noted. Not Triggered as no officer asked for one, however it is available.	Compliant
Environment Protection Licence No.528	G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	The licence is available to employees through the environmental staff.	Compliant
Environment Protection Licence No.528	U1.1	Coal Mine Particulate Matter Control Best Practice The Licensee must conduct a site specific Best Management Practice (BMP) determination to identify the most practicable means to reduce particle emissions.	SLR Consulting Australia Pty Ltd have prepared a report titled <i>Site Specific Particulate Matter Control, Best Practice Assessment</i> dated 6 February 2012 Revision 1 , SLR (2012). The report provides a review of several particulate controls.	Compliant

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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
Environment Protection Licence No.528	U1.2	<p>The Licensee must prepare a report which includes, but is not necessarily limited to, the following:</p> <ul style="list-style-type: none"> – identification, quantification and justification of existing measures that are being used to minimise particle emissions; – identification, quantification and justification of best practice measures that could be used to minimise particle emissions; – evaluation of the practicability of implementing these best practice measures; and – a proposed timeframe for implementing all practicable best practice measures. <p>In preparing the report, the Licensee must utilise the document entitled Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline – August 2011.</p>	<p>SLR (2012) suggests that Sections 2, 3, 4 and 5 provide a response to each of these line items. It is unclear if SLR has directly utilised the document entitled Coal Mine Particulate Matter Control Best Practice - Site Specific Determination Guideline - August 2011, however the report appears to cover the necessary information. Discussions with the EPA at the time of the audit site inspection indicated that they had received a copy of the report, however had not reviewed it in full at that time.</p> <p>Given the EPA had not signed off on the report, this condition is considered Indeterminate.</p>	Indeterminate
Environment Protection Licence No.528	U1.3	All cost related information is to be included as Appendix 1 of the Report required by condition U1.2 above.	SLR (2012) states that cost information is provided in the report <i>Charbon Colliery, Site Specific particulate Matter Control Best practice Assessment - Appendix 1 (Costs)</i> , Tables 1 to 5 specifically.	Compliant
Environment Protection Licence No.528	U1.4	The report required by condition U1.2 must be submitted by the Licensee to the Office of Environment and Heritage's Regional Manager Bathurst, at PO Box 1388 BATHURST NSW 2795 by 6 February 2012.	A letter from Centennial Coal Charbon dated 6th February 2012 was cited during the audit. The letter outlines the submission of the BMP report stipulated by the above conditions. Discussions with the EPA at the time of the audit site inspection indicated that they had received a copy of the report, however had not reviewed it in full at that time.	Compliant
Environment Protection Licence No.528	U1.5	The report required by condition U1.2 above, except for cost related information contained in Appendix 1 of the Report, must be made publicly available by the Licensee on the Licensee's website by 13 February 2012.	The report was visually observed on the Charbon website. The report was made available on the site with the exception of the cost information provided in Appendix 1. A letter from Centennial Coal to the Environment Protection Authority indicated that the report would be made publicly available on the Centennial website by 13 February 2012.6th February. It is unclear when the report was uploaded to the website, however was available at the time of the audit (16/2/11).	Compliant
Environment Protection Licence No.528	U2.1	<p>Water Management System Action Plan</p> <p>The licensee must undertake each of the works identified in Table 1 below, within the timeframes as specified for each action.</p>	<p>Charbon were observed to have completed a number of works to improve water management across the site. These are discussed in the main section of the report.</p> <p>The auditor sighted a letter from the EPA dated 5 January 2012 stating compliance with this condition except for further diversion works around coal stockpile area are required. This requirement is additional to the condition.</p> <p>Discussions with the EPA (Sheridan Ledger) during the audit period confirmed this view.</p>	<p>Compliant</p> <p>See Main report for recommendations.</p>

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		<table><tr><th>Location</th><th>Action</th><th>Completion Date</th></tr><tr><td>LDP2</td><td>Install new pollution control dam downstream of current LDP2</td><td>31 August 2011</td></tr><tr><td>Proposed LDP5</td><td>Repair spillway</td><td>1 December 2011</td></tr><tr><td>Rail loop</td><td>Complete installation of new pollution control dam and LDP</td><td>31 October 2011</td></tr><tr><td>Third Entry Rehabilitation Area</td><td>Re-instate clean water diversion from upslope areas to below LDP2</td><td>30 September 2011</td></tr><tr><td>2 Trunk Loading Facility</td><td>Install clean water diversions - see note 1 below</td><td>31 July 2011</td></tr><tr><td></td><td>Install new pollution control dam and LDP</td><td>31 August 2011</td></tr><tr><td></td><td>Divert groundwater for re-use or to LDP</td><td>30 September 2011</td></tr><tr><td>Former areas 3 and 4</td><td>Bund and regrade areas to direct flows to sump</td><td>31 August 2011</td></tr><tr><td></td><td>Establish gravity feed sump to a pollution control dam</td><td>30 September 2011</td></tr><tr><td>Western Pollution Control Dam</td><td>Create LDP</td><td>30 September</td></tr><tr><td></td><td>Works to ensure capacity of the dam is 4.8 ML</td><td>31 October 2011</td></tr><tr><td>Haul road near former area 3</td><td>Remove sediment from behind sediment fences and culvert</td><td>1 July 2011</td></tr><tr><td></td><td>Repair sediment fences and attach headwall to inlet of the culvert - see note 2 below</td><td>31 July 2011</td></tr><tr><td></td><td>De-silting of dam</td><td>31 July 2011</td></tr><tr><td>Open cut workshop</td><td>Install catch drain around workshop area and divert to uppermost LDP2 dam (where gradient allows)</td><td>30 September 2011</td></tr><tr><td>Proposed coal handling area (near workshop)</td><td>Install sump and sediment trap</td><td>30 September 2011</td></tr><tr><td>Haul road between LDP2 and 3</td><td>Repair drain (including grading) and stabilisation of the windrow</td><td>31 July 2011</td></tr><tr><td></td><td>External drain to LDP3 and as far north as possible</td><td>31 August 2011</td></tr><tr><td>Southern open cut pollution control dam</td><td>Remove silt to ensure capacity of 46 ML</td><td>31 July 2011</td></tr><tr><td></td><td>Relocate LDP3 to dam downstream of LDP3</td><td>31 July 2011</td></tr><tr><td>Adjacent to southern open cut</td><td>Install catch drain below disturbance areas and divert water to southern open cut pollution control dam</td><td>1 July 2011</td></tr><tr><td></td><td>Install sediment fencing below disturbance areas not draining to catch drain above - see note 2 below</td><td>1 July 2011</td></tr><tr><td>LDP3</td><td>Install in-line volume monitoring equipment</td><td>31 July 2011</td></tr><tr><td>Southern open cut</td><td>Ensure capacity of the open cut will hold in excess of a 1 in 100 year, 72 hour storm event</td><td>1 December 2011</td></tr><tr><td>Former third entry open cut, central and western open cuts, 8 trunk</td><td>Install clean water diversions - see note 1 below</td><td>30 September 2011</td></tr></table>	Location	Action	Completion Date	LDP2	Install new pollution control dam downstream of current LDP2	31 August 2011	Proposed LDP5	Repair spillway	1 December 2011	Rail loop	Complete installation of new pollution control dam and LDP	31 October 2011	Third Entry Rehabilitation Area	Re-instate clean water diversion from upslope areas to below LDP2	30 September 2011	2 Trunk Loading Facility	Install clean water diversions - see note 1 below	31 July 2011		Install new pollution control dam and LDP	31 August 2011		Divert groundwater for re-use or to LDP	30 September 2011	Former areas 3 and 4	Bund and regrade areas to direct flows to sump	31 August 2011		Establish gravity feed sump to a pollution control dam	30 September 2011	Western Pollution Control Dam	Create LDP	30 September		Works to ensure capacity of the dam is 4.8 ML	31 October 2011	Haul road near former area 3	Remove sediment from behind sediment fences and culvert	1 July 2011		Repair sediment fences and attach headwall to inlet of the culvert - 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see note 1 below	30 September 2011	URS has not verified the design elements were as required by the condition or cross checked all actions having been completed.	
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Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
		<p><i>Note: 1. Clean water diversions must be designed for a 1 in 50 year storm event.</i></p> <p><i>2. Dual sediment fences are to be installed as per 2007 Environmental Management Plans.</i></p>		

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Consolidated Coal Lease No.732	1.	Notice to Landholders	<p>Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	<p>The CCL was renewed in 1989 (1st granted) at this time the only notifiable landholder was the State Forest. No evidence of notification was able to be provided.</p> <p>The lease was most recently renewed on 28th of January 2005. No evidence of renewal was able to be provided.</p>	<p>Non-Compliant</p> <p>Recommendation: It is recommended that with future licence renewals, notification of renewal is issued to the surrounding landholders as a formal written letter. This letter must include an adequate plan and description of the lease.</p>
Consolidated Coal Lease No.732	2	MOP	<p>(1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-</p> <p>(a) on-going mining operations and environmental management; and</p> <p>(b) on-going monitoring of the project.</p>	<p>The current MOP prepared by GSSE, dated 13/09/2012 covering the period from 2010 to 2014 was approved in a letter dated 23 September 2010 by DTIRIS. The MOP covers the relevant conditions of the CCL and other leases held for the site.</p> <p>The previous MOP was dated 2006.</p>	Compliant
Consolidated Coal Lease No.732	2	MOP	<p>(2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.</p>	As above.	Compliant
Consolidated Coal Lease No.732	2	MOP	<p>(3) A Plan must be lodged with the Director-General:-</p> <p>(a) prior to the commencement of mining operations (including mining purposes);</p> <p>(b) subsequently as appropriate prior to the expiry of any current Plan; and</p> <p>(c) in accordance with any direction issued by the Director-General.</p>	As above.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Consolidated Coal Lease No.732	2	MOP	(4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:- (a) area(s) proposed to be disturbed under the Plan; (b) mining and rehabilitation method(s) to be used and their sequence; (c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure; (e) existing flora and fauna on the site; (f) progressive rehabilitation schedules; (g) areas of particular environmental, ecological and cultural sensitivity and measures to protect these areas; (h) water management systems (including erosion and sediment controls); (i) proposed resource recovery; and (j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.	As above.	Compliant
Consolidated Coal Lease No.732	2	MOP	(5) The Plan when lodged will be reviewed by the Department.	As above.	Compliant
Consolidated Coal Lease No.732	2	MOP	(6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.	Not Applicable – No modification was required.	Not Applicable – No modification was required.
Consolidated Coal Lease No.732	2	MOP	(7) If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan.	Noted.	Noted.
Consolidated Coal Lease No.732	2	MOP	(8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	One Amendment for a barrier breach was made to the approved MOP. The Approval of the MOP was not sighted.	Compliant
Consolidated Coal Lease No.732	3	AEMR	(1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General. (2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of: a) the accepted Mining Operations Plan; b) development consent requirements and conditions; c) Department of Environment and Conservation and Department of infrastructure, Planning and Natural Resources licences and approvals; d) any other statutory environmental requirements;	AEMR's for 2006, 2007, 2008, 2009 and 2010 were sighted during the 2012 audit. The 2011 AEMR was not due at the time of the audit inspection. The 2009 AEMR was approved in a letter from DTIRIS dated 26/10/10, subject to conditions. The EPA provided a letter to Charbon on 13/05/11 identifying 3 issues with the 2010 AEMR site inspection undertaken on 12 May 2011. These issues are discussed in the main report. Charbon responded to the EPA with a letter detailing their responses to the three issues (not sighted). The 2010 AEMR was approved in a letter from DTIRIS dated 07/11/11.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
			<p>e) details of any variations to environmental approvals applicable to the lease area; and</p> <p>f) where relevant, progress towards final rehabilitation objectives.</p> <p>(3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.</p> <p>(4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.</p>		
Consolidated Coal Lease No.732	4.	Subsidence Management	<p>a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.</p> <p>b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc.), and pillar extractions, and are otherwise defined by the Guideline for Applications for Subsidence Management Approvals.</p> <p>c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Coal Mines Regulation Act 1982, or the document New Subsidence Management Plan Approval Process - Transitional Provisions.</p> <p>d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.</p> <p>e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.</p>	<p>Only first workings were occurring at the time of the audit. First workings do not generally lead to subsidence and do not require a Subsidence Management Plan.</p> <p>A Subsidence Management Plan has been in place for mine workings however this was not assessed in detail for this audit.</p> <p>This condition has not been fully assessed on the basis that only first workings were being undertaken during the site visit. Second workings undertaken in the past were related to a previous project approval. It is understood that no second workings have been undertaken under the most recent project approval.</p> <p>Schedule 3, Condition 25 requires a Subsidence Monitoring and Contingency Plan. Compliance with this Condition and Plan has been assessed in the compliance assessment for the Project Approval.</p>	<p>Compliant</p> <p>(Not fully assessed for second workings).</p>

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Consolidated Coal Lease No.732	5	Working Requirement	The lease holder must: (a) ensure that at least 41 competent people are efficiently employed on the lease area on each week day except Saturday or any week day that is a public holiday, OR (b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$717,500.00 per annum whilst the lease is in force. The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.	The 2010 AEMR reported that 143 people are on site during operation; this meets and exceeds the required 41 people. Charbon reportedly spend greater than \$717,500.00 per year on operations. Verification activities supported this view.	Compliant
Consolidated Coal Lease No.732	6.	Control of Operations	(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:- i. cease working the lease; or ii. cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified. (b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction. (c) A direction referred to in this condition may be served on the Mine Manager.	No directions have been provided by the Minister.	Not Applicable
Consolidated Coal Lease No.732	7.	Reports	The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year, The report must be to the satisfaction of the Director-General and contain the following: a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period; b) Details of expenditure incurred in conducting that exploration; c) A summary of all geological findings acquired through mining or development evaluation activities; d) Particulars of exploration proposed to be conducted in the next twelve months period; e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.	No formalised drilling activities organised by Charbon Management were reported to have been undertaken since the 1980's. DTIRIS is kept informed that no exploration is undertaken through yearly AEMR reports, however no formal reports are submitted indicating exploration is not carried out. Evidence was sighted that Big Rim contractors had undertaken some informal drilling in the SOC (pers.comm Big Rim personnel) to see if there was a seam under the seam being mined. In addition, a drilling hole that was not filled in and recently drilled was observed in the Proposed 8 Trunk Open Cut. The drill rig was observed nearby. Charbon environmental management were not aware of this drilling having taken place, although suggested it was for delineating the coal resource to plan for the open cut mine. It did not appear that the hole had been installed using DTIRIS guidelines. On the basis that the drilling had taken place and that no exploration reports had been submitted to DTIRIS; Charbon was seen as non-compliant with this condition.	Non-Compliant Recommendation: It is recommended that Charbon seek confirmation that DTIRIS do not require Exploration reports if no exploration works are conducted. Recommendations regarding the lack of notification to DTIRIS for drilling activities are provided in other conditions.

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Consolidated Coal Lease No.732	8.	Licence to Use Reports	(a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright. (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.	Noted. No Exploration reports had been written.	Not Applicable
Consolidated Coal Lease No.732	9.	Confidentiality	(a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where: (i) the lease holder has agreed that specified reports may be made non-confidential. (ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease. (b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated. (c) The Director-General may extend the period of confidentiality.	Noted. No Exploration reports had been written.	Not Applicable
Consolidated Coal Lease No.732	10.	Terms of the non-exclusive licence	The terms of the non-exclusive copyright licence granted under condition B (a) are: a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports. b) the Minister and any sub-licensee will acknowledge the lease holder/s and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database. c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright. d) there is no royalty payable by the Minister for the licence. e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.	Noted. No Exploration reports had been written.	Not Applicable

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Consolidated Coal Lease No.732	11.	Blasting	<p>a) Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Conservation.</p> <p>b) Blast Overpressure The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Conservation.</p>	(See EPL) Records indicate that only two blasts were initiated within the audit period. These did not generate exceedances of the identified overpressure criteria. Centennial Charbon has discontinued blasting on-site and has no intention to resume blasting in the future.	Compliant
Consolidated Coal Lease No.732	12.	Safety	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.	Stock Charbon land is currently used for the agistment of cattle. Cattle and people movements are restricted to the west by fencing and to the east by the State Forest, which has inaccessible cliff lines. Abandoned shafts have reportedly been filled in. Eight trunk portal have recently been completed (8 and 9 Trunk SMP) and will reportedly be closed as required.	Compliant
Consolidated Coal Lease No.732	13.	Rehabilitation	<p>(a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that:-</p> <ul style="list-style-type: none"> there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion. the state of the land is compatible with the surrounding land and land use requirements; the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land. in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density. the land does not pose a threat to public safety. 	<p>Rehabilitation is covered in detail in the main report. The quality of rehabilitation was found to be generally to a very good standard. At the time of the audit the rehabilitation Areas 1 and 2 (rehabilitated in 2007) were observed as well as the areas within the Southern Open Cut area that are in preparation for the 2012 rehabilitation works. The 2007 rehabilitation works appear to be largely compliant with this condition (a) in terms of land use, landform, soils, and flora. Some issues relating to rehabilitation include:</p> <ul style="list-style-type: none"> Old drill sites have reportedly not been rehabilitated. Site inspection required to check them as close out as relevant. Topsoil stockpiles were not considered to be stored or managed to an acceptable standard. See main report for comments. <p>On the basis of topsoil stockpiles not being managed to an appropriate standard, URS considers that Charbon is not compliant with part b) of the condition.</p>	<p>Generally Compliant, however Non-Compliant - Part b)</p> <p>Recommendation: It is recommended that requirements of the Landscape Management Plan in relation to topsoil management are implemented. Recommendation regarding part (b) of this condition in terms of topsoil, collection, storage, usage and spreading. Charbon to manage topsoil with a more rigid approach to ensure topsoil is managed in accordance with LMP (Section 6.1.9, Topsoil Management) guidelines, which state:</p> <ul style="list-style-type: none"> - clear separation of topsoil,

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			<ul style="list-style-type: none"> (b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General. 		<ul style="list-style-type: none"> - minimising of stockpile requirements, favouring direct placement - topsoil piles get treated for weeds, - maximum stockpile depth of approximately 3m for long term (greater than 6 month storage).
Consolidated Coal Lease No.732	14.	Rehabilitation	The lease holder must comply with any direction given by the Director-General regarding the stabilisation and revegetation of any mine residues, tailings or overburden dumps situated on the lease area.	No direction on rehabilitation had been issued by the Director-General during the audit period.	Not Applicable
Consolidated Coal Lease No.732	15	Exploratory Drilling	<p>(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Infrastructure, Planning and Natural Resources regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.</p> <p>(2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that-</p> <ul style="list-style-type: none"> a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established; b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface; c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters; d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape; e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers. f) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General. g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition. 	<p>No formalised drilling activities organised by Charbon Management were reported to have been undertaken since the 1980's.</p> <p>DTIRIS is kept informed that no exploration is undertaken through yearly AEMR reports, however no formal reports are submitted indicating exploration is not carried out.</p> <p>Evidence was sighted that Big Rim contractors had undertaken some informal drilling in the SOC (pers.comm Big Rim personnel) to see if there was a seam under the seam being mined. In addition, a drilling hole that was not filled in and recently drilled was observed in the Proposed 8 Trunk Open Cut. The drill rig was observed nearby. Charbon environmental management were not aware of this drilling having taken place, although suggested it was for delineating the coal resource to plan for the open cut mine.</p> <p>It did not appear that the exploratory drill holes had been reported to DTIRIS or to have met the requirements of this condition. On this basis Charbon was seen as non-compliant with this condition.</p>	<p>Non-Compliant</p> <p>Recommendations:</p> <p>It is recommended that Charbon ensure that no further exploration drilling is conducted without meeting the requirements of this condition.</p> <p>It is recommended that Charbon report to DTIRIS on exploration activities as required.</p>

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Consolidated Coal Lease No.732	16.	Prevention of Soil Erosion and Pollution	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.	<p>Charbon are generally compliant with this condition, however there were some exceptions noted:</p> <p>Some rain events have occurred on the site leading to discharge of sediment. These are discussed in the main report.</p> <p>A Phase 1 Assessment has been conducted at Charbon, which identified a number of areas of the site with hydrocarbon contamination. Site's observed to have hydrocarbon staining of surface soils were around workshops in the 8 Trunk area, and other locations.</p> <p>Charbon indicated that a Phase 1 Contamination Assessment had been completed that identified contaminating sources to include workshops and other areas where hydrocarbons are stored. A copy of the Phase 1 Assessment was not made available and hence no further comment can be provided.</p> <p>On the basis of the high turbidity water discharges, and the hydrocarbon contamination observed on site and identified in a Phase 1 Assessment in some specific areas, Charbon was considered Not Compliant with the condition.</p> <p>It is noted that events discussed above related to water discharges have largely been addressed, and that EPA acknowledge the significant amount of works done to improve water management on site. With respect to hydrocarbon staining, this is seen as quite localised and specific to the sources observed such as workshops etc.</p>	Non-Compliant
Consolidated Coal Lease No.732	17.	Transmission line, Communication lines & Pipelines	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	<p>Charbon water is supplied via a Council pipeline. No other utilities exist on site other than those servicing the site.</p> <p>No transmission lines or communication lines are located on site.</p> <p>No disturbance to the pipeline or utilities has reportedly occurred.</p>	Compliant
Consolidated Coal Lease No.732	18.	Fences, Gates	<p>(a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.</p> <p>(b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.</p>	<p>The majority of fences at Charbon are owned by Charbon. No interferences with or damage to fences was been reported.</p> <p>When privately owned land is accessed, which reportedly does not routinely occur, permission is reportedly obtained and gates are closed/left open as found.</p>	Complaint

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Consolidated Coal Lease No.732	19.	Roads and Tracks	(a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director- General and subject to any conditions he may stipulate. (b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.	a) No impact to roads has been reported. An agreement with the Game council was negotiated to allow them public access through Charbon land to the State Forest. A track to a Telstra transmission tower (located on State Forest) was also made available through Charbon land, which Telstra upgraded. b) N/A as no identifiable designated authority.	Complaint
Consolidated Coal Lease No.732	20.	Roads and Tracks	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Infrastructure, Planning and Natural Resources.	No new access tracks were constructed during the audit period. Tracks established prior to mining operations were still in place. This condition is N/A as no new tracks were reportedly created that would require rehabilitation.	Not Applicable
Consolidated Coal Lease No.732	21.	Trees and Timber	(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden. (b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Conservation Act 1997. (c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	a) Trees that were cleared during the audit period have been only on Charbon land. b) Trees cleared were approved for clearance in the MOP and Landscape Management Plan. c) This condition was N/A during the audit period as no timber from Crown land had reportedly been used. Timber cleared from Charbon land, was reportedly cleared after consultation with State Forest, which found no millable timber present. Negotiations were in progress with State Forest for Eight Trunk open cuts, to pay a rate /ha/yr of disturbance.	Compliant

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Consolidated Coal Lease No.732	23.	Resource Recovery	<p>(a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.</p> <p>(b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.</p> <p>(c) The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.</p> <p>(d) The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.</p> <p>(e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a warden for inquiry and report under section 334 of the Mining Act, 1992.</p> <p>(f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.</p>	<p>Noted. No notification from Director-General received during audit period.</p> <p>No independent testing of this was conducted by URS.</p>	Compliant
Consolidated Coal Lease No.732	24.	Indemnity	<p>The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.</p>	Noted.	Not Applicable

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Consolidated Coal Lease No.732	28.	Catchment Area	<p>(a) Operations shall be carried out in such a way as not to cause any pollution of the Burrendong Catchment Area.</p> <p>(b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.</p>	<p>See Water Section of the main Report. The EPL allows for some discharges into waters of the Burrendong Dam catchment. A compliance assessment of the EPL is provided. It is noted that the wording of the condition refers to "any" pollution. This condition has been assessed as the EPL superceding the Mining Lease.</p> <p>b) N/A during the audit period as no directions given.</p>	Compliant
Consolidated Coal Lease No.732	29.	State Forests and Forest Reserves	<p>(a) This lease does not confer the power to cut or remove any timber within the Kandos State Forest, except such as directly obstructs or prevents the carrying on of operations and the lease holder shall obtain authority under the provisions of the Forestry Act, 1916, as amended, or any Act amending the same and the Regulations thereunder before making use of the timber so cut for other than in connection with operations. The sanction of the Regional Manager or his deputy shall be obtained before proceeding to cut any other timber within the said forest(s).</p> <p>(b) The lease holder shall take all precautions against causing outbreak of fire on the said forest(s) and shall not burn off any grass dry herbage or surface litter except with the consent of the Regional Manager.</p> <p>(c) In the event of operations encroaching on or within ten (10) metres of any constructed road or firebreak the lease holder shall provide a suitable deviation to the same standard as the previous road or firebreak and upon the completion of operations or the sooner determination of this authority the lease holder shall restore the road or firebreak to it's original position and condition to the satisfaction of the Minister.</p> <p>(d) The lease holder shall not interfere with any Crown improvements unless with consent in writing of the Minister.</p> <p>(e)</p> <p>i. Any necessary clearing shall be done only with the prior permission of the Regional Manager or his deputy and compensation shall be paid for any mature trees or semi mature trees damaged or destroyed at the rate fixed by the State Forests of New South Wales and such compensation shall be payable on demand at the end of each calendar month.</p>	<p>Through correspondence witnessed it is evident that the Charbon Environment Coordinator had a working relationship with the Kandos State Forest representatives (Steve Campbell and Alan Smith, from the Forbes Office).</p> <p>This condition had been addressed by Charbon in the following ways:</p> <p>a) No timber had been cut or removed from the State Forest during the audit period. Site personnel adhere to timber removal requirements and relative procedures as per Condition 9, Kandos State Forest, Project Approval 08_0211.</p> <p>b) Charbon have a Fire Management Plan, which outlines that land to north and north-west remains clear of fuel and land in the north-west (predominant wind direction) is regularly grazed to reduce fire risk. No control burns were carried out as they were reportedly not required. URS has not made any assessment of the adequacy of fire related controls.</p> <p>c) N/A during this audit period as no constructions were carried out which encroached within 10m of a road or firebreak.</p> <p>d) no Crown improvements reported.</p> <p>e) At the time of the audit, an Access Agreement was being negotiated with State Forest for the Eight Trunk Line Open Cut, some of which is on State Forest land to pay a rate /ha/yr of disturbance. This agreement would cover these conditions.</p> <p>f) No damage to roads reported. There was only one access road on site which was a sandy road, which is not adversely affected by wet weather. Site personnel endeavour to not cause damage nor travel on Kandos State Forest roads.</p> <p>g) Not triggered.</p> <p>h) No damage had been reported that would require repair. The access track that Telstra use to access a transmission tower on State Forest Land was upgraded by Telstra.</p> <p>i) Noted.</p>	<p>Compliant</p> <p>Recommendations:</p> <p>The Bushfire Risk Management Plan, June 2007 to be updated with the input from a specialist expert in the development of such plans.</p>

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			<p>ii. In the event of any non merchantable trees being destroyed by the operations hereby authorised compensation payable to the State Forests of New South Wales shall relate to the cost of establishment and tending of the part of the forest affected by the operations.</p> <p>iii. For the purpose of allowing inspection of the site and assessment of compensation payable for the timber to be destroyed, the lease holder shall provide two weeks notice to the Regional Manager or his deputy prior to the commencement of any clearing operations.</p> <p>(f) The lease holder shall not cause damage to forest roads or tracks by operating vehicles on the subject area during wet weather.</p> <p>(g) The Minister reserves the right to suspend operations immediately if weather conditions and/or the operations are causing damage to any assets of the State Forests of New South Wales.</p> <p>(h) During operations and progressively, the lease holder shall rehabilitate, consolidate and make trafficable all roads and firebreaks at present existing and which may be affected by the operations to the satisfaction of the Regional Manager or his deputy.</p> <p>(i) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.</p>		
Consolidated Coal Lease No.732	30.	Transmission Lines, Communication Lines & Pipeline	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	Refer to condition 17. No interference or damage was reported.	Compliant
Consolidated Coal Lease No.732	31.	Aboriginal Place Or Aboriginal Object	The lease holder shall not knowingly destroy, deface or damage any Aboriginal object or Aboriginal place within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Refer to Aboriginal and Cultural Heritage Management Plan assessment in the Project Approval. No known destruction of an Aboriginal object without permission was reported.	Compliant

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Consolidated Coal Lease No.732	32.	Security Deposit	<p>(a) The lease holder shall, upon request by the Director General, lodge with the Minister the sum of \$2,100,000.00 dollars as security for the fulfilment of the obligations of the lease holder under Mining Purposes Leases No's. 499, 505, 526, 964 and 670 (Act 1906), Consolidated Coal Lease No. 732 (Act, 1973) and Mining Leases No's 1318,1384,1501,1524 and't545 (Act, 1992). In the event that the lease holder fails to fulfil any of the lease holder's obligations under these authorities the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfil the lease holder's obligations under these authorities, if the lease holder fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of these authorities or of any provision of the Act or regulations made thereunder.</p> <p>(b) The lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:-</p> <p>(i) cash, or</p> <p>(ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister.</p> <p>(c) The Minister may at any time after the commencement of these authorities or any renewal thereof, vary the amount of security required in accordance with this condition.</p>	<p>The cover letter of CCL dated 14 February 2005 states that \$2.1 million was held to meet requirements.</p> <p>No further documentation on security bonds was provided by Charbon.</p>	Compliant
Consolidated Coal Lease No.732	33.	Royalty at Additional Rate	The lease holder shall during the term of this authority pay to the Minister royalty at the additional rate as prescribed by the Regulations for coal recovered by open cut mining methods from the area.	Not Assessed. No information was provided.	Not Assessed
Consolidated Coal Lease No.732	34.	Details of Lands, Purposes & Additional Conditions	The lease holder shall be limited to the following operations and conditions within the specified areas described on the plan annexed hereto and marked "B". (Refer to Table and Plan in Lease).	This condition was not assessed in full. The scale of the map in the CCL made it difficult to refer to the land referenced in the condition.	Not Assessed
Consolidated Coal Lease No.732	35.	Details of Lands, Purposes & Additional Conditions	<p>With regard to Condition No. 34 and the plan annexed hereto and marked "B", the lease holder:</p> <p>a) shall not interfere with or impede the use of any road or track on the area of Diagram No. 3159 or endanger its stability in any way by reasons of the operations carried out.</p> <p>b) shall permit free and uninterrupted access into and out of the area of ML 23, Parish of Clandulla in the holder of Road Permit 09/8.</p>	Noted. Charbon indicated that the roads were allowed to be used by others. On this basis the condition is deemed compliant.	Compliant

Appendix A - Compliance Assessment: ML1545

Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	1	Extraction of Coal	The lease holder shall extract as large a percentage of the coal in the subject area as is practicable consistent with the provisions of the Coal Mines Regulations Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Noted. Not assessed in full by URS.	Compliant
Mining Lease No.1545	2	MOP	(1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:- (a) ongoing mining operations and environmental management; and (b) ongoing monitoring of the project.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	2	MOP	(2)The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	2	MOP	(3) A Plan must be lodged with the Director-General:- (a) prior to the commencement of operations; (b) subsequently as appropriate prior to the expiry of any current Plan; and (c) in accordance with any direction issued by the Director-General.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	2	MOP	(4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:- (a) area(s) proposed to be disturbed under the Plan; (b) mining and rehabilitation method(s) to be used and their sequence; (c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure; (e) progressive rehabilitation schedules; (f) areas of particular environmental sensitivity; (h) water management systems (including erosion and sediment controls); (i) proposed resource recovery; and (j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	2	MOP	(5) The Plan when lodged will be reviewed by the Department of Mineral Resources.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	2	MOP	(6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.	Covered in Compliance checklist for CCL 732.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	2	MOP	(7) If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	2	MOP	(8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	3	AEMR	(1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	3	AEMR	(2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of: (a) the accepted Mining Operations Plan; (b) development consent requirements and conditions; (c) Department of Environment and Conservation and Department of Infrastructure, Planning and Natural Resources licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area; and (f) where relevant, progress towards final rehabilitation objectives.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	3	AEMR	(3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	3	AEMR	(4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.	Covered in Compliance checklist for CCL 732.	Compliant
Mining Lease No.1545	14.	Shafts, Drifts, Adits	Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or used by the lease holder.	No shafts were observed on site during the audit inspection. The area west of the site is fence and to the east is bordered by State Forest which is inaccessible.	Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	15.	Dumps	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.	No directions were reportedly issued by the Inspector.	Not Applicable
Mining Lease No.1545	16.	Dumps	The lease holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.	No directions were reportedly issued by the Director-General.	Not Applicable
Mining Lease No.1545	17.	Dust	The lease holder shall take such precautions as are necessary to abate any dust nuisance.	See Dust Section of the Main Report.	Compliant (subject to comments in the main report)
Mining Lease +No.1545	18.	18.	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	The majority of fences at Charbon are owned by Charbon. No interferences with or damage to fences was been reported. When privately owned land is accessed, which reportedly does routinely occur, permission is reportedly obtained and gates are closed/left open.	Compliant
Mining Lease No.1545	19.	19.	The lease holder shall observe any instruction given or which may be given by the Minister with a view/ to minimising or preventing public inconvenience or damage to public or private property.	No instructions were reportedly given.	Not Applicable
Mining Lease No.1545	20.	20.	If required to do so by the Minister and within such time as may be stipulated Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings or pipelines.	No requirement by the Minister for this condition had been issued.	Not Applicable
Mining Lease No.1545	21.	21.	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	No directions were reportedly issued by the Minister.	Not Applicable
Mining Lease No.1545	22.	22.	Upon completion of operations on the surface of the subject area or upon expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surfaces all be rehabilitated and left in a clean, tidy and a safe condition to the satisfaction of the Minister.	Not triggered.	Not Applicable
Mining Lease No.1545	23.	23.	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.	No directions were reportedly issued by the Minister.	Not Applicable

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	24.	24.	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	<p>Charbon have a Fire Management Plan, which outlines that land to north and north-west remains clear of fuel and land in the north-west (predominant wind direction) is regularly grazed to reduce fire risk. No control burns were carried out as they were reportedly not required.</p> <p>URS has not assessed the adequacy of fire management at Charbon.</p>	Compliant
Mining Lease No.1545	25.	25.	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.	<p>See CCL Condition 16 on pollution. Charbon are generally compliant with this condition, however there were some exceptions noted:</p> <p>Some rain events have occurred on the site leading to discharge of sediment. These are discussed in the main report.</p> <p>A Phase 1 Assessment has been conducted at Charbon, which identified a number of areas of the site with hydrocarbon contamination. Site's observed to have hydrocarbon staining of surface soils were around workshops in the 8 Trunk area, and other locations. Charbon indicated that a Phase 1 Contamination Assessment had been completed that identified contaminating sources to include workshops and other areas where hydrocarbons are stored. A copy of the Phase 1 Assessment was not made available and hence no further comment can be provided.</p> <p>On the basis of the high turbidity water discharges, and the hydrocarbon contamination observed on site and identified in a Phase 1 Assessment in some specific areas, Charbon was considered Non-Compliant with the condition.</p> <p>It is noted that events discussed above related to water discharges have largely been addressed, and that EPA acknowledge the significant amount of works done to improve water management on site. With respect to hydrocarbon staining, this is seen as quite localised and specific to the sources observed such as workshops etc.</p>	Non-Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	26.	26.	<p>The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendations of Australian Standard AS-2187-1993 and ANZEC Guidelines.</p> <p>(a) Ground Vibration The lease holder shall design all blasts on the basis that the ground vibration peak particle velocity generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, or not subject to a valid agreement with the lease holder, with respect to the effects of the blasting.</p> <p>(b) Blast Overpressure The lease holder shall design all blasts on the basis that the blast overpressure noise level generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.</p>	Reference is made to the Main Report and the compliance assessment of the EPL.	Compliant
Mining Lease No.1545	27.	27.	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	No directions were reportedly issued by the Minister.	Not Applicable
Mining Lease No.1545	29.	29.	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	No directions were reportedly issued by the Minister.	Compliant
Mining Lease No.1545	30.	30.	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	No directions have been provided by the Minister regarding soil erosion. Some issues regarding soil erosion were identified and are presented in the main report - Water Management.	Compliant (subject to the comments of the Main Report - Water Management section).

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	31.	31.	<p>The lease holder shall pay to Rylstone Shire Council, Department of Lands or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area.</p> <p>PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Lands or the Chief Executive Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.</p>	No significant damage to roads was observed during the site inspection or reported by Charbon personnel for the audit period.	Not Applicable
Mining Lease No.1545	32.	32.	<p>In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or on the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.</p>	Not triggered. No operations/damage to roads was reported during the audit period.	Not Applicable
Mining Lease No.1545	33.	33.	<p>(a) Operations shall be carried out in such a way as not to cause any pollution of the Macquarie River or the Hawkesbury River Catchment Areas.</p> <p>(b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Areas the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.</p> <p>(c) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Areas.</p>	<p>a and c) Refer to EPL Condition 3 for detailed discussion of non-compliance.</p> <p>b) Not triggered.</p>	Non-Compliant

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	41.	41.	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the surface or the excepted surface of the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	No interference reported. No directions were reportedly issued by the Minister.	Compliant
Mining Lease No.1545	43.	43.	The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Refer to Aboriginal and Cultural Heritage Management Plan assessment in the Project Approval. No known destruction of an Aboriginal object without permission was reported.	Compliant
Mining Lease No.1545	44.	44.	The lease holder shall during each year of the term of the authority: (a) ensure that at least 9 workers are efficiently employed on the subject area; or (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$157,500.00. The Minister may at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.	Nine or more workers are reportedly employed at Charbon each year and operations carried out up until the audit period have reportedly been in excess of \$157,000.	Complaint
Mining Lease No.1545	45.	45.	The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister: (a) information regarding the ownership of the land within the subject area; (b) information regarding the ownership of the coal within the subject area prior to 1st January, 1982; (c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished by the lease holder; (d) information regarding the financial viability of the lease holder and operations within and associated with the subject area; and (e) information regarding shareholdings in the lease holder.	No requests were reportedly made by the Minister.	Complaint

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	46.	46.	<p>Within a period of three (3) months from the date of this authority or within such further time as the Director General may allow, the lease holder shall serve on each landholder within the subject area notice in writing indicating that this authority has been granted and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.</p> <p>If there are ten (10) or more landholders affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.</p>	<p>The ML was first granted in 1989. At this time the only notifiable landholder was the State Forest. No evidence of notification was able to be provided.</p> <p>The lease was most recently renewed on 28th of January 2005. No evidence of renewal was able to be provided.</p>	<p>Non-Compliant</p> <p>Recommendation:</p> <p>It is recommended that the upon future licence renewals notification of renewal is issued to the surrounding landholders as a formal written letter. This letter must include an adequate plan and description of the lease.</p>
Mining Lease No.1545	47.	47.	<p>(a) Where an inspector under the Mining Act 1992 is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:</p> <p>(i) to cease operations within the subject area in contravention of that condition or Act; and</p> <p>(ii) to carry out within the specified time works necessary to rectify or remedy the situation.</p> <p>(b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director General may confirm, vary or revoke any such direction.</p> <p>(c) A notice referred to in his condition may be served on the Colliery Manager.</p>	No notices were reportedly made by an Inspector.	Not Applicable
Mining Lease No.1545	48.	48.	The lease holder shall indemnify and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs and charges and expense which may be brought against the lease holder or which the lease holder may incur respect of any accident or injury to any person or property which may arise out of the construction maintenance working of any workings now existing or to be made by the lease holder within the boundaries of the subject area or in connection with any of the operations not withstanding that all other conditions of this authority shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do hereunder.	Noted.	Not Applicable

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Approval Title	Condition No.	Condition Title	Requirement	Comments	Compliance Status/Recommendations
Mining Lease No.1545	49.	49.	The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, action, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	Noted.	Noted
Mining Lease No.1545	50.	50.	<p>(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.</p> <p>(b) Where the lease holder notifies the Director General pursuant to sub paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.</p>	<p>No formalised drilling activities organised by Charbon Management were reported to have been undertaken since the 1980's.</p> <p>DTIRIS is kept informed that no exploration is undertaken through yearly AEMR reports, however no formal reports are submitted indicating exploration is not carried out.</p> <p>Evidence was sighted that Big Rim contractors had undertaken some informal drilling in the SOC (pers. comm Big Rim personnel) to see if there was a seam under the seam being mined. In addition, a drilling hole that was not filled in and recently drilled was observed in the Proposed 8 Trunk Open Cut. The drill rig was observed nearby. Charbon environmental management were not aware of this drilling having taken place, although suggested it was for delineating the coal resource to plan for the open cut mine.</p> <p>It did not appear that the exploratory drill holes had been reported to DTIRIS or to have met the requirements of this condition. On this basis Charbon was seen as non-compliant with this condition.</p>	<p>Non-Compliant</p> <p>Recommendation: It is recommended that Charbon ensure that no further exploration drilling is conducted without meeting the requirements of this condition.</p> <p>It is recommended that Charbon report to DTIRIS on exploration activities as required.</p>
Mining Lease No.1545	51.	51.	The joint security of \$1,193,700.00 lodged with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of its obligations under Mining Purposes Leases No's. 270 (Act 1973) and 499, 662, 663, 505, 526, 964 and 670 (Act 1906), Consolidated Coal Lease No. 732 (Act, 1973) and Mining leases No's 1318, 1384, 1501 and 1524 (Act, 1992) is extended to apply to this lease.	Cover letter of CCL states that \$2.1 million was held to meet requirements.	Compliant
Mining Lease No.1545	54.	54.	The lease holder shall during the term of this authority pay to the Minister royalty at the additional rate as prescribed by the Regulations for coal recovered by open cut mining methods from the area.	Refer to CCL Condition 33. Not Assessed.	Not Assessed

Appendix A: EPBC Act - Compliance Assessment: Expansion of Charbon Colliery

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
EPBC Act Expansion of Charbon Colliery 2010/5498	1.	The person taking the action must carry out the action in accordance with the conditions of this approval and as described in the referral documentation dated 18 May 2010 and Preliminary Documentation dated 20 October 2010. Where the referral, the Preliminary documentation and these conditions are contradictory, these conditions shall prevail to the extent of the contradiction.	This condition item as part of the EPBC Act Expansion of Charbon Colliery 2010/5498 had been noted by Charbon Colliery.	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	2.	The person taking the action must not clear more than approximately 90ha in the project area (Annexure 1), consisting of no more than; a. Approximately 42ha of native vegetation including: i 13.3ha of the listed white Box - Yellow Box - Blakely's Red Gum grassy Woodlands and Derived native Grasslands ecological community; b. Approximately 47ha of cleared land; and c. The removal of no more than 40 individual Eucalyptus macrorhyncha subsp. cannonii (Cannon's Stringybark or Capertee Stringybark).	The vegetation clearance limitation of 90 Ha for Charbon is outlined within the LMP (CHMP) document and associated figures. In addition, aerial photography was viewed as evidence to show, pictorially, the clearance against the 90 Ha limitation.	Compliant
EPBC Act Expansion of Charbon Colliery 2010/5498	3.	To mitigate impacts on the listed white Box - Yellow Box - Blakely's Red Gum Grassy Woodlands and Derived native Grasslands ecological community, the listed swift Parrot, Regent Honeyeater, Large-eared Pied Bat and Greater Long Eared Bat, the person taking the action must place a legally binding conservation covenant in perpetuity over no less than 253ha of land identified as 'Proposed Additional Compensatory Habitat' on the map dated 12/10/2010 at Annexure 2. a) The covenant must be approved in writing by the Minister and placed on the title of the land identified on the Map at Annexure 2 as "Proposed Additional Compensatory Habitat" within 2 years of the date of this approval. b) covenant conditions must not allow any development or native vegetation clearing within these areas.	At the time of the audit inspection Charbon were in the process of finalising and securing the offset through submission of the Compensatory Habitat Management Plan (Biodiversity Offset Strategy) and negotiations with the Department of Sustainability Environment Water Populations and Communities (SEWPaC). The CHMP was submitted 18.11.12 - email evidence was sighted and Charbon was awaiting approval at the time of the audit inspection.	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	4.	Within 12 months of the commencement of Stage One Works the person taking the action must prepare and submit a Compensatory Habitat Management Plan for the area identified in Condition 3, for the Minister's approval to provide protection for: i. white Box - Yellow Box - Blakely's Red Gum Grassy woodland and Derived Native Grasslands; and ii. habitat for the spotted-tail Quoll, swift Parrot, Regent Honeyeater, Large-eared Pied Bat, Greater Long Eared Bat and Capertee Stringybark; The Compensatory Habitat Management Plan must include, but not limited to: a. desired outcomes/objectives of the plan; b. management actions including, but not limited to, land rehabilitation and restoration measures, pest management, fencing, weed control, fire management, erosion and sediment control, exclusion of livestock, and restrictions on access that are proposed to protect and enhance areas of: i. white Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grasslands; and	Charbon had prepared and submitted a CHMP (submitted: 18.11.12, correspondence viewed). The CHMP was reviewed and contents seen to address condition items a) through to h). During the site visit, implementation of the CHMP was seen in terms of condition 4 h) habitat boxes have been and are being laid out in CHMP areas, as well as woody debris and rock placement for fauna habitat.	Compliant

Appendix A: EPBC Act - Compliance Assessment: Expansion of Charbon Colliery

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
		<p>ii. habitat for the Spotted-tail Quoll, Swift Parrot, Regent Honeyeater, Large-eared Pied Bat, Greater Long Eared Bat and Capertee Stringybark;</p> <p>c. measures to monitor subsidence and thresholds of detected subsidence rates that will trigger remedial action and the remedial works in relation to subsidence;</p> <p>d. measures for the protection of these areas in perpetuity;</p> <p>e. the development and implementation of a monitoring program, including, but not limited to, performance criteria and thresholds for review and amendment of management actions;</p> <p>f. a description of the potential risks to management and rehabilitation in the compensatory habitat areas, and a description of the contingency measures that would be implemented to mitigate these risks;</p> <p>g. the timing of and person(s) responsible for undertaking the actions identified in condition 4; and</p> <p>h. The approved Compensatory Habitat Management Plan must be implemented.</p>		
EPBC Act Expansion of Charbon Colliery 2010/5498	5.	For the first five years after substantial commencement: the person taking the action must submit to the Department a report detailing the implementation of the approved Compensatory Habitat Management Plan, as a component of Condition 10.	Not Yet Triggered	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	6.	For the period following the first five years after substantial commencement, the person taking the action must submit to the Department a report detailing the implementation of the approved Compensatory Habitat Management Plan. Reports must be submitted every five years, as a component of Condition 10, until the Minister notifies, the person taking the action that he or she is satisfied that the Compensatory Habitat Management Plan has been fully implemented and reporting is no longer required, or is required at intervals other than every five years.	Not Yet Triggered	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	7.	<p>To offset impacts to the listed White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grasslands ecological community, the listed Swift Parrot, Regent Honeyeater, Large-eared Pied Bat and Greater Long Eared Bat, the person taking the action must provide protection for no less than 120ha of land including at least 80ha of White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grasslands Ecological Community; and prepare and submit for the Ministers approval an Offset Management Plan.</p> <p>The approved Offset Management Plan must:</p> <p>a) be implemented within 2 years of the date of this approval or before the commencement of Stage Two Works; and</p> <p>b) Provide details of measures to ensure the in perpetuity protection and management of offset areas, including how in perpetuity protection and management will be funded.</p>	<p>At the time of the audit inspection Charbon were in the process of finalising and securing the offset through submission of the Compensatory Habitat Management Plan (Biodiversity Offset Strategy) and negotiations with the Department of Sustainability Environment Water Populations and Communities (SEWPaC).</p> <p>The CHMP was submitted 18.11.12 - email evidence was sighted and Charbon was awaiting approval at the time of the audit inspection.</p>	Not Applicable

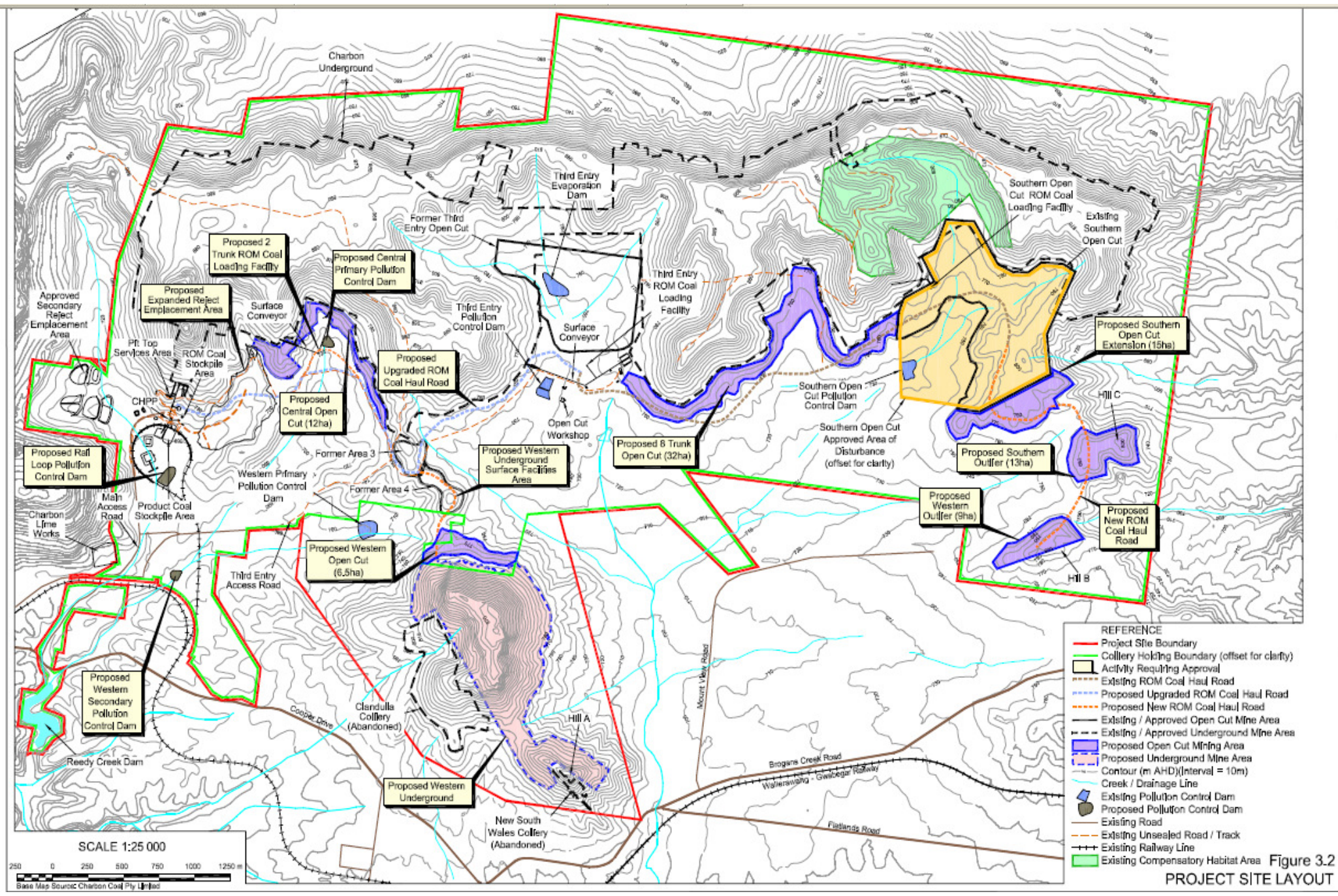
Appendix A: EPBC Act - Compliance Assessment: Expansion of Charbon Colliery

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
EPBC Act Expansion of Charbon Colliery 2010/5498	8.	To offset impacts to the Regent Honeyeater, the person taking the action must donate \$5000 to the Hawkesbury - Nepean Catchment Management Authority for Regent Honeyeater habitat restoration.	During the audit evidence was viewed (correspondence and photograph, taken 23.12.11) showing the acceptance of \$5000 by Hawkesbury - Nepean Catchment Management Authority for Regent Honeyeater habitat restoration.	Compliant
EPBC Act Expansion of Charbon Colliery 2010/5498	9.	Within 10 business days of substantial commencement, the person taking the action must advise the Department in writing the actual date of commencement.	During the audit evidence was viewed (correspondence, 24.11.10) viewed to show "Substantial Commencement of Stage 1 Works".	Compliant
EPBC Act Expansion of Charbon Colliery 2010/5498	10.	Within four months of every 12 month anniversary of the substantial commencement of the action the person taking the action must submit to the Department a report addressing compliance with the conditions of this approval. Annual reports must be provided until the Minister is satisfied that the proponent has complied with all conditions of the approval.	This condition item was not due until 23.3.12 and had been planned for submission with the Annual Environmental Management Report, 31.3.12.	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	11.	Upon direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted.....	At the time of the audit site inspection there had not yet been any such direction from the Minister received.	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	12.	If the person taking the action wishes to carry out any activity otherwise than in accordance with the plans, reports or strategies referred to in the above conditions the person taking the action must submit for the Minister's approval a revised version of any such plan, report or strategy. The varied activity shall not commence until the Minister has approved the varied plan, report or strategy in writing. If the Minister approves such a revised plan, report or strategy, that plan, report or strategy must be implemented in place of the plan, report or strategy originally approved.	At the time of the audit site inspection there had not yet been the requirement for a variation to current planned and approved mining activities.	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	13.	If the Minister believes that it is necessary or desirable for the better of the listed threatened species and ecological communities and listed migratory species to do so, the Minister may request that the person taking the action make specified revisions to the plans, reports or strategies approved pursuant to the above conditions and submit the revised plan, report or strategy for the Minister's approval. The person taking the action must comply with any such request. The revised approved plan, report or strategy must be implemented. Unless the Minister has approved the revised plan, report or strategy, then the person taking the action must continue to implement the plan, report or strategy originally approved, referred to in the above conditions.	At the time of the audit site inspection there had not yet been such a request from the Minister received.	Not Applicable
EPBC Act Expansion of Charbon Colliery 2010/5498	14.	If at any time after 3 years from the date of this approval, the Minister notifies the person taking the action in writing that the Minister is not satisfied that there has been substantial commencement of the action, the action must not thereafter be commenced without the written agreement of the Minister.	At the time of the audit site inspection there had not yet been such a notification from the Minister received.	Not Applicable

Appendix A: EPBC Act - Compliance Assessment: Expansion of Charbon Colliery

Approval Title	Condition No.	Requirement	Comments	Compliance Status/Recommendations
EPBC Act Expansion of Charbon Colliery 2010/5498	15.	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the above conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Departments website. The results of audits may also be publicised through the general media.	During the audit it was noted that hard copy records and files appear to be in order. Electronic files appeared to be in a moderate order with improvements possible in terms of file naming and version control within electronic files.	Compliant Recommendation: Improvements could be made to electronic files in terms of file naming and version control details.

Appendix B Site Layout



Appendix C Aerial Photo of the Mine with Cadastre Overlaid





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