Independent Environmental Audit
November 2011

Abel Underground Coal Project

Independent Environmental Audit

November 2011

Prepared for:

Donaldson Coal Pty Ltd

Prepared by;

Tebcon Pty Ltd
trading as
trevor brown & associates
applied environmental management consultants

aemc ref: Abel/11/2011

DISTRIBUTION

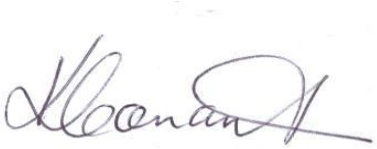
Copies	Recipient	Copies	Recipient
1 pdf	Donaldson Coal Pty Ltd		

This document was prepared for the sole use of Donaldson Coal Pty Ltd and the regulatory agencies that are directly involved with this project, the only intended beneficiaries of our work. No other party should rely on the information contained herein without the prior written consent of **trevor brown & associates**.

By

Tebcon Pty Limited
Trading as trevor brown & associates
ABN: 23 084 906 963

3 rowood Crescent Bundanoon 2578 Australia
Ph: 02 4883 7877 Mob: 0409 053 031
Email: tebrown@bigpond.com



Trevor Brown
Principal Environmental Consultant

Kerrie Conant
Director Tebcon Pty Limited

TABLE OF CONTENTS

GLOSSARY

AEMR	Annual Environmental Management Report
AR	Annual Return required under the EPL
Annual Review	Review required under Schedule 5 condition 3
BCA	Building Code of Australia
CCC	Community Consultative Committee
DEC	Department or Environment and Conservation
DECC	Department of Environmental and Climate Change
DECCW	Department of Environment, Climate Change and Water
Department	Department of Planning and Infrastructure
DII	Department of Industry and Investment
Director-General	Director-General of Department of Planning and Infrastructure, or delegate
DoP	Department of Planning
DP&I	Department of Planning and Infrastructure
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority NSW
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPL	Environmental Protection Licence
MCC	Maitland City Council
MCoA	Minister's Condition of Approval
Mine Water	Water that accumulates within active mining areas and mine
Mining operations	Includes all coal extraction, processing, handling, storage and transportation activities on site
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the project
MOD	Modification to Consent under the *Environmental Planning and Assessment Act 1979*
OEH	Office of Environment and Heritage
OoW	New South Wales Office of Water
Project Approval	Project approval under section 75J of the *Environmental Planning and Assessment Act 1979*
ROM	Run-of-Mine
SEE	Statement of Environmental Effects

Executive Summary

Donaldson Coal Pty Ltd (DCPL) was granted Project Approval to develop the Abel Coal Project on 7 June 2007. The project is located approximately 23 km from the Port of Newcastle and 4 km south of East Maitland, NSW.

The Independent Environmental Audit of the Abel Coal Project to review compliance of the development with the Minister's Conditions of Approval (MCoA) and Statements of Commitments (SoC), was conducted between the 14 to 16 November 2011.

The audit was conducted generally in accordance with the Australian/New Zealand Standards AS/NZS ISO 19011:2003 - Guidelines for Quality and/or Environmental Management System Auditing.

The documentation held by Donaldson Coal and interviews/discussions with the site personnel provided the auditor with the required information for the verification of compliance of the development with the Project Approval.

The independent environmental audit of the Project Approval conditions for the Abel Coal Mine project confirmed a high degree of compliance and did not identify any non-compliance with the Project Approval or Statement of Commitments (SoC) for the activities undertaken during the 2008 to 2011 period. There are a number of Project Approval conditions that have not been activated or are not relevant to the current operations (these are identified and summarised in the report).

All the management plans and monitoring programs required by the Project Approval have been prepared and approved by DoP. The Subsidence Management Plan for Area 2 had also been submitted to DI&I for approval, prior to the commencement of mining operations in Area 2.

Air Quality
The Air Quality Monitoring Program and management of operations in relation to dust generation are considered to be adequate for the management of air quality in the vicinity of the Abel Project.

Erosion and Sediment Control
The erosion and sediment controls installed at the Abel Project surface facilities area are considered adequate to manage the surface runoff from the disturbed areas and as the facilities are all contained within the box-cut there is no loss of surface runoff or sediment to the environment from any collected 'dirty' water.

Noise
Abel Project mine operations are inaudible at the locations nominated in Project Approval Schedule 4 condition 23. The noise survey results therefore indicate that the Abel Project noise contribution to the noise experienced at the receivers would not exceed the specified criteria and are in compliance with the Project Approval.

Rehabilitation/Landscape
The Landscape Management Plan/Rehabilitation Management Plan/Mine Closure Plan have been developed for the long term rehabilitation of the Abel Project. Currently rehabilitation works are minimal due to the small area of disturbance.

Subsidence
The Subsidence Management Plans for Area 1 and Area 2 have been prepared and monitoring of subsidence areas has indicated compliance with the Project Approval conditions. Monitoring has indicated that subsidence is generally within the levels predicted in the Subsidence Management Plan for Area 1 with some minor surface cracking and ponding that occurred, generally as predicted within vegetated areas and compacted access roads and tracks, remediated by Abel Project.

Water Management – Surface Water

The surface water monitoring results have not indicated that the Abel Project has influenced the surface water quality at the locations sampled during the 2008 to 2011 period. The surface water monitoring program appears to be adequate to assess surface water quality in the vicinity of the underground mining activities. The control measures within the Water Management Plan and Mining Operations Plan (MOP) are considered adequate to manage surface water quality from the operations.

Water Management - Groundwater

The groundwater monitoring has indicated that groundwater levels and fluctuations have generally remained consistent over the 2008 to 2010 period except for piezometers C080 and C081A, and C063A (that are located in Donaldson Coal Seam). The results from these piezometers have demonstrated a decline in the measured standing water levels over the 2008 to 2011 period. The groundwater quality in the various piezometers although variable, has not exceeded the baseline levels of parameters expressed in the Environmental Assessment and it is considered that the Abel Project activities have not had a measurable effect on the groundwater quality at this time.

1. Introduction

1.1 Background

The Project Approval for the Abel Coal Project was granted on 7 June 2007. Modifications were approved in May 2010 and June 2011. This Independent Environmental Audit was conducted to satisfy Project Approval for the Abel Coal Project, Schedule 5 condition 5:

> *"Within 1 year of this approval, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:*
> - *be conducted by suitably qualified, experienced and independent expert/s whose appointment has been endorsed by the Director-General;*
> - *include consultation with the relevant agencies;*
> - *assess the various aspects of the environmental performance of the project, and its effects on the surrounding environment;*
> - *assess whether the project is complying with the relevant standards, performance measures and statutory requirements;*
> - *review the adequacy of any strategy/plan/program required under this approval; and, if necessary,*
> - *recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval."*

Primary construction activities associated with the Abel Coal Project commenced in March 2008 and included the establishment of the mine personnel and equipment access portals in the Donaldson Mine box cut high wall, with initial roadways driven under John Renshaw Drive to access the Abel coal deposits. The underground mine commenced production of coal in 2008. This Independent Environmental Audit has been conducted for the 3 years January 2008 to November 2011.

1.2 Scope of Work

The scope of work for the independent environmental audit addressed the requirements of Project Approval Schedule 5 Condition 5:

- Assessment of the environmental performance of the project, and its effects on the surrounding environment;
- Assess compliance of the project with the relevant standards, performance measures and statutory requirements;
- Review the adequacy of the strategy/plan/programs required under this approval; and, if necessary,
- recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval."

1.3 Structure of the Audit Report

The audit report has been structured to provide an assessment of all the consent conditions under the following sections:
Section 1 – Introduction
Section 2 – Project Description - Background
Section 3 – Project Approval
Section 4 – Other Environmental Approvals
Section 5 – Discussion of the Environmental Audit Findings
Attachment A – Abel Coal Project – Project Approval 05_0136
Attachment B – Statements of Commitments
Attachment C – Environment Protection Licence No. 12856
Attachment D – Mining Lease No. 1618 and 1653

2. Project Description

2.1 Project Establishment

The Abel Coal Project (Abel Project) is located approximately 23 km from the Port of Newcastle and 4 km south of East Maitland, NSW. The Abel Project is located within Mining Lease (ML) 1618. The ML extends southwards from John Renshaw Drive towards George Booth Drive, and is bounded on the eastern side by the F3 Freeway and the western side by a geological feature in the vicinity of Buttai Creek. The ML has a surface area of approximately 2750 hectares.

Project Approval for the Abel Project was granted on 7June 2007 for:

- extraction of up to approximately 4.5 million tonnes of Run-of-Mine (ROM) coal annually using continuous miner based bord and pillar extraction underground mining methods;
- transport of extracted coal by conveyor to the Run-of-Mine (ROM) coal stockpile adjacent to the mine entry portal and surface facilities;
- transport of the ROM coal by truck along a private haul road to the Bloomfield Colliery for beneficiation at the Bloomfield Coal Preparation Plant (BCPP); and
- transport of processed coal via the existing Bloomfield rail loop and spur line off the Great Northern Railway Line to the Port of Newcastle.

The surface infrastructure for the Abel Project is located on land owned by Donaldson Coal Pty Ltd to the north of John Renshaw Drive. The land to the south of John Renshaw Drive within the boundaries of ML 1618 is owned by Coal and Allied, the Catholic Diocese of Maitland and Newcastle, and various private land owners.

The Abel Project surface facilities and ROM stockpiles are located in the void at the base of the high wall excavated as part of the Donaldson West Open Cut Coal Mine (north of John Renshaw Drive). The surface infrastructure and facilities for Abel Project are constructed within a 9.5ha area and include offices, amenities, service and storage facilities and car parking area. Areas of Donaldson Mine Lease and Bloomfield Colliery, used for Abel Project surface facilities are included in the Mining Lease 1618.

2.2 Coal Resource

The Abel Project resource occurs within the Permian Tomago Coal Measures Four Mile Creek formation that outcrops in the mine lease area and comprises six seams, the upper seams of which will be extracted and blended to produce premium grade steaming coal.

Coal extraction occurs using high productivity, continuous miner based bord and pillar systems, with pillar extraction techniques.

The Abel Project underground workings extract coal from the Upper Donaldson, Lower Donaldson and Ashtonfield coal seams. These seams dip downwards towards the south across the ML 1618 site, at approximately 5°. The roadways for the underground workings have been driven beneath John Renshaw Drive, to access the coal reserves located south of the road.

The mineable section of the Upper Donaldson Seam is within the northern and central parts of the project area, where seam thickness ranges from 1.5 to 3.2m. Depth of cover ranges from 30m in the north to 250m in the southern area of the lease. Upper Donaldson Seam washed products consist principally of semi-soft coking coal, with high ash thermal coal as a secondary product.

Mineable reserves within the Lower Donaldson Seam are within the central and southern parts of the project area, where the interval below the Upper Donaldson Seam exceeds 10m.

Depth of cover ranges from 50 to 450m. Lower Donaldson Seam washed products consist principally of low and high ash thermal coal, with potential for a semi-soft coking coal product in the southeast part of the project area.

The Ashtonfield Seam is of mineable thickness in the northeastern part of the project area. Working thickness ranges from 1.5 to 2.2m. The Ashtonfield Seam is typically 20m below the Lower Donaldson Seam. Depth of cover ranges from 30 to 250m. Ashtonfield Seam washed products consist of semi-soft coking coal and low ash thermal coal.

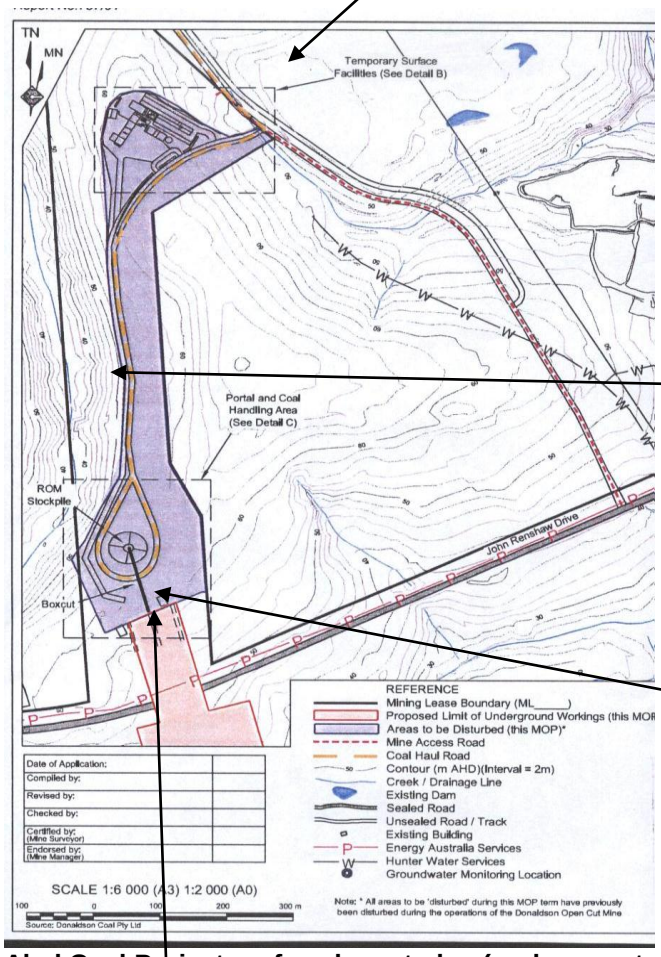
A conveyor from the underground production areas transports the Run-of-Mine (ROM) coal through the mine portal to a surge stockpile within the box-cut. Trucks transport the ROM coal along an internal haul road from the ROM surge stockpile to the Bloomfield CHPP for beneficiation.

As production levels increase from the Abel Project Mine, an overland conveyor may be constructed for the transport of coal from the Abel Mine ROM stockpile to the Bloomfield CHPP, to replace truck haulage. All truck haulage (and the proposed conveyor route) to the Bloomfield CHPP will be on Donaldson Coal Pty Ltd owned mine roads/land within existing coal operation areas.

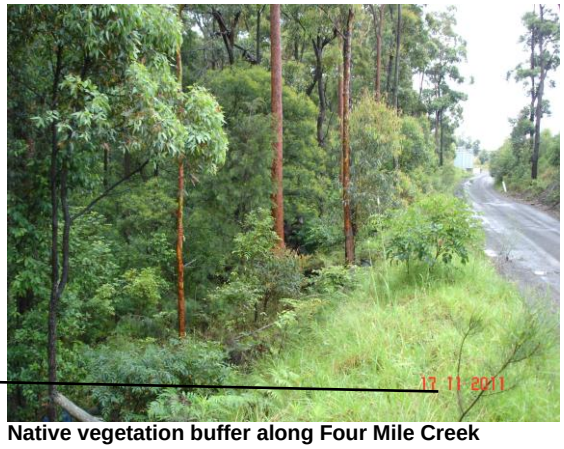
The beneficiated coal product from the Abel Project is conveyed to the Bloomfield rail loader for transport to the Port of Newcastle, 23km to the east.

Plate 1: Abel Coal Project – November 2011

Big Kahuna water storage pond (400ML)



Abel Coal Project surface layout plan (under construction)



Native vegetation buffer along Four Mile Creek adjacent to an access road above the mine portals

Abel Coal Mine portal with high wall and vegetation screening along John Renshaw Drive.

Donaldson West Pit open cut high-wall showing Abel portals, looking south towards John Renshaw Drive

3.0 Project Approval

The Project Approval 05_0136 for the Abel Coal Project was granted on 7 June 2007and includes conditions for the overall development of the underground mine and surface facilities.

This Independent Environmental Audit has been conducted to satisfy Project Approval Schedule 5 condition 5, and involves the review of documentation made available for the Abel Project, to verify compliance of the project activities (as at 15 November 2011) in relation to the Project Approval conditions.

3.1 Environmental Management Strategy (EMS)

The Environmental Management Strategy prepared for the Abel Project is part of an Integrated Environmental Management Strategy (IEMS) developed for the Abel, Tasman and Donaldson Coal Mine projects. The IEMS was submitted to DoP on 7 December 2007 and approved on 26 February 2008. The IEMS documentation was developed generally in accordance with the elements of ISO14001.

Any updates or changes to environmental management procedures for the project are achieved through revision of the Management Plans in accordance with EMS Operating Manual EOM-001 Section 13.5.

Conclusion: The components of the IEMS and the commitments in the strategy provide a sound basis for the environmental management of the project.

3.2 Environmental Management Plans

The required Environmental Management Plans prepared for the Abel Project to satisfy the conditions of the Project Approval were submitted to the Director-General for approval prior to commencement of mining activities for the Abel Project (refer to Table 1).

Table 1: Management Plans Required Under Project Approval Schedule 4

Project Approval Sch.4	Management Plan (MP)	Status
7	Subsidence MP	Subsidence Management Plan (SMP) Area 1, Oct 2010; and SMP Area 2, May 2011.
9	Hazard MP	SMP Area 1, Appendix G Oct 2010; and SMP Area 2, Appendix G, May 2011.
11	Water MP	Submitted to DoP 7/12/07; Approved by DoP 5/5/08
12	Site Water Balance	Submitted to DoP 7/12/07; Approved by DoP 5/5/08.
13	Erosion and Sediment Control	Submitted to DoP 7/12/07; Approved by DoP 5/5/08.
14	Surface Water Monitoring Program	Submitted to DoP 7/12/07; Approved by DoP 5/5/08.
15	Groundwater Monitoring Program	Submitted to DoP 7/12/07; Approved by DoP 5/5/08
18	Landscape MP	Submitted to DoP 7/12/07; Approved by DoP 11/2/08
19	Rehabilitation MP	Submitted to DoP 7/12/07; Approved by DoP 11/2/08.
20	Final Void MP	Submitted to DoP 7/12/07; Approved by DoP 11/2/08
21	Mine Closure Plan	Submitted to DoP 7/12/07; Approved by DoP 11/2/08
24	Noise Monitoring Program	Submitted to DoP 2/10/07; DoP comments received 12/5/08; Revised NMP approved 2/6/08.
26	Air Quality Monitoring Program	Submitted to DoP 7/12/07; Approved by DoP 26/2/08
29	Aboriginal Heritage MP	Submitted to DoP 3/12/07; Approved by DoP 11/2/08
32	Energy Savings Action Plan	Submitted to DoP 7/12/07; Approved by DoP 13/2/08
Sch. 5		
1	Environmental Management Strategy	Submitted to DoP 7/12/07; Approved by DoP 26/2/08
2	Environmental Monitoring Program	Submitted to DoP 7/12/07; Approved by DoP

3.3 Environmental Monitoring Program

The monitoring programs for each of the environmental aspects included in the management plans have been collated into an Integrated Environmental Monitoring Program (IEMP) dated December 2007. The monitoring programs are reviewed regularly and updated as required in accordance with IEMS Operating Manual EOM-001 Section 13.5. The environmental monitoring programs include:

- Aboriginal and Cultural Heritage Monitoring
- Air Quality
- Blasting
- Flora and Fauna
- Noise
- Water Management (Surface and Groundwater)
- Meteorological Monitoring

The results from the monitoring programs are summarised in the Annual Environmental Management Report (AEMR)/Annual Report (AR) text with data presented in the Appendices.

Conclusion: The IEMP is considered adequate to provide data for the assessment of the environmental performance of the Abel Project operations in relation to compliance with the statutory standards and criteria and for compliance with the intent of the Project Approval, EPL and ML conditions.

3.4 Air Quality

[Project Approval Schedule 4 condition 25]

The Air Quality Monitoring Plan was prepared in consultation with the DEC and submitted to the Director-General on 7 December 2007, (i.e. within 6 months of the Project Approval). The Air Quality Monitoring Plan was revised and approved by DoP on 26 February 2008.

The Integrated Air Quality Monitoring Program for Abel Project and Donaldson Mine provides for monthly sampling from ten (10) dust deposition gauges (four locations specifically for the Abel Project), continuous 6 day cycle for two (2) High Volume Air Samplers (HVAS), a continuous 24 hour Dust Traks (PM_{10}), and a GRIMM (PM_{10} and PM_{25}) analyser twice per year.

The dust monitoring results for 2008 to 2011 have demonstrated compliance with the air quality criteria in Project Approval Schedule 4 condition 25 for dust deposition, TSP and PM_{10}:

- Dust deposition was significantly lower than 4g/m^2/mth at all sites;
- All TSP monitoring results were less than 90µg/m^3;
- All PM10 monitoring results were less than50µg/m^3.

Conclusion: The Air Quality Monitoring Program and management of operations in relation to dust generation are considered to be adequate for the management of air quality in the vicinity of the Abel Project.

3.5 Land Management

[Project Approval Schedule 4 condition 19]

The Landscape Management Plan was submitted to the Director-General within 6 months of granting of the Project Approval. The consultants who prepared the Landscape Management Plan, (i.e. Colin Driscoll of Hunter Eco; Rod Masters of GSS Environmental and Mark Burns of Global Soil Services) were endorsed by the Director-General on 26 June 2007. Consultation occurred with the Maitland and Cessnock City Councils, DWE and the DECC during the preparation of the Plan.

The Landscape Management Plan includes the Rehabilitation Management Plan (Appendix 3), Final Void Management Plan (Appendix 4) and Mine Closure Plan (Appendix 5).

The Abel Project is an underground operation so surface disturbance is currently limited to administrative offices/bath house/maintenance facilities/car parks and portal and stockpile area on the infrastructure area near the high wall of the open cut. These facilities are all contained within an area of 9.5ha and are developed for the long term use of the Abel Project. Rehabilitation of these areas will occur when the Abel Project is decommissioned.

Rehabilitation works related to the seeding of the extended light vehicle car park batter, the commissioning of a tertiary treatment septic system area, and vegetation of batters along Four Mile Creek and the visual bund on the northern side of John Renshaw Drive, have occurred in 2008 to 2011.

Plate 1 and 2: Vegetated bund along Four Mile Creek alignment adjacent to the Abel Project portal and box-cut high wall.

Plate 3: Tertiary Treatment System installed in 2011 – rehabilitation of the area around the in-ground tanks is planned for 1Q 2012.

Conclusion: The Landscape Management Plan/Rehabilitation Management Plan/Mine Closure Plan were developed for the long term rehabilitation of the Abel Project. Currently rehabilitation works of areas where no further disturbance will occur have been completed in the small areas of disturbance for the infrastructure, access and protection of Four Mile Creek.

3.6 Noise

[Project Approval Schedule 4 condition 23]

The Noise Monitoring Program was submitted to the Director-General in September 2007, (within 6 months of the Project Approval). Comments were received from DoP on 13 November 2007 and the Noise Management Plan was approved 2 June 2008.

The Integrated Noise Monitoring Program for Abel Project and Donaldson Mine provides for quarterly attended and unattended noise surveys (conducted in March, June, September and December) at twelve (12) locations four of which are potentially most affected by the Abel Project activities.

The results of the noise monitoring surveys indicated that the Abel mine operations were inaudible at all locations.

Conclusion: Abel Project mine operations are inaudible at the locations nominated in Project Approval Schedule 4 condition 23. The noise survey results therefore indicate that the Abel Project noise contribution to the noise experienced at the receivers would not exceed the specified criteria and are therefore in compliance with the Project Approval.

3.7 Subsidence Management

[Project Approval Schedule 4 condition 7]

Subsidence Management Plans for Areas 1 and 2 have been prepared in accordance with the "*New Approval Process for Management of Coal Mining Subsidence – Policy and Guideline for Applications for Subsidence Management Approvals"*, and were submitted to the Director-General of DPI/DI&I for approval prior to the commencement of any underground mining operations in Area 1 and Area 2.

The Subsidence Management Plan for Area 1 for Panels 1 to 13 was approved on 27 May 2010 by DPI-Minerals and the Subsidence Management Plan for Area 2 Panels 14 to 26 was submitted to DI&I on 06 June 2011. The Area 2 Subsidence Management Plan was awaiting approval from DI&I at the date of this audit (15 November 2011).

Secondary workings have occurred in Panels 1 to 3 and part of Panel 4 with subsidence monitoring conducted in accordance with the monitoring program in the approved Subsidence Management Plan for Area 1. Monitoring has included survey assessment, photographic monitoring and visual inspections. The subsidence, tilt and strain results were generally within the predicted range. Visual monitoring of the areas above the Area 1 mining indicated the following:

- Some minor surface cracking and ponding occurred (generally as predicted within vegetated areas and compacted access roads and tracks). Remedial/repair works carried out by Abel Project to repair the impacted areas, occurred in consultation with the landowner.
    - Surface cracking 200mm in width occurred on an access track above Panels 1 to 3 (which exceeded the predicted 30mm to 150mm where depths of cover exceed 80m). The crack in the compacted area of the track was remediated by the Abel Project.
    - Surface cracking 375mm in width in a clay capped area above Panel 4 occurred (which exceeded the predicted 260mm where depths of cover are less than 80m). This cracking was remediated by Abel Project.
- Minor seepage from a connector to a former water supply pipeline was identified and repairs undertaken.
- Apparent sag of power lines occurred between Energy Australia Power Poles 17 and 18. Energy Australia was notified and the conductors lifted to reinstate clearance.

Conclusion: The Subsidence Management Plans for Area 1 and Area 2 have been prepared and monitoring of subsidence areas has indicated compliance with the Project Approval conditions. Monitoring has indicated that subsidence is generally within the levels predicted in the Subsidence Management Plan for Area 1 with some minor surface cracking and ponding that occurred, generally as predicted within vegetated areas and compacted access roads and tracks, remediated by Abel Project.

3.8 Water Management Plan

[Project Approval Schedule 4 Condition 11]

The Water Management Plan was prepared by consultants (Dr Steve Perrens of Evans & Peck; and Peter Dundon of Peter Dundon & Associates) in consultation with the DECC and DWE. The Water Management Plan was approved by DoP on 5 May 2008.

The Abel Project water management has been integrated with the Water Management Plan for the Donaldson Coal and Bloomfield Collieries (adjoining mining operations). The Abel Project transfers water off-site to the Big Kahuna water storage (within the Donaldson Coal Mine lease area) and water from the Big Kahuna is pumped to the Bloomfield CHPP for reuse, as required, as part of the approved Abel Project Water Management Plan.

3.8.1 Surface Water Monitoring

[Project Approval Schedule 4 condition 14]

The Surface Water Monitoring Program, prepared as part of the Water Management Plan by Dr Steve Perrens of Evans & Peck in consultation with the DECC and DWE, was approved by DoP on 5 May 2008.

The objective of the surface water monitoring for the Abel Project was to detect indirect impacts from underground mining activities and activities and surface infrastructure area on the natural surface water resources. Monitoring at Sites 1, 8, 9, 10 and 11, and FMCU and FMCD commenced prior to the Abel Project and provide baseline data to be used to assess impacts attributable to the Abel mine activities.

Surface water monitoring results collected for the Abel Project area exhibited pH values within the range 6.5 to 8.5, and electrical conductivity (EC) results the range of 125 to 2,200µS/cm, that are within the water quality trigger values for Lowland Rivers in NSW (*Guidelines for Fresh and Marine Water Quality,* ANZECC 2000). Turbidity levels and Total Suspended Solids (TSS) have been variable probably due to flow rates at the time of sample collection and the variable rainfall patterns over the 2008 to 2011 period.

Conclusion: The surface water monitoring results have not indicated that the Abel Project has influenced the surface water quality at the locations sampled during the 2008 to 2011 period. The surface water monitoring program appears to be adequate to assess surface water quality in the vicinity of the underground mining activities. The control measures within the Water Management Plan and Mining Operations Plan (MOP) are considered adequate to manage surface water quality from the operations.

3.8.2 Groundwater Monitoring

[Project Approval Schedule 4 condition 15]

The Groundwater Monitoring Program was prepared as part of the Water Management Plan by Peter Dundon of Peter Dundon & Associates in consultation with the DECC and DWE, was approved by DoP on 5 May 2008.

The groundwater monitoring results from samples collected in accordance with the Groundwater Monitoring Program have indicated that groundwater levels and fluctuations have generally remained consistent over the 2008 to 2010 period except for piezometers C080 and C081A, and C063A that have demonstrated a decline in the measured standing

water levels. These piezometers are located in Donaldson Coal Seam. The drawdowns measured in C081A and C080 were coincident with the commencement of first workings in the Donaldson Seam and indicate the pore pressure reduction in the mining area from dewatering. The standing water levels and pore pressure reduction appears to be in a north south (down dip) direction, that suggests less complete hydraulic connection to the east towards piezometer C063A, and the reduction is largely restricted to the Donaldson Seam.

Abel Project Groundwater Standing Water Levels			
Piezometer No.	**2008-2009**	**2009-2010**	**2010-2011**
C063A	-5.52	-5.06	-4.39
C063B	-21.75	-22.17	-22.47
C072	25.16	27.52	29.61
C072B	12.39	12.48	12.94
C078A	44.74	44.60	45.50
C078B	7.83	8.90	8.66
C080	25.22	21.41	17.88
C081A	11.52	6.67	-2.83
C081B	1.97	1.57	0.79
C082	9.08	8.99	8.54

Groundwater inflow rates to the underground workings have been relatively stable over the 2008 to 2010 period with average inflows of less than 500m^3 per day, slightly less than the inflows predicted. The total volume of water pumped from the underground workings during 2010-2011 was 304ML.

Groundwater Quality Average Values 2008 to 2011				
Annual Period	**DPZ-6**	**DPZ-7**	**DPZ-12**	**DPZ-13**
2008-2009				
pH	6.0 – 6.8	6.3 – 7.1	6.1 – 6.9	6.7 – 7.0
EC	2860 – 4,260	2,060 – 2,590	1.630 – 13,180	12,380 – 14,680
TSS	14 – 1,160	98 – 1,130	106 – 1,550	2 - 32
2009-2010				
pH	6.4 – 7.2	6.5 – 6.9	6.5 – 8.2	6.5 – 7.9
EC	1,590 – 8,400	2,000 -3,590	5,330 – 13,200	260 – 14,850
TSS	51 - 945	12 - 551	15 – 1,380	12 - 32
2010-2011				
pH	6.37 - 7.36	4.76 – 7.69	6.31 – 7.46	6.60 – 7.60
EC	1090 - 4,140	2,560 – 2,870	2,390 – 14,200	10,300 – 14,300
TSS	84 - 708	18 - 232	12 - 94	5 - 42

Conclusion: The groundwater monitoring has indicated that groundwater levels and fluctuations have generally remained consistent over the 2008 to 2010 period except for piezometers C080 and C081A, and C063A (that are located in Donaldson Coal Seam). These piezometers have demonstrated a decline in the measured standing water levels. The groundwater quality in the various piezometers although variable, has not exceeded the baseline levels of parameters expressed in the Environmental Assessment and it is considered that the Abel Project activities have not had a measurable effect on the groundwater quality at this time.

3.8.3 Site Water Balance

[Project Approval Schedule 4 condition 12]

The Site Water Balance was prepared by Dr Steve Perrens of Evans & Peck as part of the Water Management Plan, in consultation with the DECC and DWE, and was approved by DoP on 5 May 2008.

A detailed surface water management model was developed for the Abel project to establish the overall performance of the water management systems associated with the Donaldson Mine, Abel Project mine and the Bloomfield CHPP facility.

All water runoff from the surface facilities of the Abel Project drain to a sump and are pumped to the Big Kahuna water storage. Water from de-watering the underground operations is also pumped to the Big Kahuna. Water held in the Big Kahuna is used for:

- Water supply for underground operating purposes;
- Dust suppression around the surface facilities and stockpiles;
- Transfer to Lake Foster for use in the Bloomfield CHPP.

The mine site water balance model indicates that water generated from the Abel Underground Mine will exceed the requirements of the Abel Project operations and the excess water would be utilised by transferring water to Bloomfield for the CHPP.

3.8.4 Erosion and Sediment Control

[Project Approval Schedule 4 condition 13]

The Erosion and Sediment Control Plans have been prepared as part of the Water Management Plan. The Erosion and Sediment Control Plans have been prepared in accordance with the Guidelines in the "*Managing Urban Stormwater: Soils and Construction – Volume 2E Mines and Quarries"* DECC 2008, for the Abel Mine surface works area in the box cut and for the Bloomfield CHPP and stockpile areas.

Erosion and sediment control measures implemented for the Abel Project include:

- diversion of 'dirty' surface water flows within the Abel Project surface facilities in the box cut area to the water storage sump.
- diversion of 'clean' water from areas surrounding the box cut to existing natural drainage lines.

Runoff from the internal access roads is directed from the northern section of the portal access road to the water storage sump.

No major erosion or sedimentation was observed during the site audit inspection. The erosion and sediment control measures implemented were considered adequate without the requirement for further control measures. Silt fencing and sediment traps where installed appeared to be regularly inspected and maintained.

Conclusion: The erosion and sediment controls installed at the Abel Project surface facilities area are considered adequate to manage the surface runoff from the disturbed areas and as the facilities are all contained within the box-cut there is no loss to the environment of any collected 'dirty' water.

4. Other Environmental Approvals

The status of licences and other approvals for the Abel Underground Coal Mine Project and operations are presented in Table 2.

Table 2: Current Licenses, Lease and Approvals for Abel Coal Project

Licence/ Consent	No.	Legislative Requirement	Status	Activity
Environment Protection Licence (EPL)	12856	*Protection of the Environment Operations Act 1997*	EPL current (review due 9 July 2013)	Coal mining, coal works and extractive industries
Mining Lease	1618	*Mining Act 1992*	Granted 15 May 2008	Coal mining for a surface area of 2755ha for 21 years
Mining Lease (ML)	1653	*Mining Act 1992*	Granted 21 Jan 2011	2500m^2 granted surface exception for upcast ventilation shaft
Mining Operations Plan (MOP)		*ML condition*	MOP - Dec 2009 to Dec 2016	Mining operations and rehabilitation
Groundwater Bore Licence	20BL171935 and 20BL172530	*Water Act 1912, Part 5*	Granted 4 Aug 2008 and 3 Aug 2010	Groundwater extraction active mining area; and groundwater monitoring bore
Section 138 Approval		*Roads Act 1993*	Granted 24 Jun 2008	Construction of mine portals beneath John Renshaw Drive (MR588)

4.1 Environment Protection Licence No. 12856

Environment Protection Licence No. 12856 was granted for the Abel Underground Mine on 9 July 2008 with a Variation on 27 November 2009. The next review date for the EPL is 9 July 2013.

A summary of compliance with the EPL 12856 conditions is provided in Attachment C.

4.2 Mining Leases

Mining Lease 1618 was granted on 15 May 2008 for an area of 2,755ha, for the purpose of prospecting and mining for coal. The Schedule of Mining Lease Conditions include condition 2 to 8 and 17 to 23 related to environmental management for the purposes of Section 374A(1)of the Mining Act 1992.

Mining Lease 1653 was granted on 21 January 2011 for an area of 2500 square metres for the development of surface facilities (ventilation shaft). The Schedule of Mining Lease Conditions include condition 2 to 7 and 12 to 16 related to environmental management for the purposes of Section 374A(1)of the Mining Act 1992.

An initial Mining Operations Plan (MOP) prepared for the period December 2008 to December 2009 was approved by DPI-Minerals on the 2 December 2008. A further MOP was prepared for the period 1 January 2010 to 31 December 2016 and submitted to the DI&I for approval in December 2010.

A summary of compliance with the Mining Lease environmental management conditions is provided in Attachment D.

4.3 Bore Licences

Donaldson Coal Pty Ltd has Bore Licence Certificates under the Water Act 1912 section 115 for:

- Bore Licence Number 20BL171935 issued on 5 August 2008 located on DP109/1100314 for a mining bore authorising groundwater extraction not to exceed 500ML in any 12 month period; and
- Bore Licence Number 20BL172530 issued on 3 August 2010 for a groundwater monitoring bore located on DP1131/1057179.

4.4 RTA Section 138 Approval

Approval was granted on 23 June 2008 for the construction of the mine portals beneath John Renshaw Drive (MR588) for the establishment of the roadways into the coal deposit in ML 1618. The portal works under John Renshaw Drive was completed in 2008 in accordance with the s.138 approval.

5.0 Discussion of Environmental Audit Findings

The independent environmental audit of the Project Approval conditions for the Abel Coal Project was undertaken between 15 and 30 November 2011 with a site inspection, document review and discussions with relevant Abel Project personnel.

The documentation for the Abel Project and the operational activities, demonstrated a high degree of compliance with the Project Approval conditions.

The status and availability of documentation provided by Abel Coal to the auditor was adequate to undertake verification of compliance of the operational activities with the Project Approval.

The terms used for the assessment of compliance in the independent environmental audit of the Abel Coal Mine with the Project Approval were:

C	Compliant	Implies compliance with the intent and/or requirement of the consent condition.
NC	Non-Compliant	The specific requirement of the consent condition has not been met.
	In progress	Consultation or negotiations with authorities or other parties have been initiated to address the requirements of the MCoA and are ongoing.
N/A	Not activated/	The requirement of the consent condition has not yet been triggered by the project activities.
	Not yet commenced	The requirement of the Project Approval condition has not yet commenced for the project activities
Noted	Noted	No specific auditable requirement applicable to the condition.

The following table provides a summary of the Project Approval conditions (extracted from the full audit table in Attachment A), that have not been activated or are not applicable to the current Abel Underground Coal Mine development activities.

Project Approval – Abel Coal Project			
SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS			
	Subsidence Impact Limits		
1.	The Proponent shall ensure that there are no subsidence impacts on the Pambalong Nature Reserve or F3 Freeway.	Not yet activated	There is currently no underground mining activities near this area
4.	The Proponent shall ensure that not more than 60% of the coal seam is extracted beneath the cliff areas identified in Figure 2 of Appendix 2.	Not yet activated	No planned extraction of coal from the underground mine has occurred under cliff areas.
5.	Within 6 years of this approval, the Proponent shall ensure that subsidence has been effectively completed on the following: (a) Catholic Diocese of Maitland-Newcastle land; and (b) Coal & Allied Operations Pty Limited owned land.	Not yet activated	This condition is not activated until 7 June 2013.
6.	With the written agreement of the relevant landowner, the Proponent may: (a) conduct additional mining operations and/or cause additional subsidence impacts beyond those permitted under conditions 2(a) and 3; and (b) increase the time within which subsidence must be effectively completed under condition 5.	Not yet activated	Written approval will be sought if required. This condition had not been activated at the date of this audit.
17.	**Vegetation Offset**		
	The Proponent shall provide a suitable offset of at	Not yet	A 20ha area of land of a suitable

Project Approval – Abel Coal Project			
	least 20ha for the 12.3 hectares of native vegetation that would be disturbed by the project, in consultation with DECC, and to the satisfaction of the Director-General. This offset must include the establishment of at least 10 hectares of Lower Hunter Spotted Gum Ironbark Forest to ensure that there is no net loss of this vegetation on site in the medium to long term. The offset must be contiguous with existing native vegetation and be capable of enhancing local and regional wildlife corridors.	activated	vegetation offset area is being sought by Donaldson Coal to meet the requirements of this condition. Donaldson Coal is currently negotiating with the land owner regarding the offsets.
	Aboriginal Heritage Management Plan		
28.	The Proponent shall not destroy any known Aboriginal objects (as defined in the National Parks and Wildlife Act 1974) without the written approval of the Director-General.	Not activated	No Aboriginal objects have been disturbed or destroyed as at the date of this audit.
Statement of Commitments – Abel Coal Project			
A.	**Principal Residences**		
	The Company commits to producing and implementing a plan of management for each Principal Residence existing at the date of approval of this project. A Principal Residence is defined as an existing building capable of being occupied as a separate domicile and used for such purpose. The plan of management will be produced and implemented as follows:	Not activated	
B.	**Future Principal Residence**		
	If there is no existing residence on a landholding and a residence is planned to be built, the site for this Future Principal Residence will be protected in the same way as that proposed above for Principal Residences.	Not activated	
E.	**All Other Surface Structures**		
	"All Other Surface Structures" is defined as any building or structure impacted by mining-induced subsidence from the Abel Underground Mine Project which is not categorised as a Principal Residence, Future Principal Residence, Black Hill Church and Cemetery or Black Hill School. The Company shall prepare and implement plans of management for the mitigation and remediation of any damage to All Other Surface Structures prior to any mining occurring that would impact on them.	Not activated	
G.	**Public Roads**		
	The Company shall prepare and implement a plan of management as part of the SMP process implemented under the mining lease for the Abel Underground Mine. This plan of management will ensure the safety and serviceability of public roads and 4WD tracks and fire fighting access tracks.	Not activated	The commitment in this SoC will be included in the Subsidence Management Plan when it is developed prior to 2nd workings.
H.	**Powerlines**		
	The Company shall prepare and implement a plan of management as part of the SMP process which will ensure the safety and serviceability of powerlines.	Not activated	The commitment in this SoC will be included in the Subsidence Management Plan when it is developed prior to 2nd workings
I.	**Gas Pipeline**		
	The Company shall prepare and implement a plan of management as part of the SMP process which will ensure the safety and serviceability of the gas pipeline.	Not activated	The commitment in this SoC will be included in the Subsidence Management Plan when it is developed prior to 2nd workings.
K.	**Cliffs**		
	Trigger-action response plans (TARPs) will be developed by the Company based on consultation with DEC and Local Councils to ensure the general public and employees working in the vicinity of the cliffs are not exposed to rock falls caused by mine subsidence damage.	Not activated	
M.	**General Surface Water Flow**		
	The Company shall prepare and implement a plan of management to maintain the surface drainage of areas surrounding any dwellings and other	Not activated	The commitment in this SoC will be included in the Subsidence Management Plan when it is developed prior to 2nd

Project Approval – Abel Coal Project			
	structures or infrastructure, where required. This plan shall include but not be limited to monitoring, mitigation or remediation of mining-induced ponding, drainage pattern changes and any resulting serviceability difficulties and/or hazards to the public.		workings.

6.0 Conclusions

The documentation held for the Abel Underground Mine and interview/discussions with the site personnel provided the auditor with the required information and documentation for the verification of compliance of the development with the Project Approval and Statements of Commitments.

The independent environmental audit of the Project Approval for the Abel Project confirmed a high degree of compliance and did not identify any non-compliance with the Project Approval or the Statement of Commitments for the activities undertaken between 2008 and 2011. There are a number of conditions on the Project Approval that have not activated or are not relevant to the current operations (these are summarised in a table in section 4).

All the management plans and monitoring programs required by the Project Approval were approved by DoP, prior to the commencement of mining operations in 2008. Subsidence Management Plan for Area 2 has been submitted to DI&I for approval, prior to the commencement of mining operations in Area 2.

The Abel Project documentation is considered satisfactory for the management of environmental aspects of the development of the underground coal mine. The environmental management plans should be reviewed in the event of any modification to the Project Approval if changes to the development occur. The data collected from the monitoring programs should continue to be reviewed as part of the annual reporting and the adequacy of the monitoring regime assessed if changes to the data indicates effects attributable to the Abel Project activities .

ABEL COAL MINE

INDEPENDENT ENVIRONMENTAL AUDIT

ATTACHMENTS

Attachment A - Minister's Conditions of Approval 05_0136

Attachment B – Statement of Commitments

Attachment C – Environment Protection Licence 12856

Attachment D – Mining Lease 1618 and 1653

Attachment A
Minister's Conditions of Approval – Abel Coal Project

June 2010 Modification in red
May 2011 Modification in green

Ref	Condition	Audit Evidence	Status	Comments
	Obligation to Minimise Harm to the Environment			
1.	The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.		Noted	Measures to prevent and/or minimise harm to the environment are outlined in the specific Management Plans and Mining Operations Plan.
	Terms of Approval			
2.	The Proponent shall carry out the project generally in accordance with the: (a) EA; (b) statement of commitments (see Appendix 3); and (c) modification application 05_0136 – MOD 1 and the accompanying Environmental Assessment prepared by Donaldson Coal and dated May 2010; (d) modification application 05_0136 – MOD 2 and the accompanying Environmental Assessment prepared by Donaldson Coal and dated March 2011; and (e) the conditions of this approval..	Abel Underground Mine Part 3A Environmental Assessment, Donaldson Coal, 26 Sept 2006 Statement of Commitments Project Approval 05-0136, 7 Jun 2007 Modification	C	The project is being developed generally in accordance with the environmental assessment documents and the requirements in these conditions of approval.
3.	If there is any inconsistency between the above documents, the later document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.		C	There are currently no inconsistencies between the Environmental Assessment and the general development of the Abel Underground Coal Project.
4.	The Proponent shall comply with any reasonable and feasible requirements of the Director-General arising from the Department's assessment of: • any reports, plans or correspondence that are submitted in accordance with the conditions of this approval; and • the implementation of any actions or measures contained in these reports, plans or correspondence.	2010-2011 AEMR	C	DP&I requested additional information be included in the 2010-2011 AEMR on volumes of ground water removed from the underground mine area. The AEMR was also requested to be submitted to DP&I within 2 months from the end of the reporting period. Groundwater inflow rates to date have been relatively stable with average inflows of approximately less than 500m^3 per day. This is slightly below the predicted inflows during years 5 and 6. During the 2010-2011 reporting period, the total volume of water pumped from the underground workings to surface was 304ML.
	Limits on Approval			
5.	Mining operations may take place until 31 December 2028 on the Abel Site.	Mining Lease 1618	Noted	Mining operations will continue until 2028.
6.	The Proponent shall not extract more than 4.5 million tonnes of ROM coal a year from the Abel site.		C	Production from the Abel Mine commenced in 2008. Extraction of ROM coal has been less than the maximum approved rate of <4.5 Mtpa between 2008 and 2011. **Period** / **ROM coal** 1 June 2010 to 30 May 2011 — 1,885,763 1 June 2009 to 30 May 2010 — 678,330 1 June 2008 to 30 May 2009 — 152,110 1 June 2007 to 30 May 2008 — 0

<table>
<tr><th>Ref</th><th>Condition</th><th>Audit Evidence</th><th>Status</th><th>Comments</th></tr>
<tr><td>7.</td><td>No more than 6.5 million tonnes of ROM coal may be processed on the site in a year.</td><td></td><td>C</td><td>Coal processed during the 2008 to 2011 period was less than the approved 6.5Mt:<table><tr><th>Period</th><th>Abel ROM Coal processed by Bloomfield CHPP</th></tr><tr><td>1 Jun 2010-30 May 2011</td><td>1,198,193</td></tr><tr><td>1 Jun 2009 - 30 May 2010</td><td>736,708</td></tr><tr><td>1 Jun 2008 - 30 May 2009</td><td>213,000</td></tr><tr><td>1 Jun 2007 - 30 May 2008</td><td>0</td></tr></table></td></tr>
<tr><td>8.</td><td>All product coal produced on the site shall be transported by rail via the Bloomfield rail loading facility. However, in emergencies some product coal may be transported from the site by road with the approval of the Director-General.</td><td></td><td>C</td><td>All product coal is transported by rail via the Bloomfield rail loading facility. No product coal has been transported by road from the Abel Mine site.</td></tr>
<tr><td></td><td>Structural Adequacy</td><td></td><td></td><td></td></tr>
<tr><td>9.</td><td>The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.
Notes: 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.</td><td></td><td>C</td><td>Construction Certificates were obtained for all new buildings and structures erected for the development of the Abel Project, including the administration Offices, Bath house and change rooms, and workshops.</td></tr>
<tr><td></td><td>Demolition</td><td></td><td></td><td></td></tr>
<tr><td>10.</td><td>The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.</td><td></td><td>Noted</td><td>No demolition of buildings or other structures had occurred for the development of the Abel Project at the time of this audit.</td></tr>
<tr><td></td><td>Operation of Plant and Equipment</td><td></td><td></td><td></td></tr>
<tr><td>11.</td><td>The Proponent shall ensure that all plant and equipment used on site is:
• maintained in a proper and efficient condition; and
• operated in a proper and efficient manner.</td><td></td><td>C</td><td>The Abel Coal Mine plant and equipment operated at the mine site are maintained in the mine workshops and operated in a proper and efficient manner. The project Maintenance Planner submits a weekly maintenance plan that manages corrective and preventative maintenance.</td></tr>
<tr><td></td><td>SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS</td><td colspan="3" rowspan="2"></td></tr>
<tr><td></td><td>SUBSIDENCE</td></tr>
<tr><td></td><td>Subsidence Impact Limits</td><td></td><td></td><td></td></tr>
<tr><td>1.</td><td>The Proponent shall ensure that there are no subsidence impacts on the Pambalong Nature Reserve or F3 Freeway.</td><td></td><td>Not activated</td><td>No mining associated with the Abel Project had occurred near Pambalong Nature Reserve or F3 Freeway, prior to this audit.</td></tr>
<tr><td>2</td><td>The Proponent shall limit mining operations to first workings beneath, and ensure that mining causes no subsidence impacts requiring mitigation works on, the following features:
(a) all principal residences located above the mining area;
(b) Black Hill Public School;
(c) Black Hill Church and cemetery;
(d) all Schedule 2 streams and rainforest areas located above the mining area;
(e) the Blue Gum Creek alluvium.</td><td></td><td>C</td><td>The Subsidence Management Plans for Areas 1 and 2 provide for first workings only under areas that will be protected by Subsidence Control Zones.

The Black Hill Public School, Black Hill Church and Cemetery, and Blue Gum Creek alluvium are currently outside subsidence management Areas 1 and 2.</td></tr>
<tr><td>3.</td><td>The Proponent shall ensure that the following sites are treated as “principal residences” under this approval.</td><td></td><td>Not yet activated</td><td>No mining associated with the Abel Project had occurred in the vicinity of ‘principle residences’ defined by this condition,</td></tr>
</table>

Ref	Condition	Audit Evidence	Status	Comments
	• all buildings and structures on, or proposed to be constructed on, the Catholic High School site. • all buildings and structures on the Boral Hotmix Plant site; • the 4 largest dams on the commercial orchard situated on Properties 52 and 53 while these dams are being used as part of a commercial agricultural enterprise.			prior to this audit.
4.	The Proponent shall ensure that not more than 60% of the coal seam is extracted beneath the cliff areas identified in Figure 2 of Appendix 2.		Not yet activated	No extraction under cliff areas had occurred or was planned as part of subsidence Areas 1 and 2.
5.	Within 6 years of this approval, the Proponent shall ensure that subsidence has been effectively completed on the following: (a) Catholic Diocese of Maitland-Newcastle owned land: (insert Lot & DPs); and (b) Coal & Allied Operations Pty Limited owned land: (insert Lot & DPs).		Not yet activated	The requirement of this condition is to be completed by 6 June 2013.
6.	With the written agreement of the relevant landowner, the Proponent may: (c) conduct additional mining operations and/or cause additional subsidence impacts beyond those permitted under conditions 2(a) and 3; and (d) increase the time within which subsidence must be effectively completed under condition 5.		Not yet activated	Written approval from relevant landowners will be sought if required.
	Subsidence Management Plan			
7.	Prior to carrying out any underground mining operations that could lead to subsidence of the land surface the Proponent shall prepare a Subsidence Management Plan (SMP) to the satisfaction of the Director-General of DPI. This plan must be prepared in accordance with the: • *New Approval Process for Management of Coal Mining Subsidence – Policy*; • *Guideline for Applications for Subsidence Management Approvals* (or the latest versions or replacements of these documents).	*New Approval Process for Management of Coal Mining Subsidence – Policy and Guideline for Applications for Subsidence Management Approvals, dated 2003* Subsidence Management Plan - Area 1, Dec 2009 Letter from DPI re Approval of SMP Area 1, 27 May 2010 Subsidence Management Plan - Area 2, May 2011	C	Subsidence Management Plans for Areas 1 and 2 have been prepared in accordance with the *New Approval Process for Management of Coal Mining Subsidence – Policy & Guideline for Applications for Subsidence Management Approvals*, and the Subsidence Management Plans submitted to the Director-General of DPI/DI&I for approval, prior to the commencement of any underground mining operations in these areas. The Subsidence Management Plan for Area 1 was approved by DPI-Minerals on 27 May 2010. A Subsidence Management Plan for Area 2 was submitted to DI&I on 06 June 2011 and was awaiting approval at the date of this audit (15 November 2011).
8.	In preparing the Subsidence Management Plan the Proponent shall pay particular attention to the potential surface impacts on all areas of proposed underground mining where: (a) cover depths are less than 100metres; or (b) overlying abandoned mine workings occur (e.g. Stockrington Colliery and beneath Blackhill Quarry).		C	(a) The Subsidence Management Plans for Areas 1 and 2 specifically consider cover depth of <100m. (b) No abandoned mine workings overlie or underlie SMP Areas 1 or 2, nor or any area beneath the Blackhill Quarry.
	First Workings Hazard Management Plan			
9.	If the proponent intends to carry out first workings under the following surface features, then it shall include a First Workings Hazard Management Plan in the relevant Subsidence Management Plan for these workings, which describes in detail how these workings would be managed and monitored to ensure compliance with this approval and the contingency measures that would be implemented if the impacts on these surface features are greater than predicted: • all buildings and structures on the Black Hill Public School, Black Hill Church and cemetery, and Boral Hotmix Plant sites;		Not yet activated	A First Workings Hazard Management Plan will be prepared prior to any workings under the specified areas. First workings had not occurred under any of the surface features listed prior to this audit. • First workings under the Catholic Diocese area is planned to occur as part of Area 2 works in 2012. • No first workings are planned to occur under the Boral Hotmix plant site.

Ref	Condition	Audit Evidence	Status	Comments
	• all buildings and structures on, or proposed to be constructed on the Catholic High School site; • the 4 largest dams on the commercial orchard situated on Properties 52 and 53 while these dams are being used as part of a commercial agricultural enterprise; and • all Schedule 2 creeks, rainforest areas and the Blue Gum Creek alluvium (see Figure 2 in Appendix 2).			• No first workings had occurred within the Viney Creek Subsidence Control Zone, dams on properties 52 and 53, or under Schedule 2 creeks, rain forest areas or Blue Gum alluvium prior to this audit (November 2011).
	WATER MANAGEMENT ***Note: These conditions should be read in conjunction with commitments 5, 6, 7 and 8 of the statement of commitments.***			
	Discharge			
10.	Except as may be expressly provided for by an EPL, the Proponent shall not discharge any surface waters from the site. However, water may be transferred within the site, and between the site and the adjoining Tasman mine, in accordance with any approved Water Management Plan (see below).		C	No waters had been discharged from the Abel Project site at the time of this audit. All water generated by the mining activities is transferred to the Big Kahuna storage pond for reuse on the Donaldson Mine site and Abel Project Site for dust suppression, or pumped to Bloomfield CHPP and pondage.
	Water Management Plan			
11	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must: • be submitted to the Director-General for approval within 6 months of this approval; • be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General, • be prepared in consultation with the DECC and DWE; • be integrated, as far as is practicable, with the water management plans of the adjoining Bloomfield, Donaldson and Tasman mines; and • include a: - Site Water Balance; - Erosion and Sediment Control Plan; - Surface Water Monitoring Plan; - Groundwater Monitoring Program; and - Surface and Groundwater Response Plan, setting out the procedures for: - investigating, and if necessary mitigating, any exceedances of the surface or groundwater assessment criteria (see below); and - responding to any unforseen impacts of the project.	Water Management Plan, March 2008 Letter from DoP re Approval of Consultants, 26 Jun 2007 Email from DNR re WMP, 6 Dec 2007 Letter to DoP re Submission of Water Management Plan, 7 Dec 2007 Letter from DECC re WMP, 9 Apr 2008 Letter from DoP re Water Management Plan Approval, 5 May 2008	C	• The Water Management Plan (WMP) for the Abel Coal Mine was prepared by consultants (Dr Steve Perrens - Evans & Peck; Peter Dundon – Peter Dundon & Associates) in consultation with the DECC and DWE. The Water Management Plan was approved by DoP on 5 May 2008. • The Abel Coal Project water management has been integrated with the water management plans for the Donaldson Coal and Bloomfield Collieries. • The WMP includes: - Site Water Balance - Part B, section B.3; - Erosion and Sediment Control - Plan Part B, section B.4; - Surface Water Monitoring Plan - Part A Section A.8; - Groundwater Monitoring Program Part A, section A.9; and - Surface and Groundwater Response Plan - Part A section A8.5
	Site Water Balance			
12.	The Site Water Balance must: (a) include details of: • sources of water; • reliability of water supply; • water use on site; • water management on site; • off-site water transfers; • reporting procedures; and (b) describe measures to minimise water use by the project.	Water Management Plan, Part B Abel Coal Project section B.3, and Part C Bloomfield CHPP section C3 Water Management Plan Appendix 2 Water Balance Modelling	C	(a)The Site Water Balance is presented in the Water Management Plan Part B section B.3: • sources of water – section B.3.4 and C3.4; • reliability of water supply – section B.3.7 and C3.7; • water use on site – section B.3.5 and C3.5; • water management on site – section B.3.5 and C3.5; • off-site water transfers – section B.3.6 and C3.8; • reporting procedures – section B.3.8 and C3.11; and (b) measures to minimise water use – section B.3.9 and C.12.

Ref	Condition	Audit Evidence	Status	Comments
	Erosion and Sediment Control			
13.	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual; (b) identify activities that could cause soil erosion and generate sediment; (c) describe measures to minimise soil erosion and the potential for transport of sediment to downstream waters; (d) describe the location, function, and capacity of erosion and sediment control structures; and (e) describe what measures would be implemented to monitor and maintain the structures over time.	Erosion and Sediment Control Plan, Part B Abel Coal Project Section B.4, and Part C Bloomfield Sections C.4 and C5	C	The Erosion and Sediment Control Plan is provided within the WMP in Part B section B.3: (a) generally consistent with the requirements of the *Managing Urban Stormwater: Soils and Construction* manual Volume 2E Mines and Quarries, DECC 2008. (b)Activities that could cause soil erosion and generate sediment are identified in Part B section B.4 and Part C sections C.4 and C.5. (c)Measures to minimise soil erosion and the potential for transport of sediment to downstream waters are described in Part B section B.4, and Part C sections C.4 and C.5. (d)Location, function, and capacity of erosion and sediment control structures are described in Part B section B.4. and Part C sections C.4 and C.5. (e)Measures implemented to monitor and maintain the structures are in Part C, sections C.4.6 and C.5.
	Surface Water Monitoring Program			
14.	The Surface Water Management and Monitoring Plan must include: • detailed baseline data on surface water flows and quality in creeks and other water bodies that could be affected by the project; • surface water impact assessment criteria; • a program to monitor the impact of the project on surface water flows and quality; • procedures for reporting the results of this monitoring.	Water Management Plan, Surface Water Monitoring Program Part A section A.8	C	The Water Management Plan and Surface Water Monitoring Program are provided in the WMP Part A section A.8: • baseline data on surface water flows and quality in creeks and other water bodies that could be affected by the project – part A section A.8.3; • surface water impact assessment criteria – Part A section 8.4; • impact of the project on surface water quality Part A section A.8.4.1; • impact of the project on surface water flows – Part A section A.8.4.2; and • procedure for reporting the results of this monitoring – Part A section A.8.6.
	Groundwater Monitoring Program			
15.	The Groundwater Monitoring Program must include: • further development of the regional and local groundwater model; • detailed baseline data to benchmark the natural variation in groundwater levels, yield and quality (including at any privately-owned bores in the vicinity of the mine; • groundwater impact assessment criteria; • monitoring of the Pambalong Nature Reserve and rainforest areas; • a program to monitor the impact of the project on groundwater levels, yield and quality; and • procedures for reporting the results of this monitoring.	Water Management Plan, Groundwater Monitoring Program, Part A, section A.9	C	The Groundwater Monitoring Program is included in the WMP Part A section A.9: • further development of the regional and local groundwater model – Part A section A.9.2; • baseline data to benchmark the natural variation in groundwater levels, yield and quality (including at any privately-owned bores in the vicinity of the mine – Part A section A.9.3; • groundwater impact assessment criteria – Part A section A.9.4; • monitoring of Pambalong Nature Reserve and rainforest areas – Part A section A.9.5; • a program to monitor the impact of the project on

Ref	Condition	Audit Evidence	Status	Comments
				groundwater levels, yield and quality – Part A section A.9.6; and • reporting the results of this monitoring – Part A section A.9.7.
	LANDSCAPE MANAGEMENT ***Note: These conditions should be read in conjunction with commitments 10 and 12 of the statement of commitments.***			
	Rehabilitation			
16	The Proponent shall rehabilitate the site to the satisfaction of the Director-General and DPI (Minerals).		Noted	The site will be rehabilitated to the satisfaction of the Director-General and DI&I at completion of mining.
	Vegetation Offset			
17.	The Proponent shall provide a suitable offset of at least 20ha for the 12.3 hectares of native vegetation that would be disturbed by the project, in consultation with DECC, and to the satisfaction of the Director-General. This offset must include the establishment of at least 10 hectares of Lower Hunter Spotted Gum Ironbark Forest to ensure that there is no net loss of this vegetation on site in the medium to long term. The offset must be contiguous with existing native vegetation and be capable of enhancing local and regional wildlife corridors.		Not yet activated	The vegetation offset is related to the proposed conveyor route and will be enacted prior to the clearing being undertaken for the construction of the conveyor. The identification of a suitable vegetation offset area of 20ha is being sought by Donaldson Coal to meet the requirements of this condition.
	Flora and Fauna Management in Farm Dams			
18	As part of its proposed Dam Monitoring and Management Strategy the Proponent shall prepare a flora and fauna assessment of farm dams which may be impacted by subsidence (with particular reference to potential impacts on threatened species). The Dam Monitoring and Management Strategy shall include measures to minimise impacts on threatened species to the satisfaction of the Director-General.	Flora and Fauna Management Plan, Section 5.2, October 2007 AEMR section 3.6 and Appendix 3, 2009-2011 Dam Monitoring and Management Plan, Baseline Monitoring 2008, dated December 2008 Dam Monitoring and Management Plan, Baseline Monitoring 2009, dated January 2010 Dam Monitoring and Management Plan, Baseline Monitoring 2010, dated January 2011	C	The Flora and Fauna Management Plan section 5.2.1 Dam Monitoring and Management Plan (within the Surface Ecological Monitoring Plan) addresses the requirements of this condition outlining the species, habitats and monitoring proposed for the dams above the underground mining areas, as identified in the Environment Assessment. Dam monitoring commenced in 2008 and is conducted annually.
	Landscape Management Plan			
19.	The Proponent shall prepare and implement a detailed Landscape Management Plan for the site to the satisfaction of the Director-General and DPI. This plan must: • be submitted to the Director-General for approval within 6 months of this approval; • be prepared by suitably qualified expert/s whose appointment/s have been endorsed by the Director-General; • be prepared in consultation with DWE, DECC and affected Councils; and include a: • Rehabilitation Management Plan; • Final Void Management Plan; and	Landscape Management Plan, Nov 2007 Letter from DoP re Consultants, 26 Jun 2007 Letter to DWE re LMP, 13 Nov 2007 Letter to Maitland City Council re LMP, 13 Nov 2007 Letter to Cessnock City Council re LMP, 13 Nov 2007 Letter from DECC re LMP, 27	C	The Landscape Management Plan for the Abel Coal Mine was prepared to address the requirements of this condition: • The Landscape Management Plan was submitted to the Director-General within 6 months of granting of the Project Approval in Jun 2007. • The consultants who prepared the Landscape Management Plan, (i.e. Colin Driscoll of Hunter Eco; Rod Masters of GSS Environmental and Mark Burns of Global Soil Services) were endorsed by the Director-General on 26 June 2007. • Consultation occurred with the Maitland and Cessnock

Ref	Condition	Audit Evidence	Status	Comments
	• Mine Closure Plan.	Nov 2007 Letter from DoP re Landscape Management Plan Approval, 11 Feb 2008		City Councils, DWE and the DECC. • The Landscape Management Plan includes Rehabilitation Management Plan (App 3), Final Void Management Plan (App 4) and Mine Closure Plan (App 5).
	Rehabilitation Management Plan			
20.	The Rehabilitation Management Plan must include: • the rehabilitation objectives for the site; • a strategic description of how the rehabilitation of the site would be integrated with the 4,400 hectares of land owned by the Proponent surrounding the site, with a view to improving or enhancing the regional landscape and flora and fauna habitat values; • a general description of the short, medium and long term measures that would be implemented to rehabilitate the site; • a detailed description of the measures that would be implemented over the next three years to rehabilitate the site, including the measures to be implemented for: ○ progressively rehabilitate areas disturbed by mining operations on site; ○ managing the remnant vegetation and habitat on site; ○ revegetating, monitoring and maintaining the offset area; ○ undertaking additional pre-subsidence fauna surveys; ○ minimising impacts on threatened fauna; ○ minimising visual impacts; ○ conserving and reusing topsoil; ○ collecting and propagating seeds for rehabilitation works; ○ salvaging and reusing material from the site for habitat enhancement; ○ controlling weeds, feral pests, and access; ○ managing bushfires; and ○ managing any potential conflicts between the rehabilitation works and Aboriginal cultural heritage. • detailed performance and completion criteria for the rehabilitation of the site; • a detailed description of how the performance of the rehabilitation works would be monitored over time to achieve the stated objectives and against the relevant performance and completion criteria; and • details of who is responsible for monitoring, reviewing and implementing the plan.	Land Management Plan, Appendix 3 Rehabilitation Management Plan, March 2008 Email to DECC and DPI re Submission of the Landscape Management Plan, 23 May 2008 Draft Mining Operations Plan to December 2009, Section 4, May 2008 Mining Operations Plan, Period Ending 31 Dec 2016, section 4 and 5, dated Dec 2009	C	The Rehabilitation Management Plan for the Abel Coal Mine is included in the Landscape Management Pan (November 2007): • rehabilitation objectives– section 3.0 ; • a strategic description rehabilitation of the 4,400 hectares of land owned by the Proponent surrounding the site – section 4; • a general description of the short, medium and long term measures that would be implemented to rehabilitate the site – section 4.3; • description of the measures to be implemented over the next three years to rehabilitate the site – section 4.2 and 6.0, and MOP section 4, • detailed performance and completion criteria for the rehabilitation of the site – section 6.0; • a detailed description of how the performance of the rehabilitation works would be monitored over time to achieve the stated objectives and against the relevant performance and completion criteria – section 7; and • details of who is responsible for monitoring, reviewing and implementing the plan – section 8.
	Final Void Management			
21	The Final Void Management Plan must describe what actions and measures would be implemented to: (a) minimise any potential adverse impacts associated with the modified final void of the Donaldson mine on the Abel site; and (b) manage and monitor the potential impacts of this final void over time.	Land Management Plan, Appendix 4 - Final Void Management Plan, March 2008	C	The Final Void Management Plan is included in the Landscape Management Plan Appendix 4 and describes the actions and measures to be implemented to: (a) minimise any potential adverse impacts associated with the modified final void of the Donaldson mine on the Abel site Appendix 5 sections 4-6 ; and (b) management and monitoring of the final void over time – Appendix 5 section 8.0 and Appendix 6 section 10 (Mine Closure Plan).

<table>
<tr><th>Ref</th><th>Condition</th><th>Audit Evidence</th><th>Status</th><th>Comments</th></tr>
<tr><td></td><td>Mine Closure Plan</td><td></td><td></td><td></td></tr>
<tr><td>22.</td><td>The Mine Closure Plan must:
(a) define the objectives and criteria for mine closure;
(b) investigate options for the future use of the site, including the final voids;
(c)investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local and regional employment levels;
(d) describe the measures that would be implemented to minimise or manage the on-going environmental effects of the project; and
(e) describe how the performance of these measures would be monitored over time.</td><td>Land Management Plan, Appendix 5 - Mine Closure Plan, March 2008</td><td>C</td><td>The Mine Closure Plan is included in the Land Management Plan, Appendix 5:
(a) objectives and criteria for mine closure – section 9.0;
(b) options for the future use of the site, including the final voids – section 11.0;
(c) investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local and regional employment levels – section 4.4;
(d) measures that to be implemented to minimise or manage the on-going environmental effects of the project – section 10; and
(e) performance of these measures would be monitored over time – section 10.3 and 10.4</td></tr>
<tr><td></td><td>NOISE</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Noise Limits</td><td></td><td></td><td></td></tr>
<tr><td>23.</td><td>The Proponent shall ensure that the noise generated by the project does not exceed the noise limits in Table 1 on any residence on privately-owned land.</td><td></td><td>Noted</td><td></td></tr>
<tr><td></td><td>Table 1: Noise limits dB(A)
<table><tr><th>Day
$L_{Aeq(15\ min)}$</th><th>Evening
$L_{Aeq(15\ min)}$</th><th>Night
$L_{Aeq(15\ min)}$</th><th>$L_{Aeq(1\ min)}$</th><th>Location and Locality</th></tr><tr><td>50</td><td>48</td><td>41</td><td>51</td><td>A Weakleys Dr, Beresfield
B Yarrum Rd, Beresfield</td></tr><tr><td>49</td><td>47</td><td>40</td><td>50</td><td>J Kilarney St, Avalon Estate</td></tr><tr><td>46</td><td>46</td><td>40</td><td>53</td><td>L Kilshanny Ave, Ashtonfield</td></tr><tr><td>44</td><td>46</td><td>38</td><td>48</td><td>I Lord Howe Dr, Ashtonfield</td></tr><tr><td>43</td><td>44</td><td>38</td><td>50</td><td>C Phoenix Rd, Black Hill</td></tr><tr><td>43</td><td>41</td><td>36</td><td>46</td><td>G Buchanan Rd, Buchanan
H Mt Vincent Rd, Louth Park</td></tr><tr><td>41</td><td>40</td><td>37</td><td>46</td><td>K Catholic Diocese (Former Bartter) K1, K2, K3</td></tr><tr><td>41</td><td>40</td><td>36</td><td>46</td><td>D Black Hill School
E Brown Rd, Black Hill
F Black Hill Rd, Black Hill</td></tr></table></td><td>Mine Noise Portal Drill Measurements, Abel Project, Heggies, 30 April 2008</td><td>C</td><td>Noise monitoring was conducted by Heggies at the nearest potentially affected receivers identified in Table 1, during drilling activities at the Abel Coal Project site on 29 April 2008. The attended noise measurements concluded that no audible mine contribution to the noise measured was detected at Blackhill School (location D) and the drilling activities were not audible at location F.
Refer to SoC 3.2 for noise reduction works conducted on the Bloomfield CHPP to screen residences to the north of the CHPP site.
Quarterly Noise Monitoring has been conducted by Heggies at the nearest potentially affected receivers between 2008 and 2011 with the latest attended and unattended monitoring being conducted during June, September and December 2010 and March, June and September 2011. Abel mine operations were inaudible at all surrounding locations where monitoring was conducted.</td></tr>
<tr><td></td><td>Noise Monitoring</td><td></td><td></td><td></td></tr>
<tr><td>24.</td><td>The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:
(a) be submitted to the Director-General for approval within 6 months of this approval;
(b) be prepared in consultation with the DECC; and
(c) use a combination of attended and unattended monitoring measures to monitor the performance of the project.</td><td>Noise Monitoring Program, Heggies, Sep 2007
Letter from DECC re Noise Monitoring Program, 13 Sep 2007
Letter from DoP re Comments on Noise Monitoring Program, 13 Nov 2007
Letter from DoP re Comments</td><td>C</td><td>The Abel Coal Mine noise monitoring program was prepared in September 2007:
(a)The Noise Monitoring Program was submitted to the Director-General in September 2007, within 6 months of the Project Approval (dated June 2007). Comments were received from DoP on 13 November 2007. The Noise Management was approved 2 June 2008.
(b)Consultation occurred with the DECC by correspondence.</td></tr>
</table>

<table>
<tr><th>Ref</th><th>Condition</th><th>Audit Evidence</th><th>Status</th><th>Comments</th></tr>
<tr><td></td><td></td><td>on Noise Monitoring Program, 12 May 2008
Letter from DoP re NMP Approval, 2 Jun 2008</td><td></td><td>(c)The proposed program included both attended and unattended noise monitoring of the project activities.

SoC 3.3 includes an outline of the proposed noise monitoring program and integration of the programs conducted for the Donaldson Mine, Tasman Mine and Bloomfield facilities.</td></tr>
<tr><td></td><td colspan="4">AIR QUALITY Note: These conditions should be read in conjunction with commitment 4 of the statement of commitments.</td></tr>
<tr><td></td><td colspan="4">Impact Assessment Criteria</td></tr>
<tr><td>25.</td><td>The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the criteria listed in Tables 2 to 4 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.</td><td></td><td>C</td><td>Results of the air quality monitoring are reported in the AEMR’s section 3.2.</td></tr>
<tr><td></td><td>Table 2: Long term impact assessment criteria for particulate matter
<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/m^3</td></tr><tr><td>Particulate matter < 10 µm (PM_{10})</td><td>Annual</td><td>30 µg/m^3</td></tr></table>
Table 3: Short term impact assessment criteria for particulate matter
<table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Particulate matter < 10 µm (PM_{10})</td><td>24 hour</td><td>50 µg/m^3</td></tr></table>
Table 4: Long term impact assessment criteria for deposited dust
<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/m^2/month</td><td>4 g/m^2/month</td></tr></table></td><td></td><td>C</td><td>All Abel Coal Mine dust monitoring results have demonstrated compliance with the criteria with no exceedances for deposited dust or total suspended particulate matter during the 2007 to 2011period.</td></tr>
<tr><td></td><td>Monitoring</td><td></td><td></td><td></td></tr>
<tr><td>26.</td><td>The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:
• be submitted to the Director-General for approval within 6 months of this approval;
• be prepared in consultation with the DEC; and
• use a combination of high volume samplers and dust deposition gauges to monitor the performance of the project.</td><td>Air Quality Monitoring Plan, 10 Oct 2007
Email to DECC re Air Quality Monitoring Plan, 8 Nov 2007
Letter to DoP re Air Quality Monitoring Plan, 7 Dec 2007
Letter from DoP re Comments on Air Quality Monitoring Plan, 11 Feb 2008
Revised Air Quality Monitoring Plan, 20 Feb 2008
Letter from DoP re Approval of Air Quality Monitoring Plan, 26 Feb 2008</td><td>C</td><td>The Air Quality Monitoring Plan was prepared in consultation with the DEC and submitted to the Director-General on 7 December 2007, within 6 months of the Project Approval (dated June 2007).
The Air Quality Monitoring Plan was revised and approved by DoP on 26 February 2008.
The Air Quality Monitoring Program includes:
• Six dust deposit gauges to measure monthly average dust deposition levels in accordance with AS 3580.10.1 1991.
• One high volume air sampler fitted with a PM_{10} size selective inlet and operated on a one-day-in-six cycle in accordance with AS 3580.9.7 1990.
• One high volume air sampler fitted with TSP inlet and operated on a one-day-in-six cycle in accordance with</td></tr>
</table>

Ref	Condition	Audit Evidence	Status	Comments
				AS 2724.5 1987.
	METEOROLOGICAL MONITORING			
27.	During the project, the Proponent shall maintain a suitable meteorological station on site to the satisfaction of the DECC and Director-General. This station must satisfy the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* publication.	Water Management Plan, Part A Section 10, March 2008	C	The meteorological station established at the Donaldson Mine site offices adjacent to the Abel Project site is equipped and operated in accordance with AS 2923:1987 to record information on wind speed, wind direction, sigma-theta and temperature at 10-minute intervals.
	HERITAGE ***Note: These conditions should be read in conjunction with commitments 11 and 12 of the statement of commitments***.			
	Aboriginal Heritage Management Plan			
28.	The Proponent shall not destroy any known Aboriginal objects (as defined in the *National Parks and Wildlife Act 1974*) without the written approval of the Director-General.		Not activated	No Aboriginal objects have been destroyed during the development of the Abel Project. Additionally, no subsidence impacts are predicted for Aboriginal items within Area 1 or Area 2. The identified Aboriginal items in Area 1 and 2 are limited to scatter items.
29.	The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must: • be submitted the Director-General within 6 months of this approval; • be prepared in consultation with the DEC and the Mindaribba and Awakabal Local Aboriginal Land Councils; and include a: • comprehensive Aboriginal heritage survey across the Abel Site, staged so as to be complete prior to any disturbance; • salvage program for temporarily storing and then replacing retrieved material; • protocol for the ongoing consultation and involvement of Aboriginal communities in the conservation and management of Aboriginal heritage; • describe the measures that would be implemented to protect Aboriginal sites on site, or if any new Aboriginal objects or skeletal remains are discovered.	Aboriginal Heritage Management Plan, Nov 2007 Letter from DECC re Comments on Aboriginal Heritage Management Plan, 15 Nov 2007 Letter from Mindaribba Aboriginal Land Council re Aboriginal Heritage Management Plan, 26 Nov 2007 Letter from Awabakal Local Aboriginal Land Council re Aboriginal Heritage Management Plan, 30 Nov 2007 Letter to DoP re Aboriginal Heritage Management Plan, 3 Dec 2007	C	The Aboriginal Heritage Management Plan was prepared for the Abel Coal Mine development: • This Aboriginal Heritage Management Plan was submitted the Director-General in December 2007, within 6 months of the Project Approval (dated June 2007). • Consultation occurred with the DEC and the Mindaribba and Awakabal Aboriginal Land Councils. • The Aboriginal Heritage Management Plan was revised and approved by DoP on 11 February 2008 and endorsed by the Local Aboriginal Land Councils. The Aboriginal Heritage Management Plan includes: • a comprehensive Aboriginal heritage survey has been conducted across the Abel Site, staged so as to be complete prior to any disturbance – Table 1; • salvage program for temporarily storing and then replacing retrieved material ; • protocol for the ongoing consultation and involvement of Aboriginal communities in the conservation and management of Aboriginal heritage - Section 4.2 Aboriginal Community Involvement; • Measures to be implemented to protect Aboriginal sites on site – section 4.5, or if any new Aboriginal objects or skeletal remains are discovered - Section 4.7 Identification of Previously Unidentified Aboriginal Sites and Section 4.8 Identification of Human Skeletal Remains.
	VISUAL IMPACT *Note: These conditions should be read in conjunction with commitment 9 of the statement of commitments.*			
	Visual Amenity			
30.	The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director-General.	Land Management Plan, Appendix 3- 5 – Rehabilitation, Mine Closure, and Final Void	C	The outline of proposed actions to reduce the visual impact of the mine and facilities have been addressed for the Abel Coal Mine development and the Bloomfield CHPP, and

Ref	Condition	Audit Evidence	Status	Comments
		Management Plans, March 2008		shrub and tree plantings along the bund walls of the mine facilities towards John Renshaw Drive has occurred to lessen the visual impact of the project area. Rehabilitation in accordance with the post-mining rehabilitation criteria and land use is outlined in the Final Void Management Plan and Mine Closure Plan.
	Lighting Emissions			
31.	The Proponent shall ensure that no outdoor lights on the site shine above the horizontal.		C	The Abel Mine activities occur within a box cut that prevents light scatter from the surface activities to any receivers. Lighting is shielded at the Bloomfield CHPP and the standard lights used on the mine site are maintained to reduce light scatter above the horizontal. No complaints have been received in relation to lights. Lighting is shielded at the CHPP and the standard lights used on the mine site are maintained to reduce light scatter above the horizontal. There have been few complaints received in relation to light scatter between 2008 and 2011: **Period** / **No. of Complaints** 1 June 2010 to 30 May 2011: 0 1 June 2009 to 30 May 2010: 0 1 June 2008 to 30 May 2009: 1 1 June 2007 to 30 May 2008: 0
	GREENHOUSE GASES			
	Energy Savings Action Plan			
32.	The Proponent shall prepare and implement an Energy Savings Action Plan for the project to the satisfaction of the Director-General. This plan must be prepared in accordance with any requirements or relevant guidelines of DWE, and submitted to the Director-General for approval within 6 months of this approval.	Energy Saving Action Plan (ESAP), Advitech, December 2007 Email from DECC re the ESAP, 5 Dec 2007 Letter to DoP re ESAP, 7 Dec 2007 Letter from DoP re Approval of ESAP 13 Feb 2008	C	An Energy Saving Action Plan (ESAP) (December 2007) was submitted to DoP and approved on 13 February 2008. The ESAP stated that reporting of effectiveness of measures implemented under the ESAP will be enhanced by the installation of sub-metering systems, SCADA monitoring systems, monthly reporting of energy KPI.
	Recording and Reporting			
33.	The Proponent shall: • record the greenhouse gas emissions generated by the project, and the effectiveness of the measures implemented under the Energy Savings Action Plan; and • report on this monitoring in the AEMR.	EPL 12856 Annual Return 2009-2010, dated 27 Aug 2010 National Greenhouse Gas and Energy Reports (NGER) 2009-2010, dated 1 Nov 2010 National Greenhouse Gas and Energy Reports (NGER) 2009-2010, dated 5 Nov 2011	C	Progress on actions related to the opportunities presented in the ESAP, are reported in the AEMR and EPL Annual Returns. The Abel Project National Greenhouse Gas and Energy Report (NGER) was submitted to the Commonwealth Department of Climate Change and Energy Efficiency for the 2009-2010 and 2010-2011 periods.
	WASTE			
	Disposal of Tailings and Coarse Reject			

Ref	Condition	Audit Evidence	Status	Comments
34.	The Proponent shall ensure that the: • fine tailings generated by the project are disposed of within existing underground workings or open cut pits on the Bloomfield site; and • coarse rejects generated by the project are disposed of within existing open cut pits on the Bloomfield site, to the satisfaction of the Director-General.		C	All tailings and coarse reject material from the ROM coal processed at the Bloomfield CHPP are disposed of on the Bloomfield site in accordance with the contract between Donaldson Coal and Bloomfield.
	Waste Minimisation			
35.	The Proponent shall: • monitor the amount of waste generated by the project; • investigate ways to minimise waste generated by the project; • implement reasonable and feasible measures to minimise waste generated by the project; • ensure irrigation of treated wastewater is undertaken in accordance with DEC's Environmental Guideline for the Utilisation of Treated Effluent; and • report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.		C Ongoing	• Waste management and minimisation is reported in the Abel Coal Mine AEMR in section 2.6. • Waste management for the project has been implemented in accordance with the waste hierarchy adopted by Donaldson Coal (i.e. avoidance, reuse, recycle/reprocessing, and disposal). • The new wastewater treatment system (for sewage, bath house wastewater treats waste water to a tertiary standard and the treated water is transferred to the Big Kahuna water storage dam. Waste water has not been irrigated on the Abel Mine site.
	SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING ***Note; This schedule should be read in conjunction with commitments 12, 14, and 15 of the statement of commitments.***			
	ENVIRONMENTAL MANAGEMENT STRATEGY			
5/1	The Proponent shall prepare and implement an Environmental Management Strategy for that project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General within 6 months of this approval, and: • provide the strategic context for environmental management of the project; • identify the statutory requirements that apply to the project; • describe in general how the environmental performance of the project would be monitored and managed; • describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to and record complaints; • resolve any disputes that may arise during the course of project activities; • respond to any non-compliance; • manage cumulative impacts; and • respond to emergencies; and • describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.	Environmental Management Strategy EMS Operating Manual EMS-01, 24 Oct 2007 Letter to DoP re EMS, 7 Dec 2007 Letter from DoP re Comments on the EMS, 11 Feb 2008 Letter to DoP re Revised EMS, 19 Feb 2008 Letter from DoP re EMS Approval, 26 Feb 2008	C	An Integrated Environmental Management Strategy (IEMS) was submitted to the DoP in December 2007 within 6 months of the granting of the approval (i.e. June 2007) and a revised IEMS was approved by DoP on 26 February 2008. The IEMS Operating Manual (EOM-1) provides an integrated environmental management strategy (or System) for the Donaldson Coal operations (i.e Donaldson Mine, Tasman Mine, and Abel Underground Mine and the associated Bloomfield Operations comprising coal handling and preparation plant and rail loading facility). The IEMS addresses the components to satisfy the requirements of MCoA Schedule 5 Condition 1.
	ENVIRONMENTAL MONITORING PROGRAM			
5/2	The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in schedule 4 of this approval into a single document, and be integrated as far as is practicable with the monitoring programs of the adjoining Bloomfield, Donaldson and Tasman mines.	Integrated Environmental Monitoring Program, Dec 2007 Letter to DoP re Integrated Environmental Monitoring Program, 7 Dec 2007 Letter from DoP re Integrated Environmental Monitoring	C	An Integrated Environmental Monitoring Program developed for the Abel, Tasman and Donaldson Mines was approved by DoP on 7 December 2007. The Integrated Environmental Monitoring Program includes noise, blasting, air quality, surface water, groundwater, Aboriginal and cultural heritage, flora and fauna and meteorological monitoring for the Donaldson Mine, Tasman Mine Abel Coal Project and

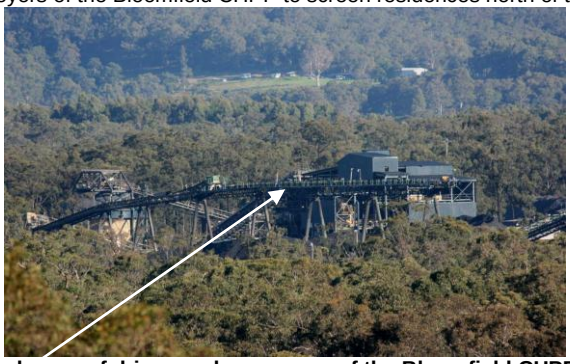
Ref	Condition	Audit Evidence	Status	Comments
		Program		Bloomfield facilities. The Integrated Environmental Monitoring Program is currently under review to incorporate changes to monitoring for the Bloomfield Colliery (following DP&I approval of modifications to the Bloomfield operation granted on 16 May 2011).
	INCIDENT REPORTING			
5/3	Within 7 days of detecting an exceedance of the limits/performance criteria in this approval, or an incident causing (or threatening to cause) material harm to the environment, the Proponent shall report the exceedance/incident to the Department and any other relevant agency. This report must: • describe the date, time and nature of the exceedance/incident; • identify the cause (or likely cause) of the exceedance/incident; • describe what action has been taken to date; and • describe the proposed measures to address the exceedance/incident.	EMS section 12.3 – Emergency Response and Preparedness Plan (EME-3) Emergency Incidents Reporting Form (EME-2)	C	A site specific Emergency Response Plan was developed by the Abel Coal Project team to provide procedures and processes for response to any incident related to the underground and surface facilities associated with the project. Donaldson Coal also have Emergency Response and Preparedness Plans as part of the IEMS to address any significant environmental emergency and ensure that effective response is initiated to minimise any potential environmental impact should an incident occur.
	ANNUAL REPORTING			
5/4	Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and to all relevant agencies. This report must: • identify the standards and performance measures that apply to the project; • describe the works carried out in the last 12 months; • describe the works that will be carried out in the next 12 months; • include a summary of the complaints received during the past year, and compare this to the complaints received in previous years; • include a summary of the monitoring results for the project during the past year; • include an analysis of these monitoring results against the relevant: • impact assessment criteria/limits; • monitoring results from previous years; and • predictions in the EA; • identify any trends in the monitoring results over the life of the project; • identify any non-compliance during the previous year; and • describe what actions were, or are being, taken to ensure compliance.	AEMR 2007-2008 AEMR 2008-2009 AEMR 2009-2010 AEMR 2010-2011	C	The first AEMR for the Abel Coal Project was prepared in June 2008 (i.e. 12 months from the date of Project Approval dated June 2007). The AEMR's have addressed each of the condition requirements for the Abel Underground Coal Mine and have been submitted to DoP/DP&I all relevant agencies and the CCC each year.
	INDEPENDENT ENVIRONMENTAL AUDIT			
5/5	Within 1 year of this approval, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: • be conducted by suitably qualified, experienced and independent expert/s whose appointment has been endorsed by the Director-General; • include consultation with the relevant agencies; • assess the various aspects of the environmental performance of the project, and its effects on the surrounding environment; • assess whether the project is complying with the relevant standards,	Letter to DoP re Independent Environmental Auditor, 5 Mar 2008 Letter from DoP re Endorsement of re Independent Environmental Auditor, 7 Mar 2008 Letter from DP&I re Endorsement of re Independent	C	The Director-General endorsed Trevor Brown of Trevor Brown & Associates to conduct the Independent Environmental Audit of the Abel Coal Project in March 2007. The Independent Environmental Audit was conducted on the 26-29 April 2008 to satisfy requirements of MCoA Schedule 5 Condition 5. • Endorsement of Trevor brown to conduct the audit was received from DP&I on 11 November 2011. • No requests from agencies were received in response

Ref	Condition	Audit Evidence	Status	Comments
	performance measures and statutory requirements; • review the adequacy of any strategy/plan/program required under this approval; and, if necessary, • recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.	Environmental Auditor, 11 Nov 2011		to emails, in relation any specific matters required to be addressed in the audit. • Assessment of environmental performance of the Abel Mine operations are addressed in section 3 of this audit report. • Compliance of the Abel Mine Operations is addressed in Attachments A to C of this audit report. • The strategy/plans/programs required under this approval are considered adequate for the management of the Abel Mine operations. • This current Independent Environmental Audit to satisfy requirements of Project Approval Schedule 5 Condition 5 was conducted on the 15 November 2011 for the 3 year period 2008 – 2011.
5/6	Within 3 months of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, with its response to any recommendations contained in the audit report.	Letter to DoP re Independent Environmental Audit, 4 July 2008 Letter from DoP re Independent Environmental Audit, 4 August 2008	C	The Independent Environmental Audit Report and responses from Abel Coal to the recommendations was submitted to DoP on 4 July 2008. A letter from DoP dated 4 August 2008 accepted the audit and noted that the weather station at Donaldson Mine needs approval. Approval of the Donaldson weather station was given in September 2008.
5/7	Within 3 months of completing the audit, the Proponent shall review, and if necessary revise, the various strategies/plans/programs required under this approval to the satisfaction of the Director-General.		Noted	No revisions to the strategies/plans/programs were required following the 2008 Independent Environmental Audit.
	COMMUNITY CONSULTATIVE COMMITTEE			
5/8	Within 3 months of this approval, the Proponent shall establish a Community Consultative Committee for the project. This committee must: (a) be comprised of: • 2 representatives from the Proponent, including the person responsible for environmental management at the mine; • at least 1 representative from Council (if available); and • at least 3 representatives from the local community, whose appointment has been approved by the Director-General; (b) be chaired by an independent chairperson, whose appointment has been approved by the Director-General; (c) meet at least twice a year; (d) review the Proponent's performance with respect to environmental management and community relations; (e) undertake regular inspections of the mining operations; (f) review community concerns or complaints about the mine operations, and the Proponent's complaints handling procedures; and (g) provide advice to: • the Proponent on improved environmental management and community relations, including the provision of information to the community and the identification of community initiatives to which the Proponent could contribute;	CCC Meetings Minutes: 11 Mar 2008 18 Jun 2008 17 Sep 2008 15 Dec 2008 30 Mar 2009 29 Jun 2009 28 Sep 2009 1 Feb 2010 3 May 2010 16 Aug 2010 15 Nov 2010 22 Feb 2011 2 May 2011 8 Aug 2011 7 Nov 2011	C	The Abel Underground Mine Community Consultative Committee (CCC) was formed within 3 months of the approval and the first meeting was held on 5 December 2007. The current representatives of CCC are: • Mr Alan Brown - Community Member • Mr Allan Jennings - Community Member • Mr Terry Lewin - Community Member • Mr Andrew Pace - Community Member • Mr Brad Ure - Community Member • Cr Peter Blackmore - Mayor Maitland City Council • Mr Tony Sutherland - Abel Coal Mine • Mr Phillip Brown - Abel Coal Mine • Mr Adam Heeney - Abel Coal Mine • Ms Karen Halliday - Bloomfield Colliery (b) The Chairperson approved by the Director-General is Hon Mr Milton Morris (c)The CCC meets four (4) times per year (d) the project performance is discussed and recorded in the Minutes of the CCC (e) inspection of the surface mine operations area by the CCC Members has occurred

Ref	Condition	Audit Evidence	Status	Comments
	• the Department regarding the conditions of this approval; and • the general community on the performance of the mine with respect to environmental management and community relations; and (h) be operated generally in accordance with any guidelines the Department may publish in regard to the operation of Community Consultative Committees for mining projects.			(f) a summary of community complaints are provided to the CCC members and discussed at the CCC Meetings as relevant. (g) matters discussed are recorded in the CCC Minutes (h) the CCC meetings are operated generally in accordance with the Guidelines under the guidance of the Chairman.
5/9	The Proponent shall, at its own expense: (a) ensure that 2 of its representatives attend CCC meetings; (b) provide the CCC with regular information on the environmental performance of the project; (c) provide meeting facilities for the CCC; (d) arrange site inspections for the CCC, if necessary; (e) respond to any advice or recommendations the CCC may have in relation to environmental management or community relations; (f) take minutes of the CCC meetings; (g) forward a copy of these minutes to the Director-General; and (h) put a copy these minutes on its website.	CCC Minutes of Meeting No.1, 5 December 2007 CCC Minutes of Meeting No.2, 11 March 2008	C	Initial CCC Meetings were held in December 2007 and March 2008 at the Blackhill Public School. Since December 2008, meetings have been held in the Abel Mine Administration offices at the mine site. Minutes taken by Abel Mine personnel and distributed to CCC members, Director-General and posted onto the website.– http://www.gloucestercoal.com.au/community_environment/environment/abel/
	ACCESS TO INFORMATION			
5/10	Within 3 months of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall: • provide a copy of the relevant document/s to the relevant agencies; • ensure that a copy of the relevant document/s is made publicly available at the mine; and • put a copy of the relevant document/s on its website.		C	The DECC and DPI were advised on 23 May 2008 that the approved management plans were available and had been uploaded to the website. The documents on the website are updated when revisions are made and approved, and/or when new documentation is prepared: • EMS Integrated Manual • Aboriginal Heritage Management Plan • Air Quality Management Plan • Mine Energy Saving Action Plan • Water Management Plan • Landscape Management Plan. • Integrated Environmental Monitoring Plan. • Subsidence Management Plan Area 1 • Subsidence Management Plan Area 2
5/11	During the project, the Proponent shall: • make a summary of monitoring results required under this approval publicly available at the mine and on its website; and • update these results on a regular basis (at least every three months).	http://www.gloucestercoal.com.au/community_environment/environment/abel/ *Guideline for Establishing and Maintaining Websites for Mining Projects*, NSW Government Planning, April 2011.	C In progress	• A summary of the monitoring data required under this approval is available on the website • Monitoring results in AEMR's are uploaded on the website. A summary of monitoring results is provided within the CCC minutes each 3 months. ***NB:*** *A new website for Gloucester Coal developments is being developed to meet the requirements for reporting monitoring etc on the website, in accordance with the Guideline for Establishing and Maintaining Websites for Mining Projects, April 2011.*

Attachment B Statement of Commitments Abel Underground Mine

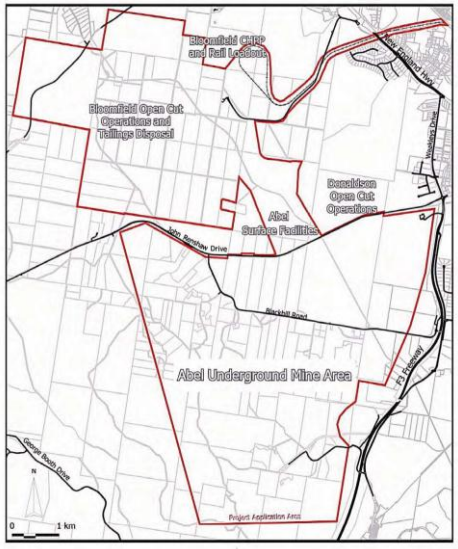
Ref	Statement of Commitments	Audit Evidence	Status	Comments
0.	**General** **Note:** ***This SoC should be read in conjunction with Project Approval Schedule 3 Condition 2***			
	The Applicant shall carry out the development generally in accordance with the: (a) Abel Underground Mine Part 3A Environmental Assessment. If there is any inconsistency between the conditions of this Statement of Commitments and a document listed above the conditions of this Statement of Commitments shall prevail to the extent of the inconsistency.	Abel Underground Mine Part 3A Environmental Assessment, 26 September 2006 Statement of Commitments	C	The project is being developed generally in accordance with the environmental assessment documents and the requirements in these conditions of approval.
1.	**Production** ***Note: This SoC should be read in conjunction with Project Approval Project Approval Schedule 3 Condition 6 and 7***			
1.1 1.2 1.3	No more than 4.5 million tonnes of ROM coal a year will be mined from the Abel Underground Mine. No more than 6.5 million tonnes of ROM coal a year will be processed at the Bloomfield CHPP. No more than 5.0 million tonnes per annum of product coal will be transported on the Bloomfield Rail Loop.		C	During 2010-2011 period approximately 1.2 Mt of product coal was produced from the Abel Underground Mine and 3.18 Mt of coal was processed through Bloomfield CHPP and product coal transported on the Bloomfield rail.
2.	**Hours of Operation**			
2.1 2.2 2.3	The Abel Underground Mine will operate 24 hours per day, seven days/ week. The Bloomfield CHPP will operate 24 hrs per day, 7 days/week. The Bloomfield Rail Loop will operate 24 hrs/day, 7 days/week.		C	Operations of the Abel Project underground mine and the Bloomfield facilities operate 24 hours per day 7days per week.
3.	**Noise** ***Note: This SoC should be read in conjunction with Project Approval Schedule 4 Condition 23 – Noise Monitoring***			
3.1	**Construction Activities** The following noise control measures will be implemented prior to commencement of construction of the Abel Underground Mine or the upgrade of the Bloomfield CHPP; (a) Maintain all machinery and equipment in working order; (b) No construction activities at the Abel pit top will take place on Sundays or Public Holidays; (c) Where possible locate noisy site equipment behind structures that act as barriers or at the greatest distance from noise sensitive areas; (d) Orient equipment so that noise emissions are directed away from noise sensitive areas.	EPL No. 12856, condition L6	C	It was advised that the construction activities for the Abel Coal Mine were undertaken in compliance with these requirements. (a)Mine activities are undertaken in a manner that includes maintenance of machinery and equipment; (b)Aboveground construction activities occurred during normal working hours Monday to Saturday with no work on Sundays or public holidays. (c) and (d) location and orientation of equipment was managed to reduce potential for noise nuisance to sensitive receivers (e.g. generators and extraction fans were installed below the high wall to reduce noise dispersion from the operational area).
3.2	**Noise Control Measures** (a) The following noise control measures will be implemented prior to the mining of coal from the Abel Underground Mine:	AEMR 2008-2009 section 3.8	C	(a) Installation of the ventilation fan for the underground workings was installed below the high wall to reduce potential for noise impact on

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	• orientation of the ventilation fan towards the north-west, away from residential receivers and angle the output parallel to the ground. • the sound power level of the front end loader used near the portal should not exceed 113 dBA and be fitted with a noise sensitive reversing alarm. (b) The following noise control measures were implemented prior to the Bloomfield CHPP receiving any ROM coal from the Abel Underground Mine: Noise mitigation works including partial enclosure and noise screening of drives and conveyors of the Bloomfield CHPP to screen residences north of the site.  **Partial enclosure of drives and conveyors of the Bloomfield CHPP for noise mitigation.**			sensitive receivers. The vehicles and equipment used near the portal to the underground mine are fitted with reversing 'quackers' rather than beepers to reduce noise nuisance. (b) The Bloomfield CHPP has had noise screening enclosures fitted to the drives and conveyors to reduce noise emission to residences to the north. Noise monitoring was conducted to assess noise from the ventilation shafts in 2008-2009 and it was reported that *"noise emissions did not exceed noise emission goals including night-time sleep arousal criteria) and were in compliance with the Project Approval for the Abel mine"*.
3.3	**Monitoring** ***Note: This SoC should be read in conjunction with Project Approval Schedule 4 Condition 23 – Noise Monitoring***			
3.3	Within 6 months of this approval being granted a Noise Monitoring Program shall be prepared and implemented for the Abel Underground Mine and the Bloomfield CHPP, to the satisfaction of the Director-General. The Noise Monitoring Program shall include a combination of real-time and supplementary attended monitoring measures, and a noise monitoring protocol for evaluating compliance with the noise environmental assessment. This plan will be integrated with the monitoring plans for the Tasman, Donaldson and Bloomfield Mines to provide a single integrated Noise Monitoring Program for all 4 mines	Letter to DECC re Noise Monitoring Program, 5 Sep 2007 Letter from DECC re Noise Monitoring Program, 13 Sep 2007 Letter to DoP re Noise Monitoring Program, 2 Oct 2007 Letter from DoP re Comments on Noise Monitoring Program, 13 Nov 2007 Letter from DoP re Comments on Noise Monitoring Program, 12 May 2008 Letter to DECC re Noise Monitoring Program, 23 May 2008 Letter from DoP re NMP Approval, 2 Jun 2008	C	The Noise Monitoring Program for the Abel Coal Project was prepared by Heggies in consultation with the DEC and was submitted DoP on 2 October 2007. Comments from DoP were received on 13 November 2007 and the NMP revised for submission to the DoP on 2 May 2008. DoP comments on the revised NMP were received on 12 May 2008. The NMP was amended and submitted to DoP. Approval received on 2 June 2008. The Abel Mine Noise Monitoring Program was incorporated in the Integrated Environmental Monitoring Plan for the Donaldson, Tasman, Abel Mines and Bloomfield CHPP.

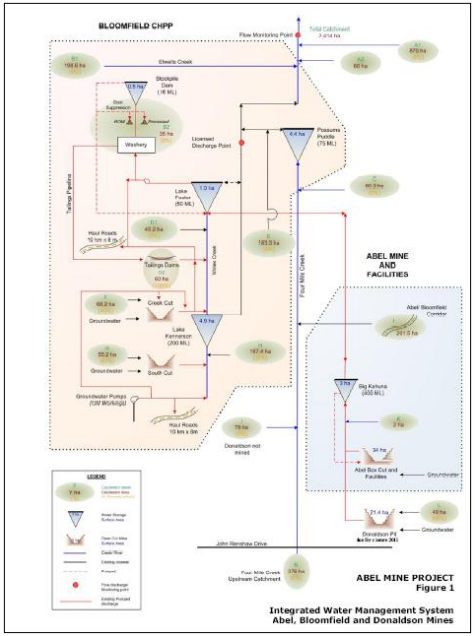
Ref	Statement of Commitments	Audit Evidence	Status	Comments
3.4	**Continuous Improvement** The Company shall: (a) report on these investigations and the implementation of any new noise mitigation measures on site in the AEMR, to te satisfaction of the Director-General. The operator of the Bloomfield CHPP shall: (b) investigate ways to reduce the noise generated by the Bloomfield CHPP, including maximum noise levels which may result in sleep disturbance; (c) implement all reasonable and feasible best practice noise mitigation measures on the site; and (d) report on these investigations and the implementation of any new noise mitigation measures on site in the AEMR, to the satisfaction of the Director-General.		Noted	(a) Quarterly Noise Reports have been conducted on the Abel operations and the results reported in AEMR's. No additional noise measures are considered warranted at this time as the noise emissions from the operations are not generally audible at the closest receivers. (b) Bloomfield installed shielding at the CHPP to reduce noise emissions. An inspection of the Bloomfield CHPP confirmed that the shielding had been installed and appeared to be effective in reducing noise emission from the plant.
	 **Bloomfield CHPP with new shielding on the plant to reduce noise emissions.**			
4.	**Air Quality** ***Note: This SoC should be read in conjunction with Project Approval Schedule 4 Condition 25***			
4.1	**Construction** The following actions shall be adopted in relation to dust control on the site during construction of the proposed Abel Underground Mine and the modifications to the Bloomfield CHPP: • Minimise the area to be disturbed; • Progressively rehabilitate disturbed areas as soon as practicable; • Restrict vehicle movements to specified routes; • Provide speed limited signage around the mine site; • Dust suppression using water sprays; • Commence landscaping as soon as practicable; • Install dust gauges to monitor dust deposition levels at sensitive receptors.	Air Quality Monitoring Plan, bel Underground Min, Holmes Air Sciences, 20 Feb 2008 Integrated Environmental Monitoring Program, GSS Environmental, Dec 2007	C	• The total area of disturbance for the construction of the surface facilities for the Abel Coal Project is approximately 9.5ha and is within the existing Donaldson Mine disturbed area, adjacent to the open cut high wall. • The disturbed areas associated with the Abel mine operations have been minimised with landscaping and rehabilitation undertaken where practicable. • The limited area of disturbance associated with the Abel Coal Project and potential for dust generation from vehicle movements on the major haul road routes is managed with the main vehicle access /parking areas around the site sealed, including the haul road to the Bloomfield CHPP. • Six dust deposition gauges are installed plus a

Ref	Statement of Commitments	Audit Evidence	Status	Comments
				high volume sampler for PM_{10} and TSP, in accordance with the Air Quality Monitoring Plan for the Abel Underground Coal Mine. There are additional dust gauges installed around the adjacent Donaldson Mine operations as part of the Integrated Environmental Monitoring Program.
4.2	**Air Quality Control Measures** (a) The following actions would be adopted in relation to dust control on the site during operation of the proposed Abel Underground Mine and the operation of the Bloomfield CHPP: • All mobile equipment will be maintained in good working order to limit exhaust fumes. • Regular watering of all roads; • Use water sprays periodically on open stockpile areas and regular visual inspection will be undertaken and water sprays activated as required. (b) Dust emissions generated by the Abel Underground Mine and the Bloomfield CHPP will not exceed any statutory limits. (c) Dust control on site is to be aimed at prevention of air pollution and prevention of the degradation of local amenity. (d) Dust controls on the site will comply with all relevant NSW DEC guidelines and any applicable Environment Protection Licence issued under the POEO Act 1997. (e) Regular inspections for excessive visible dust generation will be undertaken and appropriate controls will be implemented when such events occur. This will include ceasing operations during high wind conditions if necessary to ensure effective dust control.	Air Quality Monitoring Plan, 10 Oct 2007	C	The control of air quality in relation to the Abel Coal Project occur during operation of the mine and CHPP facilities in accordance with the Air Quality Monitoring Plan. The establishment of the surface facilities for the Abel Mine included surfacing the access roads and storage areas and use of water trucks if necessary on unsealed areas. (a)Mobile equipment is regularly serviced in accordance with manufacturers' requirements. Access roads and hard stand areas are surfaced. (c)A dedicated water truck is in use on disturbed and all unpaved areas. Water sprays on stockpiles to be installed for the main ROM stockpile (when established in the West Cut area). (d)Dust monitoring results indicate no exceedances of dust criteria (see AEMR monitoring data summaries). (e)Daily site inspections are conducted by the Environmental Manager to check dust management at the site operations.
4.4	***Monitoring Note: This SoC should be read in conjunction with MCoA Schedule 4, Condition 26***			
	(a) Within 6 months of the grant of this approval an Air Quality Monitoring Program shall be prepared and implemented for the Abel Underground Mine and the Bloomfield CHPP, to the satisfaction of the Director-General. The Air Quality Monitoring Program shall include a combination of real-time and supplementary attended monitoring measures (including real-time air quality monitoring for 24-hour average PM10 and the recording of required meteorological monitoring data) and an air quality monitoring protocol for evaluating compliance with the air quality environmental assessment. This plan will be integrated with the existing monitoring plans for the Tasman, Donaldson and Bloomfield Mines to provide a single integrated Air Monitoring Program for all 4 mines. (b) Within 6 months of this approval, the Company shall ensure that there is a suitable meteorological station operating in the vicinity of the development in accordance with the requirements in Approved Methods for Sampling of Air Pollutants in New South Wales.	Air Quality Monitoring Plan, 10 Oct 2007 Integrated Environmental Monitoring Program, December 2007 Letter to DoP re Air Quality Monitoring Plan, 7 Dec 2007 Letter from DoP re Approval of Air Quality Monitoring Plan Revision, 26 Feb 2008	C	(a)The Air Quality Monitoring Program was submitted to the Director-General in July 2007 within 6 months of the Project Approval (i.e. June 2007). The Abel Underground Mine Air Quality Monitoring Program includes: • Six dust deposit gauges to measure monthly average dust deposition levels in accordance with AS 3580.10.1 1991. • One high volume air sampler fitted with a PM_{10} size selective inlet and operated on a one- -in-six day cycle in accordance with AS 3580.9.7 1990. • One high volume air sampler fitted with TSP inlet and operated on a one- in-six day cycle in accordance with AS 2724.5 1987. (b) The program includes the use of the Donaldson open-cut mine meteorological station.

Ref	Statement of Commitments	Audit Evidence	Status	Comments
5.	**Surface Water Management - Abel Underground Mine** ***Note: SoC 5 should be read in conjunction with Project Approval Schedule 4 Conditions 11-15***			
5.1	**Schedule 1 streams** (a) Schedule 1 streams (as defined in the DIPNR 2005 guideline, "Management of stream/aquifer systems in coal mining developments") will be managed via the implementation of mitigation and remediation works where needed to ensure that: • stream stability is maintained where subsidence occurs • stream fractures are minimised • stream channels maintained with minimal incision from bed grade change; • stream bed grade change is minimised to provide stable stream length. (b) Where any stream stability controls are required they will be designed in accordance with the Rehabilitation Manual for Australian Streams (Land and Water Resources Research and Development Corporation, 2000) and will be provided primarily by vegetation.	"Management of stream/aquifer systems in coal mining developments guideline", DIPNR 2005 Integrated Environmental Monitoring Program, Dec 2007 Water Management Plan, March 2008 Subsidence Management Plan Area 1, October 2010 Subsidence Management Plan Area 2, May 2011	Ongoing	The management of the Abel Coal Mine underground mining and subsequent subsidence is addressed in the Subsidence Management Plans prepared prior to 2nd workings. The Integrated Environmental Monitoring Program outlines the monitoring locations, frequency and parameters to be measured for the Scheduled streams (as defined in the "Management of stream/aquifer systems in coal mining developments guideline, DIPNR 2005). Secondary extraction in Panel 3 was undertaken beneath a small part in the upper section of a Schedule 1 drainage line during 2010-2011. The area was inspected and rehabilitation of any cracking (mainly on tracks and other compacted areas) was completed by Abel Mine personnel. Monitoring and management of Schedule 1 streams has been incorporated for SMP Areas 1 and 2.
5.2	**Schedule 2 streams** (a) Schedule 2 streams will be managed so as to ensure that: • they maintain pre-mining course, and maintain bed channel gradients which do not initiate erosion; • they maintain pool riffle sequences where they pre-existed, or have pool riffle sequences installed where appropriate; • they maintain connectivity to underground workings, and flow loss to fracture zones in similar levels to pre-mining; • they maintain geomorphic integrity of the stream; • the ecosystem habitat values of the stream are protected; • no significant alteration of the water quality occurs in the stream. **(**b) The above commitments for Schedule 2 streams will be achieved by: • the provision of a minimum barrier of 40m between the 20 millimetre line of subsidence and the bank of any Schedule 2 streams; or the carrying out of further detailed studies and the development of a Surface Water Management Plan for the Abel Underground Mine which clearly demonstrates that the above commitments can be met prior to any mining occurring which will impact on any Schedule 2 streams	"Management of stream/aquifer systems in coal mining developments guideline", DIPNR 2005 Integrated Environmental Monitoring Program, Dec 2007 Water Management Plan, March 2008 Subsidence Management Plan Area 1, October 2010 Subsidence Management Plan Area 2, May 2011	Ongoing	The management of underground mining and subsequent subsidence is addressed in the Subsidence Management Plans prepared prior to 2nd workings. The Integrated Environmental Monitoring Program outlines the monitoring locations, frequency and parameters to be measured for the Schedule 2 streams. (a)There has been no mining to date with potential to result in subsidence under Blue Gum, Long Gully, Viney or Buttai Creeks. A Subsidence Control Zone for Viney Creek has been established for SMP Area 2. (b) It is noted that the Subsidence Management Plan for Area 1 and 2 includes a Subsidence Control Zone for Viney Creek defining the minimum barrier of 40m between the 20 millimetre line of subsidence and the bank of the Creek. The Surface Water Management Plan will be revised as necessary prior to any mine working that presents the potential for causing subsidence under a Schedule 2 stream.
5.3	**Blue Gum Creek Alluvium** For the lower reach of Blue Gum Creek (from the confluence of Long Gully and Blue Gum Creek downstream), a buffer will be provided which provides for no more than 20mm of subsidence at 40m from the edge of the alluvium will be adopted, and within the buffer zone no significant subsidence will occur.		Noted	The required buffer will be maintained when mining works with the potential to cause subsidence is planned for these areas.

Ref	Statement of Commitments	Audit Evidence	Status	Comments
5.4	**Rainforest Communities** Subsidence in the rain forest protection zones identified on Figure 2.2 will be limited to 20mm of subsidence at the edge of the zone identified unless further studies can demonstrate that there will be no significant impact on the rainforest communities within the buffer zone with greater subsidence impacts.		Noted	The required buffer will be maintained when mining works with the potential to cause subsidence is planned for these areas.
5.5	**Surface Water Management Plan** ***Note: Read this SoC in conjunction with Project Approval Schedule 4 Condition 11, 12 & 14 – Water Management Plan/Site Water Balance***			
	Prior to mining occurring that will impact on any Schedule 1 streams the Surface Water Management Plan for the Abel Underground Mine will be developed so as to address the following in relation to schedule 1 streams: • detailed identification of risk factors on a case-by-case basis; • setting up of permanent monitoring locations along watercourses as well as regular inspection regimes; • continuation of baseline data collection on water flow conditions and health indicators (such as macro-invertebrates); • establishment of trigger levels that will be used to assess whether any changes observed through monitoring warrant responsive action; and • details of responsive and remedial action to be undertaken if required. • require the identification of any existing degradation in the streams prior to mining to allow differentiation of that degradation induced by the mining. • provide for a post-mining assessment of any streams within the area of mine subsidence within six (6) months of the initial subsidence. • provide for a subsequent assessment within eighteen (18) months of the initial subsidence to confirm that post-mining degradation resulting from the mining is successfully remediated. • require any remediation works to be implemented to a standard approved by DNR, where the assessment has indicated degradation of the streams in the area of mining induced subsidence, and thereafter on an annual basis until any mining induced stream instability is addressed to the standard approved. • require a photographic record of stream stability for areas where either fracturing is detected (at maximum strain points), or at maximum tilts within the subsidence envelope. Where it is proposed not to leave a barrier around a Schedule 2 stream a detailed assessment will be undertaken for the stream and provided to DNR addressing the proposed impacts on it. The detailed assessment will include: • assessment of the geomorphic and vegetation condition and aquatic habitat for the stream; • selective measurements of channel boundary sediment size; • predications of subsidence and cracks/fractures throughout the stream; • a detailed photographic record of the existing stream condition; • mapping of spatial distribution of alluvium/colluvial aprons of the stream; • collection of background data for the shallow alluvial aquifer by the installation and regular monitoring of a network of piezometers and/or wells in the main areas of alluvium for the shallow alluvial aquifer; • assessment of the location and activity of springs, pipes/tunnels and/or salt	Water Management Plan, Nov 2007 Integrated Environmental Monitoring Program, section 4.4, Dec 2007	C	The Surface Water Monitoring Program and Water Management Plan for the Abel Underground Coal Project are outlined in the Water Management Plan Part A and B, and the Integrated Environmental Monitoring Program section 4.4. The assessment of the various streams and surface water bodies that may potentially be affected by the underground mining will occur progressively under the Subsidence Management Plans prepared for each proposed Area of operations prior to the mining operations approaching the specific areas. A Subsidence Control Zone has been established for Viney Creek. No first or second workings have yet occurred within this zone. Commencement of mining in Area 2 will occur following approval of the Area 2 Subsidence Management Plan.  **Figure 5.5: Areas included in the Integrated Environmental Monitoring Program**

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	seepages/efflorescences; • measurement of current bed slope and any pool-riffle sequences on each channel and periodic assessments of changes over time; • an assessment of likely erosion points, fracturing or seepage zones from the mining area to the stream, along the stream channel occurring as a result of mining activities. • an assessment of any required remedial works on the affected stream, including: - options considered for the remediation program - anticipated lifetime of the remedial works - details of the engineering design or process for engineering - design of the remediation works - long term remediation requirements, including revegetation. • details of the proposed monitoring regime. It will provide for: - post-mining assessment, to a standard approved by DNR, within six (6) months of the initial subsidence. - provide for a subsequent assessment within eighteen (18) months of the initial subsidence to confirm that post-mining degradation resulting from the mining is successfully remediated. Following consultation with DNR on the above assessment for each schedule 2 stream the Surface Water Management Plan for the Abel Underground Mine will be developed to implement the findings of the above assessment.		Not Yet Triggered	
6.	**Surface Water Management – Bloomfield CHPP and the Abel Underground Pit Top Facilities** ***Note: This SoC should be read in conjunction with Project Approval Schedule 4 Conditions 11***			
6.1	Separate surface water management systems will be designed for the Bloomfield CHPP and the Abel Underground Pit Top Facilities which provide for: • Separation of clean and dirty water; • Management and control of stormwater flows; • Minimisation of sediment generation, soil erosion and transport off site; • Recycling of water where to minimise demand for potable water; and • Provision of water for fire fighting. • Maintain water supply for the coal handling and preparation plant and for dust suppression at all times; • Achieve zero discharge to the environment from Big Kahuna; • Minimise discharge from the Stockpile Dam; • Minimise discharge from Lake Foster and Lake Kennerson; • Where controlled discharge is necessary, preference is given to Lake Kennerson.	Water Management Plan, Part B Abe Coal Project Water Management Plan, Part C, Bloomfield CHPP Water Management Plan Appendix 2, Water Balance Modelling	C	The Water Management Plan includes a Site Water Balance in Appendix 2 that outlines the water management for the project including water conservation, recycling and zero discharge for the project. The site water management includes separation of clean and dirty water and management of stormwater flows from the surface disturbed areas. All water collected is directed to the “Big Kahuna” with excess water pumped to Lake Foster on the Bloomfield site for reuse in the CHPP or Lake Foster on the Bloomfield site from which controlled discharge can occur.

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	 Big Kahuna water storage Donaldson Coal Mine site	 Lake Foster water storage Bloomfield Coal site		No release occurs from the Big Kahuna to the environment.  **Figure 6.2: Site Water Balance for Abel Coal Project and Bloomfield CHPP.** There was no discharge from the Big Kahuna water storage dam during the 2008-2011 period.
6.2	The surface water management systems shall be based on the following principles: • Minimise demand for fresh water supply by recycling water collected on the site; • Store recycled water on site to reduce water consumption during operation of the proposed development; • Design drainage and sediment control for the operation in accordance with the Landcom (2004) guidelines; • Provide a water supply for fire fighting and provision for containment of firewater; • Use of a first flush system to ensure "dirty" water is captured in accordance with DEC guidelines.	Water Management Plan Part B section B.3.9 – Minimisation of Water Use, and Part C, section C.1.3 Water Supply to CHPP Water Management Plan,Part B, section B4 – Erosion and Sediment Control	C	
6.3	The surface water management systems will include an Erosion and Sediment Control Plan (ESCP). The ESCP will outline the measures that will be implemented to ensure that no undue pollution of receiving waters occurs during any earthworks construction or during the operation of the facilities.	Water Management Plan, Part B, section B.4, and Part C section C.4 *Managing Urban Stormwater: Soils & Construction Volume 2E Mines and Quarries,* Landcom 2008	C	Sections B4 and C.4 in the Water Management Plan include the Erosion and Sediment Control Plan and measures for the Abel Mine surface facilities and Bloomfield CHPP sites.
6.4	The following erosion and sediment control works will be implemented as part of the project: • All works for the Abel box cut and subsequent construction of surface facilities will be undertaken within the boundaries of the existing Donaldson Mine lease area. These activities will be undertaken in accordance with the approved procedures for erosion protection and sediment control for the	Water Management Plan, Part B, section B.4 Erosion and Sediment Control Abel Coal Project	C	The Erosion and Sediment Control Plans have been prepared for the Abel Underground Coal Project in accordance with the Guidelines in the *Managing Urban Stormwater: Soils and Construction – Volume 2E Mines and Quarries, DECC 2008,* for the surface works area in the mine portal area/box-cut and the Bloomfield CHPP and stockpile areas.

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	Donaldson Mine. • The majority of works in the vicinity of the stockpile area for the Bloomfield CHPP will be undertaken within an area that reports to the existing Stockpile Dam and Dam F. These facilities provide adequate erosion and sediment control for those areas. For minor bunding works to be undertaken on the southern boundary of the enlarged stockpile area, standard erosion control practices such as silt fences will be used. • For any earthworks associated with increasing the capacity of the bypass channel around Lake Foster, standard erosion control practices such as silt fences will be used. If a conveyor is eventually constructed between the Abel box cut and the Bloomfield CHPP, a separate Erosion and Sediment Control Plan will be prepared that takes account of the details of the conveyor, particularly the crossing of Four Mile Creek.	Water Management Plan Part C, section C4, Erosion and Sediment Control CHPP Stockpile Areas Water Management Plant, Part C, section C.5, Erosion and Sediment Control Diversion around Lake Foster		No significant erosion or sedimentation issues associated with the Abel Underground Coal Mine operational areas were noted during the audit site inspection.
7.	**Surface Water Monitoring Program** ***Note: SoC 7 should be read in conjunction with Project Approval Schedule 4 Condition 14 – Surface Water Monitoring Program***			
7.1	An integrated surface monitoring program will be undertaking for the Abel Mine, Donaldson Mine and the Bloomfield CHPP covering all potentially affected catchments including Four Mile Creek, Blue Gum Creek and other creeks on the land overlying the Abel underground lease area.	Integrated Environmental Monitoring Program, Dec 2007	C	The surface water monitoring program includes monitoring of the listed catchments - Four Mile Creek at John Renshaw Drive, Weakleys Flat Creek at John Renshaw Drive, Buttai Creek at Lings Road, Blue Gum Creek at Stockrington Road and Long Gully. The following monitoring regime is followed for the surface water monitoring program: • Monthly baseline sampling. • Daily water samples from listed discharge and other points. • Baseline data for Blue Gum Creek and Pambalong Nature Reserve are in use. • Water sampling is conducted in accordance with the Surface Water Monitoring Program for the specified analytes. • Flow gauges have been installed on Blue Gum Creek • Biological and geomorphological monitoring conducted.
7.2	Monitoring of surface water in the creeks that overlie the Abel Underground Mine will commence just prior to mining and continue until one year after mining has passed the contributing catchment and will be undertaken at the following locations: • Four Mile Creek at John Renshaw Drive (same as existing Donaldson site); • Weakleys Flat Ck at John Renshaw Drive (same as existing Donaldson site); • Buttai Creek at Lings Road; • Blue Gum Creek at Stockrington Road; and • Long Gully (downstream).	Water Management Plant, Part A, section A8 Surface Water Monitoring Plan Integrated Environmental Monitoring Program, section 4.4, Dec 2007	C	
7.3	The following monitoring regime is proposed: • Routine monthly baseline sampling; • Daily water samples collected from the discharge point on any occasion when there is controlled discharge from Lake Kennerson. Water samples will also be collected at the flow gauging station behind the Four Mile Workshops. These samples will be analysed for: total suspended solids, conductivity, pH and filterable Iron; • Daily water samples will be collected from any overflow from the Stockpile Dam. Water samples will also be collected at the flow gauging station behind the Four Mile Workshops. These samples will be analysed for: total suspended solids, conductivity, pH and filterable Iron. • Collection of extensive baseline data prior to mining, including the ability to collect at least 15 years of baseline data for Blue Gum Creek and Pambalong Nature Reserve; • Monthly monitoring during any substantial subsidence period for each monitoring site, and annual monitoring for all sites;	Integrated Environmental Monitoring Program, section 4.4, Tables 4 and 5 Water Management Plan, Part A section A.8 Surface Water Monitoring Plan	C	

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	• Water quality sampling from each of the sampling locations shown in Figure 8.2 in the EA with analytes measured including pH, Electrical Conductivity, Total Dissolved Solids, Total Suspended Solids, Chloride, Sulfates, Alkalinity (Bicarbonate), Alkalinity (Carbonate), Calcium, Magnesium, Sodium and Potassium; • Flow gauging stations established on Blue Gum Creek to monitor water flow and level; and Macro-invertebrate monitoring within Blue Gum Creek and Pambalong Nature Reserve, including the use of AUSRIVAS (Australian River Assessment System) to assess biological health. The following monitoring regime is proposed: • Routine monthly baseline sampling; • Daily water samples collected from the discharge point on any occasion when there is controlled discharge from Lake Kennerson. • Daily water samples will be collected from any overflow from the Stockpile Dam. Water samples will also be collected at the flow gauging station each monitoring site, and annual monitoring for all sites; Water quality sampling from each of the sampling locations shown in Figure 8.2 in the EA with analytes measured including pH, Electrical Conductivity, Total Dissolved Solids, Total Suspended Solids, Chloride, Sulfates, Alkalinity (Bicarbonate), Alkalinity (Carbonate), Calcium, Magnesium, Sodium and Potassium; _ Flow gauging stations established on Blue Gum Creek to monitor water flow and level; and _ Macro-invertebrate monitoring within Blue Gum Creek and Pambalong Nature Reserve, including the use of AUSRIVAS.			
8.	**Groundwater Management Plan** ***Note: This SoC should be read in conjunction with Project Approval Schedule 4 Conditions 11***			
8.1	Within 6 months of the granting of approval a Groundwater Management Plan will be prepared. The Plan will comply with all relevant guidelines and will address: • Groundwater management within the Abel Underground Mine area, including protection, management, mitigation and remediation of groundwater as required; • Groundwater management within the area of proposed tailings disposal within Bloomfield Colliery; • Proposed groundwater monitoring program; • Proposed groundwater reporting schedule; and • Feedback mechanisms to alter mining methods if documented groundwater monitoring values are triggered.	Water Management Plan Groundwater Monitoring Program, Part A, section A.9 , Nov 2007	C	The Water Management Plan was prepared to address the required matters. • Groundwater management within the Abel underground mine area section A.9.4.4 • Groundwater management in the area of Bloomfield Colliery section A.9.2 related to further development of the groundwater model. • Groundwater Monitoring Program section A.9.6 • Groundwater Reporting Schedule section 9.7 • Feedback mechanisms and response actions section A9.4.5
8.2	The following response plan will be implemented in the event of significant unforeseen variances from the predicted inflow rates and/or groundwater level impacts: • Additional sampling and/or water level measurements to confirm the variance from expected behaviour. • Immediate referral to a competent hydrogeologist for assessment of the	Water Management Plan, Groundwater Monitoring Program, Part A, section A.9.4.5 Water Management Plan, Part B section B5.2	C	The Groundwater Monitoring Program includes section A.9.4.5 Response Actions and Part B section B.5.2 Groundwater Response Plan. In the event of any exceedance, a preventative and/or remedial strategy may comprise: • Additional monitoring;

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	significance of the variance from expected behaviour. The review hydrogeologist would be requested to recommend an appropriate remedial action plan or amendment to the mining or water management approach. If appropriate, this recommended action plan would be discussed with DNR and other agencies for endorsement.			• Modification of mine water management procedures; • Modification to mine water management facilities; or • no change to operations (If appropriate). No significant variances in groundwater quality were recorded between 2008 and 2011. Any required response actions for mitigation and remediation would be by a TARP action sheet as specified in Water Management Plan section 9.4.5.
8.3	***Groundwater Monitoring Program Note: This SoC should be read in conjunction with Project Approval Schedule 4 Conditions 15***			
	The groundwater monitoring program will be an integrated monitoring program for the Abel Mine, Tasman Mine, Donaldson Mine and the Bloomfield CHPP (including the tailings disposal area) and will include: • Monthly measurement of water levels in a representative network of piezometers. Initially, all piezometers currently available would be monitored, however it is recommended that the representativeness of the piezometers be reviewed after the first two years of the project, and an appropriate suite of piezometers be selected on the basis of this review for ongoing monitoring. • All piezometers located around Pambalong Nature Reserve would continue to be monitored through the life of the project. • Quarterly sampling of all standpipe piezometers, for laboratory analysis of electrical conductivity (EC), total dissolved solids (TDS) and pH. • Annual collection of water samples from all piezometers for laboratory analysis of a broader suite of parameters: - Physical properties (EC, TDS and pH) - Major cations and anions - Nutrients - Dissolved metals • Additional sampling and/or water level measurements to confirm any variance from expected behaviour. • Additional regional monitoring piezometers will be installed in the following areas: - Multi-level piezometers to the north and west of Pambalong Nature Reserve, to provide additional data on groundwater pressures in the intervening strata between the Donaldson seams and the alluvium (supplementing the existing data from piezometers C081A and B and C082). - Multi-level piezometers along the eastern side of the Abel project area, located at nominally 3 sites between the F3 Freeway and the lease boundary, to resolve the apparent anomalous water levels below sea level at C063A and B, and to provide additional data on groundwater pressures in the intervening strata between the Donaldson seams and the Hexham Swamp alluvium. - Multi-level piezometers near the western and southern boundaries of the Abel project area to provide information on groundwater pressures at various depths, as this area currently lacks monitoring points. These piezometers	Water Management Plan, Groundwater Monitoring Program, Part A, section A.9	C	The Groundwater Monitoring Program developed for the Abel Coal Project as part of the integrated monitoring system covering the Donaldson Coal sites, includes the monitoring programs that have been operating on the Abel project site since September 2005, and will continue, including: • Monthly measurement of water levels in a representative network of piezometers. • All piezometers located around Pambalong Nature Reserve would continue to be monitored through the life of the project. • Quarterly sampling of all piezometers, for laboratory analysis of EC, TDS and pH. • Annual collection of water samples from all piezometers for laboratory analysis of a broader suite of parameters: • Physical properties (EC, TDS and pH) • Major cations and anions (Ca, Mg, Na, K, Cl, SO4, HCO3 and CO3) • Nutrients • Dissolved metals Additional piezometers are proposed to be installed around Pambalong Nature Reserve and Hexham Swamp, to facilitate monitoring of potential impacts on the wetlands due to mining: • Multi-level piezometers to the west and north of Pambalong Nature Reserve, to provide additional data on groundwater pressures in the intervening strata between the Donaldson seams and the alluvium. • Multi-level piezometers along the eastern side of the Abel project area, located between the F3 Freeway and the lease boundary, to provide

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	would also aim to provide information on the current status of groundwater in the West Borehole seam near the former workings, prior to mining of the Donaldson seams approaching that area. • The additional Pambalong and Hexham Swamp monitoring bores will be installed prior to commencement of coal extraction. The western piezometers will be installed at least five years prior to mining reaching that part of the lease. • The subsidence/fracturing monitoring piezometer network should comprise the following: – Multi-level piezometers situated centrally within the extraction panels (at least 2 locations per panel) with vibrating wire piezometers set at nominally 30m intervals from the surface down to 30m above the Upper Donaldson roof level. – Shallow standpipe piezometers adjacent to each of the above multi-level piezometers, set to the base of the colluvium/weathered bedrock zone, to monitor any impact on the surficial unconfined aquifer. Standpipe piezometers will allow repeat hydraulic testing and water quality sampling, as well as water level monitoring. The above monitoring network will be implemented prior to commencement of each extraction panel, and would be monitored closely before, during and after extraction. Based on the monitoring results during extraction of the first 4 or 5 panels, an appropriate ongoing monitoring program would be developed for the subsequent deeper panels as the mining progresses down dip.			additional data on groundwater pressures in the intervening strata between the Donaldson seams and the Hexham Swamp alluvium. Additional piezometers have been proposed for the subsidence monitoring network: • Multi-level piezometers situated centrally within the extraction panels, with vibrating wire piezometers at 30m intervals from the surface down to 30m above the Upper Donaldson roof level. • Shallow standpipe piezometers adjacent to each multi-level vibrating wire piezometer. The additional regional monitoring bores have not yet been installed but will be done so prior to mining reaching these areas. Monitoring bores for extraction panels have been completed as required.
8.4	At the end of the second year of underground mining, a comprehensive review will be undertaken of the performance of the groundwater system. This would include re-running the groundwater model in transient calibration mode, to verify that the actual inflow rates and groundwater level impacts are in accordance with the model predictions described in this report. If necessary, further adjustment would be made to the model at that time, and new forward predictions of mine inflows and water level impacts will be undertaken.	Water Management Plan, Groundwater Monitoring Program, Part A, section A.9.2	In progress	A review of the performance of the groundwater system at the end of the second year (i.e. June 2010) of underground mining including re-running the groundwater model in transient calibration mode, to verify that the actual inflow rates and groundwater level impacts are in accordance with the model predictions in the Environmental Assessment (2006) was being undertaken by Andrew Fulton Groundwater Consultant at the time of this audit.. Further development of the regional and local groundwater model will occur if necessary.
8.5	The current groundwater model will be expanded to include deeper layers and a larger area that will incorporate the Bloomfield operations and areas of possible groundwater impact around Bloomfield. It is proposed to calibrate this expanded model with ongoing monitoring data from Bloomfield, and more detailed simulation of the Donaldson mining and backfilling. Details of this model and scheduling for completion will be included in the Groundwater Management Plan.	Water Management Plan, Groundwater Monitoring Program, Part A, section A.9.2	In progress	The groundwater model used for the simulation of impacts from the Abel mine was limited to the Donaldson seams and the coal measures stratigraphically overlying them. Thus the model did not extend north of the sub-crop line of the Lower Donaldson Seam, and did not include all of the Bloomfield mining operation. Further development of the regional and local groundwater model is outlined in Part A section A.9.2 of the Water Management Plan. Section A9.2 of the 2008 Water Management

Ref	Statement of Commitments	Audit Evidence	Status	Comments
				Plan confirms this commitment and collected monitoring data is being used by the groundwater consultant to expand and calibrate the groundwater model. This expansion of the groundwater model was being undertaken by Andrew Fulton Groundwater Consultant at the time of this audit.
9.	**Visual Amenity** ***NoteThis SoC should be read in conjunction with Project Approval Schedule 5 Condition 30***			
	Visual impacts of the Abel Underground Mine portal and the Bloomfield CHPP will be ameliorated by the following strategies: (a) The access portals for the Abel underground Mine will be located in the high wall of the existing Donaldson Open Cut Pit. (b) If the overland conveyor to the Bloomfield CHPP to the Abel Underground Mine portal is constructed its maximum height will not exceed 15 metres so to ensure that it is concealed from view by the surrounding tree cover. Where possible the route will follow the existing haul roads and tree clearing will be minimised where possible to reduce the visual impact of the conveyor. (c) New buildings and structures, as well as existing buildings and structures at the Bloomfield CHPP, visible from the surrounding areas will be painted a dark charcoal colour. (d) All reasonable measures will be taken to design the stockpiles at the Bloomfield CHPP so as to minimise their visual impact on the surrounding East Maitland and Ashtonfield Areas. (e) Existing lighting will be redesigned and new lighting be designed, so as to minimise, via the use of directional lighting, light spill affecting residents in the East Mainland, Ashtonfield Areas and Black Hill areas.		C	(a) The access portals to the Abel Underground Mine are established in the high wall of the Donaldson West Mine effectively ameliorating any visual impact of the development.  Portal of the Abel Underground Coal Mine in the high-wall of the Donaldson West pit. (b) Construction of the proposed overland conveyor to Bloomfield CHPP had not commenced at the time of this audit. (c) The Bloomfield CHPP external cladding has been painted a charcoal colour to reduce the visibility of the plant to surrounding areas. (d) Stockpiles are being designed to minimise potential visual impact. (e) Lighting is shielded at the CHPP and the standard lights used on the mine site are maintained to reduce light scatter above the horizontal. Only one (1) complaint in 2008 has been received in

Ref	Statement of Commitments	Audit Evidence	Status	Comments
				relation to light. Lighting equipment has been modified to direct light down, away from potential impact areas.
10.	**Flora and Fauna** ***Note: This SoC should be read in conjunction with Project Approval Schedule 4 Condition 16 to 19 – Landscape Management Plan***			
	A Flora and Fauna Management Plan for the proposed conveyor corridor and stockpile expansion areas will be developed and implemented prior to any clearing occurring for the conveyor corridor and stockpile expansion: This plan will include: • a vegetation clearance protocol that describes the measures to be taken in order to minimise and ameliorate any impact on flora and fauna in general, and threatened species in particular, during the clearing process. • a commitment to conduct pre-clearance surveys of areas to be cleared of vegetation by a suitably qualified biologist. Searches will be conducted for threatened species of flora or fauna, trees having potential habitat hollows and any habitat assets such as large hollow logs or rocks which could be used in later rehabilitation. If any threatened species of flora are found in the planned clearing areas the Flora and Fauna Management will provide for the consideration of the following options to minimise any impact to the threatened species of flora: - modification of the area to be cleared in order to leave the flora in place. - translocation of the flora to an area of similar habitat within the Donaldson or Bloomfield properties, applying the best available knowledge about the ecology and translocation of the species. • the pre-clearing survey will be conducted about 7 days prior to commencement and involve the following: - Trees having potential habitat hollows should be clearly marked with a band of survey paint around the stem; - Habitat trees watched at dusk to determine what if any fauna are using the hollows; - At a minimum all marked trees will be left standing for at least 2 nights following the clearing to allow any mammals to vacate the trees. However as most of the areas to be cleared are narrow or in close proximity to standing forest, it cannot be guaranteed that the mammals will leave and a person experienced in capturing and handling native fauna should be in attendance when these trees are pushed over; - Any trees found to contain bats should be left standing and soft-felled at dusk after the bats have left the hollows. This should be conducted under the supervision of a suitably experienced fauna ecologist. An Ecological Monitoring Plan will be drafted and implemented prior to any mining that will impact on the areas of sub-tropical rainforest above Abel Underground Mining, and for Pambalong Nature Reserve, outside of the mining area to the southeast. These two areas will be monitored as follows: **Sub-tropical Rainforest Monitoring plan** The collection of the following data: • At suitable locations, record the outer boundary between the rainforest and the surrounding dry forest in order to monitor the stability of the community;	Flora and Fauna Management Plan, Section 5.2, October 2007 Flora and Fauna Management Plan, Vegetation Clearance Protocol, October 2007	C	The Flora and Fauna Management Plan includes the Vegetation Clearance Protocol that addresses land and vegetation clearing for the installation of any surface infrastructure, (including the proposed conveyor to Bloomfield CHPP). No clearing for the proposed conveyor corridor to Bloomfield CHPP or expanded stockpile area had occurred at the time of this audit. • A Vegetation Clearance Protocol and Threatened Species management Protocol is included in the Flora and Fauna Management Plan and would be triggered prior to any clearance associated with the mine activities or accordance with the commitment in this SoC. **Ecological Monitoring Plan** An Ecological Monitoring Plan has been implemented prior to any mining that will impact on the areas of sub-tropical rainforest above Abel Underground Mining, and for Pambalong Nature Reserve, outside of the mining area to the southeast. Mining has not yet reached these areas or any works that are likely to impact upon these areas. However, a monitoring plan has been developed and background monitoring is being undertaken (see below). **Sub-tropical Rainforest Monitoring Plan** Sub-tropical Rainforest Monitoring Plan 2008 is included in the Flora and Fauna Management Plan and monitoring reports are attached to the

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	• Establish groundwater piezometers to record water depth; • Establish permanent transects along which floristic content is recorded; and • Monitor the stability of selected major rock formations that occur in or near the rainforest. **Pambalong Nature Reserve Monitoring** The data to be collected would be as follows: • Rainfall in the catchments supplying water to Pambalong Nature Reserve; • Water levels in PNR; • Annual fauna monitoring with emphasis on birds and amphibians; and • Broad vegetation communities and their boundaries.			AEMR's in Appendix 5. **Pambalong Nature Reserve Monitoring Plan** Pambalong Nature Reserve Monitoring Plan 2008 is included in the Flora and Fauna Management Plan. Monitoring is undertaken and reported annually by Ecobiological and attached to the AEMR's in Appendix 4.
11.	**Aboriginal Heritage** ***Note: SoC 11 should be read in conjunction with MCoA Schedule 4 Condition 28 and 29***			
11.1	During any construction phase if any Aboriginal sites or relics are uncovered the NSW DEC will be informed. In the event that a site or relic is found then work in the area of the find will cease until it is assessed for significance and an appropriate management strategy is devised if necessary.		Not triggered	It was reported that no Aboriginal sites or relics had been identified in the areas of disturbance of the Abel Coal Mine activities, so no notification to the DEC (OEH) have been required.
Note: SoC 11.2 should be read in conjunction with MCoA Schedule 4 Condition 29 - Aboriginal Heritage Management Plan				
11.2	An Aboriginal Heritage Management Plan will be implemented in consultation with the relevant Aboriginal stakeholders to specify the policies and actions required to mitigate and manage the potential impacts of the proposal on Aboriginal heritage.	Aboriginal Heritage Management Plan, Nov 2007	C	This Aboriginal Heritage Management Plan was prepared in consultation with the DECC and the Mindaribba and Awakabal Aboriginal Land Councils in November 2007. The Plan was revised and approved by DoP on 11 February 2008 and endorsed by the Local Aboriginal Land Councils.
11.3	The plan will provide procedures for: • ongoing Aboriginal consultation and involvement, • maintenance of an Aboriginal site database, • management of recorded sites within the investigation area, • further archaeological investigation prior to undermining, The plan will be regularly verified to establish that it is functioning as designed (ie. policies adhered to and actions implemented) to the standard required	Aboriginal Heritage Management Plan, Nov 2007	C	The Aboriginal Heritage Management Plan includes: • protocol for the ongoing consultation and involvement of Aboriginal communities in the conservation and management of Aboriginal heritage - Section 4.2 Aboriginal Community Involvement; • a comprehensive Aboriginal heritage survey has been conducted across the Abel Site, staged so as to be complete prior to any disturbance – Table 1; • salvage program for temporarily storing and then replacing retrieved material ; • Measures to be implemented to protect Aboriginal sites on site – section 4.5, or if any new Aboriginal objects or skeletal remains are discovered - Section 4.7 Identification of Previously Unidentified Aboriginal Sites and Section 4.8 Identification of Human Skeletal Remains.
11.4	Continued use of surface infrastructure and construction of new surface infrastructure will be assessed against the location of identified Aboriginal heritage evidence and where impacts may occur, mitigation measures will be	Aboriginal Heritage Management Plan, Nov 2007	C	The implementation of the Aboriginal Heritage Management Plan provides for the management of the known sites.

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	implemented as specified in the Aboriginal Heritage Management Plan.			
11.5	The Company will seek to minimise impacts to any identified and potential Aboriginal heritage evidence within the northern investigation area and to conserve identified evidence where impacts are not required to occur for operational reasons.	Aboriginal Heritage Management Plan, Nov 2007	C	The implementation of the Aboriginal Heritage Management Plan provides for the management of the known sites, and implementation of mitigation measures to protect any identified sites.
11.6	The Company will seek to mitigate impacts to any identified and potential Aboriginal heritage evidence within the northern investigation area where impacts must occur for operational reasons. Staged systematic archaeological survey of each section proposed to be undermined in the southern investigation area will occur with the participation of the Aboriginal stakeholders prior to any underground mining in that section. The survey will sample the geographic extent of each section. The nature, level of integrity, potential impacts and scientific and cultural significance of any evidence identified will be assessed in consultation with the Aboriginal stake holders and mitigation measures implemented as per the Aboriginal Heritage Management Plan.	Aboriginal Heritage Management Plan section 4.4 and Table 3, Nov 2007 .	NC	The Aboriginal Heritage Management Plan includes: • protocol for the ongoing consultation and involvement of Aboriginal communities; • a comprehensive Aboriginal heritage survey conducted across the Abel Site, staged so as to be complete prior to any Area disturbance; • salvage program for temporary storage and then replacement of retrieved material ; • measures implemented to protect Aboriginal sites– section 4.5, or if any new Aboriginal objects or skeletal remains are discovered - Section 4.7 Identification of Previously Unidentified Aboriginal Sites and Section 4.8 Identification of Human Skeletal Remains. A survey was not completed for the Panel 1 area but a systematic survey will be completed for future Areas prior to mining that may lead to subsidence from future panels.
11.7	Where site types susceptible to subsidence impacts (grinding grooves and rock shelters) are identified within the southern investigation area, an assessment of the potential impacts of subsidence will be undertaken by an appropriately qualified expert. Where it is determined that subsidence may impact a grinding groove or rock shelter site (including shelters with 'Potential Archaeological Deposits'), mitigation measures will be implemented to ensure that any impact is acceptable.	Aboriginal Heritage Management Plan, section 4.4, Nov 2007	C	Management of recorded Aboriginal sites within the surface impact area is addressed in section 4.4 of the Aboriginal Heritage Management Plan. No Aboriginal artefacts are expected to be impacted by subsidence within SMP Area 1 or Area 2.
11.8	A regional monitoring network for Aboriginal heritage across the Abel, Tasman, Donaldson and Bloomfield sites will be established, including continuation of the existing programme of monitoring in the Donaldson Bushland Conservation Areas, monitoring before and after undermining for a sample of Aboriginal sites within the southern investigation area for which it is not anticipated that subsidence related impacts will occur, monitoring before and after undermining for all Aboriginal sites for which it is inferred that undermining may result in impacts in order to ensure the adequacy of conservation measures around those sites, and documentation of the results of all monitoring in an annual report.	Aboriginal Heritage Management Plan, section 4.9, Tables 2 and 3, Nov 2007	C	Monitoring of the recorded Aboriginal sites is addressed in section 4.9, and Tables 2, 3 and 4 of the Aboriginal Heritage Management Plan, Nov 2007. A Regional monitoring network (section 4.9 of the Aboriginal Heritage Management Plan addressing regional monitoring) has been established to monitor sites before and after underground mining.
11.9	The Company will continue to consult with and involve the registered Aboriginal stakeholders, particularly the Local Aboriginal Land Councils, in the ongoing management of the heritage resources within the investigation area as per the Aboriginal Heritage Management Plan. Should any previously unrecorded Aboriginal heritage evidence be identified	Aboriginal Heritage Management Plan, sections 4.1 and 4.2, Nov 2007 Aboriginal Heritage	C	Consultation with the Mindaribba and Awakabal Aboriginal Land Councils has occurred in relation to the identified Aboriginal sites. Ongoing consultation will occur in accordance with sections 4.1 and 4.2 of the Aboriginal Heritage

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	within the lease area during the course of operations, Donaldson will ensure that this evidence is subject to temporary conservation and is recorded and appropriate management strategies are implemented in consultation with the Aboriginal community as per the Aboriginal Heritage Management Plan. Donaldson will maintain a current database providing details of all identified Aboriginal heritage evidence within the lease area so that the Aboriginal Heritage Management Plan can be effectively implemented and records for any Aboriginal sites identified and copies of all reports prepared in relation to ongoing monitoring and archaeological studies associated with the project will be lodged in a timely manner with DEC.	Management Plan, sections 4.7, Nov 2007 Aboriginal Heritage Management Plan, section 4.3 – Aboriginal Site Database, Nov 2007		Management Plan. Management of previously unrecorded Aboriginal sites will occur in accordance with section 4.7 of the Aboriginal Heritage Management Plan. The database of Aboriginal sites is addressed in section 4.3 and Table 1 of the Aboriginal Heritage Management Plan. The database was established from the Aboriginal heritage surveys conducted for the site areas. No additional sites had been identified in the 2009-2011 period.
11. 10	In order to form an integrated monitoring network for Aboriginal heritage across the Abel, Tasman, Donaldson and Bloomfield sites, it is proposed for the duration of the mining leases to: • Continue the existing programme of monitoring in the Donaldson Bushland Conservation Areas to ensure that the condition of a sample of Aboriginal heritage sites that occur within the northern investigation area is regularly assessed. This will involve monitoring on an annual basis the seven existing datum points within the Conservation Area by a qualified archaeologist and representatives of the Mindaribba LALC; • A sample of Aboriginal heritage sites within the southern investigation area, comprising site types for which it is not anticipated that subsidence related impacts will occur, will be monitored before and after undermining in their vicinity to confirm the accuracy of these predictions. This will involve inspections prior to undermining then at set periods after undermining by a qualified archaeologist and representatives of the relevant LALC; • All Aboriginal heritage sites for which it is inferred that undermining may result in impacts (ie. rock shelter and grinding groove sites) will be monitored before and after undermining in their vicinity to ensure the adequacy of conservation measures around those sites. This will involve inspections prior to undermining then at set periods after undermining by a qualified archaeologist and representatives of the relevant LALC; • An annual report documenting the results of monitoring will be prepared and provided to the relevant LALC and DEC detailing the methodology of the inspections, conditions of the environment and Aboriginal heritage evidence at the relevant sites, comparisons with previously reported descriptions of each site, identification of any natural and/or human impacts during the intervening period, and identification of any implications for ongoing management and protection of the Aboriginal heritage evidence throughout the lease areas.	Aboriginal Heritage Management Plan, sections 4.9, Table 2 and Table 4, Nov 2007 Aboriginal Heritage Management Plan, Table 2, Nov 2007 Integrated Environmental Monitoring Program	C	Results of the any ongoing monitoring of identified Aboriginal sites, is reported in the AEMR.
12.	**Environmental Management System** ***Note: This SoC should be read in conjunction with Project Approval Schedule 5, Condition 1***			
	The Environmental Management Plan outlined in Chapter 8 of the Environmental Assessment will be prepared within 6 months of this approval being granted, to the satisfaction of the Department of Planning. The EMP will address, separately for the Abel Underground Mine and the Bloomfield CHPP (unless otherwise specified), the following specific issues for	Environmental Management Strategy EMS Operating Manual EMS-01, 24 Oct 2007 Letter to DoP re EMS, 7 Dec 2007	C	The IEMS Operating Manual (EOM-1) developed by Donaldson Coal provides an integrated environmental management strategy (or System) for all the Donaldson Coal operations (i.e Donaldson Mine, Tasman Mine, and Abel

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	both construction and operation of the proposed mine: • Construction Management Plan; • Community Involvement Plan; • Noise Management Plan; • Water Management Plan; • Waste Management Plan; • Air Quality Management Plan; • Erosion and Sediment Control Plan; • Flora and Fauna Management Plan; • Heritage and Archaeology Area Management Plans; • Landscape Management Plan; • Rehabilitation Management Plan; • Groundwater Management Plan; • Subsidence Management Plan; • Watercourse Subsidence Management Plan; • Dam Subsidence and Repair Management Plan; • Gas Management Plan • Bloomfield CHPP and RLF Environmental Management Plan Where appropriate the above plans will be integrated plans which will apply across the following mining operation areas: • Proposed Abel Underground Mine; • Tasman Underground Mine; • Donaldson Open Cut Mine; and • Bloomfield Coal Handling and Preparation Plant (CHPP) and Rail Loading Facility (RLF). The Environmental Management Plan will include: • The Company Environmental Policy that guides the direction of environmental management and provides Company commitment to environmental protection, mitigation and management. • Objectives, including legislative requirements to be met and relevant guidelines and Standards; • Work procedures, which detail in practical terms what will be undertaken, when and by whom; • Monitoring, including what will be monitored, when and where this will occur, and reporting of results; • Review procedures, being when the management plan and contents will be reviewed; • Feedback mechanisms, to ensure that any required changes to the Plan, due to a review or other mechanism such as other risk assessment, are made and the plan updated; • Training, describing how employees and contractors are trained in the documented procedures and updated on an ongoing basis when changes are made; and • Emergency response procedures. The Company will prepare and implement an Environmental Due Diligence	Letter from DoP re Comments on the EMS, 11 Feb 2008 Letter to DoP re Revised EMS, 19 Feb 2008 Letter from DoP re EMS Approval, 26 Feb 2008 Noise Management Plan, May 2008 Water Management Plan, Mar 2008 Air Quality Monitoring Plan, Feb 2008 Flora and Fauna Management Plan, Oct 2007 Aboriginal and Cultural Heritage Management Plan, Nov 2007 Landscape Management Plan, Mar 2008 Rehabilitation Management Plan, March 2008 Groundwater Management Plan, Mar 2008 Subsidence Management Plan Area 1 Subsidence Management Plan Area 2		Underground Mine and the associated Bloomfield Operations comprising CHPP and rail loading facility). The IEMS includes the components to satisfy the requirements of Project Approval Schedule 5 Condition 1. • Refer to Schedule 4 Condition 6 and 7 – Subsidence Management Plan • Refer to 4 Condition 10 – Water Management Plan • Refer to Schedule 4 Condition 12 – Erosion and Sediment Control Plan • Refer to Schedule 4 Condition 17 - Landscape Management Plan • Refer to Schedule 4 Condition 18 - Rehabilitation Management Plan • Refer to Schedule 4 Condition 26 and 27 – Aboriginal Heritage Management Plan. The following integrated plans have been developed for the Donaldson operations: • Environmental Management Strategy • Environmental Monitoring Program • Water Management Plan • Landscape Management Plan The Environmental Management Strategy developed for the Abel Mine operations addresses the elements of ISO14001: • Environmental Policy – Appendix 1 • Objectives of the EMS – section 3.0 • Environmental Work Procedures – section 10; • Monitoring and Measurement – section 13.2; • Review Procedures – section 13.0; • Feedback mechanisms – section 13.5; • Training – section12.1; • Emergency Response Procedures – section 12.3 The IEMS Operating Manual (EOM-1) provides an integrated environmental management strategy (or System) for all the Donaldson Coal operations (i.e Donaldson Mine, Tasman Mine, and Abel Underground Mine and the associated Bloomfield Operations comprising coal handling and preparation plant and rail loading facility). The EMS covers all listed plans (some of which are covered in the respective monitoring program)

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	Training Program which will focus on the following matters: • The EMS; • Environment Protection legislation; • Understanding Due Diligence; • Specific Environmental Impacts of construction and operation of the mine; • The Company Safety Health Environmental Policy; • Reporting and recording environmental incidents; • Site environmental management. The mine Site Manager or his/her nominee shall be responsible for implementing the EMS.			with the exception of Gas Management which will be developed in the unlikely event that gas is suspected to occur. The EMP includes all of the required elements.
13.	**Rehabilitation** ***Note: This SoC should be read in conjunction with Project Approval Schedule 4 Condition 16 to 22***			
	The Company commits to rehabilitating the Abel Underground Mine area and Abel pit top in accordance with DOP and DPI guidelines. This includes ongoing rehabilitation in response to mine subsidence as well as rehabilitation of pit top areas after completion of mining. The Company will provide a Mine Closure Plan as part of the MOP required under the relevant condition of the mining lease for the Abel Underground Mine. This Mine Closure Plan will be produced in consultation with DOP, DPI and other stakeholders as required.	Landscape Management Plan, March 2008 Landscape Management Plan, Appendix 3 – Rehabilitation Plan, March 2008 Landscape Management Plan, Landscape Management Plan, Appendix 4 – Final Void Management Plan, March 2008 Appendix 5 – Mine Closure Plan, March 2008 Mining Operations Plan, section 4, May 2008,	Compliant - ongoing	The Mining Operations Plan for June 2008 to December 2009 was prepared and submitted to DPI on 28 May 2008. The MOP contained an outline of the proposed rehabilitation activities for the Abel Mine. The Mining Operations Plan for period ending 31 December 2016 was prepared and submitted to DI&I NSW on 23 December 2009. The MOP contains an outline of the proposed Rehabilitation activities for the Abel Mine. The Abel Underground Coal Mine Landscape Management Plan includes a Mine Closure Plan
14.	**Site Security**			
	Unauthorised entry of people into the Abel Underground Mine Portal Surface works and the Bloomfield CHPP is to be prevented to ensure site security and to prevent damage to components of the mine particularly damage which may result in harm to the environment.		C	The mine site has a security fence around the mining lease area and a boom gate at the entrance to the mine site on the main access road. Afterhours security personnel are also employed.
15.	**Community Consultation** ***Note: SoC 13 should be read in conjunction with MCoA Schedule 5 Condition 8 and 9.***			
	A Community Liaison Committee will be created which will meet on a regular basis to review environmental performance of the Abel Underground Mine and the Bloomfield CHPP. Membership of the Committee is to be determined by the Company and the Committee is to be chaired by an Independent Facilitator and will include representatives of the local community and adjoining property holders, DOP, the DEC and local councils. The Environment Protection Licence for the mine will require the Company to keep a record of all complaints made in relation to pollution arising from any activity to which this Licence applies and will also specify the details to be provided in the record and a complaints handling procedure. The Environment Protection Licence for the mine will require that a telephone complaints line operates during the operating hours of the premises for the purpose of receiving any complaints from members of the public and that the telephone number of this line be notified to the community.	CCC Minutes of Meeting No.1, 5 December 2007 CCC Minutes of Meeting No.2, 11 March 2008 Draft DECC EPL condition M.4 Draft DECC EPL condition M.5	C	Hon. Mr Milton Morris - Chairman The Mayor, Cr Peter Blackmore - Maitland City Council Mr Alan Brown - Community Member Mr Allan Jennings - Community Member Mr Terry Lewin - Community Member Mr Andrew Pace - Community Member Mr Brad Ure - Community Member Mr Phillip Brown - Environment Manager, Donaldson Coal Ms Karen Halliday – Bloomfield Colliery Initial CCC Meetings were held in December 2007 and March 2008 at the Blackhill Public School. Meetings have since been held in the Abel Coal

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	A 24 hour telephone complaints line will be established and the local community will be notified of the phone number. Complaints received, information from the complainant, including the nature of the complaint would be recorded. The appropriate site manager or his/her nominee will undertake an immediate investigation into the cause of any complaint relating to operations of the site and in particular environmental issues and will ensure that corrective action is taken as required. The appropriate site manager or his/her nominee will provide the complainant with an explanation of the cause of any environmental incident and details of any actions taken to mitigate its effect. If necessary, the appropriate site manager would initiate further corrective action, such as introducing changes in operational procedures, work instructions or modifications to equipment etc as may be required to reduce the possibility of further environmental incidents. A record of all complaints received will be kept on site for 4 years.	http://www.gloucestercoal.com.au/community_environment/environment/abel/		Administrative offices on the mine site. Minutes of the meetings were taken by Phil Brown of Donaldson Coal and distributed to the CCC members, Director-General and posted onto the Donaldson Coal website – http://www.gloucestercoal.com.au/community_environment/environment/abel/ 24 Hour complaints line established for the community and notified on the Donaldson website and through the CCC – 1800 111 271. The complaints lines has been operational in the 2008 to 2011 period. A record of complaints received is maintained by the company for 4 years.
16.	**Environmental Incidents**			
16.1	Prior to commencement of construction an Emergency Response Plan (ERP) will be prepared for the site which will describe the general policy and approach to be adopted by The Company when managing and responding to an emergency or incident at the site. The ERP will contain a specific definition of 'incident' and 'environmental incident' that is to be consistent with the definition of 'incident' in the POEO Act.	EMS section 12.3 – Emergency Response and Preparedness Plan (EME-3) Emergency Incidents Reporting Form (EME-2)	C	A specific Emergency Response Plan has been developed by the Abel Coal Project team to provide procedures and processes for response to any incident related to the project. There is also an Emergency Response and Preparedness Plans as part of the Integrated EMS to address ant significant environmental emergencies that may affect adjacent operations to ensure that effective response is initiated to minimise any potential environmental impact should an incident occur.
16.2	In accordance with Part 5.7 of the POEO Act , the appropriate site manager must notify the NSW DEC of 'incidents' which occur in the course of operations of the AUP where material harm to the environment is caused or threatened, as soon as practicable after they become aware of the incident or threatened material harm.	Emergency Response and Preparedness Plan (EME-3) Draft EPL No. 12856, condition R2.	Noted	
16.3	Initial notification of an 'incident' (as defined) is to be made by telephoning the NSW DEC's Pollution Line.		Noted	Notification to the Pollution Hotline would occur in the event of any reportable incident.
16.4	The following information related to an incident will be required: • The time, date, nature, duration and location of the incident; • The location of the place where pollution is occurring or is likely to occur; • The nature, the estimated quantity or volume and the concentration of any pollutants involved; • The circumstances in which the incident occurred (including the cause of the incident, if known); • The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution; and • Other relevant information.	Emergency Response and Preparedness Plan (EME-3) Emergency Incidents Reporting Form (EME-2)	Noted	The following information is recorded in the Incident Register: • The time, date, nature, duration and location of the incident; • The nature, the estimated quantity or volume and the concentration of any pollutants involved; • The circumstances in which the incident occurred; • The action taken or proposed to be taken to

Ref	Statement of Commitments	Audit Evidence	Status	Comments
				deal with the incident and any resulting pollution or threatened pollution; and • Other relevant information.
16.5	The appropriate site manager will assess specific incidents taking into consideration the impact(s) on the environment, to determine whether what resources are required to determine what response is required, or to assist in responding to the impacts. The appropriate site manager would contact an outside agency if required.	Emergency Response and Preparedness Plan (EME-3)	Noted	Incidents are assessed and recorded by the Environmental Manager.
16.6	All employees working on the site will be responsible for ensuring that the appropriate site manager is informed of any environmental incidents. All environmental incidents would be recorded on an Environmental Incident Report form. As required by Part 5.7 of the POEO Act and the EPL, the Site Manager must notify the NSW DEC of incidents, or the threat of material harm to the environment, as soon as practicable after they become aware of the incident or threat of material harm.	EPL No. 12856, condition R2. Abel Mine Environmental Induction	Noted	
16.7	The management strategies for responding to and controlling incidents and/or emergencies will include the following: ***General Procedures*** • Provide adequate resources including staffing and fire fighting equipment; • Training of staff so that a high level of preparedness is maintained by all people who could be involved in an emergency; • Provide a first aid station which would be fully equipped and maintained at the site; and • Periodic review and update of emergency procedures for the site. ***Fire*** • Consultation has been initiated with the NSW Rural Fire Service and this would be ongoing; • Consult with adjoining landholders; • Undertake hazard reduction as required; • Provide fire fighting equipment at site buildings; • Provide clear signposting and access for all fire fighting equipment; • Make available water for fire fighting from water holding tanks or mains; and • Regularly inspect and maintain fire fighting equipment. ***Chemicals*** • Store all chemicals in appropriately bunded areas in accordance with their Material Safety Data Sheets (MSDS) and the relevant Australian Standards; and • Store all fuels or flammable solvents in adequately ventilated areas.	Emergency Response and Preparedness Plan (EME-3)	Noted	
16.8	All environmental incidents are to be recorded on an Environmental Incident Report form.	Emergency Incidents Reporting Form (EME-2)	C	An environmental incidents register is maintained.
16.9	An Environmental Incident Folder is to be maintained and shall contain the following: • Copies of work instructions on how to deal with particular situations; • Incident contact names/numbers; and • Environmental Incident Report form containing all the details required in the "Notification of Environmental Harm" procedure.	Emergency Incidents Reporting Form (EME-2)	Noted	The environmental incidents file contains the incidents register and reference to the work instructions, contacts etc as required.

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	Subsidence Specific Commitments by the Company ***Note: These SoC's (A-O) will be addressed in the Subsidence Management Plan or other specific plans prior to 2nd workings.***			
A.	**Principal Residences**			
	The Company commits to producing and implementing a plan of management for each Principal Residence existing at the date of approval of this project. A Principal Residence is defined as an existing building capable of being occupied as a separate domicile and used for such purpose. The plan of management will be produced and implemented as follows: A1. Each Principal Residence will be individually assessed by the Mines Subsidence Board /structural engineer who will determine tolerable levels for individual subsidence parameters. Tolerable limits are those limits which will result in no mitigation works being required to the Principal Residence due to subsidence impacts from the Abel Underground Mine. A2. Each Principal Residence will have a pre-mining survey to identify and record pre-existing imperfections that will not be covered by the Mines Subsidence Board. A3. Such assessments will be done as and when the progression of the mining process dictates – i.e. mining may have commenced in other areas prior to the individual Principal Residence assessment being undertaken. A4. Tolerable levels will be set according to such factors as dwelling construction (e.g. brick veneer, clad), type (single, double storey), size (length and width), footings (slab, strip footings, piers), surface conditions (sand, rock, clay, steep slope) etc, with reference to the MSB Graduated Guidelines (compatible with AS 2870 and the Building Code of Australia). A5. The mine plan in proximity to each Principal Residence will be modified by the Company to maintain subsidence parameters within the tolerable levels determined above for each Principal Residence. A6. The mine plan will be reviewed by the MSB and the DPI prior to any Subsidence Management Plan being approved under the relevant lease. A7. Each Principal Residence will have a specific subsidence monitoring plan to monitor subsidence impacts before and after mining at the Principal Residence and to ensure that tolerable limits are achieved in practice. A8. The Mines Subsidence Board has the responsibility to rectify any impacts to structures that may occur as a result of mining. In cases where the owner of the Principal Residence and the Company can agree to terms which permit second workings under the Principal Residence greater than those permitted above, the Company agrees to negotiate a plan of management similar to that proposed in the section of this Statement of Commitments titled "All Other Surface Structures"..		Not yet applicable	The only listed Principal Residence within subsidence management Area 1 is the Boral Hotmix Plant. No workings have occurred or are planned to occur beneath the Boral facilities. Specific Subsidence Management Plans have been prepared for the principal residences located within SMP Area 2.
B.	**Future Principal Residence**			
	If there is no existing residence on a landholding and a residence is planned to be built, the site for this Future Principal Residence will be protected in the same way as that proposed above for Principal Residences. This commitment applies to a maximum of one Future Principal Residence per landholding. *NOTE: Once the Mine Subsidence District is declared for the area all Future Principal Residences will require approval from the Mine Subsidence Board*		Noted	

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	and must comply with the Mine Subsidence Compensation Act 1961.			
C.	**Black Hill School**			
	All buildings and structures located at Black Hill School will be managed as if they were a Principal Residence.		Noted	
D.	**Black Hill Church and Cemetery**			
	The Black Hill Church and cemetery will be managed as if they were a Principal Residence.		Noted	
E.	**All Other Surface Structures**			
	"All Other Surface Structures" is defined as any building or structure impacted by mining-induced subsidence from the Abel Underground Mine Project which is not categorised as a Principal Residence, Future Principal Residence, Black Hill Church and Cemetery or Black Hill School. The Company shall prepare and implement plans of management for the mitigation and remediation of any damage to All Other Surface Structures prior to any mining occurring that would impact on them. The plan of management will include: (a) pre-mining audit of the structure; (b) the provision of a plan of management as part of the SMP approval process which requires the Company to mitigate/remediate any damage to improvements associated with the structure in conjunction with the Mines Subsidence Board; (c) post-mining monitoring of the improvements associated with the Structure. The mitigation/remediation measures to be undertaken will be related to the extent of damage experienced – see Schedule 1 for details.		C	Property Management Plans have been prepared for areas undermined during the 2008 to 2011 period.
F.	**Dams**			
	A Dam Monitoring and Management Strategy (DMMS) will be formulated for all dams prior to any mining occurring which will impact on the dams. The DMMS will provide for: F1. The individual inspection of each dam by a qualified engineer for: • current water storage level; • current water quality (EC and pH); • wall orientation relative to the potential cracking; • wall size (length, width and thickness); • construction method and soil / fill materials; • wall status (presence of rilling / piping / erosion / vegetation cover); • potential for safety risk to people or animals; • downstream receptors, such as minor or major streams, roads, tracks or other farm infrastructure; and • potential outwash effects. F2. Photographs of each dam will be taken prior to and after undermining, when the majority of predicted subsidence has occurred. F3. Dam water levels, pH and EC will be monitored prior to and after undermining to assess the baseline and post mining dam water level and water quality in order to determine whether rehabilitation is required. F4. In the event that subsidence / crack development monitoring indicates a significant potential for dam wall failure, dam water will be managed in one of	Flora and Fauna Management Plan, section 5.2.1 Dam Monitoring and Management Dam Monitoring and Management Plan, 2008 Baseline Report, Ecobiological, December 2008 Dam Monitoring and Management Plan : 2009 Monitoring Report, Ecobiological January 2010	C Ongoing	The monitoring and management of dams is outlined in the Flora and Fauna Management Plan. A baseline set of data for the farm dams identified in the Environmental Assessment (2007) focussing on the threatened flora and fauna is included in the Flora and Fauna Management Plan with target species and appropriate methods and monitoring provided. This program has been implemented to collect background information prior to underground mining occurring in the vicinity of the dams. No workings have occurred under the nominated dams at the time of this audit. Ecological aspects of the monitoring and management of dams is outlined in the Flora and Fauna Management Plan section 5.2.1.

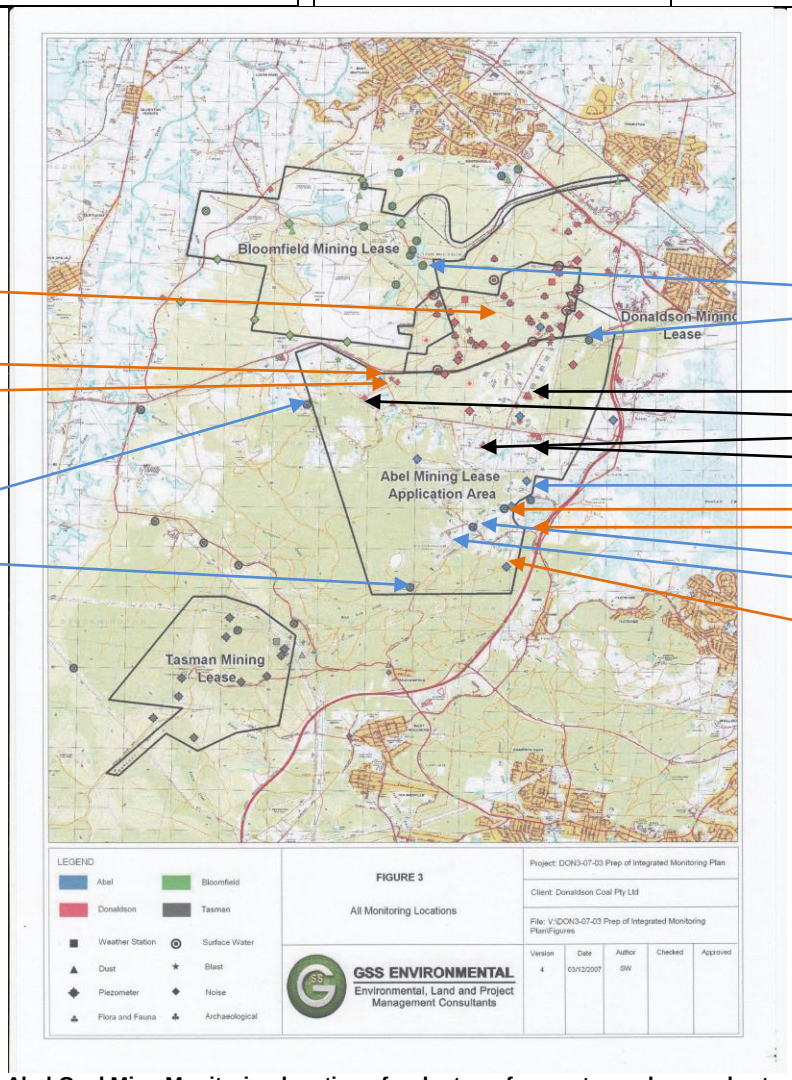
Ref	Statement of Commitments	Audit Evidence	Status	Comments
	the following manners: • pumped to an adjacent dam to lower the water level to a manageable height that reduces the risk of dam wall failure, • discharged to a lower dam via existing channels if the water can not be transferred, or • not transferred if the dam water level is sufficiently low to pose a minor risk. An alternate water supply will be provided to the dam owner until the dam can be reinstated. F5. In the event of subsidence damage to any dams the Company shall remediate the damage and reinstate the dam in conjunction with the Mine Subsidence Board.			Baseline data for the farm dams was completed in 2008 and further monitoring has been conducted in 2009 and 2010 by Ecobiological Consultants.
G.	**Public Roads**			
	The Company shall prepare and implement a plan of management as part of the SMP process implemented under the mining lease for the Abel Underground Mine. This plan of management will ensure the safety and serviceability of public roads and 4WD tracks and existing fire fighting access tracks.	Public Safety Management Plan, Area 1, Oct 2010 Public Safety Management Plan, Area 2 May 2011.	C	The commitment in this SoC will be included in the Subsidence Management Plans as they are developed prior to 2nd workings. Safety and serviceability of roads is covered within the Public Safety Management Plans prepared for Area 1 and Area 2.
H.	**Powerlines**			
	The Company shall prepare and implement a plan of management as part of the SMP process which will ensure the safety and serviceability of powerlines.	Subsidence Management Plan - Energy Australia Powerline Management Plan, Area 1, Panel 1 section 11.2.8 Subsidence Management Plan - Energy Australia Power-line Management Plan, Area 2, Panel 1 section 11.2.8	C	The commitment in this SoC is included in the Subsidence Management Plans: Energy Australia Power-line Management Plan SMP Area 1 Panel 1 section 11.2.8, and Area 2 section 11.2.8.
I.	**Gas Pipeline**			
	The Company shall prepare and implement a plan of management as part of the SMP process which will ensure the safety and serviceability of the gas pipeline.		Not yet activated	The commitment in this SoC will be included in the Subsidence Management Plan prior to second workings beneath gas pipelines, where required.
J.	**Survey Marks**			
	At the completion of subsidence or otherwise as required by Government Authorities, the functionalities of any survey marks affected by subsidence will be fully restored to the satisfaction of the Government Authorities.		Noted	No survey marks have been affected by the Abel workings at the time of this audit.
K.	**Cliffs** ***Note: SoC K should be read in conjunction with MCoA Schedule 4 Condition 3***			
	Trigger-action response plans (TARPs) will be developed by the Company based on consultation with DEC and Local Councils to ensure the general public and employees working in the vicinity of the cliffs are not exposed to rock falls caused by mine subsidence damage. Appropriate rock fall hazard controls may include such items as rock fall catch ditches, barrier fencing, earth mounds and warning signs installed at appropriate locations to promote awareness that a rock fall hazard could exist along the top and bottom of cliff lines that will be undermined.		Not yet activated	No proposed mining is planned to occur under cliff areas located within SMP Area 1 or Area 2
L.	**Water Supply**			
	In the event of interruptions to water supplies due to subsidence impacts on	Property and Land	Noted	This SoC had not been activated at the date of

Ref	Statement of Commitments	Audit Evidence	Status	Comments
	farm dams, water tank pipelines, water mains and irrigation systems within the application area, the Company commits to providing water supplies of equivalent quality and quantity to locations convenient to those affected until such time that the affected farm dams, water tanks, pipelines, water mains and irrigation systems are restored.	Management Plans		this audit. No impacts to domestic water supply had occurred as a result of mining operations prior to this audit. Property and Land Management Plans have been prepared for relevant landholdings to address this issue, should it arise.
M.	**General Surface Water Flow**			
	The Company shall prepare and implement a plan of management to maintain surface drainage of areas surrounding any dwellings and other structures or infrastructure, where required. This plan shall include monitoring, mitigation or remediation of mining-induced ponding, drainage pattern changes, any resulting serviceability difficulties and/or hazards to the public.	Property and Land Management Plans	Not yet activated	The commitment in this SoC will be included in the Subsidence Management Plan. Property and Land Management Plans have been prepared for relevant landholdings.
N.	**Public Safety**			
	The Company shall prepare and implement a surface safety management program to ensure public safety in any surface areas that may be affected by subsidence arising from the proposed underground mining. This program shall include, but not be limited to, regular monitoring of areas posing safety risks, erection of warning signs, entry restrictions, backfilling of dangerous surface cracks and securing of unstable man-made structures or rockmass, where required and appropriate, and the provision of timely notification of mining progress to the community and any other relevant Stakeholders where management of public safety is required.	Public Safety Management Plan, Area 1 (December 2009 Public Safety Management Plan, Area 2 (May 2011).	Not yet activated	The commitment in this SoC is included in the Subsidence Management Plans. A Public Safety Management Plan (December 2009) has been prepared for Area 1 and for Area 2 (May 2011).
O.	**Landowner Agreements** ***Note: Soc should be read in conjunction with Project Approval Schedule 4 Condition 6***			
	The Company will enter into separate arrangements with Coal and Allied for its Black Hill land and with the Catholic Diocese of Maitland and Newcastle with regard to an agreed mining schedule underneath these respective lands. These arrangements will set timeframes for the completion of mining beneath these areas.		C Ongoing	An Agreement has been reached with Diocese of Maitland and Newcastle Catholic Church in relation to the mining schedule. Other agreements will be negotiated as applicable.

Attachment C
Environment Protection Licence No. 12856

EPL No.	Condition	Verification	Compliance	Comments
1	**Administrative conditions**			
A1	**What the licence authorises and regulates**			
A1.1	Not applicable.			
A1.2	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.		Noted	
	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. **Scheduled Activity** Mining for coal Coal Works		C	The mining of coal and coal works have not exceeded the maximum scale of activity specified in this condition.
A2.1	The licence applies to the following premises: **Premises Details** Abel Underground Mine 1132 John Renshaw Drive Blackhill NSW 2322 *The premise is as described in Appendix 1 Abel Coal Project Approval approved 7 June 2007.*		Noted	
A3.1	Not applicable.			
A4	**Information supplied to the EPA**			
A4.1	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		Noted	
2	**Discharges to air and water and applications to land**			
P1	**Location of monitoring/discharge points and areas**			
P1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.		Noted	
	Air **EPA No** / **Type of Monitoring** / **Description of Location** 1 / Particulates - deposited matter / At locations where dust deposition levels are representative of the levels experienced at residential 2 / Total suspended		C	

		particles (TSP) matter	properties, or other sensitive receivers, resulting from the operation of the mine.			
	3	Particulate matter <10um (PM10)				



Abel Coal Mine Monitoring locations for dust, surface water and groundwater

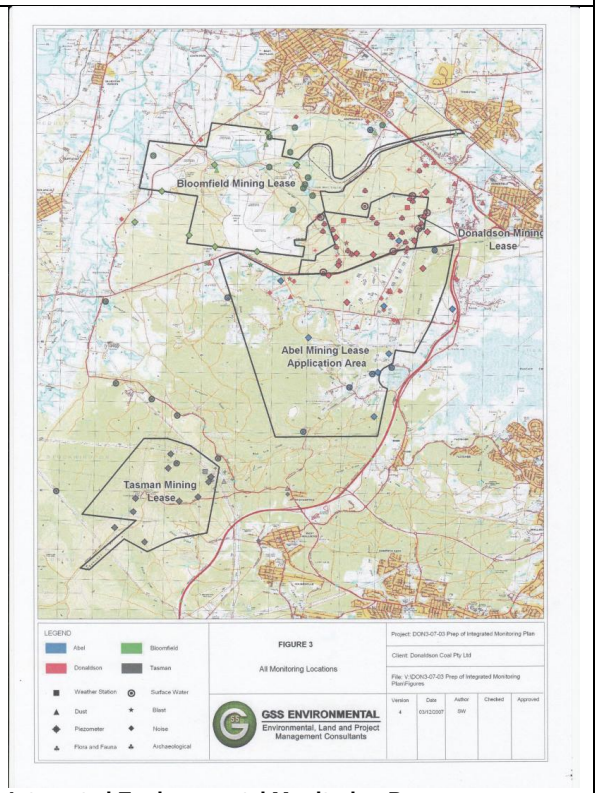
<table>
<tr><td>P1.2</td><td>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</td><td></td><td>Noted</td><td></td></tr>
<tr><td>P1.3</td><td>The following 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.</td><td></td><td>C</td><td></td></tr>
<tr><td></td><td>Water
<table>
<tr><th>EPA No</th><th>Type of monitoring</th><th>Description of location</th></tr>
<tr><td>4</td><td>Surface water monitoring</td><td rowspan="2">Surface water and Groundwater quality must be measured at locations representative of impacts likely to be experienced outside the premises as a result of the operation of the mine.</td></tr>
<tr><td>5</td><td>Groundwater monitoring</td></tr>
</table></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td>Limit conditions</td><td></td><td></td><td></td></tr>
<tr><td>L1</td><td>Pollution of waters</td><td></td><td></td><td></td></tr>
<tr><td>L1.1</td><td>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.</td><td></td><td>Noted</td><td></td></tr>
<tr><td>L2</td><td>Load limits</td><td></td><td></td><td></td></tr>
<tr><td>L1.1-1.2</td><td>Not applicable.</td><td></td><td>N/A</td><td></td></tr>
<tr><td>L1.3</td><td>Concentration limits</td><td></td><td></td><td></td></tr>
<tr><td>L3.1-3.3</td><td>Not applicable</td><td></td><td>N/A</td><td></td></tr>
<tr><td>L4</td><td>Volume and mass limits</td><td></td><td></td><td></td></tr>
<tr><td>L4.1</td><td>Not applicable</td><td></td><td>N/A</td><td></td></tr>
<tr><td>L5</td><td>Waste</td><td></td><td></td><td></td></tr>
<tr><td>L5.1</td><td>Not applicable</td><td></td><td>N/A</td><td></td></tr>
<tr><td>L6</td><td>Noise Limits</td><td></td><td></td><td></td></tr>
<tr><td>L6.1</td><td>Noise generated at the premises must not exceed the noise limits presented in the table below. The noise limits in the table below represent the noise contribution from the premises.
Noise Limits (dB(A))
<table>
<tr><th>Locality</th><th>Day</th><th>Evening</th><th>Night</th><th>Night</th></tr>
<tr><td></td><td colspan="3">LA eq(15 minute)</td><td>LA eq(1 minute)</td></tr>
<tr><td>A Weakleys Dr, Beresfield</td><td>50</td><td>48</td><td>41</td><td>541</td></tr>
<tr><td>B Yarrum Rd, Beresfield</td><td>50</td><td>48</td><td>41</td><td>51</td></tr>
<tr><td>J Kilarney St, Avalon Estate</td><td>49</td><td>47</td><td>40</td><td>50</td></tr>
<tr><td>L Kilshanny Ave, Ashtonfield</td><td>46</td><td>46</td><td>40</td><td>53</td></tr>
<tr><td>I Lord Howe Dr, Ashtonfield</td><td>44</td><td>46</td><td>38</td><td>48</td></tr>
<tr><td>C Phoenix Rd, Black Hill</td><td>43</td><td>44</td><td>38</td><td>50</td></tr>
<tr><td>G Buchanan Rd, Buchanan</td><td>43</td><td>41</td><td>36</td><td>46</td></tr>
<tr><td>H Mt Vincent Rd, Louth Park</td><td>43</td><td>41</td><td>36</td><td>46</td></tr>
<tr><td>K Catholic Diocese</td><td>41</td><td>40</td><td>37</td><td>46</td></tr>
<tr><td>D Black Hill School</td><td>41</td><td>40</td><td>37</td><td>46</td></tr>
<tr><td>E Brown Rd, Black Hill</td><td>41</td><td>40</td><td>36</td><td>46</td></tr>
</table></td><td></td><td>C</td><td>Noise monitoring was conducted by Heggies at the nearest potentially affected receivers identified in Table 1, during drilling activities at the Abel Coal Project site on 29 April 2008. The attended noise measurements concluded that no audible mine contribution to the noise measured was detected at Blackhill School (location D) and the drilling activities were not audible at location F.

Refer to SoC 3.2 for noise reduction works conducted on the Bloomfield CHPP to screen residences to the north of the CHPP site.

Quarterly Noise Monitoring has been conducted by Heggies at the nearest potentially affected receivers between 2008 and 2011 with the latest attended and unattended monitoring being conducted during June, September and December 2010 and March, June and September 2011. Abel mine operations were inaudible at all surrounding locations where monitoring was conducted</td></tr>
</table>

	F *Black Hill Rd, Black Hill*	**41**	**40**	**36**	**46**		
	Note: For the purpose of Condition L6.1: ***Day*** *is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public holidays* ***Evening*** *is defined as the period 6pm to 10pm,* ***Night*** *is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.* *These limits do not apply if the Licensee has an approved written agreement with the relevant owner/s of these residences to generate higher noise levels.* L_{Aeq} *means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.*						
L6.1	To determine compliance with the $L_{Aeq(15\ minute)}$ condition(s) L6.1 noise from the premises must be measured at, or computed for, the most affected point on or within the residential boundary, or at the most affect point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary to determine. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the DECC may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy. The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall be applied to the measured noise levels where applicable.						
L6.3	To determine compliance with the $L_{A1(1\ minute)}$ condition(s) L6.1 noise from the premises is to be measured at 1m from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the DECC may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.						
L6.4	The noise emission limits identified in condition L6.1 apply under meteorological conditions of: • Wind speed up to 3m/s at 10 metres above ground level; or • Temperature inversion conditions of up to 3°C/100m and wind speed up to 2m/s at 10 metres above the ground.						
4	**Operating conditions**						
O1	**Activities must be carried out in a competent manner**						
O1.1	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.						
O2	**Maintenance of plant and equipment**						
O2.1	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.			
	Dust			
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises		Noted	
	All operations and activities occurring at the premises must be carried out in a manner that will minimise dust at the boundary of the premises.		C	
O4	**Management of utilisation area**			
O4.1	Effluent application must not occur in a manner which causes surface runoff.		C	Treated effluent is directed to the Big Kahuna water storage pond . No runoff occurs.
O4.2	Spray from effluent application must not drift beyond the boundary of the premises.		C	No spray irrigation of treated effluent occurs on the Abel Coal Mine site.
O5	**Stormwater/sediment control – Construction Phase**			
O5.1	Soil and water management controls must be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities in accordance with the requirements outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing).		C	All Abel Coal Mine surface activities are managed to control runoff and collect in settlement ponds prior to pumping to the Big Kahuna water storage ponds for reuse in dust control on the site.
O6	**Stormwater/sediment control – Operation Phase**			
O6.1	Following the construction phase, stormwater management measures must be implemented to mitigate the impacts of stormwater run-off and within the premises in a manner that is consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the measures should be consistent with the guidance contained in the *Managing Urban Stormwater: Council Handbook* (available from DECC).		C	All Abel Coal Mine surface activities are managed to control runoff and collect in settlement ponds prior to pumping to the Big Kahuna water storage ponds for reuse in dust control on the site. The proposed ROM stockpile area in the Donaldson West pit will provide for collection of all surface runoff with no release to the environment.
O7	**Fuel and chemical storage**			
O7.1	All liquid chemicals, fuels and oils must be stored in containers inside suitable bund(s). Bund(s) are to be designed, constructed and maintained in accordance with DECC Technical Guidelines "Bunding and Spill Management".		C	All liquid chemicals, fuels and oils are stored in the maintenance area in bunded areas with any runoff/spillage collected and passed through an oil/water separator prior to any water being pumped to the Big Kahuna for storage and reuse on site.
5	**Monitoring and recording conditions**			
M1	**Monitoring records**			
M1.1	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.		N/A	Load calculation not applicable (refer to L2).
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.		C	All monitoring records are retained by the Environment Manager for at least 4 years and can be produced on request.
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		C	All monitoring records are retained by the Environment Manager and include the date, time, location and information on collection of samples and analysis.

<table>
<tr><td></td><td>(d) the name of the person who collected the sample.</td><td></td><td></td><td></td></tr>
<tr><td>M2</td><td>Requirement to monitor concentration of pollutants discharged</td><td></td><td></td><td></td></tr>
<tr><td>M2.1</td><td>For each monitoring/discharge point or utilisation area specified below (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:
<table>
<tr><th colspan="4">Points 1</th></tr>
<tr><th>Pollutant</th><th>Unit of Measure</th><th>Frequency</th><th>Sampling Method</th></tr>
<tr><td>Particulates – Deposited Matter</td><td>g/m^2/mth</td><td>Continuous</td><td>AM-19</td></tr>
</table>
<table>
<tr><th colspan="4">Points 2</th></tr>
<tr><th>Pollutant</th><th>Unit of Measure</th><th>Frequency</th><th>Sampling Method</th></tr>
<tr><td>TSP (PM_{10})</td><td>µg/m^3</td><td>Every 6 days</td><td>AM-15</td></tr>
</table>
<table>
<tr><th colspan="4">Points 3</th></tr>
<tr><th>Pollutant</th><th>Unit of Measure</th><th>Frequency</th><th>Sampling Method</th></tr>
<tr><td>Particulate Matter</td><td>µg/m^3</td><td>Continuous</td><td>AM-21</td></tr>
</table>
<table>
<tr><th colspan="4">Points 4 and 5</th></tr>
<tr><th>Pollutant</th><th>Unit of Measure</th><th>Frequency</th><th>Sampling Method</th></tr>
<tr><td>Total Suspended Solids (TSS)</td><td>mg/L</td><td rowspan="2">Once a month (min of 4 weeks)</td><td rowspan="2">Grab sample</td></tr>
<tr><td>pH</td><td>pH</td></tr>
</table></td><td></td><td>C</td><td> 

Integrated Environmental Monitoring Program</td></tr>
<tr><td>M3</td><td>Testing methods - concentration limits</td><td></td><td></td><td></td></tr>
<tr><td>M3.1</td><td>Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
(a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
(b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
(c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.
Note: The Protection of the Environment Operations (Clean Air) Regulation 2002 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the</td><td></td><td>C</td><td>All samples collected are analysed by NATA registered laboratories in accordance with approved standard methods.</td></tr>
</table>

	Sampling and Analysis of Air Pollutants in NSW".			
M3.2	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.		C	All samples collected are analysed by NATA registered laboratories in accordance with approved standard methods.
M4	**Recording of pollution complaints**			
M4.1	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.		C	A register of complaints is maintained by the Environment Manager.
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.		C	The complaints recorded include the date and time, complainant details and location, nature of the complaint, action taken and follow-up contact.
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.		C	The Complaints Register is retained by the Environment Manager for at least 4 years.
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.		Noted	
M5	**Telephone complaints line**			
M5.1	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		C	Donaldson Coal have a 24 hour complaints line for the purpose of receiving any complaints from members of the public. The complaints line has n=been operational between 2008 and 2011.
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.		C	The complaints line number is available on the Donaldson Coal website.
M5.3	Conditions M5.1 and M5.2 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	
M6	**Requirement to monitor volume or mass**			
M6.1	Not applicable		N/A	
6	**Reporting conditions**			
R1	**Annual return documents**			
R1.1	**What documents must an Annual Return contain?** 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. A copy of the form in which the Annual Return must be supplied to the EPA		C	The Annual Returns to the EPA have been prepared on the approved forms.

	accompanies this licence. Before 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			
R1.2	**Period covered by Annual Return** An Annual Return must be prepared in respect of each reporting period, except as provided below. *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*.		C	The period of the Annual Return for the Abel Coal Project is 9 July to 8 July annually.
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. *Note: An application to transfer a licence must be made in the approved form for this purpose.*		Noted	
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		Noted	
R1.5	**Deadline for Annual Return** 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').	Annual Return 2008-2009 Annual Return 2009-2010 Annual Return 2010-2011 Letter to DECC re Annual Return Submission, 27 Aug 2010	C	The Annual Returns for the Abel Coal Project has been submitted by Donaldson Coal Pty Ltd within 60 days of the end of the reporting period.
R1.6	**Notification where actual load cannot be calculated** Not applicable.			
R1.7	**Licensee must retain copy of Annual Return** 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.		C	Copies of the Annual Return are retained on site by the Environment Manager for at least 4 years.
	Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary			
R1.8	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.		C	The Statement of Compliance within the Annual Return has been signed by the Directors of the Company.
R1.9	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.		Noted	

R2	**Notification of environmental harm** *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.*			
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.		Noted	
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.		Noted	
R3	**Written report**			
R3.1	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, (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.		Noted	
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.		Noted	
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		Noted	
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.		Noted	
	General conditions			
G1	**Copy of licence kept at the premises**			
G1.1	A copy of this licence must be kept at the premises to which the licence applies.		C	A copy of the EPL is retained on the premises and is available from the Environment Manager on request.

G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.		C	A copy of the EPL is retained on the premises and is available from the Environment Manager on request.
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises		Noted	
	Pollution studies and reduction programs			
U1	Not applicable		N/A	
	Special conditions			
E1	Not applicable.		N/A	

Attachment D Mining Lease No. 1618 and 1653

ML No.	Condition		Compliance	Comments
ML 1618 c.2 **ML 1653 c.2**	**Environmental Harm** (a) The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.		Noted	
ML 1618 c.3 **ML 1653 c.3**	**Mining Operations Plan** (a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General. (b) The MOP must: (i) identify areas that will be disturbed by mining operations; (ii) detail the staging of specific mining operations; (iii) identify how the mine will be managed to allow mine closure; (iv) identify how mining operations will be carried out in order to prevent and or minimise harm to the environment; (v) reflect the conditions of approval under: • the *Environmental Planning and Assessment Act 1979* • the *Protection of the Environment Operations Act 1997* • and any other approvals relevant to the development including the conditions of this lease; and (vi) have regard to any relevant guidelines adopted by the Director-General. (c) The title holder may apply to the Director-General to amend an approved MOP at any time. (d) It is not a breach of this condition if: (i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the *Mining Act 1992*, the *Environmental Planning and Assessment Act 1979*, *Protection of the Environment Operations Act 1997*, *Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002* and *Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006* or the *Occupational Health and Safety Act 2000*; and (ii) the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out. (e) A MOP ceases to have effect 7 years after date of approval or other such period as identified by the D-G. An	Format and Guideline for Preparation of a Mining Operations Plan, Environmental Management Guidelines for Industry, Mineral Resources NSW Rehabilitation and Environmental Management Plan (REMP), draft	C	The Mining Operations Plans (MOP's) prepared for the Abel Coal Mine addressed the requirements of the "*Guideline for Preparation of a Mining Operations Plan*". An initial MOP was prepared for the Abel Coal Mine for the period December 2008 to December 2009. This MOP was approved by DPI-Minerals on the 2 December 2008. A further MOP was prepared for the period 1 January 2010 to 31 December 2016 and submitted to the DI&I for approval in December 2010.

ML No.	Condition		Compliance	Comments
	approved amendment to the MOP under condition 5 does not constitute an approval for the purposes of this paragraph unless otherwise identified by the D-G.			
ML 1618 c.4 **ML 1653 c.4**	**Environment Management Report** (a) The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the D-G.	AEMR 2010-2011 AEMR 2009-2010 AEMR 2008-2009	C	An Annual Environmental Management Report (AEMR) has been prepared each year to address the rehabilitation and regulatory requirements.
ML 1618 c.5 **ML1653 c.4**	The EMR must: • report against compliance with the MOP; • report on progress in respect of rehabilitation completion criteria; • report on the extent of compliance with regulatory requirements; and • have regard to any relevant guidelines adopted by the Director-General.	AEMR 2010-2011 AEMR 2009-2010 AEMR 2008-2009	C	An Annual Environmental Management Report (AEMR) has been prepared each year to address the rehabilitation and regulatory requirements. Reporting on compliance against the MOP has been submitted separately to the DPI/DI&I as part of the ML reporting.
ML 1653 c.5	**Environmental Incident Report** (a) The lease holder must report any environmental incidents. The report must: be prepared according to any relevant Departmental guidelines; be submitted within 24 hours of the environmental incident occurring: (b) For the purposes of this condition, environmental incident includes: • any incident causing or threatening material harm to the environment • any breach of Conditions 1 to 9 and 11 to 24; • any breach of environment protection legislation; or, • a serious complaint from landholders or the public. (c) For the purposes of this condition, harm to the environment is material if: (i) it involves actual or potential harm to the health or safety of human beings, or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000, where loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.		Noted	
ML 1653 c.6	**Additional Environmental Reports** Additional environmental reports may be required from time to time as directed in writing by the D-G and must be lodged as instructed.		Noted	

ML No.	Condition		Compliance	Comments
ML 1618 c.7 **ML 1653 c.7**	**Rehabilitation** Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the D-G		Noted	
ML 1618 c.8	**Subsidence Management** (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. (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 *Applications for Subsidence Management Approvals guidelines* (EDG17). (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 Mine Health & Safety Act 2002, or the document *New Subsidence Management Plan Approval Process — Transitional Provisions* (EDP09). (d) Subsidence Management Plans are to be prepared in accordance with the *Guideline for Applications for Subsidence Management Approvals*. (e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 3 and will be subject to the Environmental Management Report process as set out under Condition 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	*New Approval Process for Management of Coal Mining Subsidence – Policy and Guideline for Applications for Subsidence Management Approvals, dated 2003* Subsidence Management Plan - Area 1, Dec 2009 Letter from DPI re Approval of SMP Area 1, 27 May 2010 Subsidence Management Plan - Area 2, May 2011	C Ongoing	Subsidence Management Plans for Areas 1 and 2 have been prepared in accordance with the *New Approval Process for Management of Coal Mining Subsidence – Policy & Guideline for Applications for Subsidence Management Approvals*. The Subsidence Management Plans were submitted to the Director-General of DPI/DI&I for approval, prior to the commencement of any underground mining operations in these areas. The Subsidence Management Plan for Area 1 was approved by DPI-Minerals on 27 May 2010. The Subsidence Management Plan for Area 2 was submitted to DI&I on 06 June 2011 and was awaiting approval at the date of this audit (15 November 2011).
ML 1618 c.15 **ML 1653 c.10**	**Blasting** **(a) <u>Ground Vibration</u>** 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, Climate Change and Water. **(b) <u>Blast Overpressure</u>** The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area		C Ongoing	Blasting has been undertaken at the underground Abel Coal Mine to fragment hard rock encountered during the development of the long wall and roads. Monitoring of underground blasts recorded vibrations levels at the closest surrounding sensitive receivers of less than 0.038mm/s, (i.e. well below the amenity criteria of 5mm/s ppv). No blasts were undertaken in 2009-2010, but 31 blasts were undertaken during the 2010-2011 period..

ML No.	Condition		Compliance	Comments
	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, Climate Change and Water.			
ML 1618 c.18 **ML 1653 c.12**	**Prevention of soil erosion and pollution** Operations must be carried out in a manner that does not cause or aggravate air pollution, water (including groundwater) pollution, 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, water body, or ground waters. The lease holder must observe and perform any instructions given by the Director-General.	Erosion and Sediment Control Plan, Mar 2008 Water Management Plan, Mar 2008 2011-2016 Mining Operations Plan, Dec 2010	C	An Erosion and Sediment Control Plan (ESCP) for the Abel Coal Mine has been developed within the Water Management Plan (WMP) Part B section B.3. The ESCP is generally consistent with the requirements of the *Managing Urban Stormwater: Soils and Construction* manual Volume 2E Mines and Quarries, DECC 2008. Activities that could cause soil erosion and generate sediment are identified in Part B section B.4 and Part C sections C.4 and C.5 of the WMP. Measures to minimise soil erosion and the potential for transport of sediment to downstream waters are described in Part B section B.4, and Part C sections C.4 and C.5. The location, function, and capacity of erosion and sediment control structures are described in Part B section B.4 and Part C sections C.4 and C.5.
ML 1618 c.19 **ML 1653 c.13**	**Transmission, Communication and Pipe lines** 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.		C	Apparent sag of power lines occurred between Energy Australia Power Poles 17 and 18 on the Abel Project site. Energy Australia was notified and the conductors lifted to reinstate clearance.
ML 1618 c.21 **ML 1653 c.14**	**Roads and Tracks** (a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the written approval of the Director-General and subject to any conditions he may stipulate. (b) The lease holder must pay to the relevant roads authority in control of the road or track the reasonable costs incurred by the roads authority in making good any damage to roads or tracks caused by operations carried out under this lease less any amount paid or payable from the Mine Subsidence Compensation Fund.		C Ongoing	Some cracking of compacted sections of access tracks above the Area 1 works occurred and were repaired by Abel Coal and the access tracks reinstated during 2011.
ML 1653 c.14	(b) During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track. **(c)** Existing access tracks should be used for all operations where reasonably practicable. New access tracks must be kept to a minimum and be positioned in order to minimise damage to the land, watercourses or vegetation.		C Ongoing	Use of access tracks by Abel Coal personnel only occurs during monitoring programs or exploration. The use of the tracks by drillers or other personnel is controlled by the Technical Manager and Environment Manager and access is restricted during wet weather to control erosion and damage to land and vegetation. Crossing of creeks or watercourses requires approval from the relevant Abel Manager(s).

ML No.	Condition		Compliance	Comments
	(d) Temporary access tracks must be rehabilitated and revegetated to the satisfaction of the Director-General as soon as reasonably practicable after they are no longer required under this lease			
ML 1618 c.22	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 Environment and Climate Change.		C Ongoing	See above
ML 1618 c.23 **ML 1653 c.15**	**Trees and Vegetation** (a) The lease holder must not fell trees, strip bark or cut timber on any land subject of this lease without the consent of the landholder who is entitled to the use of the timber. (b) The lease holder must contact Forests NSW and obtain any required permit, licence or approval before taking timber from any Crown land within the lease area. *Note: Any clearing not authorised under the Act must comply with the requirements of the Native Vegetation Act 2003. Any clearing or taking of timber on Crown land is subject to the requirements of the Forestry Act 1916.*	Vegetation Clearance Protocol, Oct 2007 Flora and Fauna Management Plan, Oct 2007	Noted	As the Abel Coal Min operations and activities are underground there is limited potential to damage trees and vegetation. Clearance of any vegetation requires approval from the Environment Manager following the Vegetation Clearance Protocol in the Flora and Fauna Management Plan.