March 2015

Independent Environmental Audit

Tasman Underground Coal Mine

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APPLIED ENVIRONMENTAL MANAGEMENT CONSULTANTS

REPORT: TASMAN/REV2/14 SEPTEMBER 2015

Independent Environmental Audit

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by

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19 Sept 2015

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Table of Contents

Executive Summary

This Independent Environmental Audit of Development Consent 274-9-2002 for the Tasman Underground Coal Mine was undertaken on 16 to 20 March 2015 and included a site inspection, document review and discussions with relevant project personnel.

The status and availability of documentation provided to the auditor was adequate to undertake verification of compliance with the conditions of approval, in relation to the construction and operation of the Tasman Mine project. All the management plans and monitoring programs required by the conditions of approval were approved by DoP, and implementation of the programs was adequate to provide assessment of the operational performance of the mine in relation to the requirements of the Development Consent 274-9-2002 dated 16 March 2004.

The documentation for the Tasman Mine project and the operational activities, demonstrated a high degree of compliance with Development Consent 274-9-2002 conditions of approval, during the operation of the Tasman Mine between 2007 and 2013.

The Tasman Mine developed under Development Consent 274-9-2002 has been essentially completed with rehabilitation of the Tasman Mine site after closure of the underground mine and surface infrastructure areas having occurred generally in accordance with the rehabilitation targets set within the Mining Operations Plan. A summary of the audit findings for the Tasman Mine site up to closure in July 2013 and rehabilitation to March 2015 are:

Environmental Management Strategy Compliance Status: Compliant

The components of the IEMS and the commitments in the strategy provided a sound basis for the environmental management of the Tasman Mine project. Any updates or changes to environmental management procedures for the project were achieved through revision of the Management Plans in accordance with EMS Operating Manual EOM-001.

Environmental Management Plans prepared for the Tasman Mine Project were submitted to the Director-General for approval as required by the Development Consent conditions and the Subsidence Management Plans. Subsidence Management Plans were submitted to the Director-General of NSW Department of Primary Industries progressively for approval of the extraction of panels 1 to 15 (with the approvals provided for each panel or set of panels prior to commencement of mining, in accordance with the Mining Operations Plan).

Environmental Monitoring Program Compliance Status: Compliant

The Integrated Environmental Monitoring Program prepared for the Donaldson Coal Pty Ltd projects provided a satisfactory basis for the monitoring of the environmental aspects of the Tasman Mine Project.

Subsidence Management Status: Non-compliances in excess of the predicted subsidence occurred for Panels 6 (2009) and 12 (2011)

Subsidence Management Plans prepared for Panels 1 to 15 for the Tasman Mine, satisfied the requirements of Development Consent DA 274-9-2002 Schedule 4 condition 10 and were progressively submitted to the Director-General of DPI for approval. Two exceedances of the predicted subsidence occurred for Panel 6 (2009) and Panel 12 (2-11) and were reported to the Director-General of DPI. No other observed and/or reported subsidence impacts, incidents, service difficulties or community complaints on general surface of specific

features were recorded above Panels 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 14 and 15, at the cessation of mining in July 2013.

Water Management Compliance Status: No non-compliances identified.

The Water Management Plan prepared for the Tasman Mine satisfied Development Consent DA 274-9-2002 Schedule 4 conditions 19 and was approved by DoP on 13 April 2006. The Water Management Plan was revised in October 2012.

Surface water monitoring results between 2006 and 2013 generally appeared consistent with the background values presented in the *Tasman Underground Coal Mine – Environmental Impact Statement* (August 2002) with no discernible trends over the 2006 to 2013 period of the Tasman Mine operation. Groundwater levels were consistent with the predictions in the *Tasman Underground Coal Mine – Environmental Impact Statement* (August 2002) and the groundwater quality did not exceed the trigger levels that would require further review.

Flora and Fauna Management Compliance Status: No non-compliances identified.

The Flora and Fauna Management Plan prepared to satisfy Development Consent DA 274-9-2002 Schedule 4 condition 27 was approved by DoP on 27 June 2007. Annual flora and fauna surveys between 2007 and 2013 indicated that flora species diversity effectively remained constant during the 7 year monitoring program. Fauna species richness has remained consistent between 2007 and 2013 with no significant differences or trends throughout the monitoring period.

Air Quality Compliance Status: No non-compliances identified

Air quality monitoring for the Tasman Mine in the Integrated Environmental Monitoring Program included monthly dust deposition and a high volume air sampler at Seahampton for PM_{10} and Total Suspended Particulate (TSP). The dust deposition and PM_{10} monitoring results collected during the operation of the Tasman Mine between 2007 and 2013 demonstrated compliance with the air quality impact assessment criteria in Development Consent DA 274-9-2002 Schedule 4 condition 32.

Noise Compliance Status: No non-compliances identified.

Noise emissions from the Tasman Mine were not audible at the Seahampton or West Wallsend locations during monitoring surveys conducted between 2007 and 2013. It was reported that the Tasman Mine did not contribute to the noise environment at either Seahampton or West Wallsend, and therefore did not exceed the applicable noise criteria.

Rehabilitation Compliance Status: Compliant - Ongoing

The pit top area was decommissioned following completion of underground mining in July 2013. The removal of surface infrastructure and roads (except for portions of the sealed mine access road and adit access road), draining of any water storages, reshaping, topsoiling and revegetating the area to create a stable vegetated landform consistent with the surrounding landscape, has occurred in accordance with the Flora and Fauna Management Plan.

Tasman Mine Extension

The continuation of underground mining within Mining Lease 1555 following the completion of mining Panels 1 to 15 in July 2013 (under Development Consent 74-9-2002), is planned occur under the approval for the Tasman Extension Project granted on 18 March 2013. No development or other activity associated with the Tasman Extension Project had commenced at the date of this audit so the conditions on the approval for Application No. SSD-4962 granted on 18 March 2013 were not included in the conduct of this Independent Environmental Audit dated March 2015.

1. Introduction

1.1 Background

Development Consent DA-274-9-2002 for the Tasman Underground Coal Mine was granted on the 16 March 2004 for under section 80 of the *Environment Planning and Assessment Act 1979*.

This Independent Environmental Audit was conducted at the request of Newcastle Coal Company Pty Ltd, to satisfy the Development Consent Minister's Condition of Approval (MCoA), Schedule 5, condition 7:

> *"At the end of year 2 of the development, and every 5 years thereafter, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:*
> *(a) be conducted by suitably qualified, experienced and independent person/s whose appointment has been endorsed by the D-G;*
> *(b) be consistent with ISO19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing, or updated versions of this guideline;*
> *(c) assess the environmental performance of the development, and its effects on the surrounding environment;*
> *(d) assess whether the development is complying with the relevant standards, performance measures and statutory requirements;*
> *(e) review the adequacy of any Applicants Environmental Management Strategy and Environmental Monitoring Program; and if necessary*
> *(f) recommend measures or actions to improve the environmental performance of the project, and/or the environmental management or monitoring systems."*

The Tasman Underground Mine Project development commenced in February 2006 and mining commenced in May 2006. The underground workings for Panels 1 to 15 were completed in July 2013 and the Tasman Mine area rehabilitated.

The audit was conducted by Trevor Brown & Associates generally in accordance with the Australian/New Zealand Standards AS/NZS ISO 19011:2003 - Guidelines for Quality and/or Environmental Management System Auditing and the Draft Guidelines – Independent Environmental Audits of Mining Projects, DP&I April 2014 .

1.2 Scope of Work

The scope of work for the independent environmental audit addressed the requirements of Development Consent Schedule 5 Condition 5:

- 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."

A site visit which included a mine site inspection and review of documentation related to the development consent was conducted in March 2015.

Verification of compliance and assessment of the performance of the Tasman Mine during the operation under the Development Consent conditions was conducted to address the requirements of the scope of work.

1.3 Structure of the Report

The Independent Environmental Audit report has been structured to provide an assessment of all the Development Consent conditions under the following sections:

Section 1 – Introduction
Section 2 – Tasman Mine Development
Section 3 – Consents, Approvals and Licences
Section 4 – Review of Environmental Management
Section 5 – Conclusion
Attachment A – Tasman Mine – Development Consent Conditions
Attachment B – Environment Protection Licence Conditions

1.4 Compliance Table

This audit assessed the activities for compliance with the intent of the conditions via site inspections and verification of relevant documentation related to the conditions.

The status of compliance with conditions of the project approvals are expressed below. Any non-compliances would be risk assessed as outlined within the DP&E Draft Guidelines – Independent Environmental Audit of Mining Projects 2014 section 7.2.

Status	Description
Compliant	Adequacy and appropriateness of implementation against the DA and Project Approval Conditions, or compliance with commitment made.
Compliant Ongoing	The intent and specific requirements of the condition have been met and the requirements are ongoing for the operation of Austar Coal Mine.
Non-Compliant	The intent or one or more specific requirements of the condition have not been met and is environmentally significant.
Administrative Non-compliance	A technical non-conformance with a condition of the consent that would not result in material harm to the environment
Not active / Not applicable	Condition or requirement has an activation or requirement that had not been triggered at the time of the review, therefore a determination of compliance could not be made.
Noted	Conditions that are statements of requirement but not auditable.

If any Non-compliance is identified it will be subject to a risk assessment in accordance with the Draft Guidelines – Independent Environmental Audits of Mining Projects section 7.2 and reported in section 5 Conclusions of this audit report.

2. Tasman Coal Mine Project Development

2.1 Background - Tasman Underground Coal Mine 2007 to 2013

The Tasman Underground Coal Mine Project (Tasman Mine) was developed and operated by Newcastle Coal Company Pty Ltd (a fully owned subsidiary of Donaldson Coal Pty Limited), in accordance with the Tasman Underground Coal Mine Environmental Impact Statement (August 2002) and the conditions of Development Consent 274-9-2002 granted on 16 March 2004.

The Tasman Mine is located in the Lower Hunter Valley, approximately 25km west of Newcastle and 18km south of Maitland. The mine operations are conducted within Mining Lease (ML) No. 1555. The ML lies within the Lake Macquarie and Cessnock Local Government Areas.

The ML 1555 consists of 952.8ha of a forested area comprising the Mount Sugarloaf Reserve, parts of the Heaton State Forest, Crown Land and privately owned land. The ML is bounded by George Booth Drive to the north and the F3 Freeway to the east. Entry to the Tasman Mine site was off George Booth Drive approximately 1.5km west of the township of Seahampton.

The topography in the vicinity of the Tasman Mine is characterised by a steeply sloping north-south trending ridgeline of the Sugarloaf Range. The mine area is overlain by undulating to steep terrain comprising the prominent ridgeline spur and several natural drainage gullies. The project site is situated on a regional divide of the following catchments:

- Ephemeral headwaters of Blue Gum Creek that flow northeast to the Hexham Swamp (a SEPP14 wetland);
- Surveyors Creek to the west that flows toward Wallis Creek system and the Hunter River near Maitland; and
- the headwaters of the Slatey Creek and Burkes Creek systems that flow southeast of the Sugarloaf Range into Cockle Creek and then to Lake Macquarie.

The Tasman Mine resource is within the Sydney-Gunnedah Basin Newcastle Coalfields. ML 1555 is contained within Exploration Licence (EL) area No. 5337 that contains the Great Northern, Fassifern and West Borehole coal seams. The Tasman Mine targeted extraction of the medium ash coal from the Fassifern Seam. The Tasman Mine was a bord and pillar mining operation using continuous miners for first workings and secondary extraction. The mine plan and coal extraction was developed for each roadway and panel to control subsidence and protect a range of surface features (including transmission and communication towers on Mount Sugarloaf, power line pylons, steep slopes and cliff lines and road corridors).

The development of the Tasman Mine commenced in February 2006 and mining operations ceased in July 2013.

The underground mining operations surface infrastructure and mine entry covered approximately 8ha of surface land and was located on the northern side of Mount Sugarloaf off George Booth Drive in the northeast section of ML 1555.

The Tasman Mine pit top facility comprised ROM coal handling infrastructure, administration facilities, worker amenities and stores buildings, workshop compound, bunded fuel tank area, transformer, water management systems, mine entry portal, conveyor to the coal loading bin/stockpile and truck loading area and underground mine infrastructure.

ROM coal mined from the Tasman Mine was transported on weekdays via approximately 16 kilometres of public roads (George Booth Drive and John Renshaw Drive) to the Bloomfield Coal Handling and Preparation Plant (CHPP), 16km to the north-east of the Tasman Mine site. The processed coal from the CHPP was conveyed to the Bloomfield rail loop and spur line off the Great Northern Railway Line, for loading to rail wagons and transport to the Port of Newcastle, 23km to the east.

2.2 Tasman Extension Project Application No. SSD-4962

The continuation of underground mining within Mining Lease 1555 following the completion of mining Panels 1 to 15 in July 2013 (under Development Consent 74-9-2002), will occur under the approval for the Tasman Extension Project granted on 18 March 2013.

The Tasman Extension Project will involve the continuation and extension of the Tasman Underground Mine into the West Borehole Seam from a new pit top to be constructed to the west of the previous adit entrance.

The infrastructure required to support the Tasman Extension Project will include:

- a roundabout would be constructed on George Booth Drive for access to the new pit top facility;
- the new pit top , including box cut and drift access to West Borehole Seam and ROM coal handling infrastructure. The new pit top facility would reduce the ROM coal haulage return trip to the Bloomfield CHPP on the public road network by approximately 6 kilometres.
- an upcast ventilation shaft and associated fan and ancillary infrastructure to provide adequate ventilation of the new underground workings; and
- underground mining equipment upgrades.

Access to the underground workings would be via two drifts constructed from a new boxcut at the new pit top.

Waste rock from the excavation of the boxcut, drifts and other earthworks would be used for construction on-site or trucked to the Donaldson Open Cut Mine and emplaced in the completed West and/or Square Open Cut pits.

No development or other activity associated with the Tasman Extension Project had commenced at the date of this audit so the conditions on the approval for Application No. SSD-4962 granted on 18 March 2013 were not included in the conduct of this Independent Environmental Audit dated March 2015.

3. Consents, Approvals and Licenses

3.1 Development Consents

Development Consent DA 274-9-2002 for the Tasman Underground Coal Mine was granted on 16 March 2004 by the NSW Minister for Planning and Infrastructure. The Development Consent included conditions for the construction and operation of the Tasman Underground Coal Mine and associated surface facilities (refer to Attachment A).

The mining commenced at the Tasman Mine in May 2006 in accordance with the Development Consent conditions granted on 16 March 2004, and the underground workings for Panels 1 to 15 were completed in July 2013. The Tasman Mine area was decommissioned and the disturbed surface area rehabilitated.

An Environmental Impact Statement titled *Tasman Extension Project*, dated June 2012, was submitted to the Department of Planning and Infrastructure (DP&I) and approval granted under the *Environmental Planning and Assessment Act 1979* section 89E for the State Significant Development (SSD-4962) on 18 March 2013, for the extension of the Tasman Underground Mine into the West Borehole Seam. As no development of the Tasman Extension Project had commenced at the date of this audit (March 2015), conditions on the approval for Application No. SSD-4962 granted on 18 March 2013 were not included in the conduct of this Independent Environmental Audit dated March 2015.

3.2 Environment Protection Licence

Environment Protection Licence 12856 was granted to Newcastle Coal Pty Ltd on 8 May 2006 under the Protection of the Environment Operations Act 1997 section 55 for coal works and extractive industries.

Notices of Variation to EPL 12856 were:

Variation No.	Date	Variations to EPL 12856
1501074	8 Sep 2011	The following variations have been made to the licence: • Condition P1.3 - Monitoring Point 3 - Effluent Quality Monitoring and Effluent Volume Monitoring from the waste water treatment system • Condition O6 - Management of sewage treatment systems - These conditions require the licensee to ensure the correct operation of the sewage treatment system by undertaking regular supervision and system maintenance. • Condition M2 - Requirement to monitor concentration of pollutants discharged - Monitoring Point 3 includes monitoring requirements for pollutants BOD, nitrogen (total), phosphorus (total) and total suspended solids. • Condition M6 - Requirement to monitor volume or mass - Monitoring Point 3 requires monitoring the volume of waste water discharged from the waste water treatment system on a daily frequency
1500582	8 Aug 2011	This notice amends the licence to include a Pollution Reduction Program
1104817	27 Nov 2009	The following variations have been made to the licence: • Fee Based Activity - Coal works 0-2000000 T loaded added • Condition L5 - Deleted • Condition L8 Potentially Offensive Odour – Not applicable • Condition M2.1 Requirement to monitor concentration of pollutants discharged – Revised • Condition U1 Ventilation Shaft Post Commissioning Air Emissions Report - Deleted

3.3 Mining Lease

Mining Lease 1555 *Mining Act 1992* was granted to Newcastle Coal Pty Ltd on 7 September 2004 allowing coal mining for 21 years. The area of ML 1555 is 960.9 ha.

3.4 Water Licences

Groundwater Bore Licence 20BL171792 *Water Act 1912* Part 5, was granted for Extraction of Groundwater from the active mining area at the Tasman Mine site. The Groundwater Bore Licence was valid to 16 March 2013. Underground mining at the Tasman Mine ceased on July 2013 and no further extraction of groundwater has occurred since that date.

4. Review of Environmental Management

4.1 Environmental Management Strategy

[Development Consent DA 274-9-2002 Schedule 5 conditions 1 to 3]

Environmental Management Strategy Compliance Status: Compliant

The Environmental Management Strategy prepared for the Tasman Mine is part of an Integrated Environmental Management Strategy (IEMS) prepared for all of the Donaldson Coal Pty Ltd 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 ISO14000 – Environmental Management Systems.

Table 4.1 Environmental Management Strategy vs AS/NZS ISO14001 Elements

ISO 14001 Element	Construction Environmental Management Plan section
4.2 Environmental Policy	Section 9 Environmental Policy
4.3.1 Environmental Aspects	Section 10.1 Environmental Aspects Manual
4.3.2 Legal and Other Requirements	Section 7 Relationship between Relevant Consent Conditions, ISO 14000 and Sections of the EMS
4.3.3 Objectives and Targets	Section 10.4 Environmental Objectives and Targets
4.3.4 Environmental Management Programs	Section 10.3 Environmental Management Programs and Operational Plans
4.4.1 Structure and Responsibility	Section 12.5 Roles and Responsibilities
4.4.2 Training Awareness and Competence	Section 12.1 Training and Awareness Program Environmental Awareness Training
4.4.3 Communication	Section 12.2 Communications and Public Relations
4.4.7 Emergency Preparedness and Response	Section 11 Incident Response
4.5.1 Monitoring and Measurement	Section 13.2 Monitoring and Measurements
4.5.2 Non-conformance, Corrective and Preventative Action	Section 13.3 Non-conformance and Corrective Actions

4.1.1 Conclusion

The components of the IEMS and the commitments in the strategy provided a sound basis for the environmental management of the Tasman Mine project. Any updates or changes to environmental management procedures for the project were achieved through revision of the Management Plans in accordance with EMS Operating Manual EOM-001 Section 13.5.

4.2 Environmental Management Plans

Environmental Management Plans prepared for the Tasman Mine Project were submitted to the Director-General for approval as required by the Development Consent conditions and the Subsidence Management Plans. Subsidence Management Plans were submitted to the Director-General of NSW Department of Primary Industries progressively for approval of the extraction of panels 1 to 15 (with the approvals provided for each panel or set of panels prior to commencement of mining, in accordance with the Mining Operations Plan).

4.3 Environmental Monitoring Program

[Development Consent 274-9-2002 Schedule 5 condition 4]

Environmental Monitoring Program Compliance Status: Compliant

4.3.1 Integrated Environmental Monitoring Program

The monitoring programs in the environmental management plans for each environmental aspect were collated into the Integrated Environmental Monitoring Program for the Tasman Mine, Abel Mine and Donaldson Open Cut Mine Projects. The Integrated Environmental Monitoring Program was submitted to the DoP on 7 December 2007. The monitoring program was reviewed and updated as required in accordance with EMS Operating Manual EOM-001 Section 13.5.

The Integrated Environmental Monitoring Program included:

- Meteorological Monitoring
- Noise
- Air Quality Monitoring
- Aboriginal and Cultural Heritage
- Surface Water
- Flora and Fauna
- Groundwater
- Transport

The results of the monitoring programs for the Tasman Mine were presented annually in the Tasman Mine Annual Environmental Management Reports (AEMR), 2007 to 2014.

4.3.2 Conclusion

The Integrated Environmental Monitoring Program prepared for the Donaldson Coal Pty Ltd projects provided a satisfactory basis for the monitoring of the environmental aspects of the Tasman Mine Project.

4.4 Subsidence

[Development Consent DA 274-9-2002 Schedule 4 conditions 9 and 10]

Subsidence Management Status: Non-compliances in excess of the predicted subsidence occurred for Panels 6 (2009) and 12 (2011)

4.4.1 Subsidence management

The Tasman Mine underground mining areas include portions of the Sugarloaf State Conservation Area and Heaton State Forest, as well as a limited number of private rural residential properties and infrastructure items. Subsidence control zones were developed and adopted for the Tasman Mine to manage potential subsidence impacts on principal residences, surface infrastructure, cliff lines, steep slopes, streams and relevant vegetation communities. The subsidence control zones were designed to achieve subsidence performance measures for significant surface features (i.e. to minimise potential impacts to these features).

Subsidence management is designed to minimise surface impacts whilst providing safe and efficient resource recovery. For the Panels 1 to 15 area the mine design resulted in the following:

- Design of the pillar extraction panel layout provided protection against adverse subsidence impacts while optimising resource recovery.
- Maximum vertical subsidence was predicted in the range of 100 mm to 150 mm
- Protection from subsidence impact was provided to both natural and man-made items by the development of Subsidence Control Zones (SCZs) to restrict subsidence in the area.
- No substantial impacts were predicted.

Tasman Mine commenced underground production in September 2006, using a bord and pillar method of mining that supports partial secondary extraction (by pillar reduction).

The layout of the panels was designed to provide management outcomes of subsidence impacts in line with the Development Consent and to conduct the mining operations considering the existing and future environment and the community, while optimising resource recovery.

Maximum subsidence predicted for the pillar extraction panels ranged between 100 mm and 150 mm. Maximum predicted strains from 1 to 1.5 mm/m and tilts from 2 to 3 mm/m. Subsidence Control Zones (SCZs) were identified and mining in these areas designed to provide protection against subsidence impacts.

4.4.2 Subsidence Management Plan

[Development Consent DA 274-9-2002 Schedule 4 condition 10]

Subsidence Management Plans were prepared to satisfy the requirements of Development Consent DA 274-9-2002 Schedule 4 condition 10 and were submitted to the Director-General of DMR:

- Subsidence Management Plan Panel 1, dated November 2007
- Subsidence Management Plan Panels 2 to 4, dated May 2008
- Subsidence Management Plan Panel 5, dated August 2008
- Subsidence Management Plan Panels 6 to 9, dated October 2008
- Subsidence Management Plan Panel 10 to 15, dated March 2011
- Subsidence Management Plan Panel 7, dated July 2012

The Subsidence Management Plans also included the following management plans for the protection of the community and environment:

- Public Safety Management Plan
- Environmental Monitoring Program - incorporates monitoring of surface watercourses, groundwater, flora, surface features, underground water make and roads / trails.
- Aboriginal Places and Archaeological Management
- Surface and Groundwater Management - Tasman has a Site Water Management Plan that includes both Surface and Groundwater Monitoring Plans and a Surface and.
- Property and Land Management Plan.
- Infrastructure Management Plans - for Transgrid and AAPT.

The Subsidence Management Plans acted as framework documents to demonstrate how the impacts of subsidence were proposed to be managed as a result of pillar extraction mining. The documents demonstrated the structured approach adopted by Tasman Mine related to subsidence.

4.4.3 Subsidence Monitoring

The monitoring of subsidence and strain, and comparison with the predictions in the Subsidence Management Plans, indicated that all panels except Panel 6 (3 North) and panel 12 (4 West) demonstrated levels less than the subsidence or strain predicted in the Subsidence Management Plans.

Panel 6 significantly exceeded the predicted subsidence and strain levels. The first exceedance was recorded on 17 February 2012 and Department of Resources and Energy was notified on 21 February 2012. A surface crack of 20mm width above Panel 6 identified on 23 March 2012 was less than the predicted 50mm wide range. No other cracks were recorded during the 2010 to 2013 monitoring of the Panel 6 area.

Panel 12 exhibited increased subsidence (172mm) in the 2012 and 2013 surveys. This subsidence was less than 25% above the predicted level of 150mm. The DPI-Mineral Resources were notified under the Subsidence Management Plan approval condition 16 – Incident and Ongoing Management Reporting.

Panel	Period of Mining		SMP Prediction - Subsidence	Actual Survey Measurement 2013
	Commencement	Completion		
Panel 1 (1 North)	12 Mar 2008	23 Apr 2008	150mm	47mm
Panel 2 (1 South)	15 Jan 2011	28 Feb 2011	150mm	33mm
Panel 3 (2 South)	4 Jul 2008	24 Jul 2008	150mm	32mm
Panel 4 (3 South)	9 Jun 2008	3 Jul 2008	150mm	17mm
Panel 5 (2 North)	25 Oct 2008	8 Jan 2009	150mm	42mm
Panel 6 (3 North)	25 Jun 2009	22 May 2010	150mm	**560mm**
Panel 7 (4 North)	30 Oct 2012	Jul 2013	500mm	50mm
Panel 8 (4 South)	21 Apr 2009	9 Jun 2009	150mm	17mm
Panel 10 (Northwest)	5 Mar 2009	3 Nov 2011	110mm	98mm
Panel 11 (Northeast)	17 Aug 2011	17 Dec 2011	100mm	81mm
Panel 12 (4 West)	14 Jun 2011	21 Nov 2012	150mm	**172mm**
Panel 13 (3 West)	25 Feb 2012	20 Jun 2012	100mm	27mm
Panel 14 (2 West)	25 Feb 2012	215 Sep 2012	100mm	14mm
Panel 15 (1 West)	25 Feb 2012	24 Oct 2012	100mm	12mm

No observed and/or reported subsidence impacts, incidents, service difficulties or community complaints on general surface of specific features were recorded above Panels 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 14 and 15, at the cessation of mining in July 2013.

4.4.4 Conclusion

Subsidence Management Plans prepared for Panels 1 to 15 for the Tasman Mine, satisfied the requirements of Development Consent DA 274-9-2002 Schedule 4 condition 10 and were progressively submitted to the Director-General of DPI for approval. Two exceedances of the predicted subsidence occurred for Panel 6 (2009) and Panel 12 (2-11) and were reported to the Director-General of DPI.

No other observed and/or reported subsidence impacts, incidents, service difficulties or community complaints on general surface of specific features were recorded above Panels 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 14 and 15, at the cessation of mining in July 2013.

4.5 Site Water Management

[Development Consent DA 274-9-2002 Schedule 4 condition 11 to 23]

Water Management Compliance Status: No non-compliances identified.

4.5.1 Water Management

[Development Consent DA 274-9-2002 Schedule 4 conditions 16]

The water management system for the Tasman Mine comprised the management of surface runoff from pit top area and groundwater inflows to underground mining areas.

Water management infrastructure at the Tasman Mine included the following:

- clean water diversion banks and drains;
- two pollution control dams, with total capacity of approximately 10,000m^3);
- oil/water separator;
- 'dirty water' rock lined drains and reinforced concrete pipes draining to the pollution control dams;
- process water storage tank with capacity of approximately 150 m^3.

The Tasman Mine water management system operated in accordance with Environment Protection Licence (EPL) 12483, DA 274-9-2002 and the Site Water Management Plan. The water management system comprised the following:

- separation of clean water runoff from undisturbed areas from disturbed area runoff ('dirty water'). Clean water was diverted off-site via diversion banks and drains;
- transfer of 'dirty water' runoff directly to the pollution control dams, or via an oil/water separator;
- capture of groundwater inflows from the underground workings to the 4ML pollution control dams for re-use as process water, or surplus water is discharged into the abandoned workings in the West Borehole Seam located beneath the Tasman Mine workings in the Fassifern Seam;
- delivery of potable water by water carts (Ace Water) for use in the Tasman Mine site bath-house and amenities block.

4.5.2 Water Management Plan

[Development Consent DA 274-9-2002 Schedule 4 condition 19]

The Water Management Plan prepared for the Tasman Mine satisfied Development Consent DA 274-9-2002 Schedule 4 conditions 19 and was approved by DoP on 13 April 2006. The Water Management Plan was revised in October 2012.

4.5.3 Surface Water Monitoring

[Development Consent DA 274-9-2002 Schedule 4 condition 20]

The Surface Water Monitoring Program was prepared as section 3 of the Water Management Plan approved on 13 April 2006 and revised in October 2012. The surface water monitoring was also included in the Integrated Environmental Monitoring Program section 4, December 2007.

Monthly monitoring of surface water quality commenced in November 2006 at two locations within Blue Gum Creek (BG1 within Tributary 3 west of George Booth Drive (downstream of site) and BG2 within Tributary 3 west of Dam B (upstream of site). Monitoring Tributary 3, upstream of the mine site (BG3) was not monitored between 2006 and 2013 due to insufficient water being available for sampling on all monitoring occasions.

Analysis of the results obtained when there was flow in the streams at the monitoring locations, indicated:

Blue Gum Creek Monitoring Sites	Range of Monitoring Results 2006 to 2013		
	pH	EC	TSS
BG1 - Blue Gum Creek (within Tributary 3 west of George Booth Drive (downstream of Tasman site)	6.5 to 7.8	410 to 1040 µS/cm	<2 to 108mg/l
BG2 - Tributary 3 west of Dam B (upstream of Tasman site)	5.0 to 6.5	110 to 450 µS/cm	5 to 46 mg/l
BG3 - Tributary 3, upstream of the Tasman mine site	No flow during monitoring events.		

These values are generally consistent with the water quality trigger values for Upland Rivers outlined within the *Guidelines for Fresh and Marine Water Quality* (ANZECC 2000) and the background values presented in the *Tasman Underground Coal Mine – Environmental Impact Statement* (August 2002) Table 6.8.

In conclusion, the surface water monitoring results between 2006 and 2013 generally appeared consistent with the background values presented in the *Tasman Underground Coal Mine – Environmental Impact Statement* (August 2002) and the water quality trigger values for Upland Rivers outlined within the *Guidelines for Fresh and Marine Water Quality* (ANZECC 2000), with no discernible trends over the 2006 to 2013 period of the Tasman Mine operation.

4.5.5 Groundwater Monitoring

[Development Consent DA 274-9-2002 Schedule 4 condition 19 and 21]

The Groundwater Monitoring Program was prepared to satisfy Development Consent DA 274-9-2002 Schedule 4 condition 21 and was approved by DoP on 13 April 2006. The Groundwater Monitoring Program was prepared as part of the revised Tasman Mine Water Management Plan section 4, to satisfy Development Consent DA 274-9-2002 Schedule 4 condition 21 in October 2012. Groundwater monitoring was also included in the Integrated Environmental Monitoring Program section 4.5 December 2007.

Groundwater inflows to the Tasman Mine underground workings were monitored utilising flow meters measuring the volume of water pumped from various sections of the underground mine workings. A series of groundwater monitoring bores were also installed to monitor groundwater levels.
Monthly monitoring of regional groundwater levels and quarterly monitoring of groundwater quality was undertaken throughout the period of the Tasman Mine operations in accordance with the Site Water Management Plan and Schedule 4 of DA 271-9-2002 Schedule 4 condition 18.

Within the *Tasman Underground Coal Mine – Environmental Impact Statement* (August 2002) it was predicted that water levels within the Fassifern Seam and sediments in the immediate vicinity of the Fassifern Seam would be drawn down by approximately 20m. The water level data collected during the Tasman Mine operations demonstrated that the water levels were consistently within predicted level.

Table 4.5.5: Tasman Mine Groundwater Quality 2010 to 2014 (monitored in the Dam B –dirty water dam)

Year	Salinity	pH	TDS
2010	1000 to 1812 µS/cm	7.5 to 8.9	-
2011	550 to 1320 µS/cm	7.73 to 8.71	-
2012	656 to 1570 µS/cm	8.13 to 8.45	420 to 940 mg/l
2013	936 to1610 µS/cm	8.27 to 8.47	484 to 960 mg/l
2014	Following cessation of mining on 19 July 2013 no further transfers or management of groundwater inflows was required and monitoring was suspended.		

In conclusion, the groundwater levels were consistent with the predictions in the *Tasman Underground Coal Mine – Environmental Impact Statement* (August 2002) and the groundwater quality did not exceed the trigger levels that would require further review.

4.6 Erosion and Sediment Control

[Development Consent DA 274-9-2002 Schedule 4 condition 19 and 22]

4.6.1 Erosion and Sediment Control Plan

[Development Consent DA 274-9-2002 Schedule 4 condition 22]

The Erosion and Sediment Control Plan was prepared to satisfy Development Consent DA 274-9-2002 Schedule 4 condition 22 and approved by the DoP on 13 April 2006.

Erosion and sediment control measures implemented during the operation of the surface facilities at the Tasman Mine included use of silt fencing down slope of rehabilitated batters and within drainage lines, and regular inspections of the erosion and sediment control measures, particularly following rainfall events and maintenance undertaken as required

The use of rock armouring at the drainage outlet and the natural filtering of the retained vegetation south of the parking area proved effective in conveying flows from the parking area at non-erosive velocities.
No major erosion occurred across the surface facilities area of the Tasman Mine during operations. The erosion and sediment control measures implemented during the operation of the Tasman Mine managed the surface runoff and minimised potential for loss of sediment from the site.

4.7 Flora and Fauna

[Development Consent DA 274-9-2002 Schedule 4 conditions 25 to 31]

Flora and Fauna Management Compliance Status: No non-compliances identified.

4.7.1 Flora and Fauna Management Plan

[Development Consent DA 274-9-2002 Schedule 4 condition 27]

The Flora and Fauna Management Plan prepared to satisfy Development Consent DA 274-9-2002 Schedule 4 condition 27 was approved by DoP on 27 June 2007. Flora and fauna monitoring was also included in the Integrated Environmental Monitoring Program section4.7, December 2007.

4.7.2 Flora and Fauna Monitoring

[Development Consent DA 274-9-2002 Schedule 4 condition 30]

The Flora and Fauna Monitoring Program was prepared as part of the Flora and Fauna Management Plan.

Annual flora and fauna surveys undertaken by Kleinfelder Australia / EcoBiological between 2007 and 2013 for assessment of the disturbance from the Tasman Mine surface infrastructure area indicated that flora species diversity has effectively remained constant during the 7 year monitoring program with the current species composition of each transect still very similar to the 2007 survey. Within the survey quadrats, there has been a slight floral species decline (due mainly to one species – *Podolobium ilicifolium* Prickly Shaggy Pea) however, the trend is not considered significant. Foliage Projective Cover (FPC) has shown an overall steady and consistent growth indicating the vegetation is part of a healthy functioning ecosystem.

Fauna species richness has remained consistent between 2007 and 2013 with no significant differences or trends throughout the monitoring period. Fauna species composition has also remained reasonably consistent. The fluctuations that have been recorded are considered to be natural and influenced by time spent surveying and climatic conditions.

4.8 Compensatory Habitat

[Development Consent DA 274-9-2002 Schedule 4 condition 28]

4.10.1 Compensatory Habitat Plan

[Development Consent DA 274-9-2002 Schedule 4 condition 28]

The Compensatory Habitat Plan was prepared as part of the Flora and Fauna Management Plan to satisfy Development Consent DA 274-9-2002 Schedule 4 condition 27 and approved by DoP on 27 June 2007. A 10ha area of compensatory habitat was established and approval for the area was obtained from DoP in 2007. The compensatory habitat area is located in the south western corner of the Tasman Mine Site and is comprised of a narrow buffer strip adjoining the mine disturbance area and a larger Core Habitat.

4.8.2 Compensatory Habitat Monitoring

[Development Consent DA 274-9-2002 Schedule 4 condition 28]

Monitoring within the compensatory habitat area indicated that diversity of floral species had remained generally constant with no significant changes recorded in Quadrat 1 since monitoring commenced in 2007. However, within Quadrat 2 there was a slight but progressive decline in floristic diversity. This is likely due to the absence of disturbance, in particular fire. The Foliage Projective Cover (FPC) for both quadrats have slightly increased since the 2012 survey with a clear trend of increasing FPC since 2007, indicating the vegetation is healthy and viable.

Total fauna species diversity in the compensatory habitat area has fluctuated over the past seven monitoring events with the highest number of species recorded in 2008 (56) and the lowest in 2011 (36), with 41 species recorded in 2013. Linear regression analysis supports a significant decline in overall fauna species richness from 2007 to 2013. There is no evidence that the development and operation of the Tasman Mine has attributed to the decline, the cause of which could not be confirmed.

4.9 Air Quality

[Development Consent DA 274-9-2002 Schedule 4 conditions 32 to 36]

Air Quality Compliance Status: No non-compliances identified

Air quality monitoring for the Tasman Mine in the Integrated Environmental Monitoring Program section 4.3, December 2007, included monthly dust deposition and a high volume air sampler at Seahampton for PM_{10} and Total Suspended Particulate (TSP).

An on-site automatic weather station was installed in November 2006 at the Tasman Mine surface infrastructure site. The weather station was operated in accordance with the Development Consent (DA 274-9-2002 Schedule 4 condition 36. The weather station monitored rainfall, wind speed, wind direction and temperature at 2m and 10m.

4.9.1 Dust Monitoring and Criteria

[Development Consent DA 274-9-2002 Schedule 4 condition 32]

Monthly deposited dust monitoring was undertaken by Holmes Air Sciences at three locations surrounding the surface infrastructure whilst PM_{10} monitoring was undertaken at the Seahampton Rural Fire Service (RFS) centre. Analysis of deposited dust samples were undertaken by the NATA accredited ACRIL Pty Ltd.

The air quality impact assessment criteria were specified in Development Consent DA 274-9-2002 Schedule 4 condition 32:

Table 2: Long term impact assessment criteria for particulate matter – Surface Infrastructure Site

Pollutant	Averaging Period	Criterion
Total suspended particulate (TSP) matter	Annual	90µg/m^3
Particulate matter <10µm (PM_{10})	Annual	30µg/m^3

Table 3: Short term impact assessment criterion for particulate matter – Surface Infrastructure Site

Pollutant	Averaging Period	Criterion
Particulate matter <10µm (PM_{10})	24 hour	50µg/m^3

Table 4: Long term impact assessment criteria for deposited dust – Surface Infrastructure Site

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited Dust	Annual	2g/m^2/mth	4g/m^2/mth

4.9.2 Review of Dust Monitoring Results

4.9.2.1 Dust Deposition Gauges

Dust deposition results demonstrated that no monitoring locations exceeded the criteria in Development Consent DA 274-9-2002 Schedule 4 condition 32 and the results were consistent with the air quality levels predicted within the *Tasman Underground Coal Mine – Environmental Impact Statement* (August 2002).

Table 4.9.1: Dust Deposition Gauge Annual Average Monitoring Results

Year	D1		D2		D3	
	Insoluble Matter	Ash	Insoluble Matter	Ash	Insoluble Matter	Ash
Jun 2009 to May 2010	1.1	0.8	1.0	0.7	1.5	1.0
Jun 2010 to May 2011	0.5	0.3	1.4	0.9	1.5	0.9
Jun 2011 to May 2012	0.6	0.3	2.3	1.5	1.2	0.8
Jun 2012 to May 2013	0.9	0.5	0.9	0.6	0.9	0.5

The dust deposition monitoring results were consistently less than the impact assessment criteria in Development Consent DA 274-9-2002 Schedule 4 condition 32 (except for monitoring site D2 between September and December 2012 when the insoluble matter ranged from 2.5 to 7.5g/m^3/month).

4.9.2.2 High Volume (PM10) Dust Samplers

PM_{10} and total suspended particulates were less than the annual average criteria (50µg/m^3 and 90µg/m^3 respectively), between 2007 and 2013 on all monitoring occasion except for one exceedance of the 24hr PM_{10} criteria on 31 December 2007. RFS advised that the driveway at the RFS centre was cleaned with an air blower on that day and this may have attributed to the elevated reading. (There were reportedly no changes to activities at the mine at that time so the elevated reading is not considered to be project related).

4.9.3 Conclusion

The dust deposition and PM_{10} monitoring results collected during the operation of the Tasman Mine between 2007 and 2013 generally demonstrated compliance with the air quality impact assessment criteria in Development Consent DA 274-9-2002 Schedule 4 condition 32.

4.10 Noise

[Development Consent DA 274-9-2002 Schedule 4 condition 37 and 38]
[Environment Protection Licence 12483 condition L2]

Noise Compliance Status: No non-compliances identified.

4.10.1 Noise Management

Noise management at the Tasman Mine included:

- All truck drivers were instructed to limit the use of engine brakes and to be mindful of noise when accelerating near residential areas.
- All equipment used on-site was regularly serviced to ensure that sound power levels remained at or below nominated levels used to predict noise generation of the mine.
- Strict adherence to hours of product transportation activities was enforced by Mine Management.

4.10.2 Noise Criteria

[Development Consent DA 274-9-2002 Schedule 4 condition 37]

Noise impact assessment criteria were specified in Development Consent DA 274-9-2002 Schedule 4 condition 37 for West Wallsend and all other residences. The Noise Monitoring Program was developed to provide data for the quarterly attended monitoring at Seahampton and West Wallsend.

Location	Day	Evening	Night	
	L Aeq($_{15\ minute}$) dB(A)			LA1$_{(1\ min)}$ dB(A)
West Wallsend	38	38	38	38
All other residences	Background + 5dBA	Background + 5dBA	Background + 5dBA	Background + 15dBA

4.10.3 Noise Monitoring

[Development Consent DA 274-9-2002 Schedule 4 condition 38]

Quarterly noise surveys were conducted by Heggies between 2007 and 2013. The noise surveys reported that activities at the Tasman Mine were not audible at the Seahampton and West Wallsend locations during each monitoring event. The noise monitoring results indicated that the noise levels at both locations for all monitoring periods were above the project noise goals, but the dominant noise sources were local and freeway traffic, insects and local resident activity. The Heggies reports concluded that the Tasman Mine did not

contribute to the noise environment at either Seahampton or West Wallsend, and therefore did not exceed the applicable noise criteria.

In response to complaints received relating to noise from project-related vehicals, a truck noise assessment was completed by Heggies in July 2007. The assessment concluded that received noise from existing and project-related traffic was between 53 dB(A) and 55 dB(A) LAeq (1 hour) at the closest residential receivers to George Booth Drive. These levels are less than the applicable traffic noise criteria of 60 dB(A) LAeq (1 hour).

4.10.2 Conclusion

Noise emissions from the Tasman Mine were not audible at the Seahampton or West Wallsend locations during monitoring surveys conducted between 2007 and 2013. It was reported that the Tasman Mine did not contribute to the noise environment at either Seahampton or West Wallsend, and therefore did not exceed the applicable noise criteria.

4.11 Aboriginal Heritage

[Development Consent DA 274-9-2002 Schedule 4 condition 41 and 42]

Prior to commencement of surface disturbance for the Tasman Mine, representatives of the Awabakal Local Aboriginal Land Council participated in the survey of the proposed surface infrastructure area and did not identify any archaeological constraints to the development. No known items of Aboriginal heritage were identified within the surface infrastructure area during the environmental studies completed for the Environmental Impact Statement or during any activities undertaken within the surface infrastructure area during the development and operation of the Tasman Mine.

An identified axe grinding groove identified above Tasman Mine Panel 3 was protected with a Level 3 control zone and subsidence monitoring undertaken as outlined in the approved Subsidence Management Plan (SMP). The Tasman Mine Subsidence Management Plan End of Year Report 2010 recorded that there were no visible effects or impacts on either the general surface or specific surface features. No further inspections for Aboriginal heritage items were undertaken.

4.12 Waste

[Development Consent DA 274-9-2002 Schedule 4 condition 43 and 44]

The Tasman Mine site waste was managed in accordance with the waste hierarchy described in the Waste Management Plan. No waste from any source outside of the Tasman Mine site was received onto the mine site during the development or operation of the mine between 2007 and 2013.

The key waste streams generated at the Tasman Mine site were:

- sewage and effluent from the bathhouses;
- recyclable and non-recyclable general wastes; and
- other wastes from mining and workshop activities (e.g. waste oils, scrap metal and used tyres).

General waste minimisation principles were applied (i.e. reduce, re-use and recycling where practicable) to minimise the quantity of wastes that required off-site disposal. No on-site rubbish disposal or landfill occurred.

Management of the waste generated at the Tasman Mine site occurred as follows:

- No coal processing was undertaken on site, so no fine or coarse rejects were generated from the Tasman Mine operations.
- All waste rock material was temporarily stockpiled on the Tasman Mine site adjacent the portal access road before being transported to the Donaldson Open Cut Coal Mine for emplacement.
- All ablutions waste and bathhouse wastewater was collected by licensed contractor (Veolia) for disposal to an approved sewerage treatment plant.
- All waste oil was stored in 205L drums in the oil store prior to being removed from site by Australian Waste Oils.
- Used tyres were removed from site during servicing by Marathon for repair or disposal.
- Paper, cardboard, steel, aluminium and any other recyclable material was stored separately in 1.5m^3 and 3.0m^3 skip bins located next to the workshop and administration building. Paper, cardboard and general waste material continued to be collected by Veolia on a weekly basis and scrap metal was collected by Smorgan Recycling.

4.13 Visual

[Development Consent DA 274-9-2002 Schedule 4 condition 45 to 47]

The Tasman Mine site surface development was established to minimise the visual impact of the development by retaining a vegetative buffer between George Booth Drive and the surface structures. All disturbed surface areas of the Tasman Mine development near the Tasman Mine access from George Booth Drive were revegetated.

The low profile of the buildings and colour scheme minimised the visual impact of the surface development at the Tasman Mine.

The surface facilities flood lights were installed in accordance with AS4282:1995 – Control of Obtrusive Effects of Outdoor Lighting to minimise light spill to off-site areas (e.g. George Booth Drive). A complaint of light spill to George Booth Drive intersection occurred in July 2007 when the Tasman Mine development commenced in July 2007, and the lights were redirected to correct the light spill to George Booth Drive. No further complaints related to light spill were received after July 2007.

All the surface buildings and other infrastructure were removed and the site rehabilitated following completion of mining of Panels 1 to 15 in July 2013 (see Plate 4.16.3).

4.14 Rehabilitation

Rehabilitation Compliance Status: Compliant - Ongoing

4.14.1 Rehabilitation and Mine Closure

The Tasman Mine rehabilitation and decommissioning program has included:

- decommissioning of the existing pit top facility and subsequent closure and rehabilitation;
- progressive rehabilitation of minor surface disturbance areas;
- remediation of subsidence impacts (if any) on natural surface features.

The final land use of Tasman Mine surface disturbed areas is primarily native vegetation conservation. The Tasman Underground Mine Environmental Impact Statement (2002) and the current Mining Operations Plan (1 April 2012 to 1 April 2021) outline the approach and objectives for rehabilitation of the Tasman Mine. The

rehabilitation planning criteria in the Mining Operations Plan are based on the Australia and New Zealand Minerals and Energy Council (ANZMEC) and Minerals Council of Australia's (MCA) (2000) Strategic Framework for Mine Closure.

Rehabilitation objectives for final landform features at the existing Tasman Underground Mine outlined in the current MOP include:

- the creation of a nil maintenance, geotechnically stable, safe and vegetated landform that blends with the surrounding natural landscape;
- re-establishment of approximately 4.7ha of Class VI and 2.9ha of Class VII land including 1.8ha of native vegetation; and
- no increase in the pre-mining visual impact of the site from both local and distant vantage points.

The rehabilitation strategy for the Tasman Mine involved the progressive rehabilitation of minor surface disturbance areas and rehabilitation of surface disturbed areas at the end of underground operations at the Tasman Mine (July 2013).

The final land use of Project surface disturbance areas would be native vegetation conservation (except for areas within electricity transmission line easements).

Minor surface disturbance areas rehabilitated included access tracks, environmental monitoring and management activities (e.g. installation of monitoring equipment) and mine subsidence surface impacts.
The Mine Closure Plan developed for the Tasman Mine (*Tasman Underground Mine Existing Pit Top Mining Operations Plan for Closure April 2014 to April 2016*, Umwelt) was prepared in March 2014 addressed contamination assessments, infrastructure decommissioning and dismantling, landform design, site access and services and security.

Table 4.16.1: Key Completion Criteria

Rehabilitation	Completion Criteria
Final Land Use	• Final landforms suitable for final land use and sustainable in terms of the land use. • Land use is compatible with the surrounding land fabric and land use requirements, as far as possible. • Site is clean and tidy, and free of equipment and structures, with any waste substances securely and safely contained that have the potential to affect land use or result in pollution.
Final Landforms	• Safe, stable, adequately drained post-mining landforms consistent with the surrounding landscape as evidenced by comparative photography, water quality monitoring and geotechnical surveys. • Final landforms do not present a hazard to persons or native fauna.
Rehabilitation and Revegetation Areas	• Revegetated areas consistent with approved rehabilitation and mine closure goals. • Revegetation on trajectory toward self-sustaining ecosystem and/or measures of ecosystem function (e.g. vegetation cover, landform stability, species diversity) equivalent to reference sites. • Revegetation areas integrate with surrounding un-disturbed vegetation to provide consolidated areas and wildlife corridors where possible.

4.14.2 Rehabilitation Progress

4.14.2.1 Pit Top Area

The pit top area was decommissioned following completion of underground mining in July 2013.

The final landform concept for the existing Tasman Mine pit top area is naturally shaped contoured with native vegetation, except for the areas within the electricity transmission line easements that would be returned to grassland in accordance with Ausgrid and TransGrid requirements.

The removal of surface infrastructure and roads (except for portions of the sealed mine access road and adit access road), draining of any water storages, reshaping, topsoiling and revegetating the area to create a stable vegetated landform consistent with the surrounding landscape, in accordance with the Flora and Fauna Management Plan.

The existing ventilation fan would remain operational during a care and maintenance period to provide adequate ventilation of the underground workings and to allow for future/ongoing use (e.g. Tasman Extension Project).

The adit had been sealed at the time of this audit in accordance with Mine Design Guideline (MDG) 6001 Guideline for the Permanent Filling and Capping of Surface Entries to Coal Seams (Mine Safety Operations, 2012).

4.14.2.2 Mine Access Road and Internal Roads

The mine access road and associated culverts and rip rap have been retained to maintain drainage patterns and for ongoing use.

All other portions of roads have been rehabilitated by removing the bitumen surface of any sealed roads and reshaping the ground surface to create a stable free draining landform. The revegetation is consistent with that described in the Flora and Fauna Management Plan.

Plate 4.16.3: Tasman Mine development 2009

Tasman Mine following closure and rehabilitation 2015

4.14.4 Conclusion

It is considered that the rehabilitation targets set within the MOP have largely been achieved for the Tasman Mine site that was developed and operated in accordance with the Development 274-9-2002 conditions.

5. Conclusions

The audit of Development Consent 274-9-2002 for the Tasman Underground Coal Mine undertaken on 16 to 20 March 2015 included a site inspection, document review and discussions with relevant project personnel.

The status and availability of documentation provided to the auditor was adequate to undertake verification of compliance with the conditions of approval, in relation to the construction and operation of the Tasman Mine project. All the management plans and monitoring programs required by the conditions of approval were approved by the Director-General and implementation of the programs was adequate to provide assessment of the operational performance of the mine in relation to the requirements of the Development Consent 274-9-2002 dated 16 March 2004.

The documentation for the Tasman Mine project and the operational activities, demonstrated a high degree of compliance with the Development Consent 274-9-2002 conditions of approval during the operation of the Tasman Mine between 2007 and 2013.

The rehabilitation of the Tasman Mine site after closure of the underground mine and surface infrastructure areas has largely been achieved for the Tasman Mine site, in accordance with the rehabilitation targets set within the Mining Operations Plan.

Attachment A
Development Consent – DA-274-9-2002, granted 16 March 2004

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	SCHEDULE 2 ADMINISTRATIVE CONDITIONS			
	OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT			
1.	In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development			**Noted**
	TERMS OF CONSENT			
2.	The Applicant shall carry out the development generally in accordance with the: (a) DA 274-9-2002; (b) EIS titled *Tasman Underground Coal Mine* – Environmental Impact Statement, prepared on behalf of Newcastle Coal Company and dated August 2002; (c) Supplementary Traffic Report prepared for Newcastle Coal Company Pty Limited and dated September 2002; (d) Response to DEC's request for additional information including: • the report titled, "Response to Road Traffic Noise Issues for the Proposed Tasman Coal Mine," prepared by Richard Heggies Associates Pty Ltd and dated 30 October 2002; • the report titled, "Response to EPA's request for additional information regarding the Air Quality Assessment, prepared by Holmes Air Sciences and dated 21 October 2002; and • the report titled, "proposed Tasman Underground Mine – Water Management	• Tasman Underground Coal Mine – Environmental Impact Statement, August 2002	The Tasman Project has been developed generally in accordance with *the Tasman Underground Coal Mine – Environmental Impact Statement,* August 2002 submitted with DA 274-9-2002.	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	Studies, Supplementary Report, Response to Issues raised by EPA, prepared by Peter Dundon and Associates Pty Ltd and dated July 2003; and (e) Applicant's response to the issues raised in the submissions, in correspondence dated 13 October 2003			
3	If there is any inconsistency between the above, either the conditions of this consent or the most recent document shall prevail to the extent of the inconsistency.		No inconsistency between the documents in Schedule 2 condition 2 were noted.	**Noted**
4	The Applicant shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) Any reports, plans or correspondence that are submitted in accordance with this consent; and (b) The implementation of any actions or measures contained in these reports, plans or correspondence.			**Noted**
	LIMITS ON CONSENT			
	Mining Operations			
5	This consent lapses 21 years after the grant of the mining lease for the development.		Mining commenced at the Tasman Mine Project in May 2006 and operations under the Development Consent granted on 16 March 2004 ceased on 19 July 2013.	**Compliant**
6	The Applicant shall not extract more than 975,000 tonnes of run-of-mine (ROM) coal a year from the development		Less than 1.5 million tonnes of ROM coal was extracted from the site during the 2011 and 2013 calendar years.	**Compliant (Coal Mining ceased on 19 July 2013)**
7	The Applicant shall not transport more than 4,000 tonnes of ROM coal a day from the site.		All coal transported from the Tasman Mine site to the Bloomfield CHPP occurred along the prescribed coal haulage route.	**Compliant (Coal Mining ceased on 19 July 2013)**
8	The Applicant shall ensure that no haulage vehicles enter or leave the site between 10pm and 7am Monday to Friday, and on public holidays.		ROM coal transported from the Tasman Mine site to the Bloomfield CHPP did not occur between 10pm and 7am Monday to Friday, or on public holidays.	**Compliant (Coal Mining ceased on 19 July 2013)**
	Structural Adequacy			

Condition No.	Development Consent Condition	Verification	Comments	Compliance
9	The Applicant 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.	• Construction Certificate, Notice of Determination CC 07-228, AcroCert, 25 June 2007	All new buildings established on the Tasman Mine site surface infrastructure area (i.e. Training Room, Toilet Block, Bath House Extensions and associated walkways) were constructed in accordance with the BCA.	**Compliant (Coal Mining ceased on 19 July 2013)**
	SCHEDULE 4 - SPECIFIC ENVIRONMENTAL CONDITIONS			
	TRAFFIC & TRANSPORT			
	Road Works			
George Booth Drive/ Tasman Mine Access Road Intersection				
1	Prior to carrying out any development on the site, the Applicant shall construct an RTA seagull type intersection with raised islands at the George Booth Drive/ Tasman Mine Access Road intersection, to the satisfaction of the RTA. The intersection shall be designed for a 90kph design speed or the 85th percentile speed, whichever is the greater, and be located to meet appropriate sight distance requirements, and include: (a) Left turn in deceleration and left turn out acceleration lanes with the left turn out designed for heavy vehicles; (b) A protected right turn deceleration lane with storage for two heavy vehicles; (c) A protected right turn acceleration lane for service and light vehicles; (d) Intersection lighting to relevant standards; (e) The mine access road to be sealed to a washing facility to minimise dust and mud being carried onto George Booth Drive; and (f) Signs and line marking in accordance with the relevant RTA/Australian standards	• Letter to RTA re Tasman Mine Development – Associated Roadworks on George Booth Drive and John Renshaw Drive – Completion, 4 Dec 2006  **Plate 4/1: Tasman Mine intersection with George Booth Drive**	The Tasman Mine intersection with George Booth Drive was completed to the satisfaction of RTA, prior to commencement of construction at the Tasman Mine site. The works included: • Acquisition of land for road widening; • Construction of a 'Seagull' type intersection; • Provision of left turn in deceleration and left turn out acceleration lane for heavy vehicles; • Protected right turn deceleration lane; • Protected right turn acceleration lane ; • Street lighting to RTA standards; • Construction of drainage works, road signage, line marking, and safety barriers as required.	**Compliant COMPLETE**
George Booth Drive/ John Renshaw Drive Intersection				
2	Prior to the commencement of coal haulage from the site, the Applicant shall upgrade the George Booth Drive/ John Renshaw Drive intersection to an RTA seagull type intersection with raised islands, to the satisfaction of the RTA. The intersection shall be designed for a 100kph design	• Letter to RTA re Tasman Mine Development – Associated Road-works on George Booth Drive and John Renshaw Drive – Completion, 4 Dec 2006	The George Booth Drive/John Renshaw Drive intersection was completed to the satisfaction of RTA, prior to commencement of coal haulage from the Tasman Mine site. The works included: • Construction of a roundabout intersection; • Provision of street lighting to RTA standards;	**Compliant COMPLETE**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	speed or 85th percentile speed, whichever is the greater, and include: (a) A left turn deceleration lane; (b) A protected right turn in deceleration and storage lane; (c) A protected right turn out acceleration lane for heavy vehicles; (d) Intersection lighting to relevant standards; and (e) Signs and line marking in accordance with the relevant RTA/Australian standards.	 **Plate 2: George Booth Drive/John Renshaw Drive intersection**	• Provision of auxiliary climbing lane on the eastbound carriageway of JRD for 1200m; • Construction of drainage works, road signage, line marking, and safety barriers as required George	
George Booth Drive – Climbing Lanes				
3	Prior to the commencement of coal haulage from the site, the Applicant shall provide: (a) an auxiliary climbing land on the westbound carriage way on George Booth Drive from Blue Gum Creek to the west for a distance of 1200metres; and (b) an auxiliary climbing lane on the eastbound carriage way of George Booth Drive using an existing widened pavement area by a minor additional widening and marking of lines over a distance of 1200 metres to 2800 metres from the proposed mine access to the satisfaction of the RTA.	• Letter to RTA re Tasman Mine Development – Associated Road-works on George Booth Drive and John Renshaw Drive Completion, 4 Dec 2006  Plate 4/3: Climbing lane on George Booth Drive (Blue Gum Creek Passing Lane).	The climbing lane on George Booth Drive (Blue Gum Creek Passing Lane) was completed to the satisfaction of RTA, prior to commencement of coal haulage from the site. The works included: • Acquisition of land for road widening; • Construction of the westbound climbing lane on GBD for 1200m; • Construction of drainage works, road signage, line marking, and safety barriers as required.	**Compliant COMPLETE**
	John Renshaw Drive – Climbing Lane			

Condition No.	Development Consent Condition	Verification	Comments	Compliance
4	Prior to the commencement of road haulage from the site, the Applicant shall provide an auxiliary climbing lane on the eastbound carriageway of John Renshaw Drive, to the east from George Booth Drive for a distance of 1200 metres, to the satisfaction of the RTA.	• Letter to RTA re Tasman Mine Development – Associated Road-works on George Booth Drive and John Renshaw Drive Completion, 4 Dec 2006  **Plate 4/4: Climbing lane on John Renshaw Drive**	The climbing lane on John Renshaw Drive was completed on the eastbound carriageway to the east of GBD intersection for 1200m to the satisfaction of RTA, prior to commencement of coal haulage from the site. The works included: • Acquisition of land for road widening; • Construction of the eastbound climbing lane on JRD with shoulder widening for 1200m; • Construction of drainage works, road signage, line marking, and safety barriers as required	**Compliant COMPLETE**
George Booth Drive – Passing Lanes at Property Access and Shoulder Widening				
5	Prior to commencement of coal haulage from the site, the Applicant shall: (a) Provide sealed passing lanes at each property access between Richmond Vale Road and John Renshaw Drive. These passing lanes shall be designed to the 90kph design speed or 85th percentile speed, whichever is the greater, and may involve a continuous passing lane where property accesses are in close proximity (300 metres or less); and (b) Widen road shoulders between the Tasman Mine Access Road and John Renshaw Drive to the satisfaction of the RTA.	 **Plate 4/5: Driveway passing facilities on George Booth Drive between Richmond Vale Road and John Renshaw Drive**	Driveway passing facilities on George Booth Drive between Richmond Vale Road and John Renshaw Drive was completed to the satisfaction of RTA, prior to commencement of coal haulage from the site. The works included: • Construction of RTA type basic Right Turn Facilities at each property access with sealed shoulders • Adjust affected driveways to tie into the new road works; • Construction of drainage works, road signage, line marking, and safety barriers as required.	**Compliant COMPLETE**
	Road Transport Protocol			
6	Prior to the commencement of coal haulage from the site, the Applicant shall develop a Road Transport Protocol, in consultation with the RTA, LMCC, and CCC. This protocol shall,	• Road Transport Protocol for Haulage of Coal from the Tasman Mine to the Bloomfield Coal Receival, December 2006	The Road Transport Protocol was developed in December 2006 in consultation with the RTA, LMCC and CCC. The Protocol was updated in March 2008.	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(a) Define the haulage route to be used; the maximum number of road movements and the haulage hours. (b) Include a Traffic Management Plan, which addresses: • Procedures to ensure that drivers adhere to the designated haulage route as required under this Protocol; • Measures to achieve a low-frequency, regular trucking schedule rather than a high-frequency, campaign trucking schedule; • Contingency plans where, for example the designated transport route is disrupted. This shall also address procedures for notifying relevant agencies and affected communities of the required implementation of any such contingency plans; • Procedures to ensure that all haulage vehicles associated with the Colliery are clearly distinguishable as Tasman Mine coal haulers; • Details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with haulage from the Colliery or return of unladen trucks from the Bloomfield CPP; and • Measures to ensure that the provisions of the Traffic Management Plan are implemented, eg. education of drivers and any contractual agreements with operators of heavy vehicles which service the Colliery. (c) Include a Code of Conduct for drivers that addresses: • Travelling speeds; • Staggering of truck departures to ensure a regular trucking schedule throughout the day; • Instructions to drivers not to	• Road Transport Protocol for Haulage of Coal from the Tasman Mine to the Bloomfield Coal Receival, Revision 18 March 2008 • Yes	The Road Transport Protocol applied to all drivers associated with the haulage of coal from the Tasman Mine site to the Bloomfield CHPP. The Road Transport Protocol was implemented with the Traffic Management Plan for the Tasman Mine during operations between 2007 and 2013.	

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; • Instruction to drivers to adhere to the designated haulage route; • Instruction to drivers to be especially safety conscious and to ensure that traffic regulations are obeyed strictly; • Driver training in the Code to ensure that all drivers are made aware and to adhere to the Code; and • Procedures for ensuring compliance with and enforcement of the Code.			
	Independent Traffic Audit			
7	Within 6 months of commencement of coal haulage, and every 6 months thereafter, unless the the site between 10pm and 7am Monday to Friday, and on public holidays directs otherwise, the Applicant shall commission a suitably qualified person, whose appointment has been approved by the D-G, to conduct an Independent Traffic Audit of the development. The audit must: (a) be undertaken without prior notice to the Applicant, and in consultation with the RTA, LMCC and CCC; (b) Review haulage records; (c) Assess the impact of the development on the performance of road network; (d) Investigate the accident records on the haulage routes and any incidents involving haulage vehicles from the development; assess effectiveness of the Drivers Code of Conduct; and recommend measures to reduce or mitigate any adverse or potentially adverse impacts.	• Letter to DoP Requesting Approval of Auditor for Independent Traffic Audit, 15 June 2007 • Letter from DoP Approval of Auditor for Independent Traffic Audit, 10 July 2007 • Haulage Audit and Safety Review, Connell Wagner, dated 25 January 2008 • Letter to RTA re Independent Traffic Audit, 18 February 2008 • Letter to LMCC re Independent Traffic Audit, 18 February 2008 • Letter to CCC re Independent Traffic Audit, 18 February 2008 • Independent Traffic Audits Tasman Underground Mine, Connell Wagner, 2008 to 2013	The Road Traffic Audits were conducted annually and reported to the Director-General. Mr Nial O'Brien of Connell Wagner was approved by the DoP to conduct the Independent Traffic Audit required by MCoA 7. The first independent traffic audit was conducted on 2 August 2007 and the report was submitted to Newcastle Coal on 25 January 2008. Copies of the report were provided to the RTA, LMCC and CCC for comment. Comments on the audit were provided to Connell Wagner. A second Independent Traffic Audit was conducted on 2 May 2008and provided Tasman Mine by Connell Wagner on 15 May 2008. Annual traffic audits were conducted between 2008 and 2013. Newcastle Coal implemented recommendations made in the reports in relation to road signage, traffic etc.	**Compliant COMPLETE**
8	Within 1 month of commissioning the audit, or as otherwise agreed with the D-G, the Applicant shall submit a copy of the audit report to the D-G, with a response to any of the recommendations contained in the audit report.		The Independent Traffic Audit reports were conducted by Connell Wagner were submitted to the Director-General annually.	**Compliant**
	SUBSIDENCE			

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	Subsidence Performance Criteria			
9	The Applicant shall ensure that there is no impact as a result of subsidence from mining associated with this DA, on the following infrastructure and landscape features: (a) Transmission towers and communication towers on Mount Sugarloaf; (b) Power line pylons; (c) Steep slopes, cliff lines and significant rock outcrops on the western side of the deposit, as identified in the EIS; and (d) The Sydney to Newcastle freeway (F3) and/or the corridor identified for the proposed F3 to Branxton National Highway Link Road		The Tasman underground mining works were designed to manage surface subsidence for protection of the aboveground infrastructure and landscape features. The underground works are progressively approved by DPI for each extraction panel.	**Compliance COMPLETE**
	Subsidence Management Plan			
10	Before carrying out any underground mining operations that will potentially lead to subsidence of the land surface, the Applicant shall prepare a Subsidence Management Plan for those operations in accordance with the following DMR documents (or the most current and updated versions of these documents): *(a) New Approval Process for Management of Coal Mining Subsidence - Policy*; and *(b) Guideline for Applications for Subsidence Management Approvals,* to the satisfaction of the Director-General of DMR.	• *New Approval Process for Management of Coal Mining Subsidence - Policy; and* • *Guideline for Applications for Subsidence Management Approvals* Tasman Underground Mine Subsidence Management Plans, • SMP Panel 1 Nov 2007 • SMP Panels 2 to 4 May 2008 • SMP Panel 5 Aug 2008 • SMP Panels 6 to 9 Oct 2008 • SMP Panels 10-15 Mar 2011	A Subsidence Management Plan (SMP) was prepared for the Tasman Mine with approvals sought from DPI for each Pillar Extraction Panel (or Panels) prior to commencement of extraction. Approvals were obtained for additional panels as the mine progresses: • SMP Panel 1 November 2007 • SMP Panels 2 to 4 May 2008 • SMP Panel 5 August 2008 • SMP Panels 6 to 9 October 2008 • SMP Panels 10-15 March 2011	**Compliant COMPLETE**
	Pollution of Waters			
11	Except as may be expressly provided by an Environment Protection licence, the Applicant shall comply with Section 120 of the *Protection of the Environment Operations Act* 1997 during the carrying out of the development.	• *Protection of the Environment Operations Act* 1997, section 120		**Noted**
	Minimise Impacts			
12	The Applicant shall carry out the development in a way that prevents and/or minimises the potential surface or ground water impacts of the development.			**Noted**
	Stability Assessment			

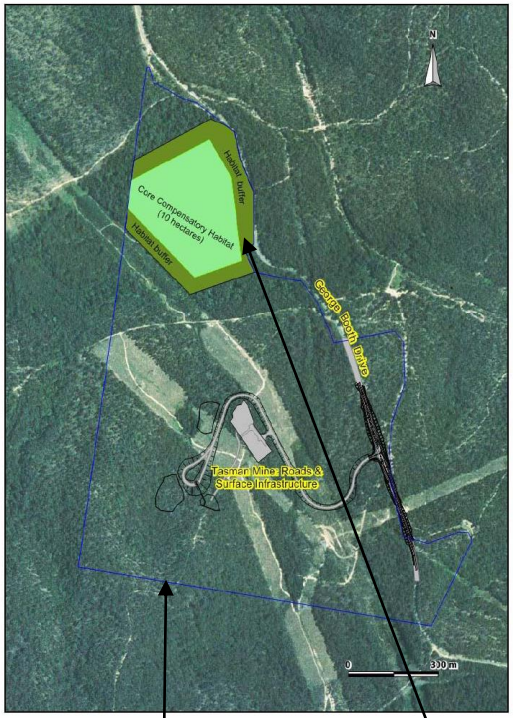
Condition No.	Development Consent Condition	Verification	Comments	Compliance
13	The Applicant shall not commence mining under any watercourse until a stability assessment of the watercourse has been conducted to the satisfaction of the Department.	Subsidence Management Plans section 8: • SMP Panel 1 November 2007 • SMP Panels 2 to 4 May 2008 • SMP Panel 5 August 2008 • SMP Panels 6 to 9 October 2008 • SMP Panels 10-15 March 2011	Stability assessment was undertaken and reported in the Subsidence Management Plans prior to mining works occurring under any water course.	**Compliant**
	Obstruction of Flood Waters			
14	Works used for the conveying, distributing or storing water from the work authorised by this consent shall not be constructed or installed so as to obstruct the free passage of floodwaters to or from a river or lake.		All surface works were constructed away from any water course and no structures have interfered with the flows of water in the local waterways on the site.	**Compliant**
	Tributary Impact Statement			
15	Any application to the DECC for a licence under the Protection of the Environment Operations Act 1997 to discharge surplus mine water must be supported by a tributary impact statement. The tributary impact statement must include a geomorphologic evaluation of the watercourse and an assessment of the impact of the proposed discharge on the streams flora and fauna as well as any users and residents downstream.		No discharge occurred to the environment from the mine works between 2007 and 2013.	**Not applicable**
	Surface Water Management System			
16	The Applicant shall: (a) Construct and utilise a water management system to mange the collection, storage, treatment and use of wastewater; (b) install bunds around areas in which fuels, oils, and chemicals are stored. Bunds must: • Have walls and floors constructed of impervious materials; • Be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed); • Have walls not less than 250mm high; • Have floors graded to a collection sump; and • Not have a drain valve incorporated in the bund structure; (c) install a wastewater treatment facility with oil water separator and sediment trap to treat drainage from the hardstand, vehicle servicing and general workshop areas	• Site Water Management Plan 12 April 2006	(a) The surface water management on site provided for the separate conveyance of all 'clean' runoff from undisturbed and sealed areas of the development (including the car park) around the operational areas. The collection of 'dirty' runoff from areas likely to contain pollutants (such as coal dust, oil and grease was treated as necessary through the oil/water separator and sediment traps and directed to the pollution control dams for reuse on site. (b) All fuel, oils and chemicals were stored i with control of runoff to a sump from the sealed surfaces, to the oil/water separator and sediment trap. Any spillage or runoff from the chemical and oil storage shed floor was captured for treatment. (c) All runoff, drainage and spillage from the general workshop, hardstand, vehicle servicing area and chemical storage areas is directed to the oil/water separator and sediment trap for treatment.	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(d) ensure that proposed dirty water and clean water dams are located outside any natural water course and be designed and constructed in accordance with the publication titles "Managing Urban Stormwater: Soils and Construction (Department of Housing; and (e) construct banks, channels and similar works to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, haul roads, overburden disposal areas, coal handling areas and wastewater treatment facilities. All diversion banks, channels and points of discharge should be constructed and stabilised so as to minimise erosion and scouring.		(d) The water storage dams on the Tasman Mine site were designed as Type F basins. Two dams were located within the Tributary 3 catchment to the north of the mine facilities to collect all runoff before it reached the water course. (e) The surface runoff from the areas disturbed or affected by the mine activities was diverted to channels with banks constructed as necessary to prevent the loss of water to the natural water courses. The design of the banks and channels controlled water flows and reduced the potential for erosion or scouring.	
	Monitoring			
17	The Applicant shall monitor (by sampling and obtaining results by analysis) the pollutants in Table 1 using the specified sampling method, units and frequency: Pollutant Frequency Sample Point 1 – Water discharge point from dirty water dam (Figure 5.7 of the EIS) EC µS/cm pH units TSS mg/L During wet weather discharge Grab Point 2 – Blue Gum Creek d/s of confluence with Tributary 3 EC µS/cm pH units TSS mg/L Before and during discharge from Point 1 Grab	• Letter from DoP re Approval of the Environmental Monitoring Program, 18 Jan 2007	Sampling of water discharges was conducted at the EPL No. 12483 condition P1.3 designated points, if discharge occurred.	**Compliant**
18	The Applicant shall monitor regional groundwater levels and quality in the surrounding aquifers during the development and at least 5 years after mining to the satisfaction of the DG.	• Integrated Environmental Monitoring Program, Dec 2007	Monitoring of the regional groundwater levels and quality in the surrounding aquifers occurred during the Tasman Mine extraction from Panels 1 to 15 and the monitoring is continuing in accordance with the Integrated Environmental Monitoring Program section 4.5.	**Compliant Ongoing**
	Site Water Management Plan			
19	Prior to carrying out any development on the site the Applicant shall prepare a Site Water Management Plan, in consultation with CCC, LMCC and NSW Fisheries, and to the satisfaction of the D-G. This plan shall include: (a) Surface Water Monitoring Plan (b) Groundwater Monitoring Program (c) Erosion and Sediment Control Plan	• Site Water Management Plan (SWMP), April 2006 • Letter to DoP re Site Water Management Plan, 24 January 2006 • Letter from DoP re Approval Site Water Management Plan, 13 April 2006 • Surface Water Monitoring Plan • Groundwater Monitoring Program	The Site Water Management Plan for Tasman Mine includes sections for each of the conditional requirements: (a) SWMP section 3.4 Surface Water Monitoring Plan (b) SWMP section 4.6 Groundwater Monitoring Program (c) SWMP section 5 Erosion and Sediment Control Plan	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(d) Surface and Ground Water Response Plan (e) Strategy for decommissioning water management structures on the site.	• Erosion and Sediment Control Plan • Surface and Ground Water Response Plan • Water Management Plan, Oct 2012	(d) SWMP section 3.5 Surface and Ground Water Response Plan	
20	The Surface Water Monitoring Plan shall include: (a) Detailed baseline data on surface water flows and quality in Blue Gum Creek upstream and downstream of the development; (b) Surface water impact assessment criteria; (c) Program to monitor surface water flows and quality in Blue Gum Creek; and (d) Program to monitor the effectiveness of the Erosion and Sediment Control Plan.	• Water Management Studies, Tasman Underground Mine, Peter Dundon & Associates, August 2002 • EIS section 6.7, August 2002 Site Water Management Plan, April 2006 • Letter to DoP re Site Water Management Plan, 24 January 2006 • Letter from DoP re Site Water Management Plan, 13 April 2006 • Water Management Plan, Oct 2012	(a) EIS section 6.7 Table 6.9 Blue Gum Creek surface water quality (b) Impact assessment criteria are described in Table 6.8 of the EIS and are based on ANZECC trigger values for upland rivers. (c) Monthly surface water quality monitoring commenced in November 2006 in accordance with the site water monitoring program at two locations within Blue Gum Creek, one within Tributary 3 west of George Booth Drive (downstream of site) – BG1 and the other within Tributary 3 west of Dam B (upstream of site) – BG2. (d) Erosion and sediment control structures are inspected regularly and after rainfall events to ensure the integrity of the structures is maintained.	**Compliant**
21	Groundwater Monitoring Program shall include: (a) detailed baseline data of groundwater levels and quality, based on statistical analysis to benchmark the pre-mining natural variation in groundwater levels and quality; (b) groundwater impact assessment criteria; (c) program to monitor the volume of groundwater seeping into the underground mine workings; (d) program to monitor regional groundwater levels and quality in the aquifers.	• Water Management Studies, Tasman Underground Mine, Peter Dundon & Associates, August 2002 • EIS section 6.7, August 2002 Site Water Management Plan, April 2006 • Letter to DoP re Site Water Management Plan, 24 January 2006 • Letter from DoP re Site Water Management Plan, 13 April 2006 • Water Management Plan, Oct 2012	Groundwater Monitoring Program includes: (a) Groundwater baseline data described in the EIS section 6.8 Table 6.10. (b) Groundwater impact assessment criteria was described in the EIS section 6.8.2. (c) Groundwater inflows are monitored utilising flow meters measuring the volume of water pumped from various sections of the mine. A series of groundwater monitoring bores have also been installed to monitor groundwater levels. (d) A monitoring program for assessment of the regional groundwater levels and quality of the aquifers has been installed to monitor groundwater levels.	**Compliant**
22	Erosion and Sediment Control Plan shall: (a) comply with the requirements of the Department of Housing "Managing Urban Stormwater: Soils and Construction" manual; (b) identify activities that could cause erosion or discharge sediment or water pollutants from the site; (c) describe the location, function and capacity of all erosion and sediment control structured; and	• Water Management Studies, Tasman Underground Mine, Peter Dundon & Associates, August 2002 • EIS section 6.7, August 2002 Site Water Management Plan, April 2006 • Letter to DoP re Site Water Management Plan, 24 January 2006 • Letter from DoP re Site Water Management Plan, 13 April 2006 • Water Management Plan, Oct 2012	Erosion and Sediment Control Plan includes: (a) Design of the dams on site is to Type F specifications according to the Landcom Blue Book. (b) Disturbed areas have been rehabilitated and runoff from active areas of the surface facilities is diverted to Dams A and B. (c) Erosion and sediment control structures have been designed to conform to the Landcom Blue Book and are described in the Site Water	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(d) describe measures to minimise soil erosion and the potential migration of sediments to downstream waters		Management Plan and in Plan 15 Site Layout Development. (d) The erosion and sediment control plans provide for collection of surface runoff from the mine site to Dam A and Dam B for settlement. No discharge occurs to the environment from these	
23	Surface and Ground Water Response Plan shall include: (a) measures to mitigate any adverse impacts on water flows in Blue Gum Creek; (b) measures to mitigate any adverse impacts on the water quality in Blue Gum Creek; and (c) procedures to be followed if any unforeseen surface or groundwater impacts are detected.	• EIS section 6.7, August 2002 Site Water Management Plan, section 6, April 2006 • Letter to DoP re Site Water Management Plan, 24 January 2006 • Letter from DoP re Site Water Management Plan, 13 April 2006	Surface and Ground Water Response Plan includes: (a) water flow mitigation measures related to Blue Gum Creek in section 6.1; (b) water quality mitigation measures related to Blue Gum Creek in section 6.2; (c) procedures to be followed if any unforeseen surface or groundwater impacts are outlined in section 6.3.	**Compliant**
	Notice upon Cessation of Groundwater Extraction			
24	The Applicant shall provide the D-G with written notification of the permanent cessation of its operations by which groundwater is extracted directly or indirectly from the area. Upon such notification being received by DIPNR; (a) the Applicant must provide evidence that all areas affected by dewatering (and any associated activity) have been rehabilitated/restored to pre-mining levels or otherwise agreed condition; and (b) The Applicant may be required to undertake further rehabilitation work, based on the findings of any investigation into the performance of the applicants cessation obligations, or as required by the D-G.	• Letter to DP&E re Cessation of Mining at Tasman Mine Coal Extraction, 19 Dec 2013	The cessation of mining of Panels 1 to 15 of the Tasman Mine occurred 19 July 2013. Donaldson Coal notified the DP&I of completion of the coal extraction from the panels approved under Development Consent 274-9-2002, and the disturbed surface areas has been rehabilitated.	**Compliant Ongoing**
	FLORA AND FAUNA			
	Compensatory Habitat			
25	The Applicant shall establish at least 10 hectares of compensatory habitat on the surface colliery holdings to the satisfaction of the D-G, to offset the vegetation removed by the development	• Letter to DoP Seeking Approval of Revised Compensatory Habitat Area, 28 March 2007 • Letter from DoP re Approval of Revised Compensatory Habitat Area, 12 April 2007	Compensatory habitat has been established as part of 625ha of land owned by Donaldson Coal Pty Ltd around the Donaldson Coal open cut mine area. This land has been retained as a buffer and compensatory habitat conservation area.	Compliant
	General			
26	The Applicant shall:		Management of the disturbance caused by the Tasman Mine included:	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(a) take all practicable measures to minimise the potential flora and fauna impacts of the development; (b) salvage and use as much material as possible from the land that will be disturbed, such as soil, seeds, tree hollows, rocks and logs; (c) ensure that only minimal vegetation clearance is undertaken for the surface infrastructure area; (d) avoid populations of Tetratheca juncea by appropriate positioning of areas requiring surface disturbance; (e) undertake a pre-clearance survey for T, juncea prior to any additional surface disturbance which has not been previously identified in the DA; (f) ensure the large hollow bearing trees are retained where ever possible during construction of the surface infrastructure area and that this material is used to provide shelter in undisturbed areas; (g) fence vegetation to be retained prior to clearing or construction activities, to avoid damage from uncontrolled or accidental access; and (h) implement on-site speed limits to reduce the potential for vehicle strike; to the satisfaction of the D-G.		(a) development of the mine surface infrastructure and access to the site has been completed with rehabilitation of disturbed areas undertaken, including revegetation of some areas associated with previous transmission line alignments, that had occurred prior to the development and establishment of the Tasman Mine. Disturbance of the natural flora and fauna habitats during the mine development were minimised by careful planning of access and mine infrastructure [placement. (b) material disturbed during the mine site development has been reused on site for rehabilitation and habitat establishment. (c) vegetation disturbance during mine site establishment was limited to the immediate area required for infrastructure establishment. (d) Areas of *T. juncea* were identified and protected where practicable during mine site establishment. (e) pre-clearance surveys were conducted prior to any vegetation clearance at the mine site. (f) tree hollows were retained and placed in undisturbed area above the mine portals and around the infrastructure areas. g) vegetation to be retained was protected with barriers during the construction activities. (h) speed limits are in force on site.	
	Flora and Fauna Management Plan			
27	Prior to carrying out any development on site, the Applicant shall prepare a Flora and Fauna Management Plan for the development to the satisfaction of the D-G. The Plan must include: (a) Compensatory Habitat Plan; (b) Vegetation Clearance Plan; and (c) Flora and Fauna Monitoring Plan	• Flora and Fauna Management Plan • Letter to DoP re Revised Flora and Fauna Management Plan, 30 May 2007 • Letter from DoP re Approval of Revised Flora and Fauna Management Plan, 27 June 2007 • Flora and Fauna Monitoring Report, Kleinfelder Australia/ Ecobiological Feb 2013	A Revised Flora and Fauna Management Plan that included a Compensatory Habitat Plan and Vegetation Clearance Plan was submitted to the DoP and approved by the Director-General in June 2007.	**Compliant**
28	Compensatory Habitat Plan must: (a) describe the compensatory habitat proposal; (b) establish baseline data for the existing habitat in the compensatory habitat areas; (c) describe how the compensatory habitat proposal would be implemented;	• Letter to DoP Seeking Approval of Revised Compensatory Habitat Area, 28 March 2007 • Letter from DoP re Approval of Revised Compensatory Habitat Area, 12 April 2007 • Flora and Fauna Monitoring Report, Compensatory Habitat Area, Kleinfelder Australia/Ecobiological Feb 2013	A 10ha area of compensatory habitat was established and approval for the area was obtained from DoP in 2007. The compensatory habitat area is located in the south western corner of the Tasman Mine Site and is comprised of a narrow buffer strip adjoining the mine disturbance area and a larger Core Habitat.	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(d) set completion criteria for the compensatory habitat proposal; (e) describe how the performance of the compensatory habitat management proposal would be monitored over time.		 **Plate 4/28: Mining Lease boundary and compensatory habitat area.**	
29	Vegetation Clearance Protocol shall include: (a) delineation of areas of remnant vegetation to be cleared; (b) progressive clearing; (c) pre-clearance surveys; (d) identification of fauna management strategies (e) collection of seed from the local area; and (f) salvage and reuse of material from the site; and (g) control of weeds during clearing activities.	• Letter from EcoBiological re Pre-clearing Survey of Tasman Mine Surface Disturbance Area, dated 11 September 2006.	A pre-clearing survey of any area to be disturbed by the Tasman Mine surface operations, was conducted by EcoBiological between June and September 2006. The pre-clearing site activities included supervision of tree felling and survey of habitat hollows and the training of contractors in the protocol requirements.	**Compliant**
30	The Flora and Fauna Monitoring Program shall include:	• Letter from DoP re Flora and Fauna Management Plan Approval, 8 Nov 2005	The AEMR's reported that there were no significant differences in the faunal community species richness or composition, or apparent broad changes to the	**Compliant**

<table>
<tr><th>Condition No.</th><th>Development Consent Condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td></td><td>(a) a program to monitor the effectiveness of the Compensatory Habitat Plan; and
(b) a program to monitor the effectiveness of the conservation measures proposed in the EIS.</td><td>• Letter to DoP re Revised Flora and Fauna Management Plan, 30 May 2007
• Letter from DoP re Approval of Revised Flora and Fauna Management Plan, 27 June 2007</td><td>extent or condition of the vegetation community at the surface operations areas.</td><td></td></tr>
<tr><td></td><td>Annual Review</td><td></td><td></td><td></td></tr>
<tr><td>31</td><td>The Applicant shall review the performance of the Flora and Fauna Management Plan annually, and report the results of this review in the AEMR</td><td></td><td>The Flora and Fauna Management Plan was reviewed annually between June 2007 and July 2013 period.</td><td>Compliant</td></tr>
<tr><td></td><td>AIR QUALITY</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Impact Assessment Criteria</td><td></td><td></td><td></td></tr>
<tr><td>32</td><td>The Applicant shall ensure that the air pollution generated by the development does not cause additional exceedances of the criteria listed in Tables 2, 3 and 4 at any privately owned land.
Table 2: Long term impact assessment criteria for particulate matter – Surface Infrastructure Site
<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>90µg/m^3</td></tr>
<tr><td>Particulate matter <10µm (PM_{10})</td><td>Annual</td><td>30µg/m^3</td></tr>
</table>
Table 3: Short term impact assessment criterion for particulate matter – Surface Infrastructure Site
<table>
<tr><th>Pollutant</th><th>Averaging Period</th><th>Criterion</th></tr>
<tr><td>Particulate matter <10µm (PM_{10})</td><td>24 hour</td><td>50µg/m^3</td></tr>
</table>
Table 4: Long term impact assessment criteria for deposited dust – Surface Infrastructure Site
<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>2g/m^2/mth</td><td>4g/m^2/mth</td></tr>
</table></td><td>• Letter from DoP re Approval of the Environmental Monitoring Program, 18 Jan 07
• Tasman Coal Mine Air Quality Monitoring Results, Carbon Based Environmental, July 2007
• Tasman Coal Mine Air Quality Monitoring Results, Carbon Based Environmental, Jan 2008
• Tasman Coal Mine Air Quality Monitoring Results, Carbon Based Environmental, Mar 2008
• Tasman Coal Mine Air Quality Monitoring Results, Carbon Based Environmental, Jun 2008
• Tasman Coal Mine Air Quality Monitoring Results, Carbon Based Environmental, Sep 2008
• Quarterly Air Quality Monitoring Results 2009 to 2013</td><td>Results reported for 2007 to 2013 show that deposited dust levels were below the specified criteria and were consistent with the air quality levels predicted in the EIS.
Suspended particulates (PM_{10} and total suspended particulates) were generally below the annual average criteria (50µg/m^3 and 90µg/m^3 respectively).
On 5 May 2007 there was an exceedance of the 24hr PM_{10} criteria (30µg/m^3) at a time when it was noted that a fire was recorded approximately 900m from the Seahaven RFS centre. This was the likely reason for the elevated reading on this occasion.</td><td>Compliant</td></tr>
<tr><td></td><td>Operating Conditions</td><td></td><td></td><td></td></tr>
<tr><td>33</td><td>The Applicant shall ensure that:</td><td></td><td>Vehicle access roads on the Tasman Mine site were watered as necessary to reduce dust generation and</td><td>Compliant</td></tr>
</table>

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(a) Vehicle access roads are watered to ensure appropriate dust suppression; and b) Loaded trucks are covered prior to leaving the site.		all loads leaving the Tasman Mine site were checked and required to be covered.	
	Ventilation Shaft Post Commissioning Air Emissions Report			
34	Within 3 months of commissioning a ventilation shaft discharge vent, the Applicant shall: (a) carry out ventilation shaft monitoring (by sampling and obtaining results by analysis) of the concentration of each parameter in Table 5, using specified sampling method; (b) submit the results to DEC.	• Letter from DoP re Approval of the Environmental Monitoring Program, 18 Jan 07 • Ventilation Shaft Monitoring, HLAEnvirosciences, 10 May 2007 • Ventilation Shaft Discharge Review, Holmes Air Services, June 2007 • Letter to DECC re Ventilation Shaft Discharge Review, 2 July 2007.	Monitoring of the air flow from the ventilation shaft discharge vent was undertaken by HLA-Envirosciences on 10 May 2007 for Total particulates, odour, carbon dioxide (CO2). Analysis of samples was conducted at NATA accredited facilities (Australian Laboratory Services and The Odour Unit). Holmes Air Sciences Pty Ltd conducted a study to assess the air quality impacts due to the operation of the ventilation system for the Tasman underground mine. Modelling results indicated that *"both odour and particulate emissions from the ventilation fan will have no significant impacts upon any sensitive receivers".* The report concluded that the *"emissions from the system were too small to give rise to either impacts from particle emissions or from odours".*	**Compliant (Coal Mining ceased on 19 July 2013)**
35	If the results of the ventilation shaft monitoring are outside the range used in the dispersion modelling study in the EIS, the Applicant shall reassess the odour and dust impacts from the ventilation shafts and submit the results to the DEC.			**Not triggered**
	Meteorological Monitoring			
36	The Applicant shall monitor (by sampling and obtaining results by analysis) the parameters in Table 6 using the specified methods, units of measure and frequency. Table 6 – Requirements for Meteorological Monitoring Parameter Units Frequency Sampling Method Lapse Rate OC/100m Continuous Calculate at 2m & 10m Wind Direction Continuous Instrumental Wind Speed m/s Continuous Instrumental	• Tasman Coal Mine Air Quality Monitoring Results, Carbon Based Environmental, July 2007 to June 2013 • AEMR's 2007 to 2013 - section 3.1	An automated weather station was installed on the Tasman Mine site in November 2006. The station recorded rainfall, wind speed and direction and temperature. Data recovery from the meteorological station was reported as between 97% and 100% between May 2007 and January 2014 in the reports prepared by Carbon Base Environmental. The meteorological station was decommissioned in February 2014 as part of the mine closure activities.	**Compliant (Coal Mining ceased on 19 July 2013)**
	NOISE			
	Noise Impact Assessment			

<table>
<tr><th>Condition No.</th><th>Development Consent Condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td>37</td><td>The Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 7.
Table 7 Project Specific Noise Limits
<table>
<tr><th>Location</th><th>Day</th><th>Evening</th><th>Night</th></tr>
<tr><td></td><td colspan="3">L Aeq(15 minute) dB(A</td><td>LA1(1 min) dB(A)</td></tr>
<tr><td>West Wallsend</td><td>38</td><td>38</td><td>38</td><td>38</td></tr>
<tr><td>All other residences</td><td>B/g + 5</td><td>B/g +5</td><td>B/g +5</td><td>B/g + 15</td></tr>
</table></td><td>• Letter from DoP re Approval of the Environmental Monitoring Program, 18 Jan 07
• Tasman Coal Mine Noise Monitoring Report, Heggies 5 Apr 2007
• Letter to DECC re Noise Compliance Report, 3 May 2007</td><td>Quarterly attended noise monitoring conducted by Heggies identified that the Tasman Mine noise operational noise was inaudible at the nearest residential receivers in West Wallsend and Seahampton.
The measured noise levels at the monitoring locations were below the consent criteria listed in Table 7, on each of the quarterly monitoring occasions between February 2007 and February 2014.
.</td><td>Compliant (Coal Mining ceased on 19 July 2013)</td></tr>
<tr><td>38</td><td>Within 3 months of commencement of normal operations at the premises, and on an annual basis thereafter, the Applicant shall submit a noise compliance assessment report to the DEC. The report must be prepared by an accredited acoustical consultant and must determine compliance with the noise limits in Table 7.</td><td>• Tasman Coal Mine Noise Monitoring Annual Report, Heggies 30 Apr 2008.
• Tasman Coal Mine Noise Monitoring Report, Heggies 5 Apr 2009
• Tasman Coal Mine Noise Monitoring Annual Report, Heggies 30 Apr 2011
• Tasman Coal Mine Noise Monitoring Report, Heggies 5 Apr 2012
• Tasman Coal Mine Noise Monitoring Annual Report, Heggies 30 Apr 2013</td><td>The first Tasman Coal Mine Noise Monitoring Report, conducted by Heggies was submitted toi the DEC on 5 Apr 2007.

The subsequent Tasman Coal Mine Annual Monitoring Reports prepared by Heggies were submitted to the DECC/EPA/OEH in accordance with the requirement of this condition.</td><td>Compliant (Coal Mining ceased on 19 July 2013)</td></tr>
<tr><td></td><td>BLASTING</td><td></td><td></td><td></td></tr>
<tr><td>39</td><td>No blasting shall be undertaken at the site</td><td></td><td>No blasting was undertaken at the Tasman Mine site.</td><td>Compliant</td></tr>
<tr><td></td><td>OFFENSIVE ODOUR</td><td></td><td></td><td></td></tr>
<tr><td>40</td><td>The Applicant must not cause or permit the emission of offensive odour beyond the boundary of the premises.</td><td>• Letter to DECC re Ventilation Shaft Discharge Review, 2 July 2007.</td><td>No odour complaints were received. The ventilation shaft review conducted by Holmes Air Sciences also indicated that there was no impact from odour.</td><td>Compliant (Coal Mining ceased on 19 July 2013)</td></tr>
<tr><td></td><td>ABORIGINAL & EUROPEAN HERITAGE</td><td></td><td></td><td></td></tr>
<tr><td>41</td><td>The Applicant shall ensure that a representative of the Awabical Local Aboriginal Land Council, or other relevant Local Aboriginal Land Council is present, or provided with the opportunity to participate, to assist in monitoring the area for artefacts during clearing</td><td>• Letter from Robert Smith re Proposed Extension Area to Tasman Mine, 9 Dec 2005</td><td>Robert Smith and Barry Randall of the Awabical Local Aboriginal Land Council participated in the survey of the proposed Tasman Mine area and did not identify any archaeological constraints to the development of the subject land.</td><td>Compliant (Coal Mining ceased on 19 July 2013)</td></tr>
</table>

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	and/or excavation, when there is maximum visibility of the ground and sub-surface			
42	All personnel on site including contractors and subcontractors, involved in clearing and/or excavating in the study area must be appropriately briefed on the requirements of the relics provision in the Heritage Act 1977 and national Parks and Wildlife Act 1974, particularly relating to the statutory obligations that apply to the discovery of relics.		Contractors were inducted before commencing work on the site.	**Compliant (Coal Mining ceased on 19 July 2013)**
	Waste Management			
43	The Applicant shall not cause, permit or allow any waste generation outside the mine to be received at the mine for storage, treatment, processing, reprocessing or disposal, or any waste generated at the mine to be disposed of at the mine. Except as expressly permitted by a DEC Licence.		No waste from any source outside of the Tasman Mine site has been received onto the mine site.	**Compliant (Coal Mining ceased on 19 July 2013)**
44	The Applicant shall install a suitable sewage disposal system at the site, to the satisfaction of the LMCC		All ablutions waste and bathhouse wastewater is collected by licensed contractor for removal from the site and disposal to an approved sewerage treatment plant	**Compliant (Coal Mining ceased on 19 July 2013)**
	VISUAL IMPACT			
	Visual Amenity			
45	The Applicant shall carry out the development in a way that prevents or minimises the visual impacts of the development.		The Tasman Mine site surface development was established to minimise the visual impact of the development. There is no visual impact from George Booth Drive as the mine development was sensitively established by retaining a vegetative buffer between the road and the surface structures. All disturbed surface areas of the Tasman Mine development near the Tasman Mine access from George Booth Drive were revegetated.	**Compliant (Coal Mining ceased on 19 July 2013)**
46	Buildings, structures and road works shall be designed and constructed so as to present a neat and orderly appearance, to blend as far as practicable with the surrounding landscape and to minimise visual impact		The low profile of the buildings and colour scheme minimises the visual impact of the surface development at the Tasman Mine Tasman Mine surface infrastructure looking north from the mine portals. (The structures are not visible from George Booth Drive).	**Compliant (Coal Mining ceased on 19 July 2013)**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
47	The Applicant shall: (a) landscape the proposed George Booth Drive /Tasman Mine Access Road Intersection within 3 months of completion of the construction works; and (b) maintain and augment the landscaping of the intersection throughout the life of the development to the satisfaction of the D-G.		All disturbed areas of the development near the Tasman Mine access from George Booth Drive were revegetated within 3 months of completion of the Tasman Mine surface construction works completion.	**Compliant (Coal Mining ceased on 19 July 2013)**
	Lighting Emissions			
48	The Applicant shall take all, practicable measures to prevent and/or minimise any off-site lighting impacts from the development, particularly in directing light away from George Booth Drive	• Letter from West Wallsend Branch of Australian Labor Party re Flood Light at the Tasman Mine, 2 July 2007 Email response to ALP re lighting issue, 23 July 2007	The surface facilities flood lights were the subject of a complaint of light spill to George Booth Drive intersection in July 2007. The lights were redirected to ensure that there was no light spill to George Booth Drive. No light complaints have been received since July 2007	**Compliant (Coal Mining ceased on 19 July 2013)**
49	All external lighting associated with the development shall comply with the Australian Standard AS4282:1995 – Control of Obtrusive Effects of Outdoor lighting	• AS4282:1995 – Control of Obtrusive Effects of Outdoor Lighting	The external lighting associated with the Tasman Mine development was managed in accordance with the AS4282:1995 – Control of Obtrusive Effects of Outdoor Lighting.	**Compliant (Coal Mining ceased on 19 July 2013)**
	HAZARDS MANAGEMENT			
	Spontaneous Combustion			
50	The Applicant shall take all necessary measures to prevent as far as is practicable, spontaneous combustion on the site and manage any spontaneous combustion on-site to the satisfaction of the DMR.		No spontaneous combustion incidents occurred at the Tasman Mine site between 2007 and 2013.	**Compliant (Coal Mining ceased on 19 July 2013)**
	Dangerous Goods			
51	The Applicant shall ensure that the storage, handling, and transport of dangerous goods is done on accordance with the relevant Australian Standards, particularly AS1940 and AS 1596, and the Dangerous Goods Code.		Management of any dangerous goods that were stored or handled at the Tasman Mine site occurred in accordance with the relevant Australian Standards. Fuel was stored in a double walled aboveground storage tank. All lubricants, oils and other maintenance chemicals were stored in drums under cover on spill collection trays, in an area where any spillage would drain to the oil/water separator. No release occurred to the environment between 207 and 2013.	**Compliant (Coal Mining ceased on 19 July 2013)**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	BUSHFIRE MANAGEMENT			
52	The Applicant shall: (a) ensure that the development is suitably equipped to respond to any fires on site; and (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the development	• Bush Fire Management Plan, April 2006 • Letter from RFS re Bush Fire Management Plan, 15 May 2006	Consultation on the Bush Fire Management Plan for the Tasman Mine site occurred with the Lake Macquarie City Council and RFS. The Council advised in 2006 that approval of the Plan by the RFS would satisfy the Council.	**Compliant (Coal Mining ceased on 19 July 2013)**
53	Before carrying out any development, the Applicant shall prepare a Bushfire Management Plan for the site, to the satisfaction of the LMCC and the Rural Fire Service	• Bush Fire Management Plan, April 2006 • Letter from RFS re Bush Fire Management Plan, 15 May 2006	RFS advised it was satisfied that the Bush Fire Management Plan identified the potential risks associated with bush fire risk to the Tasman Mine site and that it included strategies to mitigate the risks. Verbal reports on bushfire management activities were provided to the RFS (Lake Macquarie Office) annually. No bushfires occurred on the Tasman Mine site between 2011 and 2015.	**Compliant (Coal Mining ceased on 19 July 2013)**
	SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING			
	ENVIRONMENTAL MANAGEMENT STRATEGY			
1	The Applicant shall prepare and implement an Environmental Management Strategy for the development. The strategy must: (a) provide the strategic context for environmental management of the development; (b) identify the statutory requirements that apply to the development; (c) describe in general how the environmental performance of the development would be monitored and managed during the development; (d) describe the detailed procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the development; • receive, handle, respond to and record complaints; • resolve any disputes that may arise during the course of the development; • respond to any non-compliance;	• Environmental Management Strategy for the Tasman Mine – EMS Operating Manual (EOM-01), Jan 2006 • Minutes of the CCC Meting 17 January 2006 – EMS tabled	(a) Sections 1 to 14 of the EMS (b) Section 1.2 Project Approvals and 10 Environmental Planning; Requirements Manual EM-2 Table 1 (c) Sections: 10.0 Environmental Planning 10.1 Environmental Aspects Manual (EM-1) 10.2 Requirements Manual (EM-2) 10.3 Environmental Management Programs /Plans (EM-3) 10.4 Objectives & Targets (EM-4) 11.0 Operational Plans 13.0 Review and Feedback 13.1 Environmental Audits and Inspections 13.2 Monitoring and Measurement (RF-2) (d) Section12.0 Environmental Management Elements • 12.2 Communications and Public Relations (EME-2) • 13.3 Non-conformance and Corrective Action (RF-3) • 12.3 Emergency Response & Preparedness Plans (EME -3) • 14 Community Consultation and Dispute Resolution (e) Section 12.5 Roles & Responsibilities (EME-5)	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	• manage cumulative impacts; and • respond to emergencies. (e) describe the role, responsibility, authority and accountability of all the key personnel involved in environmental management of the development.			
2	The Applicant shall not carry out any development on the site before the D-G has approved the strategy.	• Letter from DoP re Approval of Environment Management Strategy, 13 April 2006	The Environmental Management Strategy was approved by the D-G on 13 April 2006.	**Compliant**
3	Within 14 days of the D-G's approval, the Applicant shall: (a) send copies of the approved strategy to the relevant agencies, CeCC, LMCC, NCC and CCC; and (b) ensure the approved strategy is publicly available during the development.	• Letters to LMCC, CCC, DNR, DPI, CCC, MCC, NCC, DECC/EPA, DMR, NPWS, re Environmental Management Strategy, 8 May 2006	Stakeholders and interested parties are identified in Section 5 of the EMS. A copy of the approved EMS was provided to each stakeholder on 8 May 2006 and a cop[y placed on the Tasman Mine website.	**Complete**
	ENVIRONMENTAL MONITORING PROGRAM			
4	Before carrying out any development on the site, the Applicant shall prepare a detailed Environmental Monitoring Program for the development, in consultation with the relevant agencies and to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in Schedule 4 of this consent into a single document.	• Environmental Monitoring Program • Letter to DoP re Environmental Monitoring program, 27 November 2006 • Letter from DoP re Approval of Environmental Monitoring Program, 18 January 2007	The Environmental Monitoring Program was developed for the Tasman Mine and was approved by the DoP in January 2007. The monitoring requirements were collated into the Integrated Environmental Monitoring Program for the Tasman, Abel and Donaldson Coal Mines in December 2007.	**Compliant**
5	The Applicant shall regularly review, and if necessary update this program in consultation with the D-G, and notify the relevant agencies, CeCC, LMCC, CCC and the general public of any changes to the Strategy.		The data from the Integrated Environmental Monitoring Program was reviewed and the results reported in the Tasman Mine AEMR's. The Environmental Monitoring Program was reviewed and included in the Integrated Environmental Monitoring Program in December 2007.	**Compliant**
	ANNUAL REPORTING			
6	The Applicant shall submit an Annual Environmental Management Report to the D-G and relevant agencies. The report must: (a) identify the standards and performance measures that apply to the development; (b) include a detailed summary of the complaints received during the past year, and compare this to the complaints received in previous 5 years; (c) include a detailed summary of the monitoring results for the development during the past year;	• Annual Environmental Management Report (AEMR) 2006/2007 • Letter from DoP re AEMR, 12 March 2008 • Letter from DPI re AEMR, 23 April 2008 • Annual Environmental Management Report (AEMR) 2007/2008 • Annual Environmental Management Report (AEMR) 2008/2009 • Annual Environmental Management Report (AEMR) 2009/2010	The Annual Environmental Management Reports addressed the requirements of condition 6: (a) Section 1.1 – Consents, Leases and Licenses (b) Section 4.1 – Environmental Complaints (c) Section 3 – Environmental Management and Performance (d) Section 3 – Environmental Management and Performance (e) Section 3 – Environmental Management and Performance	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(d) include a detailed analysis of these monitoring results against the relevant: • impact assessment criteria/limits; • monitoring results from previous years; and • predictions in the EA; (e) identify any trends in the monitoring results over the life of the development; (f) identify any non-compliance during the previous year; (g) describe what actions were, or are being taken to ensure compliance.	• Annual Environmental Management Report (AEMR) 20102011 • Annual Environmental Management Report (AEMR) 2011/2012 • Annual Environmental Management Report (AEMR) 2012/2013 • Annual Environmental Management Report (AEMR) 2013/2014	(f) Section 3 – Environmental Management and Performance (g) Section 3 – Environmental Management and Performance – any action reported under each aspect.	
	INDEPENDENT AUDIT REPORT			
7	At the end of year 2 of the development, and every 5 years thereafter, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by suitably qualified, experienced and independent person/s whose appointment has been endorsed by the D-G; (b) be consistent with ISO19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing, or updated versions of this guideline; (c) assess the environmental performance of the development, and its effects on the surrounding environment; (d) assess whether the development is complying with the relevant standards, performance measures and statutory requirements; (e) review the adequacy of any Applicants Environmental Management Strategy and Environmental Monitoring Program; and if necessary (f) recommend measures or actions to improve the environmental performance of the project, and/or the environmental management or monitoring systems.	• ISO19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing • Letter from DoP re Endorsement of Auditor by Director-General, 15 Oct 2008 • Independent Environmental Audit, Dec 2008 • Independent Environmental Audit, Oct 2011 • Letter from DP&E re Endorsement of Auditor, 12 Mar 2015	The first Independent Environmental Audit was conducted 12 months after the commencement of construction of the Tasman Mine development. The audit was undertaken on 18-19 December 2008 by Trevor Brown & Associates. (Underground mining commenced in October 2007). The environmental performance of the mine operations against the condition of approvals was undertaken using the available data from the monitoring programs and predictions in the EIS. Independent Environmental Audits were conducted in 2011 and following cessation of mining at the Tasman Mine under the Development Consent in March 2015.	**Compliant Ongoing**
8	Within 3 months of the commissioning of this audit, the Applicant shall submit a copy of the audit report to the D-G, with a detailed response to any recommendations contained in the audit report			**Noted**
	COMMUNITY CONSULTATIVE COMMITTEE			
	The Applicant shall ensure that there is a Community Consultative Committee to oversee the environmental performance of the development. This committee shall:	•	The Tasman Mine Community Consultative Committee was established in 2005. (a) The initial CCC members comprised two representatives from the Applicant, including the	**Compliant**

Condition No.	Development Consent Condition	Verification	Comments	Compliance
	(a) be comprised of: • 2 representatives from the Applicant, including the person responsible for environmental management at the mine; • 1 representative each from the LMCC and CeCC; and • 3 representatives from the local community whose appointment has been approved by the D-G; (b) be chaired by an independent chairperson, whose appointment has been approved by the D-G (c) meet at least twice a year; (d) review and provide advice on the environmental performance of the development including any construction or environmental management plans, monitoring results, audit reports or complaints.		person responsible for environmental management at the mine (Mr Alick Osborne - Donaldson Coal Mr Mark McPherson - Newcastle Coal Company Mr Phillip Brown - Donaldson Coal); a representative from the LMCC and CCC (Cr Jeff Maybury - Cessnock City Council Cr Barry Johnson - Lake Macquarie City Council); and three representatives from the local community (Mr Chris Parker, Mr Adrian Roach, Mr Jeff Stevenson); (b) The Hon Milton Morris AO – Independent Chairman (c) Meetings are held regularly and the Minutes produced are provided to the members and community (via the Tasman Mine website)	
10	The Applicant shall, at its own expense: (a) ensure that 2 of its representatives attend Committee's meetings; (b) provide the Committee with regular information on the environmental performance and management of the development; (c) provide meeting facilities for the CCC; (d) arrange site inspections for the CCC, if necessary; (e) take minutes of the Committee meetings; (f) make theses Minutes available to the public for inspection within 14 days of the Committee meeting, or as agreed to by the Committee; (g) forward a copy of these minutes to the Director-General; (h) respond to any advice or recommendations the Committee may have in relation to environmental management or performance of the development; (i) forward a copy of the minutes of each Committee meeting, and any responses to the Committee's recommendations to the D-G within a month of the Committee meeting.	Community Consultative Committee Meeting Minutes 17 Jan 2006 Community Consultative Committee Meeting Minutes 2 May 2006 Community Consultative Committee Meeting Minutes 4 July 2006 Community Consultative Committee Meeting Minutes 14 Nov 2006 Community Consultative Committee Meeting Minutes 20 Dec 2006 Community Consultative Committee Meeting Minutes 3 July 2007 Community Consultative Committee Meeting Minutes 15 Nov 2007 Tasman Mine, Update December 2007	Tasman Mine responsibilities under condition 10 were met: (a) Two representatives have attended all CCC Meetings (b) Information on environmental performance was provide to the CCC at the Meetings and through the Tasman Mine Updates (c) Tasman Mine arranged the venues for the CCC Meetings (d) Site inspections for the CCC members occurred (refer to CCC Minutes May 06. (e) Minutes of the CCC Meetings were prepared by a Tasman Mine representative (f) CCC Minutes were made available to the public on the Tasman Mine website on www.doncoal.com.au (g) Copies of the Minutes were submitted to the Director-General (h) Responses to the CCC in relation to environmental management and performance of the development occurred and was recorded in the Minutes	**Compliant**
11	The Applicant shall ensure that the Committee has its first meeting before the Environmental Management Strategy is submitted to the D-G for approval.	•	The first CCC Meeting was held on 17 January 2007 and an overview of the Environmental Management Strategy was presented and tabled for discussion as recorded in the CCC Minutes on 17 January 2007.	**Compliant COMPLETE**

Attachment B
Environment Protection Licence No. 12483

Attachment B
Environment Protection Licence

<table>
<tr><th>EPL 12483</th><th>Condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td>1</td><td>Administrative Conditions</td><td></td><td></td><td></td></tr>
<tr><td></td><td>What the licence authorises and regulates</td><td></td><td></td><td></td></tr>
<tr><td>A1</td><td>This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2: Construction of works to support underground mining operation</td><td></td><td></td><td>Noted</td></tr>
<tr><td>A1.2</td><td>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.
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.
<table>
<tr><th>Schedule Activity</th><th>Fee Based Activity</th><th>Scale</th></tr>
<tr><td>Coal works</td><td>Coal works</td><td>0-2000000 T handled</td></tr>
<tr><td>Mining for coal</td><td>Mining for coal</td><td>>500000-2000000 T produced</td></tr>
</table></td><td></td><td>The Tasman Mine development occurred in accordance with the scale of schedule activities specified in Condition A1.1 between 2007 and April 2013.</td><td>Compliant</td></tr>
<tr><td>A1.3</td><td>The licensee must not carry on any scheduled activities until the scheduled development works are completed, except as elsewhere provided in this licence</td><td></td><td></td><td>Noted</td></tr>
<tr><td>A2</td><td>Premises or plant to which this licence applies</td><td></td><td></td><td></td></tr>
<tr><td>A2.1</td><td>The licence applies to the following premises:
TASMAN COAL MINE GEORGE BOOTH DRIVE SEAHAMPTON NSW 2286
MINING LEASE NO. 186</td><td></td><td></td><td>Compliant</td></tr>
<tr><td>A3</td><td>Information supplied to the EPA</td><td></td><td></td><td></td></tr>
<tr><td>A3.1</td><td>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</td><td></td><td></td><td>Noted</td></tr>
</table>

<table>
<tr><th>EPL 12483</th><th>Condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td></td><td>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.</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td>Discharges to Air and Water and Applications to Land</td><td></td><td></td><td></td></tr>
<tr><td>P1</td><td>Location of monitoring/discharge points and areas</td><td></td><td></td><td></td></tr>
<tr><td>P1.1</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></td><td>Noted</td></tr>
<tr><td>P1.2</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.
<table>
<tr><th>EPA ID No.</th><th>Type of Monitoring Point</th><th>Location Description</th></tr>
<tr><td>1</td><td>Wet weather discharge
Discharge quality monitoring</td><td>Discharge from the "Dirty Water Dam" as shown on Figure 5.7 of the "EIS, Tasman Underground Mine" dated August 2002</td></tr>
<tr><td>2</td><td>Ambient water monitoring</td><td>Discharge from the "Dirty Water Dam" as shown on Figure 5.7 of the "EIS, Tasman Underground Mine" dated August 2002</td></tr>
<tr><td>3</td><td>Effluent Quality Monitoring
Effluent Volume Monitoring</td><td>From the Waste Water Treatment System (Tank 4) as depicted in Figure 3 of the Wastewater Management Plan DOC11/24764 FILE LIC09/163</td></tr>
</table></td><td>• Water Management Plan, 2007
• Integrated Environmental Monitoring Program, Dec 2007</td><td>The surface water and groundwater monitoring program for the Tasman Mine occurred in accordance with the Water Management Plan and the Integrated Environmental Monitoring Program, December 2007 to satisfy the requirements of Condition P1.3.</td><td>Compliant</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>• Protection of the Environment Operations Act 1997 section 120</td><td></td><td>Noted</td></tr>
<tr><td>L2</td><td>Noise limits</td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><th>EPL 12483</th><th>Condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr>
<td>L2.1</td>
<td>Noise generated at the premises must not exceed the limits specified in the table below.
Noise Limits dB(A)
<table>
<tr><th>Location</th><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr>
<tr><td></td><td colspan="3">L Aeq(15 minute) dB(A</td><td>LA1(1 min) dB(A)</td></tr>
<tr><td>West Wallsend</td><td>38</td><td>38</td><td>38</td><td>38</td></tr>
<tr><td>All other residences</td><td>B/g + 5</td><td>B/g +5</td><td>B/g +5</td><td>B/g + 15</td></tr>
</table>
Note: For the purpose of Condition L2.1: · 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 from 6pm to 10pm; · Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays
LAeq means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.</td>
<td>• Letter from DoP re Approval of the Environmental Monitoring Program, 18 Jan 07
• Quarterly Tasman Coal Mine Noise Monitoring Reports, Heggies 5 Apr 2007 to July 2013</td>
<td>Quarterly attended noise monitoring conducted by Heggies identified that the Tasman Mine noise operational noise was inaudible at the nearest residential receivers in West Wallsend and Seahampton.

The measured noise levels at the monitoring locations were below the consent criteria listed in EPL condition L2.1 on each of the quarterly monitoring occasions between February 2007 and February 2014.
.</td>
<td>Compliant</td>
</tr>
<tr>
<td>L2.2</td>
<td>To determine compliance with condition(s) L2.1, noise must be measured at, or computed for, the most affected point on or within the residential boundary, or at the most affected point within 30m of the dwelling where the dwelling is more than 30 m from boundary, to determine compliance with the LAeq(15 minute) noise limits. A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the "Environmental Noise Management - NSW Industrial Noise Policy (January 2000)".</td>
<td></td>
<td></td>
<td>Noted</td>
</tr>
<tr>
<td>L2.3</td>
<td>Noise from the premises is to be measured at 1m from the dwelling façade to determine compliance with the LA1(1 minute) noise limits in condition L2.1.</td>
<td></td>
<td></td>
<td>Noted</td>
</tr>
<tr>
<td>L2.4</td>
<td>The noise emission limits identified in this licence apply under all meteorological conditions except:
a) during rain and wind speeds (at 10m height) greater than 3m/s; and
b) under "non-significant weather conditions".
Note: Field meteorological indicators for non-significant weather conditions are described in the NSW Industrial Noise Policy, Chapter 5 and Appendix E in relation to wind and temperature inversions.</td>
<td></td>
<td></td>
<td>Noted</td>
</tr>
</table>

EPL 12483	Condition	Verification	Comments	Compliance
L3	Hours of operation			
L3.1	Open cut mining activities must only be conducted between 7am to 10pm Monday to Saturday and 8am to 10pm Sundays and Public Holidays.			**Not applicable**
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.			**Noted**
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.			**Noted**
O3	**Dust**			
O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.		Operations carried out at the Tasman Mine were conducted in a manner that minimised the generation of dust from the activities.	**Compliant**
O4	**Effluent application to land**			
O4.1	An area must be provided for the use of effluent from the sewage treatment plant. The design of the system must be in accordance with the DEC's Environmental Guideline: Use Of Effluent By Irrigation".	• *Environmental Guideline: Use of Effluent by Irrigation* DEC, 2004	The sewerage treatment plant effluent from the pit top bath house and amenities was designed for use at the Tasman Mine in accordance with the DEC Guideline.	**Compliant**
O4.2	The quantity of wastewater applied to the utilisation area(s) must not exceed the capacity of the utilisation area(s) to effectively utilise the effluent. For the purpose of this condition, "effectively utilise" includes the ability of the soil to absorb the nutrient, salt and hydraulic loads and the applied organic material without causing harm to the environment.		The quantity of wastewater generated by the STP was applied to a utilisation area at the pit top and did not exceed the capacity of the utilisation area to effectively utilise the effluent at the pit top facilities.	**Compliant**
O5	**Processes and management**			
O5.1	A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater runoff from and within the premises following the completion of construction activities. The Scheme should be consistent	• Managing Urban Stormwater: Soils and Construction Landcom, 2004 • Water Management Plan, 2007	The management of stormwater runoff collected at the pit top is directed to the pollution control dams or returned directly into abandoned workings within the West Borehole Seam. Alternatively excess water was managed through use of the water truck on-site.	**Compliant**

EPL 12483	Condition	Verification	Comments	Compliance
	with the Stormwater Management Plan for the catchment. If a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in the publication "Managing Urban Stormwater: Soils and Construction" (Landcom, 2004), or as revised.		The Stormwater Management Scheme was designed to be consistent with the "Managing Urban Stormwater: Soils and Construction" (Landcom, 2004).	
O5.2	The proposed "Dirty Water" and "Clean Water" dams must be located outside any natural watercourse and be designed and constructed in accordance with the publication titled " Managing Urban Stormwater: Soils and Construction" (Landcom, 2004), or as revised	• Managing Urban Stormwater: Soils and Construction, Landcom, 2004 • Water Management Plan, 2007	The approved water management infrastructure at the Tasman Underground Mine included two pollution control dams, with a capacity of approximately 10,000 cubic metres, located away from the immediate catchment of any natural watercourse.	**Compliant**
O5.3	Banks, channels and similar works must be constructed to divert stormwater away from disturbed and contaminated land surfaces such as mine workings, haul roads, coal handling areas and wastewater treatment facilities. All diversion banks, channels and points of discharge must be constructed or stabilised so as to minimise erosion and scouring.		The approved water management infrastructure at the Tasman Underground Mine included clean water diversion banks and drains; dirty water rock lined drains and reinforced concrete pipes draining to the pollution control dams; and a process water storage tank with capacity of approximately 150 m^3.	**Compliant**
O6	**Waste**			
O6.1	Management of sewage treatment systems The licensee is responsible for the correct operation of the sewage treatment system on their premises.		All ablutions waste and bathhouse wastewater is collected by licensed contractor for removal from the site and disposal to an approved sewerage treatment plant	**Compliant**
O6.2	Correct operation involves regulary supervision and system maintenance. The licensee must be aware of the system management requirements and must ensure that the necessary service contracts are in place.			**Not applicable**
O6.3	The sewage treatment system must be serviced by a suitably qualified and experienced waste water technician at least once each quarterly period and a minimum of four times per year.			**Not applicable**
O6.4	The licensee must record each inspection and any actions required or recommended by the technician including all results of tests performed on the sewage treatment system by the technician as defined in Condition O6.3			**Not applicable**
O7	**Other operating conditions**			
O7.1	A water management system must be constructed and utilised to manage the collection, storage, treatment, use and disposal of mine water, sewage effluent and other wastewater.		The surface water management system for the Tasman Mine site provided for the separate conveyance of all 'clean' runoff from undisturbed and sealed areas of the development around the operational areas, with collection of 'dirty' runoff from areas likely to contain pollutants (such as coal dust,	**Compliant**

EPL 12483	Condition	Verification	Comments	Compliance
			oil and grease that was treated as necessary through the oil/water separator and sediment traps.	
O7.2	Bund(s) must be installed around areas in which fuels, oils and chemicals are stored. Bunds must: have walls and floors constructed of impervious materials; be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed); have walls not be less than 250 millimetres high; have floors graded to a collection sump; and not have a drain valve incorporated in the bund structure		All fuel, oils and chemicals are stored in an area with controlled runoff to a sump from the sealed surfaces, prior to direction to the oil/water separator and sediment trap. The covered storage area has a concrete floor and is designed so that all drainage from the floor is directed to the central drain and sump. This ensures capture of any spillage and all runoff from the chemical and oil storage shed floor for treatment.	**Compliant**
O7.3	A wastewater treatment facility with oil separator and sediment trap must be installed to treat drainage from the hardstand, vehicle servicing and general workshop areas			**Compliant**
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.			**Noted**
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		All monitoring records for the Tasman Mine were kept in a legible form, for at least 4 years after the monitoring or event to which they relate between 2007 and 2013.	**Compliant**
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.		The Chain-of-Custody records of samples collected for the monitoring programs for the Tasman Mine included the date and time on which the sample was taken; the point at which the sample was taken; and the name of the person who collected the sample.	**Compliant**
M2	**Requirement to monitor concentration of pollutants discharged**			
M2.1	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,			**Noted**

EPL 12483	Condition	Verification	Comments	Compliance
	and sample at the frequency, specified opposite in the other columns:			
M2.2	Water and/ or Land Monitoring Requirements Point 1 and Point 2 – Full analytical suite monthly – grab sample Point 3 – BOD, Total Nitrogen, Total Phosphorus, Total Suspended Solids Monthly Representative sample	• Water Management Plan, 2007 • Integrated Environmental Monitoring Program, Dec 2007	The Integrated Environmental Monitoring Program included the monitoring/discharge point number for collection of samples and analysis, frequency and methodology where relevant for each pollutant specified in Column 1	**Compliant**
M3	**Testing methods - concentration limits**			
M3.1	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.		The monitoring for the concentration of a pollutants discharged to waters was conducted in accordance with the EPA Approved Methods Publication, with analysis conducted by NATA registered laboratories,	**Compliant**
M4	**Environmental monitoring**			
M4.1	A noise compliance assessment report shall be submitted to the EPA within three months of commencement of normal operations at the premises and on an annual basis with the Annual Return as set out in condition R1 thereafter. The report must be prepared by an accredited acoustical consultant and must determine compliance with the noise limits in condition L2.1.	• Tasman Coal Mine Noise Monitoring Annual Report, Heggies 30 Apr 2008. • Tasman Coal Mine Noise Monitoring Report, Heggies 5 Apr 2009 • Tasman Coal Mine Noise Monitoring Annual Report, Heggies 30 Apr 2011 • Tasman Coal Mine Noise Monitoring Report, Heggies 5 Apr 2012 • Tasman Coal Mine Noise Monitoring Annual Report, Heggies 30 Apr 2013	The first Tasman Coal Mine Noise Monitoring Report, conducted by Heggies was submitted toi the DEC on 5 Apr 2007. The subsequent Tasman Coal Mine Annual Monitoring Reports prepared by Heggies were submitted to the DECC/EPA/OEH in accordance with the requirement of this condition.	**Compliant**
M5	**Recording of pollution complaints**			
M5.1	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	• Tasman Mine Community Complaint Register	A record of all community complaints has been retained for the Tasman Mine project since 2007.	**Compliant**
M5.2	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	• Tasman Mine Community Complaint Register	The community complaint records include details of the date and time of the complaint; the method by which the complaint was made; personal details of the complainant; nature of the complaint; action taken and any follow-up contact with the complainant.	**Compliant**

<table>
<tr><th>EPL 12483</th><th>Condition</th><th>Verification</th><th>Comments</th><th>Compliance</th></tr>
<tr><td></td><td>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.</td><td></td><td></td><td></td></tr>
<tr><td>M5.3</td><td>The record of a complaint must be kept for at least 4 years after the complaint was made.</td><td>• Tasman Mine Community Complaint Register</td><td>A record of all community complaints has been retained for the Tasman Mine project since 2007.</td><td>Compliant</td></tr>
<tr><td>M5.4</td><td>The record must be produced to any authorised officer of the EPA who asks to see them.</td><td></td><td></td><td>Noted</td></tr>
<tr><td>M6</td><td>Telephone complaints line</td><td></td><td></td><td></td></tr>
<tr><td>M6.1</td><td>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</td><td></td><td>An established telephone complaints line for the public (1800 111 271) has been operated by Donaldson Coal Pty Ltdfor the 2007-2014.</td><td>Compliant</td></tr>
<tr><td>M6.2</td><td>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.</td><td></td><td>The community hotline (1800 111 271) was listed on the Donaldson Coal/Tasman Mine website.</td><td>Compliant</td></tr>
<tr><td>M6.3</td><td>The preceding two conditions do not apply until 3 months after:
(a) the date of the issue of this licence or
(b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.</td><td></td><td>The mine started operation in January 2001 and the community hotline and complaints process has been in operation since that time</td><td>Noted</td></tr>
<tr><td>M7</td><td>Requirement to monitor volume or mass</td><td></td><td></td><td></td></tr>
<tr><td>M7.1</td><td>For each discharge point or utilisation area specified below, the licensee must monitor: a) the volume of liquids discharged to water or applied to the area; b) the mass of solids applied to the area; c) the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below.
Point 3
<table>
<tr><th>Frequency</th><th>Units</th><th>Sampling Method</th></tr>
<tr><td>Daily</td><td>Litres/day</td><td>By calculation ((volume flow rate or pump capacity multiplied by operating time)</td></tr>
</table></td><td></td><td></td><td>Noted</td></tr>
<tr><td>6</td><td>Reporting Conditions</td><td></td><td></td><td></td></tr>
<tr><td>R1</td><td>Annual return documents</td><td></td><td></td><td></td></tr>
</table>

EPL 12483	Condition	Verification	Comments	Compliance
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: (a) a Statement of Compliance; and (b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	• Annual Return 13 Sep 2013 to 12 Sep 2014 • Annual Return 13 Sep 2012 to 12 Sep 2013 • Annual Return 13 Sep 2011 to 12 Sep 2012 • Annual Return 13 Sep 2010 to 12 Sep 2011	Annual Returns for EPL 12483 have been submitted to the EPA with a Statement of Compliance and Monitoring and Complaints Summary, on the forms provided by the EPA.	**Compliant**
R1.2	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.*	• Annual Return 13 Sep 2013 to 12 Sep 2014 • Annual Return 13 Sep 2012 to 12 Sep 2013 • Annual Return 13 Sep 2011 to 12 Sep 2012 • Annual Return 13 Sep 2010 to 12 Sep 2011	The Annual Returns for the Tasman Mine have been submitted to the EPA for the reporting period each year since 2007.	**Compliant**
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.*			**Not applicable**
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates			**Not applicable**
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	• Annual Return 8 May 2013 to 7 May 2014 • Annual Return 8 May 2012 to 7 May 2013 • Annual Return 8 May 2011 to 7 May 2012 • Annual Return 8 May 2010 to 7 MAy 2011	The Anniversary Date for the EPL is 8 May and the Annual Returns have been supplied to the EPA with in the 60 day period of the end of the reporting periods since 2007.	**Compliant**

EPL 12483	Condition	Verification	Comments	Compliance
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.		Annual Returns to the EPA have been retained in the Tasman Mine Environmental files from 2007 to 2014.	**Compliant**
R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.		The Annual Returns have been submitted to the EPA with a Statement of Compliance and Monitoring and Complaints Summary, on the forms provided by the EPA.	**Compliant**
R1.8	A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.			**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, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.			**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			**Noted**

EPL 12483	Condition	Verification	Comments	Compliance
	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.			
	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**
7	**General Conditions**			
G1	**Copy of licence kept at the premises or plant**			
G1.1	A copy of this licence must be kept at the premises to which the licence applies.			**Noted**
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.			**Noted**
	The licence must be available for inspection by any employee or agent of the licensee working at the premises.			**Noted**
G2	**Contact number for incidents and responsible employees**			
G2.1	The licensee must operate 24-hour telephone contact lines for the purpose of enabling the EPA to directly contact one or more representatives of the licensee who can: a) respond at all times to incidents relating to the premises; and b) contact the licensee's senior employees or agents authorised at all times to: i) speak on behalf of the licensee; and ii) provide any information or document required under this licence.		The Tasman Mine operated a 24 hour contact line for the purpose of enabling the EPA to directly contact a representative of the licensee.	**Compliant**
G2.2	Condition G2.1 does 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**

EPL 12483	Condition	Verification	Comments	Compliance
G2.3	The licensee is to inform the EPA in writing of the appointment of any subsequent contact persons, or changes to the person's contact details as soon as practicable and in any event within fourteen days of the appointment or change.			**Noted**
8	**Pollution Studies and Reduction Programs**			
U1	**COAL MINE PARTICULATE MATTER CONTROL BEST PRACTICE**			
U1.1	The Licensee must conduct a site specific Best Management Practice (BMP) determination to identify the most practicable means to reduce particle emissions.			**Noted**
U1.2	The Licensee must prepare a report which includes, but is not necessarily limited to, the following: - identification, quantification and justification of existing measures that are being used to minimise particle emissions; - identification, quantification and justification of best practice measures that could be used to minimise particle emissions; - evaluation of the practicability of implementing these best practice measures; and - a proposed timeframe for implementing all practicable best practice measures. In preparing the report, the Licensee must utilise the document entitled Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline - August 2011.	• Tasman Coal Mine Particulate Matter Best Management Practice, Pollution Reduction Program, Todoroski Air Sciences, 3 Feb 2012	Todoroski Air Sciences (TAS) completed a review of the particulate emissions from operations at Tasman Coal Mine. The review focused on estimating annual particulate emissions from the mine operations, as required to prepare a response to the Pollution Reduction Program (PRP) placed on EPL No. 12483 The report was structured generally in accordance with the Coal Mine Particulate Matter Control Best Practice - Site Specific Determination Guideline referred to by OEH.	**Compliant**
U1.3	All cost related information is to be included as Appendix 1 of the Report required by condition U1.2 above.			**Noted**
U1.4	The report required by condition U1.2 must be submitted by the Licensee to the Office of Environment and Heritage's Regional Manager Hunter, at PO Box 488G, NEWCASTLE by 6 February 2012.	• Tasman Coal Mine Particulate Matter Best Management Practice, Pollution Reduction Program, Todoroski Air Sciences, 3 Feb 2012	The Tasman Coal Mine Particulate Matter Best Management Practice, Pollution Reduction Program, Todoroski Air Sciences, was submitted on3 Feb 2012.	**Compliant**
U1.5	The report required by condition U1.2 above, except for cost related information contained in Appendix 1 of the Report, must be made publicly available by the Licensee on the Licensee's website by 15 February 2012.	• Tasman Coal Mine Particulate Matter Best Management Practice, Pollution Reduction Program, Todoroski Air Sciences, 3 Feb 2012	The Tasman Coal Mine Particulate Matter Best Management Practice, Pollution Reduction Program, Todoroski Air Sciences, was available on the Tasman Mine website prior to 15 Feb 2012.	**Compliant**