

RIX'S CREEK PTY LTD

Independent Environmental Audit of Rix's
Creek Mine

FINAL

December 2016

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Creek Mine

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Prepared by
Umwelt (Australia) Pty Limited

on behalf of
Bloomfield Collieries Pty Ltd

Project Director: Daniel Sullivan
Project Manager: Luke Bettridge
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Newcastle

75 York Street
Teralba NSW 2284

Ph. 02 4950 5322

www.umwelt.com.au



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Executive Summary

Umwelt was commissioned by Rix's Creek Pty Ltd (Rix's Creek) to conduct an independent environmental compliance audit against Development Consent DA 49/94 (as modified) for Rix's Creek Coal Mine. This audit was undertaken for the Department of Planning and Environment (DPE) for the period 1 November 2011 to 31 October 2016. The audit also assessed compliance with the conditions of Environment Protection Licence 3391, key mining authorities and other licence documents.

This audit was conducted by Daniel Sullivan (Exemplar Global International Certified Auditor 113202) and Luke Bettridge from Umwelt. The field visit component of the audit was completed over the period 10 – 11 November 2016.

The audit consisted of a detailed desktop review of documentation, interviews with key Rix's Creek staff and a field inspection of the mining and rehabilitation areas. The audit was conducted generally consistent with '*ISO 14010 - Guidelines and General Principles for Environmental Auditing*', '*ISO 14011 - Procedures for Environmental Auditing*' and the '*Independent Audit Guideline. Post-approval requirements for State significant developments* (Department of Planning and Environment, 2015)'.

Key actions and recommendations from the previous independent environmental compliance audit completed in 2011 have been responded to, as described in **Section 3**.

This audit has concluded that the on the ground environmental management practices being applied at the Rix's Creek Coal mine are appropriate. The open cut pit areas assessed during the field inspection were observed to be well managed, with equipment operators and supervisory personnel demonstrating a good understanding of management actions required to minimise amenity impacts from mining activities. This observation is supported by the results from noise and dust monitoring programs and the relatively small number of community complaints received during the audit period.

The field inspection revealed that improvements are required with regard to hydrocarbon management practices, particularly in and around the workshop and with regard to the operation of the oily water separator.

Implementation of site rehabilitation during the audit period was found to have been progressing as per the Mining Operations Plan. A review of rehabilitation during the field inspection completed for this audit found that rehabilitation areas were being developed and maintained to a high standard. However it was identified that land disturbance associated with mining operations had progressed in advance of the approved stage plans within the MOP. Further to this it was also noted during the audit that Rix's Creek were in consultation with both the Department of Planning and Environment and Department of Trade and Investment – Division of Resources and Energy regarding the location and extent of mining and establishment of out of pit emplacement areas at the operation.

A review of incidents that occurred at Rix's Creek Mine since the previous audit indicated that the majority were classified as minor and related to water management, with all being documented and reported to regulatory agencies as required.

Non-compliances identified during this audit are summarised in **Section 4**. These confirm that the majority of non-compliances that occurred during the audit period were administrative or low risk in nature with one medium non-compliance being identified with regard to clearing in exceedance of the approved MOP. A series of recommendations arising from a review of environmental management documentation, the audit site inspections and identified non-compliances is provided in see **Section 7**.

At the time of the audit, Rix's Creek staffs were aware of most of the identified non-compliances against development consent conditions, licences and approvals and were working to address a number of the issues identified in this report.

1.0 Introduction

Rix's Creek Pty Ltd (Rix's Creek) is a wholly owned subsidiary of Bloomfield Collieries Pty Ltd (Bloomfield) who operates Rix's Creek Mine on behalf of Bloomfield. Rix's Creek Mine located in the Singleton area of the Upper Hunter Valley in New South Wales. Rix's Creek commissioned Umwelt (Australia) Pty Limited (Umwelt) to conduct an independent environmental audit (IEA) of Rix's Creek Mine. The IEA was conducted in accordance with the Development Consent for Rix's Creek Mine (DA49/94) Schedule 2, Condition 26 and the NSW Government Independent Audit Guideline (NSW Audit Guidelines) (NSW Government, 2015).

The audit assessed the compliance status of Rix's Creek Mine against the Development Consent and other relevant environmental approvals and licences, for operations occurring between 1 November 2011 and 31 October 2016 (the audit period).

The on-site component of the environmental audit was conducted on 10 - 11 (inclusive) November 2016. Some information requested by the audit team was not available on-site at the time of the audit and was subsequently provided to the audit team for review. This report provides an outline of the audit methodology and results, and provides recommended actions for achieving full compliance with environmental approvals.

The audit was led by Daniel Sullivan (Principal Environmental Consultant) with assistance from Luke Bettridge (Principal Environmental Consultant). As required by the Development Consent, the audit team was approved by Department of Planning and Environment (DPE) to undertake the audit (refer to **Appendix 1** for a copy of the letter of approval from DPE dated 22 August 2016). The Independent Audit Certification Form is also included within **Appendix 1** as required by the NSW Audit Guidelines.

1.1 Audit Objectives

The key objectives identified for the 2016 IEA for Rix's Creek Mine were as follows:

- to undertake an independent environmental audit as required by the conditions of the Development Consent; and
- to assess the environmental performance of the Rix's Creek Mine and the ability of the environmental management systems and controls to provide for sustainable management of the operations.

The IEA assessed the level of compliance and the environmental performance of Rix's Creek Mine in accordance with the:

- the Rix's Creek Development Consent (Mod 7, 2016) (DA49/94)
- the Environment Protection Licence (EPL) No. 3391
- the respective environmental assessments (EAs), including the EA supporting documents
- Mining Authorities; and
- any strategy, plan or program which has been prepared for the operations.

The scope of the audit for Rix's Creek Mine is detailed in **Section 1.2.1**.

1.2 Audit Scope

The IEA was undertaken in accordance with the Development Consent conditions as detailed in **Section 1.2.1**.

1.2.1 Development Consent

As part of the Development Consent conditions, Rix's Creek Mine is required to be audited independently to determine compliance to the satisfaction of the Secretary of DPE. In order to assess the level of compliance with the terms of the approval, Condition 26 of Schedule 2 of the Rix's Creek Mine Development Consent requires that an independent environmental audit be carried out. Specifically, the Development Consent condition states:

“Within 12 months from the date of Consent, the Applicant shall make arrangements for and bear the total cost of an independent comprehensive environmental audit for the development. Further independent audits are to be conducted every fifth year (i.e. From year 6 from the date of Consent) or as directed by the Secretary. The Applicant shall conduct an environmental audit of the mining and infrastructure area of the development and submit the report to the Secretary who shall provide a copy to the Council.

The audit shall be conducted by a duly qualified independent person or team approved by the Secretary in consultation with Council.

The Secretary may, after considering any submission made by Council on the report, notify the Applicant of the Secretary's reasonable requirements with regard to any measures arising from or recommended by the independent environmental report. The Applicant shall comply with those reasonable requirements within such time as the Secretary may reasonably require.”

The scope of Rix's Creek Mine IEA includes the documents listed in **Section 1.2.1.1**. In addition to the completion of the IEA, DRE provided specific requirements to be considered within Rix's Creek Mine IEA in regards to rehabilitation.

1.2.1.1 Development Consent and Supporting Document Summary

Open cut coal mining at Rix's Creek was originally approved in 1989, and a second consent (DA49/94) was granted in 1995 by the then Minister for Urban Affairs and Planning under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) for the extension of mining operations until 2019. The current consent (DA 49/94) has been modified on seven occasions. The history of development consents and modifications is provided in **Table 1.1**.

Table 1.1 Rix’s Creek Development Consent History

Year	Description	Approval Reference
1995	Coal Mining within CL 352 and on land subject to Coal Lease Application No 17 Singleton, construction and operation of surface coal mine and infrastructure and equipment upgrades. Total mine production capped at 15 million bank cubic metres of material movement.	DA 49/94 – Minister for Urban Affairs and Planning
1999	Mod 1 - Modification to amend applicable potentially affected lands monitoring requirements.	DA 49/94 Modification 1 – Minister for Infrastructure and Planning
2003	Mod 2 - Modification to receive ROM coal from Glennies Creek underground mine, process the coal and transport by rail.	DA 49/94 Modification 2 – Minister for Infrastructure and Planning
2004	Mod 3 - Modification to receive process and transport bulk coal samples from the Bickham exploration project.	DA 49/94 Modification 3 – Minister assisting the Minister for Infrastructure and Planning
2009	Mod 4 - Modification to allow a cut and cover tunnel under the New England Highway.	DA 49/94 Modification 4 – Minister for Planning
2013	Mod 5 - Modification to enable the construction and operation of a rail loop and associated clean coal stockpile and rail loading facility on the Rix’s Creek mine site.	DA 49/94 Modification 5 – Minister for Planning and Infrastructure
2014	Mod 6 - Modification of the total volume of material that can be moved annually from 15 million bank cubic metres to 16.1 million bank cubic metres.	DA 49/94 Modification 6 – Minister for Planning
2016	Mod 7 - Modification to allow ROM coal from Rix’s Creek North (former Integra Open Cut) to be transported to the Rix’s Creek CHPP for processing.	DA 49/94 Modification 7- Minister for Planning

1.2.1.2 Supporting Approvals and Documents

The other approvals and statutory documents held by Rix’s Creek Mine which have been reviewed as part of this IEA include:

- EPL No. 3391
- Mining Authorities - Coal Lease (CL) 352 and Mining lease (ML) 1432; and
- any strategy, plan or program which has been prepared for the Project.

1.3 Audit Criteria

The compliance status of each approval was assessed in accordance with the compliance assessment criteria detailed within the NSW Audit Guidelines) as reproduced in **Table 1.2** and **Table 1.3** below.

Table 1.2 Independent Audit Guidelines Compliance Assessment Criteria

Assessment	Criteria
Compliant	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit.
Not verified	Where the auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit. In the absence of sufficient verification the auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified. However, the auditor could note in the report that they have no reasons to believe that the operation is non-compliant with that requirement.
Non- Compliant	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent of one or more specific elements of the regulatory approval have not been complied with within the scope of the audit.
Administrative non-compliance	A technical non-compliance with a regulatory approval that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed minor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).
Not triggered	A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, therefore a determination of compliance could not be made.
Observation	Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where performance may be improved.
Note	A statement or fact, where no assessment of compliance is required.

Table 1.3 Risk Level For Non-Compliances

Risk level	Colour code	Description
High		Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium		Non-compliance with: <ul style="list-style-type: none"> • potential for serious environmental consequences, but is unlikely to occur; or • potential for moderate environmental consequences, but is likely to occur
Low		Non-compliance with: <ul style="list-style-type: none"> • potential for moderate environmental consequences, but is unlikely to occur • potential for low environmental consequences, but is likely to occur
Administrative non-compliance		Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

1.4 Structure of this Document

This report contains the following sections:

- **Section 1.0 - Introduction.** An overview of Rix's Creek Mine operations and the purpose and scope of the audit;
- **Section 2.0 - Audit Methodology.** A detailed description of the audit process;
- **Section 3.0 – Previous Independent Audit Recommendations and Status;**
- **Section 4.0 – Compliance Assessment.** An overview of the findings of the audit, including detailed descriptions of any non-compliance identified, a review of site environmental management plans and environmental performance;
- **Section 5.0 – Environmental Management Plans;**
- **Section 6.0 – Environmental Performance;**
- **Section 7.0 – Conclusion;**
- **Appendix 1 – DPE Correspondence Approving the Audit Team and Independent Audit Submission Form;**
- **Appendix 2 – Rix's Creek Mine Development Consent DA49/94 Checklist;** and
- **Appendix 3 – Rix's Creek Mine Photographic Plates.** Photographs of key site features referred to in this report.

2.0 Audit Methodology

The audit process involved the interview of personnel and relevant regulatory agencies, a review of documentation and samples of records provided by Rix's Creek and a site inspection of the Rix's Creek operations to determine the level of environmental performance and compliance of Rix's Creek Mine.

2.1 Audit Team

The audit team was led by Daniel Sullivan, a qualified and highly experienced environmental auditor, who has undertaken a number of DPE independent environmental audits for mining projects in NSW. Daniel was approved by DPE to act as the lead auditor for the project. Luke Bettridge was approved by DPE to act as the Environmental Auditor. A copy of the DPE correspondence approving the audit team and the certification form is included within **Appendix 1**.

2.2 Agency / Stakeholder Consultation

During the preparation for this IEA, input was sought from regulatory agencies on 1 November 2016 to confirm any areas of compliance or environmental management at Rix's Creek Mine that should be a particular focus. The following agencies were contacted and invited to provide input as part of the scoping phase of this Audit:

- DPE
- Environment Protection Authority (EPA)
- NSW Trade and Investment, Department of Resources and Energy (DRE)
- Office of Environment & Heritage (OEH)
- Department of Primary Industries – Water (DPI – Water)
- Singleton Council; and
- The Community Consultative Committee (CCC) Chairperson.

An overview of the agency consultation is included in **Table 2.1**. Representatives from DRE and EPA responded and provided feedback regarding items to be addressed in addition to the requirements of the Development Consent with their responses summarised in **Table 2.1** below. There was no feedback received from the other stakeholders contacted prior to the audit.

Table 2.1 Stakeholder Consultation

Stake holder	Person Contacted	Response	Where Addressed
DRE	Kate Walsh (DRE – Inspector)	<p>Kate advised that the audit is to review the compliance of Rix’s Creek to determine whether an approved Mining Operations Plan is in place and whether activities are being undertaken in accordance with the requirements of the approved MOP.</p> <p>The audit is to consider:</p> <ul style="list-style-type: none"> • Has the MOP been prepared in consultation with the relevant agencies as outlined in the Project Approval? • Is the rehabilitation strategy as outlined in the MOP consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s)? • Has the rehabilitation objectives and completion criteria as outlined in the MOP been developed in accordance with the proposed final land(s) as outlined in the Project Approval? • Has a rehabilitation monitoring program been developed and implemented to assess performance against the nominated objectives and completion criteria? – verified by reviewing monitoring reports and rehabilitation inspection records. • Has a rehabilitation care and maintenance program been developed and implemented based on the outcomes of monitoring program? – verified by reviewing Annual Rehabilitation Programs or similar documentation. <p>The field component of the audit is to consider the implementation of the above with the audit to also note observation where rehabilitation procedures, practices and outcomes represent best industry practice.</p>	Section 4, 6 and Appendix 2.
EPA	Kurt Sorensen (Regional Operations Officer)	The EPA noted the opportunity to provide input into the audit however the EPA indicated that they do not have any specific items to be addressed during the audit.	N/A

2.3 Site Interviews and Inspections

The opening meeting was held at Rix’s Creek Mine office commencing at 9.00 am on 10 November 2016. The list of participants is provided in **Table 2.2**. It is noted that whilst not in attendance at the opening meeting, that Luke Murray (Mine Manager) was available for a briefly discussion with the independent environmental audit team prior to the commencement of opening meeting.

Table 2.2 Opening Meeting Attendees

Person	Organisation	Title
John Hindmarsh	Rix's Creek Pty Ltd	Senior Environmental Officer
Jason Desmond	Rix's Creek Pty Ltd	Environmental Officer
David Sullivan	Umwelt	Lead Auditor
Luke Bettridge	Umwelt	Auditor

The audit team was introduced and the scope of their responsibilities was conveyed to the auditees. The purpose, depth and scope of the audit were outlined. The methods to be used by the team to conduct the audit were explained. It was stated that the audit team would be interviewing personnel, reviewing site management plans, examining records and conducting a site inspection in order to address specific compliance requirements. Rix's Creek Mine personnel were asked to provide an overview of the operations and the approval history and some key issues relevant to the operations were discussed.

2.3.1 Audit Interviews

During the on-site component of the audit, interviews were conducted with Rix's Creek Mine staff and contractors identified in **Table 2.3**.

Table 2.3 Personnel Interviewed During the Audit

Person	Organisation	Title
Luke Murray	Rix's Creek	Rix's Creek Mine Manager
John Hindmarsh	Rix's Creek	Senior Environmental Officer
Jason Desmond	Rix's Creek	Environmental Officer
Gary Bailey	Bloomfield	General Manager Mining Development – Bloomfield Collieries

2.3.2 Data Collection and Verification

Where possible, documents and data collated during the audit process were reviewed whilst on-site. A number of documents were also provided to the audit team prior to the on-site component of the audit. Several documents that were not available during the on-site component of the audit were provided following the audit.

All information obtained during the audit process was verified by the audit team where possible. For example, statements made by site personnel were verified by viewing documentation and/or site inspections where possible. Where suitable verification could not be provided, this has been identified in the audit findings.

2.3.3 Site Inspection

A detailed site inspection of Rix’s Creek Mine was undertaken during the audit. The following locations were inspected:

- Rix’s Creek pit top area including the offices, pit top, run-of-mine (ROM) coal and product coal stockpile, water management system including clean water diversion and water management infrastructure
- active mining areas including West Pit, Arties Pit, as well on site emplacement areas; and
- rehabilitation areas on site.

2.3.4 Closing Meeting

The list of participants who attended the closing meeting is provided in **Table 2.4**.

Table 2.4 Closing Meeting Attendees

Person	Organisation	Title
Luke Murray	Rix’s Creek	Rix’s Creek Mine Manager
John Hindmarsh	Rix’s Creek	Senior Environmental Officer
Jason Desmond	Rix’s Creek	Environmental Officer
Gary Bailey	Bloomfield	General Manager Mining Development – Bloomfield Collieries
Hannah Bowe	Rix’s Creek	Environmental Graduate
David Sullivan	Umwelt	Lead Auditor
Luke Bettridge	Umwelt	Auditor

The objective of this meeting was to discuss outstanding matters, present preliminary findings and outline the process for finalising the audit report.

2.3.5 Independent Environmental Audit Reporting

Following completion of the site audit, the Development Consent, EPL and Mining Authorities compliance assessments were completed and audit notes were reviewed in order to compile a list of outstanding matters to be noted in the audit report. This report was prepared to provide an overview of the status of compliance by reference to the relevant compliance documentation and any other observations of the auditors during the site inspections and interviews. This report has been prepared on an exception basis, highlighting the compliance issues identified along with any areas where action or improvement is required. This IEA has been prepared in accordance with the NSW Audit Guidelines with **Table 2.5** detailing where the key requirements have been addressed.

Table 2.5 Audit Guidelines Requirements

Section	Description	Where Addressed
2	Assess the operator's compliance with the requirements of regulatory approvals, including (as applicable): <ul style="list-style-type: none"> • The Development Consent; • The Environment Protection Licence; • The Mining Lease; and • Water licences and approvals. 	Section 4.0
2, 3	The scope of the audit and the audit team (including any technical specialists) to be determined by the lead regulator.	Section 1.2
3.3	The auditor team must be independent of the development being audited and audit findings must be based on verifiable evidence.	Section 2.1 and Appendix 1
4.1	The compliance status of each requirement or commitment should be assessed in accordance with the compliance assessment criteria and risk levels in the audit guidelines.	Section 4.0
4.2	Consultation with key regulatory agencies prior to commencement of the audit site inspection.	Section 2.2
5.1	The audit outcomes to be documented in a thorough, accessible and accurate audit report that is written in a neutral tone reflecting facts gathered by the audit team.	This Audit Report
5.1	The audit report should include the following sections: <ul style="list-style-type: none"> • Introduction, providing a brief overview of the development, audit scope and objectives; • Methodology, describing the audit team, methodology applied, document reviews, site inspections and interviews; • Audit findings, including documentation of consultation, response to actions from the previous audit, assessment of compliance status against the conditions and commitments in relevant documents and a discussion of environmental incidents and performance; and • Recommendations, identifying any opportunities for improvement identified in the audit. 	This Audit Report

Section	Description	Where Addressed
5.2	Audit reports submitted to the lead regulator must be certified by the lead auditor on an attached 'Independent Audit Submission Form'	Appendix 1
5.3	Copies of the final audit report to be distributed to regulatory agencies within two weeks of finalisation and placed on the development's website.	Rix's Creek to complete.
6	The operator of the development to respond to the lead regulator responding to the audit findings and recommendations with an action plan within four weeks of receiving the final audit report.	Rix's Creek to complete.

2.4 Limitations

The findings of the compliance audit are based upon visual observations of the site and its vicinity, interviews with site personnel and our interpretation of documentation provided by Rix's Creek.

Opinions presented herein apply to the site as it existed at the time of the audit and from information provided by site personnel and government agencies. Any changes to this information of which Umwelt is not aware and has not had the opportunity to evaluate therefore cannot be considered in this report.

The auditors have taken due care to consider all reasonably available information provided whilst undertaking this audit and have taken this information to represent a fair and reasonable characterisation of the environmental status of the site, but recognise that any site assessment program is necessarily limited in scope and true site conditions may differ from those inferred from the available data.

3.0 Previous Independent Audit Recommendations and Status

The recommendations made in the 2011 Rix's Creek Mine Independent Environmental Audit (Glade Consulting, 2011) and the status of the recommendations as at 31 October 2016 are detailed in **Table 3.1**.

Table 3.1 Previous Audit Findings

Ref.	2011 - Summary of Audit Finding (non-compliance)	2011 – Audit Recommendations	2016 - Bloomfield Response	2016 Finding
Development Consent - Schedule 2, Condition 3 – Statutory Requirements	<p>Sighted Bloomfield Group Environmental Management System which includes requirements to manage compliance in a systemic manner.</p> <p>Unable to sight a current 'Approval to Operate' for an On-site Sewage Management Systems (OSMS) as per Local Government (General) Regulation 2005.</p> <p>Unable to sight evidence that all conditions of the Road Occupancy Licence (licence number 773, extension 7, expires 31/12/11), which allows blasting within 500m upon the closure of the New England Highway are implemented, specifically: - the licensee undertakes to erect permanent mine blasting road closure signage in accordance with RTA signage standards on both approaches to the road closure points indicating the time and day of the next blast, the anticipated delay and a contact telephone number for public inquiries, - the licensee undertakes to notify local emergency services of a closure on the morning of each subject closure, - the licensee undertakes to provide regular media releases to local newspaper and radio services indicating times/days of anticipated mine blasting road closures,</p>	<ol style="list-style-type: none"> 1. Obtain an Approval to Operate from SSC. 2. Erect mine blast road closure signage on the New England Highway. 3. Add local emergency services to road closure/blasting notifications 4. Advertise road closures in the Singleton Argus and on the Bloomfield Group website. 	<ol style="list-style-type: none"> 1. Approval received 19 December 2011. 2. RTA has approved sign type and location in 2012 and signs erected in 2013. 3. Completed in 2012. 4. RMS (formally RTA) Notified prior to any road closures. Blasting Hotline on Bloomfield Group website. Road Occupancy License (currently ROL 511703), approved every 6 months. 	Compliant

Ref.	2011 - Summary of Audit Finding (non-compliance)	2011 – Audit Recommendations	2016 - Bloomfield Response	2016 Finding
<p>Development Consent - Schedule 2, Condition 6 (i) (c) – Visual Amenity</p>	<p>Sighted a detailed visual amenity plan - Rix's Creek Landscape Plan (June 1996). Establishment of effective screen plantings and mounding was observed along the New England Highway and Rix's Lane, which is beyond the commitment of the June 1996 Plan.</p> <p>Unable to sight evidence of a formal building maintenance program or inclusion of building maintenance specifications within the Landscape Management Plan (V2 18-3-10 Rix's Final Draft). Site inspection observed a number of sheet metal panels missing on the train load out bin conveyor cladding and the coal bin remains unpainted (see Photo 11 in the audit report)</p> <p>It was stated that building maintenance is undertaken as part of the general maintenance program on site. A major project has been undertaken (2010-2011), where major infrastructure i.e. Washing plant structure, Clean coal bin, workshop located beside the office and store and maintenance shed located on the top pad have been painted to blend with surrounds (site inspection confirmed recent works).</p>	<p>Update the Landscape Management Plan to include building/infrastructure maintenance.</p> <p>Review sheet metal cladding and repair as necessary on the train load out conveyor.</p>	<p>No formal building maintenance program, however, building maintenance is undertaken on an as-needs basis with 2 yearly structural integrity inspections in Rix's 'Pulse' system.</p> <p>Cladding and repair works have been undertaken on the train load out conveyor.</p>	<p>Administrative Non-compliance – formal building maintenance program to be developed and included in Landscape management Plan (see Section 4)</p>
<p>Development Consent - Schedule 2, Condition 9 (i) – Traffic Management</p>	<p>Unable to sight evidence that a Traffic Management Plan has been submitted to DoPI for approval prior to construction.</p> <p>Traffic control plan submitted and approved by RTA as a component of the Work Authorisation Deed (contract number 09-2535-2274), sighted.</p>	<p>The Traffic Management Plan was submitted to DoPI (email - Howard Reed, Scott Brooks) on 24 November 2011.</p>	<p>Approval granted in 2014 (sighted DP&E approval letter dated 22.01.2014).</p> <p>It is noted this management plan is required to be updated in accordance with Schedule 2, Condition 28 of PA N90/00356.</p>	<p>Not Verified</p>

Ref.	2011 - Summary of Audit Finding (non-compliance)	2011 – Audit Recommendations	2016 - Bloomfield Response	2016 Finding
<p>Development Consent - Schedule 2, Condition 11 (i) – Noise and Vibration Monitoring and Management</p>	<p>Sighted quarterly monitoring data from The Retreat, Singleton Heights, Camberwell and Maison Dieu reported in the AEMRs (2007-2010).</p> <p>Portable met station set up at monitoring sites to record local met data and is reported on graphs. However, unable to determine if monitoring undertaken under neutral conditions, to allow an assessment of monitoring results against the design goal noise levels set in the consent. It is noted, that the Industrial Noise Policy (not applied at present at Rix’s Creek) does not relate to neutral atmospheric conditions. Further, a description of the mining activity at the time of monitoring is not presented in the AEMR to assess that average conditions have been measured.</p>	<p>AEMR to include an assessment of the monitoring results with regard to the design goal noise levels, with respect to meteorological conditions at the time of monitoring.</p> <p>Provide a description of the mining activity at the time of monitoring is not presented in the AEMR</p>	<p>Rix’s Creek monitors weather conditions and attended monitoring conducted when mine operating. Attended field sheets record weather conditions and mining operations at time of noise monitoring sessions. Real-time weather station installed during 2014 to further improve meteorological changes ie. Temperature inversions.</p>	<p>Non-compliant</p> <p>Noise monitoring is not undertaken in accordance with the requirements of the Development Consent (see Section 4).</p>

Ref.	2011 - Summary of Audit Finding (non-compliance)	2011 – Audit Recommendations	2016 - Bloomfield Response	2016 Finding
Development Consent - Schedule 2, Condition 14 (iii) – Dust Suppression	<p>ROM coal stockpile sprays are not automated for wind speed greater than 5.6m/s - they are manually operated based on visual assessment of need. However wind speeds may exceed parameters when the operation is unmanned (e.g. weekend). It was stated (pers. comm. J. Hindmarsh) that the moisture content of coal is generally >10%. Dust emissions were not evident at the time of inspection at the rail loader stockpiles.</p> <p>Automatic sprays are installed at the rail loader product stockpiles but are not operated as the coal is damp. Operations are ceased during adverse weather conditions.</p> <p>The ROM Coal bin has automatic sprays that are tripped when a truck tips, but it is not utilised if loader tipping into the bin. If loader feeds bin, then generally pushing into high level bin and minimal dust is generated.</p>	<p>Previous compliance audit finding - issue not adequately resolved with the OEH/DoPI.</p> <p>Ensure that adequate dust mitigation is applied at all times.</p>	<p>Rix's Creek utilises stockpile sprays and SafeMine detection system for Loader / Trucks emptying ROM Coal into the ROM Hopper. However it is noted during the audit that the sprays are not automated.</p>	<p>Non-compliant.</p> <p>Not all dust sprays are automated in accordance with the requirements of the Development Consent (see Section 4).</p>
Development Consent - Schedule 2, Condition 15A (v) – Erosion and Sediment Control Plan	<p>Sighted the Water Management Plan (30/03/10) which includes an Erosion and Sediment Control Plan (Part C and Appendix A). The ESCP requires 'All sediment dams will be inspected quarterly to ensure they have at least 75% of their capacity available for sediment retention. Desilting will be undertaken as soon as practicable, with silt being disposed of to an area approved by RXC. Details will be recorded on inspection logs'.</p> <p>Sighted inspection logs for sediment dams on site and appropriate checklists developed. Unable to sight evidence that these inspections are being completed quarterly.</p>	<p>Ensure that inspections are completed quarterly and actions resolved in timely manner.</p>	<p>Conducted quarterly with no inspections missed for 2012-2015.</p>	<p>Compliant</p> <p>Sighted monthly erosion and sediment control checklist and inspection log.</p>

Ref.	2011 - Summary of Audit Finding (non-compliance)	2011 – Audit Recommendations	2016 - Bloomfield Response	2016 Finding
Development Consent - Schedule 2, Condition 16A (ii) – Landscape Management	<p>Sighted Rehabilitation Management Plan (V2 240310 Rix's Final Draft). Unable to sight evidence that this plan has been approved by the D-G.</p> <p>Sighted an email, dated 19/05/2010, from Alison O'Reilly (DoPI) noting that there were a few conditions that have not been addressed; specifically 16B ii - measures for short, medium, long-term, 16B v, 16B vii - potential risks to be addressed, 16B viii - more information required including group documents.</p>	Amend the RMP and gain approval from the D-G. Implement the requirements of the RMP.	<p>Approval granted in 2014 (sighted DP&E approval letter dated 22.01.2014).</p> <p>It is noted this management plan is required to be updated in accordance with Schedule 2, Condition 28 of PA N90/00356.</p>	<p>Administrative Non-compliance.</p> <p>RMP requires updating to address Development Consent conditions (see Section 4).</p>
Development Consent - Schedule 2, Condition 19 (i) (d) – Annual Review	<p>Unable to sight an assessment of performance in terms of the conditions of this consent.</p> <p>Sighted a letter (DoPI to Rix's Creek, 08/06/2011) requesting that in future reports a compliance table be included.</p>	Include in the 2011 AEMR a compliance assessment of the conditions of development consent.	<p>Included in 2012 AEMR.</p> <p>Compliance tables have not been included in the 2011 – 2014 AEMRs. However it is noted a compliance table was included in the 2015 Annual Review.</p>	<p>Administrative non-compliance – include a compliance table in subsequent Annual Reviews as per completed for 2015.</p>
Development Consent - Schedule 2, Condition 19 (i) (h) – Annual Review	Unable to sight specific targets for the next year within the AEMR	Include in the 2011 AEMR environmental targets for 2012.	<p>Included in 2012 AEMR.</p> <p>Specific targets for the next year have not been included in the 2011 – 2014 AEMRs or 2015 Annual Review.</p> <p>The activities proposed for the next period are based on the production schedule and rehabilitation planned with each report stating <i>'Environmental management is an ongoing process at Rix's Creek with continual improvement being made to the existing systems already in place'</i>. This section should be</p>	<p>Non-compliance (see Section 4)</p>

Ref.	2011 - Summary of Audit Finding (non-compliance)	2011 – Audit Recommendations	2016 - Bloomfield Response	2016 Finding
			updated with specific environmental management targets.	
Development Consent - Schedule 2, Condition 27 (i) – Waste	Unable to sight adequate records relating to all wastes generated on site for the audit period.	Maintain records of all wastes generated and disposed (including trackable wastes and tyres).	Waste figures for all waste provided by waste contractor and displayed in AEMR.	Compliant
Development Consent - Schedule 2, Condition 27 (iv) – Waste	Unable to sight a current SSC approval to operate a Sewage Management System (last approval 1989). Environmental Guideline, Section 5.3 describes monitoring requirements, unable to sight evidence of a monitoring program for the management of the onsite sewage treatment and irrigation system.	Gain an Approval to Operate for the OSMS. Undertake monitoring (water/soil) of the effluent treatment area.	2016 confirmed that the Sewage Management Systems s operated in accordance with SSC approval.	Compliant
Environmental Protection Licence No. 3391 – L7.2 b)	Two exceedances during the audit period. 1. Sighted incident report OEH reference 10/36084, 19/07/2010 recorded 124.7dBL (Dunn) and 125.4 (Wright), both properties are in Maison Dieu area. 2. Sighted incident report OEH reference 07/20473, 23/05/2007 recorded 132.5dBL (Dunn), 129.0 (Wright) and 122.8 (Dight's crossing Rd).	No further action required.	N/A	Non-compliances recorded against the EPL as part of the 2016 IEA are detailed in Section 4.2.

4.0 Compliance Assessment Rix's Creek Mine

This section provides a discussion of the identified non-compliances and the status of the approvals assessed as part of the audit. **Appendix 2** provides a condition by condition checklist of the Development Consent (DA49/94) and provides the compliance status of each condition. The scope of approvals assessed as part of this audit is detailed in **Section 1.2**. The respective compliance tables in the following sections include a ranking of the non-compliance risk levels in accordance with Table 2 of the NSW Audit Guidelines. Recommendations arising from the non-compliances are also included **Section 7**.

4.1 Development Consent

A summary of the compliance assessment against Rix's Creek Mine Development Consent is included below.

4.1.1 Development Consent (DA49/94)

The non-compliances identified with DA49/94 are detailed in **Table 4.1** below.

Table 4.1 Non Compliances with Development Consent (DA49/94)

Condition	Non-Compliance	Risk Level
Schedule 2, Condition 1A	Not all of the conditions of the Project Approval have been complied with. See risk ratings for each individual condition.	Low
Schedule 2, Condition 3	Non-compliances have been recorded during the audit period for legislative acts and agencies as detailed within this condition and these are discussed in Section 4 of the report.	Low
Schedule 2, Condition 6(c)	No formal building maintenance program was implemented to specifically review the maintenance of buildings.	Administrative
Schedule 2, Condition 7	Site lighting has not been confirmed with Singleton Council that it is managed to their satisfaction.	Administrative
Schedule 2, Condition 9	The Traffic Management Plan was not approved by the Secretary prior to the commencement of the tunnel construction activities.	Administrative
Schedule 2, Condition 11	Noise monitoring is not undertaken in accordance with the requirements of this condition as noise monitoring is not undertaken on a quarterly basis, monitoring is undertaken on a 6 monthly basis.	Low
Schedule 2, Condition 14	<ul style="list-style-type: none"> The area of disturbance onsite reflected the extent of disturbance as approved at the end of the MOP term (2020) and therefore ground disturbance was ahead of the schedule within the MOP; and Not all sprays on site, including the coal stockpile, are automatic. 	Medium
Schedule 2, Condition 14A	No evidence was available to confirmation that the NGRS Report had been undertaken to the satisfaction of the Secretary.	Administrative

Condition	Non-Compliance	Risk Level
Schedule 2, Condition 15	<ul style="list-style-type: none"> • Sections of the Water Management Plan did not include the information required below: <ul style="list-style-type: none"> - Describe measures to minimise water use by the development. - detail that visual monitoring of flow volume will be undertaken. - process for monitoring yield into the open cut. - process for monitoring impacts to baseflow and offsetting as required any loss of base flow, impacts to private land owners caused by Rix's Creek Operations. 	Low
Schedule 2, Condition 16A	<ul style="list-style-type: none"> • A copy of the Landscape Management Plan marked 'final' was not forwarded to the Singleton office as requested by the DP&E. • The Final Void Management Plan was not submitted to the DP&E by the due date. • The Mine Closure Plan was not submitted to the DP&E by the due date. 	Administrative
Schedule 2, Condition 16B	<ul style="list-style-type: none"> • Sections of the Rehabilitation Management Plan did not include the information required below: <ul style="list-style-type: none"> - procedure to protect vegetation and soil outside the disturbance areas. - procedure to manage impacts on fauna. - procedure to landscape the site to minimise visual impacts. - procedure to conserve and reuse topsoil. - information regarding the salvage and re-use of material. - monitoring program to include all measures in 16B(v) and effectiveness of these measures. - clearly state who is responsible for monitoring and reviewing the plan. 	Low
Schedule 2, Condition 16D	<ul style="list-style-type: none"> • Sections of the Mine Closure Plan did not include the information required below: <ul style="list-style-type: none"> - objectives and criteria for mine closure for ML 1432 and completion criteria for each domain. - 	Low
Schedule 2, Condition 19	<ul style="list-style-type: none"> • Sections of the Annual Environmental Management Reports/Annual Review did not include the information required below: <ul style="list-style-type: none"> - updated water balance for the reporting year not included each year as required <i>Note it was included in 2015 Annual Review.</i> - not all reports were submitted by the due date. - Specific targets for the next year have not been included in the 2011 2015 reports. 	Low
Schedule 2, Condition 28	Not all management plans / programs were revised following the submission of an incident report under Condition 19 or modifications of the Development Consent to the satisfaction of the Secretary.	Low

Condition	Non-Compliance	Risk Level
Schedule 2, Condition 29	<ul style="list-style-type: none"> • Management plans have not been updated as required by Condition 28 of the Development Consent. • Some management plans have been updated without consultation being undertaken with all parties nominated by the Development Consent. No agreement with the Secretary was sought to revise the management plans without consultation with relevant parties. 	Low

4.1.1.1 Environmental Assessments

As part of the compliance assessment against Rix’s Creek Mine Development Consent, an assessment of the operations was undertaken against the EAs prepared as part of the original and modification approval processes for Rix’s Creek Mine. As noted in **Section 1.2.1**, the Development Consent has been modified seven times since it was originally granted in 1995. This IEA noted that during the audit period Rix’s Creek Mine appear to have been undertaking operations generally in accordance with the requirements of the EA’s which have been developed for the operations.

An exception that was identified in this regard was that compliance was not able to be verified with regard to the location of selected emplacement areas and the extent of mining that has been undertaken within the West Pit. . This is discussed further in **Section 6.2.1** and it is noted that the location of emplacement areas and extent of mining operations is currently being reviewed by DPE, DRE and Rix’s Creek Mine.

4.2 Environment Protection Licence

Rix’s Creek hold EPL 3391 for Rix’s Creek Mine as it conducts an activity that requires an approval under the POEO Act. The EPL outlines Rix’s Creek’s responsibilities and the environmental performance standards it is required to meet, being:

- limit conditions;
- operating conditions;
- monitoring and recording conditions;
- reporting conditions;
- general conditions; and
- pollution studies and reduction programs.

Rix’s Creek reports its performance against the above responsibilities and environmental performance status via the submission of its Annual Return. Generally, Rix’s Creek has demonstrated compliance with the conditions of its EPL, however, some non-compliances have been identified.

The non-compliances identified with EPL 3391 are detailed in **Table 4.2** below with further detail with regard to the reportable incidents that have occurred during the audit period provided in **Section 6.2.2**.

Table 4.2 Non Compliances with EPL 3391

Condition	Non-Compliance	Risk Level
M2.1	During the audit period, there have been a number of instances where dust gauges have not been able to be sampled due to the dust gauge being broken. These non-compliances have been reported annually to the EPA in the Annual Return.	Low
L1.1	Overflow of sediment dams and mine water dam at clean coal stockpile, rail loading facility and mine water dam (DWD 3) (see Section 6.2.2).	Low
L2.2	Five deliveries of waste oil were received without analysis undertaken to confirm quality limits as prescribed within the EPL had been met. It is noted that Rix's Creek has ceased utilising waste oil within blasting activities on site.	Administrative

4.3 Mining Authorities

The audit findings indicate that Rix's Creek has achieved a high level of compliance with the environmental management conditions of its Mining Authorities. Rix's Creek hold Mining Authorities CL 352 and ML 1432. The non-compliances identified with Mining Authorities are detailed in **Table 4.3**.

Table 4.3 Non-Compliances With Mining Authorities

Lease	Non-Compliance	Risk Level
ML 1432 – Condition 2(d) and CL 352 – Condition 3(a) and (b)	Ground disturbance at Rix's Creek has been undertaken at a rate which is in advance of the approved stage plans within the MOP for 2016.	Medium
CL 352 – Condition 2(b) (i)(A)	During the audit period, five incidents were reported related to the overflow of sediment dams and water release to Rix's Creek due to a pipeline leakage and seepage from old underground workings. This is further detailed in Section 6.2.2 .	Low

Rix's Creek developed the Rix's Creek Mining Operations Plan (MOP) for the period 2013 – 2020 with the MOP approved by DRE on 8 March 2013. It is noted that mining operations undertaken at Rix's Creek Mine have been undertaken to the disturbance extent as defined in "Map 3G – Mining and Rehabilitation – Year 2020" and therefore the existing ground disturbance at Rix's Creek has been undertaken at a rate which is in advance of the approved stage plans within the MOP for 2016. Rix's Creek noted during the audit that additional rainfall in 2015 and 2016 storm events led to the retention of water in-pit which resulted in the need to progress ground disturbance in advance of the annual stage plans included within the MOP. Further commentary regarding rehabilitation practices implemented at Rix's Creek as observed during the site inspections is included in **Section 6.3.5**.

Rehabilitation is progressing in accordance with the schedules for rehabilitation as noted in the Rix's Creek MOP. As noted in **Section 6.2.1**, Rix's Creek are currently liaising with DRE and DPE in regards to the location of site emplacement areas and the extent of mining undertaken at Rix's Creek. Non-compliances with the ML 1432 and CL 352 conditions relate to the environmental incidents related to water discharge which occurred during the audit period.

The rehabilitation security bonds held by Rix's Creek for ML 1432 and CL 352 were reviewed during the audit period and within 2016. The rehabilitation security deposits were observed to have been updated during the audit period and were accepted by DRE.

5.0 Environmental Management Plans

Rix's Creek has developed a number of environmental management plans and monitoring programs for the project in accordance with relevant requirements of the Development Consent. These documents address specific impacts associated with the project, such as noise, and reflect the requirements detailed in the Development Consent. The plans and programs required to be prepared include:

- Traffic Management Plan
- Noise and Vibration Management Plan
- Water Management Plan including:
 - Site Water Balance
 - Erosion and Sediment Control Plan
 - Surface Water Monitoring Program
 - Groundwater Monitoring Program
 - Surface and Groundwater Response Plan
- Landscape Management Plan incorporating:
 - Rehabilitation Management Plan
 - Final Void Management Plan
 - Mine Closure Plan

It is noted that additional plans including a Biodiversity Management Plan and Heritage Management Plan are included within the Development Consent however the requirement to develop these plans has not been triggered due infrastructure not being constructed as yet, in particular the rail loop and rail spur. The plans which have not been triggered for development have not been included within the above list.

Additionally, the MOP for Rix's Creek Mine was reviewed, being a plan required under the provisions of the Mining Authorities for the site. The MOP was prepared by Rix's Creek to guide the environmental management of the mining operations.

This audit found that a number of the management plans that had been prepared for Rix's Creek had not been reviewed in accordance with the frequency as defined by the Development Consent, with a number of the management plans also detailing management measures and practices which are not consistent with the existing operations undertaken on site.

An overview of the compliance status of the environmental management plans and relevant environmental / operational plans (e.g. Mining Operations Plans) including an overview of the compliance of the management plans with the requirements of the Development Consent and implementation status of the plans is included in **Table 5.1**.

Table 5.1 Rix’s Creek Mine Environmental Management Plans

Management Plan	Comments
Traffic Management Plan	<p>The TMP was developed for the construction of the Rix’s Creek Mine ‘Cut and Cover Tunnel’ crossing of the New England Highway. It is noted the TMP was provided to the DPE in 2011 following the commencement of construction of the tunnel. However, the commencement of construction activities was approved by the Roads and Maritime Services (RMS) (formerly Roads and Traffic Authority) in 2010. All relevant approvals had been obtained from the RMS including a number of Road Occupancy Licences throughout the audit period.</p> <p>At the time of the audit, the relevant controls in the TMP were observed to be implemented by Rix’s Creek Mine.</p> <p>Not all requirements of the Project Approval were complied with during the preparation of the TMP, comments are provided in Appendix 1 with non-compliances noted in Section 4.</p>
Noise and Vibration Management Plan	<p>The NMP has been prepared as an integrated management plan for Rix’s Creek North and Rix’s Creek South Mine for the period 2016 – 2019. The NMP was approved by the DP&E on 16 February 2016. It is noted that the NMP has been prepared for Rix’s Creek North and South Operations.</p> <p>Not all operational requirements of the Project Approval have complied with the NMP, non-compliances and recommendations are noted in Section 4 with further detail provided in Appendix 1. A key issue is related to the noise monitoring which is being undertaken on site which is not consistent with the Development Consent e.g. real time noise monitoring is undertaken and used for operational performance management with attended monitoring undertaken on a monthly basis. This monitoring practice detailed within the Noise Management Plan as approved during 2016 does not outline the requirement for quarterly noise monitoring in accordance with the requirements of Condition 11 of the Development Consent (refer to Section 6.3.2) and therefore noise monitoring as required by the Development Consent is not occurring. Noise monitoring is undertake in accordance with the NMP which has been prepared to conform to the INP, however the monitoring detailed within the NMP is not consistent with the Development Consent. It is noted that Rix’s Creek have well developed and implemented predictive noise and blast management systems in place and these are discussed further in Section 6.3.2.</p>
Water Management Plan	<p>The Water Management Plan (WMP) including the Erosion and Sediment Control Plan (ESCP) has been prepared for Rix’s Creek Mine and was approved by the DPE on 22 January 2014.</p> <p>The WMP includes the site water balance, surface water and groundwater monitoring program and response plan. Each of these sections is required to be updated to ensure compliance with the Development Consent has been addressed within the WMP, non-compliances and recommendations noted in Section 4 with further detail provided in Appendix 1. The ESCP has been developed for the site and is compliant with the Development Consent.</p> <p>It is noted that Rix’s Creek has not been diverted in accordance with MOD 4. The WMP will be updated prior to the diversion of Rix’s Creek to include updates on monitoring and rehabilitation.</p>

Management Plan	Comments
Landscape Management Plan	<p>The Landscape Management Plan (LMP) has been prepared for Rix's Creek Mine and was approved by the DP&E on 22 January 2014.</p> <p>The LMP is the over-arching document with supporting documents including the Rehabilitation Management Plan, Final Void Management Plan and Mine Closure Plan. Administrative non-compliances with the Development Consent were related to the preparation of the Plans and submission to the DP&E after the required date. Non-compliances and recommendations are noted in Section 4 with further detail provided in Appendix 1.</p> <p>The LMP includes a Rehabilitation Management Plan (RMP), Final Void Management Plan and Mine Closure Plan as required by the Development Consent. It is noted that the RMP does not currently reflect the strong rehabilitation practices which are implemented on site and therefore it is suggested that the RMP is updated or prepared as the MOP.</p>
Mining Operations Plan	<p>Rix's Creek developed the Rix's Creek MOP for the period 2013 – 2020 with the MOP approved by DRE on 8 March 2013.</p> <p>It is noted that mining operations undertaken at Rix's Creek Mine appear to have been undertaken out to the disturbance extent as defined in "Map 3G – Mining and Rehabilitation – Year 2020" and therefore the existing ground disturbance at Rix's Creek has been undertaken at a rate which is in advance of the approved stage plans within the MOP for 2016. Rehabilitation is progressing in accordance with the schedules for rehabilitation as noted in the Rix's Creek MOP. As noted in Section 6.2.1, Rix's Creek are currently liaising with DRE and DPE in regards to the location of site emplacement areas and the extent of mining undertaken at Rix's Creek.</p>

6.0 Environmental Performance

6.1 Environmental Management System

6.1.1 Management Commitment and Resourcing

Throughout the audit, Rix's Creek environmental staffs were co-operative and forthcoming with information and this allowed the auditors to gain an understanding of the culture of the organisation. Rix's Creek environmental staff attend daily management meetings onsite and discuss any environmental works required to be undertaken at this meeting. The utilisation of the Env Met system to proactively manage noise, blasting and air quality at Rix's Creek is a good initiative with a number of examples sighted which demonstrated the system was understood and reasonably well implemented on site.

In regards to resourcing for environmental personnel, Rix's Creek have a dedicated night time noise environmental monitoring position which is responsible for liaising with Rix's Creek production personnel to manage night time noise emissions. This role is a good initiative with a number of examples noted where operations had been modified to meet the requirements of the NMP during night time operations. This designated noise monitoring role also enables effective and efficient operational response to any noise complaints which are received by Rix's Creek.

During the audit, Rix's Creek Mine senior management were involved in the audit and demonstrated an understanding of key environmental issues at the operation and also demonstrated a clear intent to manage the operation in accordance with the requirements of the Development Consent.

6.1.2 Training and Competence

Training records were reviewed during the audit to verify that Rix's Creek has a system in place for the training of its employees and contractors such that licensed activities are undertaken in a competent manner (EPL Condition O1.1) and that plant and equipment on-site is maintained and operated in a proper and efficient manner (EPL Condition O2.1).

Training programs and records reviewed during the audit indicated that Rix's Creek has developed and implemented an induction and training system for the training of employees and assessment of competence. In terms of environmental training, training records reviewed during the audit identified that the site inductions include environmental management requirements for the site.

6.1.3 Environmental Inspections and Compliance Management

The Rix's Creek environmental team undertakes periodic site environmental inspections of the operations including operational and rehabilitated areas on site. The Rix's Creek Mine Environmental Inspection Checklist was sighted with the checklist largely focussing on water management across the site. The inspection results and any actions required are discussed at the daily management meeting where they are reviewed and prioritised based on the risk level attributable to the action.

Rix's Creek currently have a substantial number of commitments and requirements from existing statutory approvals and management plans which are required to be complied with as part of ongoing operations.

6.1.4 Plant Maintenance and Inspection

On the basis of the audit observations and the records reviewed on-site, the auditors concluded that systems are in place for the maintenance of plant used on-site and that the key issue relates to the appropriate implementation of this system.

Poorly maintained plant and equipment has the potential to increase the risk of environmental impacts due to the increased risk of fuel or oil spills and leaks, increased air emissions and increased noise. During the site inspection undertaken for the audit, there were variable standards of equipment observed to be in operation. In particular, selected service trucks and refuelling trailers utilised for field servicing of mining equipment were observed to be of an ageing fleet and did not appear to utilise or have available contemporary management controls including self bunded tanks as well as not having spill kits available on the vehicle, refer to Plates 1 and 2 in **Appendix 3**.

The site oil water separator system is also required to be reviewed, particularly in the vicinity of the Rix's Creek workshop to confirm the systems are designed and operated in accordance with the Australian Standard 1940 – 2004 “ The storage and handling of flammable and combustible liquids” (AS 1940). A tank which receives water / oil from the oil water separator on site was observed during the site inspection to have over topped, with staining on the side of the tank and on the ground and drainage lines surrounding it indicating the oil may have spilt on a number of occasions, refer to Plate 3 and 4 in **Appendix 3**.

It was observed during the site inspection that cladding and repair works have been undertaken on the train load out conveyor as recommended by the previous audit, refer Plate 5 in **Appendix 3**.

6.1.5 Environmental Monitoring

A range of environmental monitoring programs have been developed within the respective site management plans. Monitoring undertaken in accordance with the environmental monitoring programs is displayed on the Rix's Creek website with the monitoring data also included within the Rix's Creek Annual Review.

A review of the monitoring programs currently being undertaken identified that monitoring is generally undertaken as required; however, there are selected monitoring programs which are being undertaken on site which are not consistent with the approved management plans or the requirements of the Development Consent. An example of this is that real time noise monitoring is undertaken and used for operational performance management with attended monitoring undertaken on a monthly basis. This monitoring practice is detailed within the recently approved Rix's Creek Mine Noise Management Plan, however the monitoring which is undertaken does not satisfy the requirement to undertake quarterly noise monitoring in accordance with the requirements of Condition 11 of the Development Consent (refer to **Section 6.3.3**).

Rix's Creek have implemented the Env Met predictive environmental management system on site which provides daily weather predictions, as well as predictions of potential for dust generation and impacts from planned blasting. This system has been integrated into the management of the operations with the results of the daily dust and blast emission predictions discussed at the daily site management meetings. During the audit a number of examples were sighted whereby operations had been amended during the audit period in response to the Env Met predictions. Rix's Creek also utilise a network of real time air and noise loggers to manage operations in response to predicted and observed weather at the operation. The system is well implemented and integrated into the management of the operations.

6.2 Reportable Environmental Incidents and Complaints

The reportable environmental incidents, Penalty Infringement Notices (PINs), regulatory orders and complaints received by Rix's Creek during the audit period are discussed in the following sections.

6.2.1 Penalty Infringement Notices / Orders

During the audit period Rix's Creek did not receive any PIN's. There have been two orders received during the audit period as detailed in **Table 6.1**.

Table 6.1 Rix's Creek Orders / Notices Received During the Audit Period.

Date	Details of Order	Rix's Creek Response
19 July 2016	Rix's Creek received a notice under Section 119J of the Environmental Planning and Assessment Act from DPE on 19 July 2016 to furnish information and records as detailed within notice to DPE by 20 August 2016. The notice requested a number of items with DPE advising within the notice that the information was being requested to confirm Rix's Creek's compliance with the requirements of Condition 1 of Schedule 2 of the Development Consent.	Rix's Creek advised Umwelt during the audit that information requested was provided to DPE as required by the notice and that the matter was the subject of ongoing consultation between Rix's Creek and DPE.
26 August 2016	Rix's Creek were required to provide information to DRE in regards to a notice received under Section 248B (1) of the Mining Act 1992 in regards mining boundaries detailed on Map 1 C of the Rix's Creek Mining Operations Plan 2013 – 2020. The information was required to be provided to DRE by 23 September 2016.	Rix's Creek advised Umwelt during the audit that information requested was provided to DRE as required by the notice and that the matter was the subject of ongoing consultation between Rix's Creek and DRE.

6.2.2 Reportable Incidents

The reportable environmental incidents which have occurred in the audit period as advised by Rix's Creek are detailed below and have been reported in accordance with the requirements of EPL 3391:

- 4 May 2012 – failure of mine water return pipeline resulting in mine water leak into Rix's Creek.
- 7 May 2012 – Rix's Creek Mine old underground workings seepage water release into Rix's Creek.
- 15 April 2015 - overflow of sediment dams and mine water dam at clean coal stockpile, rail loading facility and mine water dam (DWD 3).
- 7 January 2016 – overflow of sediment dams and mine water dam at clean coal stockpile, rail loading facility and mine water dam (DWD 3).
- 27 January 2016 – overflow of sediment dams and mine water dam at clean coal stockpile, rail loading facility and mine water dam (DWD 3).

6.2.3 Community Complaints

During the audit period community complaints were received by Rix's Creek regarding the operation of Rix's Creek Mine with the complaints related to a range of aspects including but not limited to:

- Dust and noise generation from mining activities at Rix's Creek; and
- Overpressure, fume and odour from blasting activities.

The annual complaints as detailed within the 2011 – 2014 AEMRs and 2015 Annual Review for Rix's Creek Mine for the period 1 January – 31 December each year are detailed below:

- 2011 – 11 complaints
- 2012 – 20 complaints
- 2013 – 19 complaints
- 2014 – 20 complaints
- 2015 – 20 complaints
- 2016 – 27 complaints

It is noted that the 2016 complaint summary has been obtained from the Rix's Creek Mine complaints register which has been sourced from the Rix's Creek website, as at 7 September 2016. The number of complaints remained relatively constant between 2012 – 2015 with the recent increase in 2016 complaints due to the recommencement of mining operations at Rix's Creek North (formerly Integra Open Cut), which is not included within the scope of this audit. During the audit period, complaints received by Rix's Creek predominantly relate to air quality and noise.

6.3 Key Issue Environmental Performance

6.3.1 Heritage Management

No significant heritage impacts or issues were identified during the audit period in regards to Aboriginal or historic heritage management.

6.3.2 Noise

Noise monitoring at Rix's Creek is undertaken via site personnel and a RION handheld noise meter (with Frequency card) which are utilised to manage ongoing operations, refer Plate 5 in **Appendix 3**. In regards to management of noise emissions from site operations, Rix's Creek utilise the Env Met environmental management system to provide a daily forecast of noise emissions from operations based on predicted weather conditions. John Hindmarsh (Rix's Creek Senior Environmental Officer) noted that Rix's Creek are currently managing emissions from the operations against the proposed project specific noise levels which have been detailed within the "Rix's Creek Mine Continuation of Mining Project Environmental Impact Statement" (AECOM, 2016). It is noted that this document is related to a proposed extension to the operation which is currently undergoing assessment and not related to the operations as currently approved.

Rix's Creek have however not been undertaking noise monitoring at the required quarterly frequency to enable identification of compliance to the noise criteria as detailed within the Development Consent. It is

noted that Rix's Creek are undertaking independent attended noise monitoring on a monthly basis however the monitoring undertaken does not enable an assessment of compliance against the Development Consent. It is recommended that further consultation is undertaken by Rix's Creek with DPE in regards to the approach to noise monitoring undertaken at the site to ensure that compliance against the development consent can be demonstrated.

Rix's Creek site environmental and production personnel showed a good understanding of the noise management challenges for the operation with adaptive management, through the use of day and night time dumping locations as well as the utilisation of Env Met environmental management system. To assist in managing noise emissions Rix's Creek have also constructed a noise bund around the ROM pad and loading area (see Plate 7 in **Appendix 3**).

Rix's Creek have also employed a Graduate Environmental Officer who is responsible for undertaking night time attended noise monitoring at selected locations, which are determined as a result of the Env Met environmental management system on a daily basis. The Environmental Officer liaises directly with Rix's Creek OCE's during night time periods to manage mining operations based on the results of the attended noise monitoring which is undertaken.

6.3.3 Air Quality

Dust generation was observed to be minimal during the site audit and overall dust monitoring results appear reasonable with no exceedances of criteria noted for the audit period (refer Plate 8 in **Appendix 3**). The dust controls in place at the site were considered appropriate. A non-compliance with the Development Consent was recorded in regards to air quality as automatic sprays had not been installed at the ROM Coal Bin (see **Section 4**). Whilst the sprays were installed and Rix's Creek is manned at all times, the dust sprays in the vicinity of the ROM Coal Bin were not automated in accordance with the requirements of the Development Consent. Real time dust monitors have been installed at Rix's Creek at location both upstream and downstream of the mining operations with site personnel having real time access to these results. The real time monitoring results were observed to be utilised by site personnel with a number of examples provided by Rix's Creek personnel to demonstrate where operations had been amended or ceased due to adverse weather conditions.

Progressive rehabilitation of emplacement areas is also a key control to assist to minimise dust generation potential in the future (refer to **Section 6.3.5**).

6.3.4 Traffic

Rix's Creek have developed a TMP for the construction of the "Cut and Cover" tunnel. The audit identified that the TMP was not approved by DPE prior to the commencement of the construction works however it is noted that the RMS had approved the TMP prior to the construction works.

Rix's Creek undertake closures of the New England Highway in order to undertake blasting operations. Rix's Creek have obtained road occupancy licences from the RMS annually to enable closure of the New England highway to be undertaken for blasting operations and these were sighted during the audit.

6.3.5 Rehabilitation

Rehabilitation during the audit period was observed to have been progressing generally in accordance schedule in the Rix's Creek 2013 – 2020 Mining Operations Plan. As noted in **Section 6.2.1**, Rix's Creek are currently liaising with both DPE and DRE in regards to the location of emplacement areas on site and the extent of mining operations undertaken. It was observed during the audit, that the land disturbance (November, 2016) appeared to be at the extent of land disturbance as defined within Year 2020 as detailed

within the MOP Plans. Rix's Creek advised that the land disturbance at the operation was increased in recent years due major storm event in 2015 and 2016 resulting in considerable volumes of water being stored within active mining areas which limited mining operations which could be undertaken and subsequently overburden removal and emplacement was undertaken whilst mining areas were dewatered.

A review of rehabilitation during the field inspections completed for this audit found that rehabilitation areas were being developed and maintained to a high standard. The process of rehabilitation completed at the site is well documented and managed, with areas of rehabilitation on site developing well. Topsoil resources on site are managed in accordance with the requirements of the MOP; however there were locations at the southern extent of West Pit where topsoil stockpiles were observed to be greater than three metres high and some weed infestation was occurring.

Rix's Creek has a strong system for documenting rehabilitation undertaken on site with detailed records sighted which documented the site preparation, site treatment and seed mix and quantities utilised for each rehabilitation campaign. Rix's Creek have a program whereby seed is collected from site for use in future rehabilitation with ecological features including fallen timber and stag trees also utilised within rehabilitation areas (refer to Plate 9 in **Appendix 3**).

6.3.6 House Keeping

The site audit identified the need for improved housekeeping in some parts of the site, with the opportunity for improved waste segregation (with oily rags and filters observed in general waste bins (refer Plate 10 in **Appendix 3**), bunding (including use of bunded pallets), consolidation of stored liquids and the need to review some of the older chemical and liquid storages against current Australian Standards. Photos from the site inspection are provided in **Appendix 3**, with key areas identified for improvement including:

- Waste segregation at the workshop;
- storage of hydrocarbons inside the workshop;
- prompt clean-up of oil spillages and absorbent material within and outside of the workshop; and
- operation of oil water separators on site particular the oil water separator located adjacent to the workshop.

In addition, a bioremediation area has been constructed for the treatment of soil which has been impacted by hydrocarbons (refer to Plate 11 in **Appendix 3**). The hydrocarbon material at the bioremediation area is managed by aerating the material until such time that testing confirms the material is no longer contaminated by hydrocarbons and can therefore be placed on the emplacement areas on site. A Hydrocarbon Management Procedure has recently been prepared for the site and was provided following the audit. This procedure outlines the management practices that are to be utilised for the bioremediation area.

7.0 Recommendations and Conclusion

7.1 Recommendations

A summary of recommendations identified as an outcome of the audit process is provided in **Table 7.1**.

Table 7.1 Consolidated Recommendations

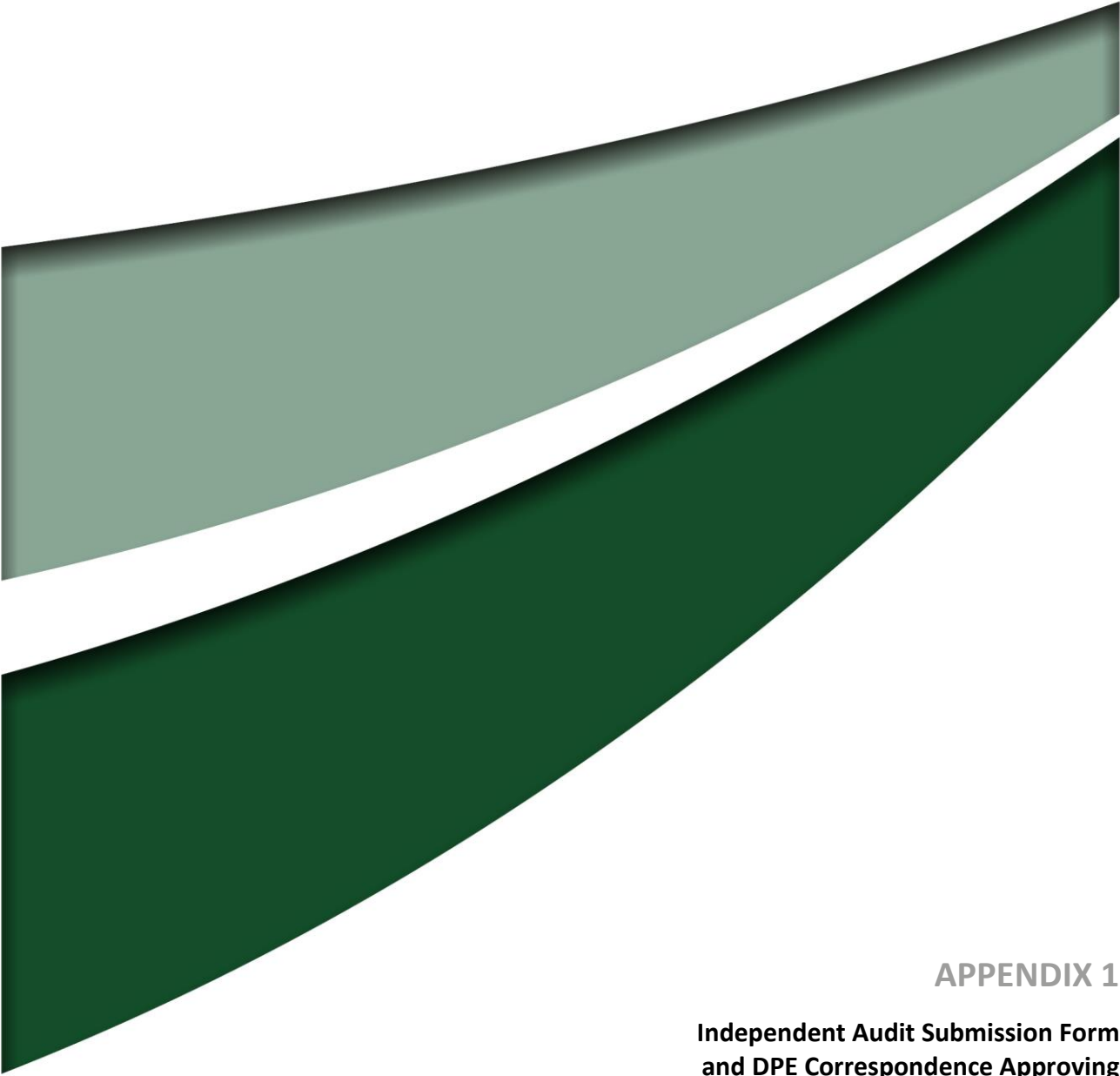
Condition / Issue	Recommendation
Rix's Creek Mine Development Consent (DA49/94)	
Schedule 2, Condition 4	The Annual Review is to include a summary table which details the total BCM of material moved at Rix's Creek to demonstrate compliance with this condition. Note it was confirmed Rix's Creek have complied with this condition during the audit period.
Schedule 2, Condition 6(c)	Formal building maintenance program to be developed and included in the Landscape Management Plan.
Schedule 2, Condition 7	Confirmation should be sought from Singleton Council that site lighting is managed to their satisfaction.
Schedule 2, Condition 10	The approach with regard to noise compliance monitoring to meet this condition should be agreed with DPE and EPA and included within the Noise Management Plan for approval.
Schedule 2, Condition 11	Noise monitoring is to be undertaken on a quarterly basis in accordance with the requirements of this condition unless approval is received from DPE and EPA to suggest otherwise. Any approved changes to the monitoring requirements under this condition should be included in the noise management plan.
Schedule 2, Condition 13	A formal procedure should be prepared to outline the process that is followed onsite to assess and manage operations when the average hourly wind velocity exceeds 10 metres per second.
Schedule 2, Condition 14	Rix's Creek to work with DRE and seek to amend the MOP to address the extent of current mining disturbance and include in the revised MOP an appropriate rehabilitation schedule. Rix's Creek to consult with DPE regarding the need to install automatic dust sprays at coal stockpiles on site.
Schedule 2, Condition 14A	Include findings of the NGERs report in the Annual Review for submission to DPE.
Schedule 2, Condition 15	Water Management Plan to be updated to include the following as required by the condition: <ul style="list-style-type: none"> • Inclusion of the water minimisation measures identified and implemented on site within the Water Management Plan. • Detail that visual monitoring of flow volume will be undertaken. • Detail process for monitoring yield into the open cut. • Detail the process for monitoring impacts to baseflow and offsetting as required any loss of base flow and impacts to private land owners caused by Rix's Creek Operations.

Condition / Issue	Recommendation
Schedule 2, Condition 16A	A copy of the Landscape Management Plan marked 'final' should be forwarded to the DPE Singleton office.
Schedule 2, Condition 16B	Rehabilitation Management Plan to be updated to include the following as required by the condition: <ul style="list-style-type: none"> • Procedure to protect vegetation and soil outside the disturbance areas to be included in the monitoring protocol. • Procedure to manage impacts on fauna to be included in the monitoring protocol. • Procedure to landscape the site to minimise visual impacts to be included in the monitoring protocol. • Information regarding the salvage and re-use of material to be included in the RMP as the re-use of material was observed to be leading practice during the field inspection. • Monitoring program to include all measures in 16B (v) and effectiveness of these measures to be reported in the Annual Review. • Clearly state who is responsible for monitoring and reviewing the plan.
Schedule 2, Condition 16D	Mine Closure Plan to be updated to include the following as required by the condition: <ul style="list-style-type: none"> • Include objectives and criteria for mine closure for ML 1432 and completion criteria for each domain in the Mine Closure Plan.
Schedule 2, Condition 19	Ensure each year that the Annual Review includes the following as required by the condition: <ul style="list-style-type: none"> • Provide updated water balance for the reporting year. • Specific targets for improved environmental performance.
Schedule 2, Condition 27	Report waste volumes in the Annual Review compared to previous years to enable identification of waste management performance over time.
Schedule 2, Condition 28 and 29	A process of regular review and revision of management plans should be established to confirm compliance with these conditions.
Environment Protection Licence	
EPL Variation	An EPL variation should be sought to ensure that there are no conflicting criteria between the EPL and DA (example noise criteria).
Mining Authorities	
ML 1432 – Condition 2(d) and CL 352 – Condition 3(a) and (b)	Rix's Creek should work with DRE and seek to amend the MOP to address the extent of current mining disturbance and include in the revised MOP an appropriate rehabilitation schedule.
Environmental Performance Recommendations	
Oily Water Separator System	An investigation should be undertaken to assess the effectiveness of the current oily water separator system. As a minimum the overflow tank (refer Plate 3 in Appendix 3) should be replaced with a fit for purpose system that is covered and compliant with current Australian Standards. Further corrective actions are required to clean up the hydrocarbon contamination that has resulted from the failures of the existing system (refer Plate 4 in Appendix 3)

Waste Segregation	Documented procedures should be prepared for waste management onsite and appropriate bins should be provided and clearly labelled for all designated waste streams.
Hydrocarbon Management	Ensure that all relevant personnel are trained in the requirements of the Rix's Creek Hydrocarbon Management Procedure.


7.2 Conclusion

This IEA has assessed the compliance status of at Rix's Creek Mine with the key approvals in place including the Development Consent for the mining operation, Mining Authorities and the EPL. The audit has identified a number of non-compliances and where appropriate, has made recommendations to improve the compliance status of the operation.



APPENDIX 1

**Independent Audit Submission Form
and DPE Correspondence Approving
Audit Team**

Independent Audit Certification Form	
Development Name	Rix's Creek Coal Mine
Development Consent No.	DA49/94 (as modified)
Description of Development	Construction and operation of surface coal mine
Development Address	Rix's Creek Lane Singleton NSW 2330
Independent Audit	
Title of Audit	Independent Environmental Audit of Rix's Creek Mine
<p><i>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</i></p> <ul style="list-style-type: none"> <i>The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits</i> <i>The findings of the audit are reported truthfully, accurately and completely;</i> <i>I have exercised due diligence and professional judgement in conducting the audit;</i> <i>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</i> <i>I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</i> <i>I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</i> <i>Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</i> <i>I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i> <p><i>Note.</i></p> <p>a) <i>The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p>b) <i>The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Signature	
Name of Lead / Principal Auditor	Daniel Sullivan
Address	75 York Street Teralba NSW 2284
Email Address	dsullivan@umwelt.com.au
Auditor Certification (if relevant)	Exemplar Global International Certified Auditor 113202
Date:	19 December 2016



Contact: Chris Knight
Phone: (02) 6575 3404
Fax: (02) 6575 3415
Email: christopher.knight@planning.nsw.gov.au

John Hindmarsh
Senior Environmental Manager
Rix's Creek Operations
PO Box 4
EAST MAITLAND NSW 2323

Our ref: DA 49/94

Dear John,

Rix's Creek Independent Environmental Audit

I refer to your email dated 1st August 2016 seeking approval of an audit team to undertake an independent environmental audit of Rix's Creek Mine as required by the Rix's Creek Development Approval, DA 49/94.

In accordance with Condition 26 of Schedule 2 of the consent, the Secretary has endorsed the following audit team from Umwelt (Australia) Pty Ltd to conduct this audit:

Core Audit Team

- Daniel Sullivan - Lead Auditor
- Luke Bettridge- Environmental Auditor

Rix's Creek will need to liaise with the relevant agencies including the Department prior to scoping of the audit, to ascertain any issues that the agencies wish the audit to address. Evidence of consultation is to be provided in the audit report.

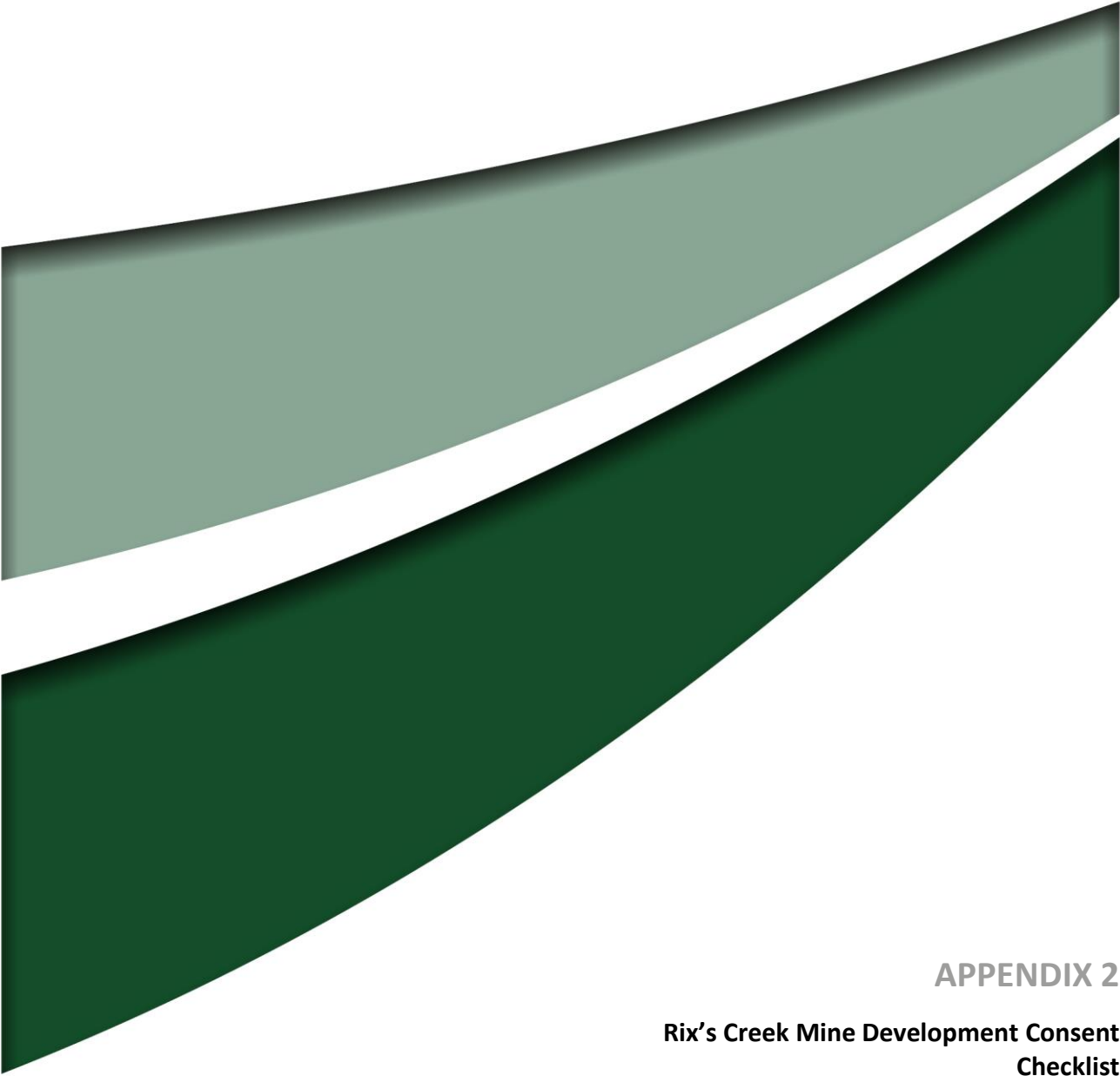
The Department expects that the audit will be conducted in accordance with the Independent Audit Guideline dated October 2015. A copy of this guideline can be located at <http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy>.

The audit report together with responses to any recommendations contained in the audit report should be submitted within 6 weeks of the completion of the audit.

Should you have any enquiries in relation to this matter, please contact Chris Knight on telephone 6575 3404.

Yours sincerely

Wayne Jones
Investigations (lead) Compliance Northern Region
as the Secretary's Nominee



APPENDIX 2

**Rix's Creek Mine Development Consent
Checklist**

Development Consent Compliance Table – Rix’s Creek Coal Mine – Development Application 49/94

Mod 1 (February 1999) – Red text

Mod 2 (December 2003) – Dark blue text

Mod 3 (June 2004) – Green text

Mod 4 (August 2009) – Orange text

Mod 5 (November 2013) – Light blue text

Mod 6 (November 2014) – Purple text

Mod 7 (February 2016) Pink text

Condition Number	Condition	Compliance	Evidence and Comments
Schedule 2 – Conditions of Consent			
General			
1.	The Development is to be carried out generally in accordance with the:		
	(i) Environmental Impact Statement prepared by Envirosciences Pty Limited, dated November 1994;	Not Verified	During the audit Umwelt were unable to determine whether operations undertaken at Rix’s Creek were being undertaken in accordance with the Envirosciences Pty Limited Environmental Assessment. In particular, compliance was not able to be verified with regard to the location of selected emplacement areas and the extent of the mining undertaken within West Pit (refer to Section 6.2.1 of the Independent Audit Report). It was confirmed that the location of existing emplacement areas and extent of mining operations is currently under review by DPE, DRE and Rix’s Creek Mine.
	(ii) Supplementary Document prepared by Envirosciences Pty Limited, dated April 1995;	Not Verified	Refer Schedule 2, Condition 1 (i)
	(iii) Correspondence from Bloomfield Collieries Pty Limited accompanying the application seeking a modification to the development consent, dated 12 November 1998;	Compliant	Operations at Rix’s Creek were undertaken generally in accordance with this document. See Section 1.2.1.1 of the main Audit Report which outlines the key components the MOD and Bloomfield’s operations during the audit period.
	(iv) Information provided by Rix’s Creek Mine accompanying the application seeking a modification to the development consent, dated 20 November 2003;	Compliant	Operations at Rix’s Creek were undertaken generally in accordance with this document. See Section 1.2.1.1 of the main Audit Report which outlines the key components the MOD and Bloomfield’s operations during the audit period.
	(v) Information prepared by Hunter Development Brokerage Pty Ltd accompanying the application seeking a modification to the development consent, dated 14 April 2004;	Not triggered	Bulk coal samples have not been received or processed from the Bickham project during the audit period.
	(vi) the modification application “Rix’s Creek Mine Cut and Cover Tunnel, New England Highway: Statement of Environmental Effects”, prepared by Sinclair Knight Merz and dated May 2009;	Compliant	The cut and cover tunnel was completed during the audit period. Construction activities were undertaken generally in accordance with this document. See Section 1.2.1.1 of the main Audit Report which outlines the key components the MOD.
	(vii) the modification application DA 49/94 MOD 5 and accompanying documents entitled Rix’s Creek Rail Loop Section 75W Modification Environmental Assessment dated April 2013, Submissions Report Modification No.5 – Proposed Rail Loop and Loading Facility dated July 2013, and letter from Global Acoustics regarding Rix’s Creek Proposed Rail Loop Environmental Noise Assessment dated 10 September 2013;	Not triggered	The rail loop which is referenced within this approval has not been constructed.
	(viii) the modification application DA 49/94 MOD 6 and accompanying letter from Rix’s Creek Pty Limited titled Proposed Modification to Rix’s Creek Open Cut Mine Maximum Consented Production Rate and dated 22 October 2014; and	Compliant	Operations at Rix’s Creek were undertaken generally in accordance with this document. See Section 1.2.1.1 of the main Audit Report which outlines the key components the MOD and Bloomfield’s operations during the audit period.
	(ix) the modification application DA 49/94 MOD 7 and accompanying document from Bloomfield Collieries Pty Ltd titled Environmental Assessment for Proposed Modifications to Rix’s Creek DA 49/94 N90/00356 (Mod 7) and Integra Open Cut Project 08_0102 (Mod 5) and dated 4 February 2016.	Compliant	Operations at Rix’s Creek were undertaken generally in accordance with this document. See Section 1.2.1.1 of the main Audit Report which outlines the key components the MOD and Bloomfield’s operations during the audit period.
1A	The Development is to be carried out in accordance with the conditions of this	Non-compliant	Non-compliances with this Development Consent are included within this table and summarised in

Condition Number	Condition	Compliance	Evidence and Comments
	consent.		the audit report.
1B	If there is any inconsistency between the documents listed in condition 1, the more recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over all documents listed in condition 1.	Noted	
Duration			
2	Approval in respect of coal extraction is limited to a period of 21 years from the date of this consent or from the date of issue of a mining lease in satisfaction of Mining Lease Application No. 17 Singleton wherever is the later.	Compliant	Development Consent (N90/00356) dated 19 October 1995 expires on 19 October 2016. Coal Lease 352 has been renewed until 20 October 2031 (sighted Coal Lease 352). ML 1432 dated 24 June 1998 expires on 24 June 2019 (sighted ML 1432). Mining Lease Application No. 17 was approved as ML 1432 and as such operations in accordance with Development Consent (N90/00356) are approved to be undertaken until 24 June 2019.
Statutory Requirements			
3	The Applicant shall ensure that all statutory requirements including but not restricted to those set down by the Local Government Act, 1993, Pollution Control Act, 1970, Clean Air Act, 1961, Clean Water Act, 1970, Noise Control Act, 1975, Protection of the Environment Administration Act, 1991 and all other relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions, Directions, Notices and Requirements of the Office of Environment and Heritage (OEH), Environment Protection Authority (EPA), Department of Primary Industries Water (DPI Water), Division of Resources and Energy (DRE) and Roads and Maritime Services (RMS), are fully met.	Non-compliant	Non-compliances have been recorded during the audit period for legislative acts and agencies as detailed within this condition and these are discussed in Section 4 of the main report.
Production Level			
4	Mining plans for submission to DRE shall be based on a total movement of materials in mining not exceeding 16.1 million bank cubic metres in any year.	Compliant	Information obtained from Rix's Creek AEMR's / Annual Reviews: 2011 – 10,589,386 BCM of waste rock. 2,212,703 t of ROM coal. 907,558 t of processing waste tailings/chitter. 1,305,145 t of coal. 2012 – 10,341,865 BCM of waste rock. 2,689,935 t of ROM coal. 1,116,680 t of processing waste tailings/chitter 1,573,255 t of coal. 2013 – 11,502,321 BCM of waste rock. 2,747,880 t of ROM coal. 1,222,196 t of processing waste tailing/chitter. 1,525,684 t of coal. 2014 – 13,234,085 BCM of waste rock. 2,760,693 t of ROM coal. 1,279,115 t of processing waste tailings/chitter. 1,481,578 t of coal. 2015 – 13,364,730 BCM of waste rock/overburden. 1,341,958 t of coarse/fine reject. 2,847,899 t of ROM coal. 1,505,941 t of saleable product. Sighted production data for period 1 January 2016 – 30 October 2016 which stated 12,804,279 BCM had been moved to date within the 2016 report period. Recommendation The Annual Review is to include a summary table which details the total BCM of material moved at Rix's Creek. Within the AEMR's / Annual Reviews completed until 2015, the material moved has been reported as BCM or tonnes however there has not been a consolidated total of BCM

Condition Number	Condition	Compliance	Evidence and Comments
			reported to demonstrate compliance with this condition. During the audit, it was confirmed Rix's Creek have complied with this condition during the audit period.
Transmission Line Relocation			
5	The Applicant shall relocate any TransGrid transmission lines within the mining lease to the satisfaction of TransGrid and at a mutually agreed time.	Not triggered	John Hindmarsh (JH) (pers comm) confirmed that no transmission lines had been relocated during the audit period.
	Reasons: To ensure that the development is constructed and operated in the manner set out in the application and in accordance with the relevant statutory requirements.	Noted	
Visual Amenity			
6	The Applicant shall:		
	(i) within six (6) months of the date of this consent or within such further period as the Singleton Council ("the Council") may permit, submit for Council's approval:	Compliant	Previous Audit confirmed compliance for the preparation of original plan (<i>Environmental Audit of Rix's Creek Mine, May 2007 Pacrim Environmental</i>).
	(a) An updated detailed landscaping plan covering all portions within the proposed mining area and associated lands owned by the Applicant. The Applicant shall engage a suitably qualified person to assist in preparing the landscaping plan. The plan shall provide for the establishment of trees and shrubs and the construction of mounding. The plan shall incorporate appropriate erosion control and sediment control practices for earthworks associated with the development.	Compliant	Previous Audit confirmed compliance for the preparation of original plan (<i>Rix's Creek Mine Regulatory Environmental Compliance Audit Report December 2011 Glade Consulting</i>).
	(b) Details of the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications). Buildings and structures shall be designed and constructed/renovated so as to present a neat and orderly appearance and to blend as far as possible with the surrounding landscape.	Compliant	Buildings have been painted in green colour consistent with surrounding landscape. Sighted workshop and ROM loading infrastructure which had been painted river gum green to blend with surrounding landscape. A visual bund has also been established around the ROM loading area.
	(c) A comprehensive plan of landscape management which shall include detailed plans, specifications for the maintenance of all landscape works and plantings, and maintenance of building materials and claddings, proposed screen plantings and mounding along the New England Highway and mine overburden dumps.	Administrative non-compliance	JH confirmed that no formal building maintenance program was implemented to specifically review the maintenance of buildings, however, building maintenance is undertaken on an as-needs basis with 2 yearly structural integrity inspections in Rix's 'Pulse' system (sighted the 2015 Annual Review). JD confirmed that the aerial seeding was undertaken in April 2012 of overburden exposed batters visible from the New England Highway. Administrative non-compliance as a formal documented system has not been implemented. Recommendation Formal building maintenance program to be developed and included in the Landscape Management Plan.
	(ii) apply a surface sealant such as bitumen emulsion, straw or seed within 30 days of its construction to any mounding or bunding as directed by EPA.	Not triggered	JH confirmed that no direction had been provided by the EPA during the report period to apply a surface sealant during the audit period.
	(iii) comply with the requirements of Council in respect to any supplementary tree planting and visual amenity enhancement works within or immediately outside the mining lease area which may be identified by the Council in consultation with relevant land holders as necessary for the maintenance of satisfactory visual amenity in the local area.	Not triggered	Singleton Council did not request any tree planting or visual amenity enhancement works during the audit period.
	Reasons: To enhance the landscape quality in the vicinity of the mine.	Noted	
Flood Lighting			
7	The Applicant shall screen or direct all on-site flood lighting and vehicular lights away from residences and roads, to the satisfaction of the Council.	Administrative non-compliance	During the Audit period, one complaint was received regarding lighting on 13 July 2016 (sighted Complaints Register 2016). JH confirmed that site OCE's have been informed to be vigilant regarding placement of lighting plants. JH noted there had been no specific consultation with Singleton Council during the audit period in regards to the utilisation of lighting plants. The orientation of lighting plants was observed to be included in the site environmental awareness training package which is provided to all site

Condition Number	Condition	Compliance	Evidence and Comments
			employees and contractors. Administrative non-compliance as satisfaction of Singleton Council could not be confirmed. Recommendation Confirmation should be sought from Singleton Council that site lighting is managed to their satisfaction.
Fire Protection			
8	The Applicant shall provide adequate fire protection works on site. This shall include one (1) fully equipped fire fighting unit on standby and annual hazard reduction works with particular attention to boundaries of adjoining land holdings.	Compliant	There were three bushfires during the audit period near Rix's Creek lease area which were contained by the RFS (sighted 2013 - 2014 AEMRs and 2015 Annual Review). Fuel reduction programs are undertaken on an as needed basis in conjunction with the local RFS. Slashing programs, grazing of cattle on lease areas outside of active mining zones and excessive grass and weed spraying around site infrastructure and power line easements were undertaken during the audit period (sighted 2011 -2014 AEMRs and 2015 Annual Review). In 2014 Rix's Creek purchased an existing four-bay shed in Maison Dieu with the shed provided to the RFS – Darlington brigade in sponsorship by the Bloomfield Group (sighted 2014 AEMR). During the site inspection JH confirmed that all site water carts are equipped to fight fires with selected site personnel having completed fire fighting training. Sighted attendance records of selected Rix's Creek personnel at fire fighting training conducted by mines rescue on 1 April 2015.
Traffic Management			
9	The Applicant shall prepare a Traffic Management Plan for the development, to the satisfaction of the Secretary. The Plan must:	Administrative non-compliance	The Traffic Management Plan relates specifically to the construction of the Rix's Creek Mine 'Cut and Cover Tunnel' crossing of the New England Highway. Sighted letter from Rix's Creek to DP&E (formerly Department of Planning and Infrastructure) on 24 November 2011 which included a copy of the traffic management plan as required by Condition 9. Rix's Creek noted that all relevant approvals had been obtained from the Roads and Maritime Services (RMS) (formerly Roads and Traffic Authority). It was noted by Rix's Creek that the documentation was not provided to DP&E prior to the commencement of construction of the tunnel. Sighted letter 16 November 2010 from the RTA which approved the commencement of construction activities.
	(i) be submitted to the Secretary for approval prior to commencement of construction of the cut and cover tunnel;	Administrative non-compliance	As noted above, the Traffic Management Plan was not submitted to the Secretary for approval prior to the commencement of the tunnel construction activities.
	(ii) be prepared in consultation with the RMS and Singleton Shire Council;	Not Triggered	Previous Audit confirmed compliance for the preparation of original plan (<i>Rix's Creek Mine Regulatory Environmental Compliance Audit Report December 2011 Glade Consulting</i>) in consultation with RTA, now known as RMS and Singleton Shire Council.
	(iii) include procedures for regular monitoring of compliance with this plan; and	Not Triggered	Previous Audit confirmed compliance for the preparation of original plan (<i>Rix's Creek Mine Regulatory Environmental Compliance Audit Report December 2011 Glade Consulting</i>).
	(iv) include a Construction Traffic Management Plan for the construction of the rail loop and rail spur, including:	Not Triggered	Not triggered as rail loop and spur has not been constructed (JH per comms).
	<ul style="list-style-type: none"> traffic control measures for vehicle movements along the New England Highway; 	Not Triggered	Not triggered as rail loop and spur has not been constructed (JH per comms).
	<ul style="list-style-type: none"> measures that would be implemented to minimise traffic and road safety impacts, and 	Not Triggered	Not triggered as rail loop and spur has not been constructed (JH per comms).
	<ul style="list-style-type: none"> management of heavy vehicles, particularly oversize loads to and from the site. 	Not Triggered	Not triggered as rail loop and spur has not been constructed (JH per comms).
	The Applicant shall implement the management plan as approved from time to time by the Secretary.	Not Triggered	Not triggered as rail loop and spur has not been constructed (JH per comms).
9A	The Applicant shall obtain all necessary approvals from the RMS prior to commencing construction.	Compliant	Previous Audit confirmed compliance with necessary approvals (<i>Rix's Creek Mine Regulatory Environmental Compliance Audit Report December 2011 Glade Consulting</i>). Work Authorisation Deed (contract number 09-2535-2274) sighted during audit.

Condition Number	Condition	Compliance	Evidence and Comments
Noise Levels			
10.	The Applicant shall		
	(i) comply with LA 10 daytime noise level design goals set out below: The Retreat 42dB(A) Singleton Heights 42dB(A) Maison Dieu Road 38dB(A)	Not Verified	As noted by the DPE during their review of the 2013 AEMR, the noise monitoring results presented in the 2011 – 2013 AEMRs include total noise levels rather than only the mine’s noise contribution and therefore is difficult to assess compliance (sighted 2014 AEMR). Daytime noise monitoring data has not been presented in the 2014 AEMR, 2015 Annual Review or the Environmental Management Report for the period January – June 2016. Whilst Rix’s Creek are monitoring noise from the operations, the noise levels monitored are not consistent with the noise levels as defined within the Development Consent as Rix’s Creek are currently managing the operations to noise criteria which have been developed as part of the “Rix’s Creek Mine – Continuation of Mining Project Environmental Impact Statement” (AECOM, 2015) which has identified project specific noise levels which are not consistent with the noise level design goals as detailed within this condition. Recommendation The approach with regard to compliance monitoring to meet this condition should be agreed with DPE and EPA and included within the Noise Management Plan for approval.
	(ii) comply with LA 10 night time noise level design goals set out below: The Retreat 40dB(A) Singleton Heights 40dB(A) Maison Dieu Road 38dB(A)	Not Verified	As noted by the DPE during their review of the 2013 AEMR, the noise monitoring results presented in the 2011 – 2013 AEMRs include total noise levels rather than only the mine’s noise contribution and therefore is difficult to assess compliance (sighted 2014 AEMR). The 2014 AEMR, 2015 Annual Review and Environmental Management Report for the period January – June 2016 present quarterly noise monitoring results against Project Specific criteria is based on the Rix’s Creek Pollution Reduction Program (PRP) Environmental Noise Assessment report (12323_PRP_R02.pdf). During the third quarter monitoring round on 16/10/14 two exceedences were recorded at the Retreat of 44 LAeq (1 min) above the Project Specific Level (PSL) night (not Winter) criteria of 35 LAeq (15 min) and 46 LAeq (1 min) above the Project Specific Level (PSL) night (not Winter) criteria of 45 LA1 (1 min). Whilst Rix’s Creek are monitoring noise from the operations, the noise levels monitored are not consistent with the noise levels as defined within the Development Consent as Rix’s Creek are currently managing the operations to noise criteria which have been developed as part of the “Rix’s Creek Mine – Continuation of Mining Project Environmental Impact Statement” (AECOM, 2015) which has identified project specific noise levels which are not consistent with the noise level design goals as detailed within this condition. Recommendation As above.
	These goals relate to average conditions (neutral atmosphere) and not to inversion conditions.	Noted	
Noise and Vibration Monitoring and Management			
11	(i) measure, record and report the LA 10,15 min noise level over a representative 72 hour period at four (4) locations determined by the EPA from five (5) nominated locations closest to the mining operations. The report shall include a record of the meteorological conditions at the time of monitoring and shall be conducted on a quarterly basis. Monitoring shall commence immediately after the date of this Consent.	Non-compliance	Noise monitoring was undertaken at The Retreat, Singleton Heights, Camberwell and Maison Dieu (sighted the 2011-2014 AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016). A record of wind speed and vertical temperature gradient at the time of monitoring has been recorded during 2014 - 2016 (sighted 2014 AEMR, 2015 Annual Review and remaining 2016 data on-site). Attended field sheets record weather conditions and mining operations at time of noise monitoring sessions. Real-time weather station installed during 2014 to further improve any meteorological changes i.e. temperature inversions (sighted 2015 Annual Review). It is noted that noise monitoring is not undertaken in accordance with the requirements of this condition as noise monitoring is not undertaken on a quarterly basis, monitoring is undertaken on a 6 monthly basis. Recommendation Noise monitoring is to be undertaken on a quarterly basis in accordance with the requirements of this condition.

Condition Number	Condition	Compliance	Evidence and Comments
			Rix's Creek to confirm with DPE that the existing approach for noise monitoring is appropriate as current noise monitoring is not in accordance with the requirements of this condition. Rix's Creek, following confirmation of proposed monitoring approach with DPE, are undertake a variation to the EPL to ensure consistency between EPL and Development Consent.
	(ii) submit a management plan for information of the Council and approval by EPA, detailing noise safeguards and procedures for dealing with noise episodes which exceed the above established LA 10 noise levels;	Not Verified	Rix's Creek Mine Noise Management Plan 2016 - 2019 sighted, noise safeguards and procedures for management of noise exceedances covered in Table 4-5 Trigger Action Response Plan. The Rix's Creek Mine Noise Management Plan (2016 – 2019) was approved It was not able to be verified if the management plan was approved by EPA.
	(iii) establish noise monitoring stations in the vicinity of Maison Dieu Road, as required by EPA;	Compliant	Noise monitoring is undertaken at Lot 2 'Glen Lemon' Maison Dieu Road .
	(iv) upon receipt of a written request from an owner or occupier of a dwelling on property in the vicinity of Maison Dieu Road, make arrangements for and bear the cost of independent noise monitoring at that residence. The monitoring is to be carried out by a qualified independent person or team approved by the Secretary in consultation with the Council, EPA and the Applicant. The approved person or team will report directly to the Secretary and Applicant on a quarterly basis. Monitoring shall commence within one (1) month from receipt of the written request to determine the contribution of noise emanating from the mine to the surrounding acoustical environment over at least two (2) consecutive 15 minute periods, twice by day and twice by night over a 72 hour period. For the first six (6) months following this Consent the interval between two (2) consecutive monitoring periods shall not exceed four (4) weeks. Thereafter, the interval between two (2) consecutive monitoring periods shall not exceed three (3) months.	Not triggered	No written requests from an owner or occupier of a dwelling on property in the vicinity of Maison Dieu Road (sighted 2011 – 2014 AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016 and confirmation with site personnel).
	(v) if a request for independent noise monitoring is made by an owner or occupier of a dwelling on property in the vicinity of Maison Dieu Road who has previously been monitored and received two (2) consecutive negative tests under sub-clause (iv), further independent investigations shall cease if the Secretary or his/her nominee, in consultation with the EPA, is satisfied that the relevant consent limits are not being exceeded and are unlikely to be exceeded in the future.	Not triggered	No written requests from an owner or occupier of a dwelling on property in the vicinity of Maison Dieu Road (sighted 2011 – 2014 AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016 and confirmation with site personnel).
	(vi) upon the receipt of a written request from an owner or occupier that has received two (2) consecutive negative results under sub-clause (iv), the Applicant shall also justify to the Secretary or his/her nominee, in consultation with the EPA whether an investigation is required.	Not triggered	No written requests from an owner or occupier of a dwelling on property in the vicinity of Maison Dieu Road (sighted 2011 – 2014 AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016 and confirmation with site personnel).
	(vii) survey and investigate noise reduction measures from plant and equipment every three (3) years or as otherwise directed by EPA and carry out remedial measures as directed by EPA.	Compliant	Quarterly testing of the sound power level of various plant and equipment at 12 m distance from the machine was undertaken yearly during the audit period (sighted within the appendix of 2011 – 2014 AEMRs and 2015 Annual Review and Environmental Management Report January – June 2016 (first and second quarter results) and remaining 2016 data on-site).
11A.	Prior to construction of the rail loop and rail spur, the Applicant shall:	Not triggered	Not triggered as the rail lop and rail spur has not been constructed (JH per comm).
	(i) prepare (and during construction implement) a Construction Noise Management Plan prepared in accordance with the Interim Construction Noise Guideline (DECC, 2009) (or any relevant updated version), to the satisfaction of the Secretary; and	Not triggered	Not triggered as the rail lop and rail spur has not been constructed (JH per comm).
	(ii) install temporary noise barriers in a suitable location to minimise noise impacts resulting from construction of the southern section of the rail spur, unless otherwise agreed by the Secretary.	Not triggered	Not triggered as the rail lop and rail spur has not been constructed (JH per comm).
11B	The Applicant shall ensure that construction activities are restricted to standard construction hours specified in the Interim Construction Noise Guideline (DECC, 2009). If works are required outside standard construction hours, the Applicant shall consult with the community and seek approval from the Secretary prior to	Not triggered	Not triggered as the rail lop and rail spur has not been constructed (JH per comm).

Condition Number	Condition	Compliance	Evidence and Comments
	commencement of construction.		
Blasting			
12.	The Applicant shall:		
	(i) ensure that noise and vibration monitoring and control is generally carried out in accordance with the recommendations of Australian Standard AS-2187-1993 and in terms of ANZECC Guidelines and to satisfaction of the EPA.	Compliant	Blast monitors calibrated as required. Various calibration records sighted during audit including a record from 12 August 2014. JH confirmed (per comms) that vibration monitors are calibrated annually. Sighted Rix's Creek Coal Mine Environmental Noise Monitoring August 2016 (Global Acoustics, 2016) which included calibration certificates in Appendix B.
	(ii) not blast within 500m of the New England Highway or any approved deviation of the highway while either are open for traffic.	Compliant	<p>Blasting was undertaken within 500m of the New England Highway in accordance with the following road occupancy licences. The New England Highway was not open whilst blasting was undertaken within 500 m:</p> <ul style="list-style-type: none"> Road Occupancy License 773 – Extension 7 expiring on 31.12.11 (sighted 2011 AEMR). Road Occupancy License 773 – Extension 9 expiring on 31.12.12 (sighted 2012 AEMR). Road Occupancy License 10886 expiring end of July 2014 (sighted 2013 AEMR). Road Occupancy License (currently ROL 511703), approved every 6 months (sighted 2014 and 2015 AEMR). Road occupancy Licence: 623076 for period 8 July 2016 – 31 Dec 2016 sighted <p>JH confirmed that a road occupancy licence was held for 2016 and that the New England Highway is closed on all occasions as required from a blast management perspective.</p> <p>Sighted environmental obligations power point presentation provided to all staff and operators which details the requirements for blast management.</p>
	(iii) design all blasts based on the results of monitored blasts designed to minimise air blast overpressure and ground vibration using the Nonel or equivalent system such that anyone (1) blast has less than a five per cent (5%) probability of exceeding an air blast overpressure of 115dBA and vibration with a peak particle velocity of 5mm/sec at the closest residence not owned by the applicant outside the mining lease.	Compliant	<p>Throughout the Audit period a NONEL (non-electric) system was used to monitor blasts at the nearest resident. Instantaneous wind speed and direction information is available to management to be used in scheduling blasting operations to minimise offsite effects of air blast overpressure and dust.</p> <p>In 2013, one blast recorded overpressure above 115 dBLinear however, the wave trace does not match that of the expectant blast vibration wave trace (sighted 2013 AEMR).</p> <p>In 2014, three blasts recorded overpressure above 115 dBLinear, however, these blasts did not exceed 120 dBLinear (sighted 2014 AEMR).</p> <p>In 2015, one blast recorded overpressure above 115 dBLinear at 115.2 dBLinear but not exceeding the EPL limit of 120 dB(Linear) (sighted 2015 Annual Review).</p> <p>In 2016, there has been one blast recorded above 115 dBLinear at 1180.6 on 19 July 2016 dBLinear but not exceeding the EPL limit of 120 dB(Linear).</p> <p>During the audit period, the airblast overpressure did not exceed 115 dBLinear for more than 5% of the total number of blasts during each reporting period or the 120 dB(Linear) limit.</p> <p>The blast management practices implemented on site include utilisation of the Env met system which is utilised to predict over pressure, blast fume and dust dispersion modelling. The results of the Env met modelling are discussed at the morning production meeting where the results of the modelling are used to inform blast management practices to be implemented. The blast predictions from the Env met system are emailed to OCE's and operational personnel.</p>
	(iv) determine appropriate weather data by taking measurements immediately prior to blasting and from the data shall predict whether noise levels outside the project area are likely to be increased above the levels expected under neutral meteorological conditions. The data shall be recorded by the Applicant as part of its monitoring data.	Compliant	<p>Instantaneous wind speed and direction information is available to management to be used in scheduling blasting operations to minimise offsite effects of air blast overpressure and dust.</p> <p>Rix's Creek is also a member of an Upper Hunter joint venture group which provides access to an atmospheric prediction model providing more accurate weather parameter predictions for the Rix's Creek operation. This group has purchased equipment to measure wind speed, direction and temperature in the atmosphere. This data is then used to better predict the impacts of atmospheric conditions that can result in overpressure enhancement off site.</p> <p>Wind speed and direction data included in blast monitoring results in appendices of 2011 – 2014</p>

Condition Number	Condition	Compliance	Evidence and Comments
			AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016 and remaining 2016 data which was reviewed on site during the audit. Dust and fume modelling associated with blasting commenced in March 2012 and continued to 2016 using DustTrak DRX dust monitors and App-Tek OdaStat gas monitors. The monitoring was in conjunction with Rix's Creek daily EnvMet and NOx emissions predictive modelling (sighted 2011 – 2014 AEMRs and 2015 Annual Review and 2016 records).
	(v) not blast if the predictions in sub-clause (iv) herein indicate that noise level design goals given in Condition 10 are likely to be exceeded or as otherwise advised by EPA.	Compliant	Sighted examples of a blast being delayed due to weather conditions. Sighted email at 8:56 am on 31 October 2016 from Jason Desmond (Environmental Officer) to Rix's Creek site personnel informing of the intent to undertake blasting activities on 31 October 2016. Sighted further email on 31 October 2016 at 3:18 pm from Jason Desmond to site personnel informing that the blast had been postponed due to weather conditions. Blasts which are cancelled / delayed / rescheduled are recorded in an internal Rix's Creek database. Sighted internal Rix's Creek database which showed blast delays.
	(vi) monitor all blasts and record the overpressure and peak particle velocity at locations to be agreed by EPA and the DRE and as provided in Condition 11(iv).	Compliant	Blast monitoring records during 2011 - 2016 included date, time, location of blast and monitoring, wind speed (m/sec) and direction, vibration (mm/sec), overpressure (dBL) and complaints (sighted 2011 – 2014 AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016 and remaining 2016 data on-site). Calibration records for blast monitors were sighted. Real time blast monitors are utilised to monitor blast on site.
	(vii) upon written request of the owner of any property located within two (2) kilometres of the boundaries of the proposed pits, and made within 6 months of issue of this Consent or after a large vibration event (likely to have exceeded 120 dB(L) overpressure and/or 10mm/sec ground vibration) at the residence, arrange at its own cost, for the inspection by a technically qualified person agreed to by both parties, to record the material condition of any structure on such property. The Applicant shall supply a copy of any inspection report, certified by the person who undertook the inspection, to the relevant property owner within 14 days of receipt of same and if warranted, shall undertake further action;	Not triggered	There have been no requests from property owners in accordance with the requirements of this condition during the audit period (JH per comms).
	(viii) immediately upon receipt of a written request from a resident within one (1) km of any blast site, record that resident's request for notification of blasts and henceforth notify that resident of any blasts from which they are potentially affected.	Not triggered	There have been no requests from property owners in accordance with the requirements of this condition during the audit period (JH per comms).
	Reasons: To protect the acoustic amenity of residents adjacent to the mine and to provide for monitoring of noise and vibration.	Noted	
Air Quality			
13.	The Applicant shall:		
	(i) install and utilise wind direction, velocity monitoring and recording station(s) at a non-protected location immediately adjacent to the area to be mined in the vicinity of Maison Dieu Road and Middle Fallbrook Road over each ensuing 12 month period as directed by EPA.	Compliant	During 2011 – 2014 the site operated a meteorological station on the northern side of the New England Highway, adjacent to the haul road, leading to the operations on the southern side of the Highway. This unit was replaced during April 2014 and was relocated on the southern side of the New England Highway, adjacent to the Pit 3 operations near Granbalang trig station. Both stations recorded wind speed and direction, temperature, relative humidity, solar radiation and rainfall during the Audit period (sighted 2011 – 2014 AEMRs, and 2015 Annual Review). Rix's Creek is also a member of an Upper Hunter joint venture group which provides access to an atmospheric prediction model providing more accurate weather parameter predictions for the Rix's Creek operation. Rix's Creek management staff (including environmental officers and production personnel) have real time access to weather conditions from the weather station.
	(ii) use the data collected by the wind monitoring and recording station referred to in subclause (i) above to determine when and how the mine	Compliant	Rix's Creek is a member of an Upper Hunter joint venture group which provides access to an atmospheric prediction model providing more accurate weather parameter predictions for the Rix's

Condition Number	Condition	Compliance	Evidence and Comments
	operation is to be modified to minimise the potential for dust emissions.		Creek operation. This information is used by management to access environmental conditions for blast scheduling, and determine when adverse conditions exist to cease dumping to exposed locations. This model also forecasts meteorological data for the following day so operational activities can be scheduled for the predicted conditions (sighted 2011 – 2014 AEMRs, 2015 Annual Review). The Env Met system is utilised to predict weather conditions and potential for dust generation at Rixs Creek. Sighted email from Jason Desmond (Environmental Officer) on 8 November 2016 to operational personnel which noted the potential for dust generation due to the presence of strong winds and the subsequent need for vigilant usage of site water carts.
	(iii) install 30 dust deposition gauges and in each calendar month shall determine the dust deposition rate in gm/m2/month such that the 4gm/m2/month isopleth for dust deposition is able to be plotted on an annual basis.	Compliant	Air quality monitoring undertaken at 30 dust deposition gauges located around the mining lease area. Annual dust deposition (gm/m2/month) graphs and dust gauge locations are provided in the AEMRs/Annual Review (sighted 2011 – 2014 AEMRs, 2015 Annual Review, Environmental Management Report). There were a few instances during the audit period as outlined below (refer condition 13 (iv) where dust samples were not able to be taken from some gauges however this did not prevent the plotting of dust deposition on an annual basis as required.
	(iv) continue meteorological monitoring as well as the monitoring of dust deposition rates and concentrations of total suspended particulates for the life of the mine subject to sub-clause (i). The extent and location of dust monitoring network to be specified by the EPA.	Complaint	Dust deposition was monitored monthly at 30 dust deposition gauges and total suspended particulates (TSP) and particulates less than 10 micron (PM10) in diameter were sampled by High Volume Air Samplers at three sites on the eastern side of the lease (sighted 2011 – 2014 AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016). Figure 2 showing the dust gauge monitoring network as per the EPL was sighted. In 2013 two dust samples were not undertaken. Two gauges relocated as per the letter to Ms Karen Marler (dated 11 February 2013) (sighted 2012/2013 and 2013/2014 Annual Returns). In 2014 six dust samples were not undertaken due to damage to the dust gauge or access restrictions (sighted 2013/2014 and 2014/2015 Annual Returns). In 2015 one dust sample was not undertaken as the dust gauge was missing (sighted 2015/2016 Annual Return). In 2016 (as end of October) one dust sample was not undertaken as the dust gauge was damaged. Two metrological stations operated during the Audit period, with the previous station replaced in 2014 (sighted 2011 – 2014 AEMRs, 2015 Annual Review and confirmed with site this continued in 2016).
	(v) have three (3) high volume samplers equipped to sample particles of less than 10 microns located in positions approved by the EPA. Sampling is to be undertaken on a 24hr 6 days per week cycle with averaging periods (annual means) as well as monitoring equipment/procedures to follow AS2724.3 and AS3508.9.6.	Compliant	Three high volume air samplers are located at Rix's Creek Lane, Singleton Heights – Mines Rescue Station and Off Bridgman Road – Lot 2, The Retreat. Annual and monthly averages of PM10 sighted with 100% of data collected at all samplers (sighted in 2011 – 2014 AEMRs, 2015 Annual Review, Environmental Management Report January – June 2016 and remaining 2016 data). Sighted calibration records and chain of custody documentation for sampling of HVAS during September 2016. HVAS calibration notes calibration undertaken in accordance with Australian Standards and manufacturers specifications.
	(vi) provide to the Secretary, EPA, DRE, and the Council results and analysis of air quality monitoring on an agreed basis.	Compliant	Air quality monitoring results presented in the 2011 – 2014 AEMRs and 2015 Annual Review which is distributed to DPE, DRE and Council. The air quality data is also available on Rix's Creek website. Air quality monitoring data is also provided to the EPA as part of the EPL Annual Return.
	(vii) cease those mining operations located within 1000m of the limit of mining at such times when the average hourly wind velocity exceeds 10 metres per second and the operations are resulting in visible dust emissions blowing in a direction of the mining lease boundary so as to cross onto lands in non-company ownership.	Compliant	Windroses are provided in 2011 – 2014 AEMRs and 2015 Annual Review. Sighted examples of Env Met system being sent to site environmental and operational personnel which notes when operations are to be ceased or modified during periods of excessive wind. JH (per comm) noted that adverse weather conditions and existing management practices monitor dust generation so that dust does not leave the site boundary, it was noted that there is no formal procedure to document this. Recommendation A formal procedure should be prepared to outline the process that is followed onsite to assess

Condition Number	Condition	Compliance	Evidence and Comments
			and manage operations when the average hourly wind velocity exceeds 10 metres per second.
	(viii) cease mining operations at any time when the driver visibility or traffic safety on the New England Highway is adversely affected, in accordance with the requirements of the RMS.	Compliant	JH (per coms) advised that Open Cut Examiners (OCE's) monitor operations to ensure dust is not leaving the site boundary and that operations are modified when there is the potential for dust generation onto the New England Highway.
Dust Suppression			
14.	The Applicant shall:		
	(i) maintain sufficient equipment with the capacity to apply water to all unsealed trafficked areas at the rate of at least one (1) litre per square metre per hour or apply an equally effective dust suppressant;	Compliant	During the site inspection a number of water carts were observed to be in operation with water sprays also observed to be utilised in key operational areas such as the ROM loading bin. JH (per comm) also noted that site personnel also monitor water usage by water carts to ensure the appropriate application rates are being adhered to by site personnel.
	(ii) ensure the prompt rehabilitation of all disturbed areas to minimise the generation of wind erosion dust, in accordance with the requirements of DRE;	Non-compliant	During the site inspection the status of rehabilitation works was reviewed and it was noted that rehabilitation had been generally undertaken in accordance with the requirements of the Mining Operations Plan. However it was noted that the area of disturbance onsite reflected the extent of disturbance as approved at the end of the MOP term (2019) and therefore ground disturbance was ahead of the schedule within the MOP. Recommendation Rix's Creek to work with DRE and seek to amend the MOP to address the extent of current mining disturbance and include in the revised MOP an appropriate rehabilitation schedule.
	(iii) install automatic water sprays on the coal stockpiles such that the stockpiles are sprayed when the wind speed from any direction exceeds 5.6m/s;	Non-compliant	Rix's Creek has reinstated automatic stockpile sprays and SafeMine detection system for Loader / Trucks emptying ROM Coal into the ROM Hopper (sighted 2015 Annual Review and also sighted within site inspection). JH (per comm) noted that the site is manned 7 days a week however not all sprays on site, including the coal stockpile, are automatic and as such this has been recorded as a non-compliance. Recommendation Rix's Creek to consult with DPE regarding the need to install automatic dust sprays at coal stockpiles on site.
	Reasons: To protect the air quality adjacent to the mine and to provide for monitoring of dust deposition and concentration.	Noted	
Greenhouse Gas Emissions			
14A.	The Applicant shall implement all reasonable and feasible measures to minimise:		
	(i) energy use associated with the development; and	Compliant	JH (per comm) noted that Rix's Creek have assessed a number of energy efficiency measures for utilisation on site and these measures include variable speed pumps, power factor correction with measures implemented as considered feasible. Examples of energy efficiency measures implemented include the installation of LED lighting in the New England Highway tunnel and the reduction of haul distances where ever possible. Also sighted draft report titled "Rix's Creek Energy Audit Report – June 2016" which had been undertaken by an external consultant to review energy efficiency opportunities at Rix's Creek Coal Mine.
	(ii) greenhouse gas emissions produced by the development,	Administrative non-compliance	The 2015 – 2016 Rix's Creek NGRS Report was sighted. There was however no evidence available to confirm this had been undertaken to the satisfaction of the Secretary. Recommendation Suggest inclusion of additional information in the Annual Review for submission to DPE.
	to the satisfaction of the Secretary		
Water Management Plan			
15.	The Applicant shall prepare a Water Management Plan for the development to the satisfaction of the Secretary. This Plan must:		
	(i) be prepared in consultation with DPI Water by a suitably qualified expert	Compliant	Previous Audit confirmed compliance for the preparation of original plan (<i>Rix's Creek Mine</i>

Condition Number	Condition	Compliance	Evidence and Comments
	whose appointment has been approved by the Secretary;		Regulatory Environmental Compliance Audit Report December 2011 Glade Consulting). The Water Management Plan (WMP) has been revised three times during the Audit period in 2011, 2013 and 2014. The WMP was approved by the DPE on 22.01.14. JH (per comm) advised that the updates were changes requested by DP&E to surface water components of the plan and these updates were undertaken with the assistance of JP Environmental.
	(ii) be submitted to the Secretary by 31 March 2010; and	Compliant	Previous Audit confirmed compliance for the preparation of original plan (Rix's Creek Mine Regulatory Environmental Compliance Audit Report December 2011 Glade Consulting).
	(iii) include:		
	<ul style="list-style-type: none"> a site water balance for the development, which includes details of sources and security of water supply, on site water use and management and off site water transfers and investigates and describes measures to minimise water use by the development. 	Non-Compliant	<p>The site water balance is covered in Part B and Appendix A (Section 5) of the WMP (sighted 2014 WMP). The plan does not investigate and describe measures to minimise water use by the development.</p> <p>JH (per comm) noted that no water has been imported to the site since 2007 with Rixs Creek using internal process water. The site minimise clean water captured and import potable water and water for equipment wash down.</p> <p>Recommendation Suggest inclusion of the water use and minimisation measures implemented on site within the Water Management Plan.</p>
	<ul style="list-style-type: none"> details on the diversion of Rix's Creek, including updates on monitoring and rehabilitation; 	Not triggered	JH (per comm) confirmed that no diversion of Rixs Creek had been undertaken in accordance with MOD 4.
	<ul style="list-style-type: none"> a surface water monitoring program with: <ul style="list-style-type: none"> detailed baseline data of surface water flows and quality in the watercourses that could be affected by the development; 	Compliant	Baseline data of pH, TSS, TDS and EC for the period of 1999-2009 for surface water and mine water storages and water course monitoring is covered in Baseline data is covered in Part D and Appendix B within Appendix A of the WMP (sighted 2014 WMP). JH (per comm) confirmed that water quality sampling is undertaken on a monthly basis. Visual inspections of water flow are also recorded as part of the monthly inspection.
	<ul style="list-style-type: none"> surface water impact assessment criteria, including trigger levels for investigating potentially adverse surface water impacts of the development; 	Compliant	Trigger levels and response covered in Part D and Appendix B within Appendix A of the WMP (sighted 2014 WMP).
	<ul style="list-style-type: none"> a program to monitor surface water flows and quality in the watercourse that could be affected by the development. 	Non-Compliant	<p>The water quality monitoring program includes pH, EC, TSS, TDS and major ions monthly and annual monitoring within water courses and mine storage dams. The surface water monitoring program is covered in Part D and Appendix B within Appendix A of the WMP (sighted 2014 WMP).</p> <p>The WMP does not cover monitoring of surface water flows. JH (per comm) confirmed that visual inspections of water flow are recorded as part of the monthly inspection however this is not documented in the Water Management Plan.</p> <p>Recommendation Update Water Management Plan to detail that visual monitoring of flow volume will be undertaken.</p>
	<ul style="list-style-type: none"> a groundwater monitoring program with: <ul style="list-style-type: none"> detailed baseline data of groundwater levels, yield and quality in the region, and privately owned groundwater bores, which could be affected by the development; 	Compliant	<p>There are six monitoring bores within the baseline monitoring network including five installed standpipe piezometers and one existing production bore. The baseline groundwater monitoring program commenced in May 2010 until October 2011 which included the monitoring of monthly groundwater levels, water quality monitoring for EC, TDS and pH and quarterly collection of water samples for EC, TDS, pH, major cations and anion, nutrients and dissolved metals. The baseline groundwater monitoring program is covered in Part E and Appendix D within Appendix A of the WMP (sighted 2014 WMP).</p> <p>JH (per comm) noted that piezometers have been installed for the collection of baseline data. Groundwater was not monitored prior to the inclusion of his condition with no monitoring conducted prior to 2010. No monitoring of yield into the open cut has been undertaken.</p>

Condition Number	Condition	Compliance	Evidence and Comments
			Recommendation Update Water Management Plan to detail process for monitoring yield into the open cut.
	<ul style="list-style-type: none"> ○ groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts of the development; and 	Compliant	Trigger levels to be set after baseline conditions are established as outlined in Section 6 (Appendix D) within Appendix A of WMP (sighted 2014 WMP). Sighted email from John Hindmarsh to Scott Brooks on 20 January 214 which identified that TARPS had been developed for water monitoring results.
	<ul style="list-style-type: none"> ○ a program to monitor: <ul style="list-style-type: none"> – groundwater inflows to the open cut mining operations; and 	Compliant	Pump time from the pit to estimate the volume of mine water pumped from the open cut mine is included in the groundwater monitoring program covered in Part E of the WMP (sighted 2014 WMP). JH (per comm) noted that there has been limited groundwater inflow to the operation due to the pit geology.
	<ul style="list-style-type: none"> – impacts of the development on the regions aquifers, any groundwater bores, and surrounding watercourses, including monitoring to the western boundary of the mine lease ; and 	Compliant	Groundwater monitoring includes monitoring at five piezometers and one existing bore for water levels and water quality including EC, TDS and pH quarterly and the collection of major cations and anions, nutrients and dissolved metals annually which is covered in Part E of the WMP (sighted 2014 WMP).
	<ul style="list-style-type: none"> • a surface and groundwater response plan which describes the measures and/or procedures that would be implemented to: <ul style="list-style-type: none"> ○ respond to any exceedances of the surface water and groundwater assessment criteria; 	Compliant	Response action plan covered in Part F of WMP (sighted 2014 WMP). JH (per comm) stated that there are no GDE's impacted by mining and that baseflow of streams surrounding Rixs Creek have not been impacted.
	<ul style="list-style-type: none"> ○ offset the loss of any baseflow to the surrounding watercourse and/or associated creeks caused by the development; 	Non-compliance	The process for offsetting loss of baseflow is not covered in the Water Management Plan. JH (per comm) stated that baseflow of streams surrounding Rixs Creek have not been impacted. Recommendation Update Water Management Plan to detail the process for monitoring impacts to baseflow and offsetting as required any loss of base flow, impacts to private land owners and adverse impacts on GDE's caused by Rix's Creek Operations.
	<ul style="list-style-type: none"> ○ compensate landowners of privately-owned land whose water supply is adversely affected by the development; and 	Non-compliance	The process for compensating land owners is not clearly discussed in the Water Management Plan. Recommendation As above.
	<ul style="list-style-type: none"> ○ mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation. 	Compliant	Section 4.2.1 of the WMP states that there are no GDE's identified within the mining lease.
	The Applicant shall implement the management plan as approved from time to time by the Secretary.		
Erosion and Sediment Control Plan			
15A	The Applicant shall prepare an Erosion and Sediment Control Plan. This Plan must:		
	(i) be consistent with the requirements of the <i>Managing Urban Stormwater: Soils and Construction Manual</i> (Landcom 2004, or its latest version);	Compliant	Section 3 of Appendix E within Appendix A of the WMP states all erosion and sediment control devices will be designed and constructed according to the guidelines <i>Managing Urban Stormwater: Soils and Construction – Volume 2E Mines and Quarries</i> (DECC NSW 2008).
	(ii) identify activities that could cause soil erosion and generate sediment	Compliant	Covered in Section 4.1 within Appendix E of Appendix A of WMP (sighted 2014 WMP).
	(iii) describe measures to minimise soil erosion and the potential for transport of sediment to downstream waters;	Compliant	Covered in Section 4.2 within Appendix E of Appendix A of WMP (sighted 2014 WMP).
	(iv) describe the location, function, and capacity of erosion and sediment control structures; and	Compliant	Covered in Table 4.1 within Appendix E of Appendix A of WMP (sighted 2014 WMP).
	(v) describe what measures would be implemented to monitor and maintain the structures over time.	Compliant	Covered in Section 5 (Attachment E) within Appendix E of Appendix A of WMP (sighted 2014 WMP). This includes monitoring of weather conditions, water quality, quarterly sediment dam inspections and visual inspections of erosion and sediment controls. Inspection records for erosion control items

Condition Number	Condition	Compliance	Evidence and Comments
			on site were sighted during the audit.
	The Applicant shall implement the plan as approved from time to time by the Secretary.		
Rix Creek Diversion			
16.	The Applicant shall:		
	(i) liaise with DPI Water and meet their requirements for the design, construction and maintenance of any diversion of Rixs Creek;	Compliant	Previous Audit confirmed compliance for the preparation of original plan (Environmental Audit of Rix's Creek Mine, May 2007 Pacrim Environmental). JH (per comm) confirmed that there had been no diversion works undertaken within Rix's Creek during the audit period.
	(ii) not divert Rixs Creek in the southern mining area	Not triggered	JH (per comm) confirmed that there had been no diversion works undertaken within Rixs Creek during the audit period.
	(iii) not mine within 20m of the bank of Rixs Creek in Pit 2 and Pit 3.	Compliant	JH (per comm) confirmed that a 20 m exclusion had been maintained on both sides of Rixs Creek for mining undertaken within Pit 2 and Pit 3.
	Reasons: To protect water quality in Rixs Creek and to provide for water management measures at the site.		
Landscape Management			
16A.	The Applicant shall prepare a detailed Landscape Management Plan for the development to the satisfaction of the DRE and the Secretary. This plan must:	Administrative non-compliance	The Landscape Management Plan (LMP) was submitted to the DPE on 25.03.10 (sighted letter from JH to Howard Reed (DPE)). The latest copies of the LMP, RMP, FVMP and MCP were approved by the DPE on 22.01.14. The DPE requested that a copy of the Plan marked 'final' to be forwarded to the Singleton office by the end of January 2014 for their records (sighted DPE approval letter). There was no evidence available to show that this had occurred. Recommendation A copy of the Plan marked 'final' should be forwarded to the Singleton office.
	(i) be prepared in consultation with OEH, DPI Water and Singleton Shire Council by suitably qualified expert/s whose appointment/s have been approved by the Secretary;	Administrative non-compliance	Consultation with OEH, DPE Water and Singleton Shire Council was not sighted.
	(ii) include a:		
	<ul style="list-style-type: none"> Rehabilitation Management Plan to be submitted for approval by the Secretary by 31 March 2010; 	Compliant	The Rehabilitation Management Plan (RMP) was submitted to the DPE on 25.03.10 (sighted letter from JH to Howard Reed). Revised Rehabilitation Management Plan (RMP) addressing previous comments resubmitted in November 2011 to Planning with approval granted in 2012 (sighted 2015 Annual Review).
	<ul style="list-style-type: none"> Final Void Management Plan to be submitted for approval by the Secretary by 31 December 2011; and 	Administrative non-compliance	Sighted submission of the Final Void Management Plan (FVMP) to the DPE dated 10 February 2012 which was after the required date.
	<ul style="list-style-type: none"> Mine Closure Plan to be submitted for approval by the Secretary by 31 December 2011. 	Administrative non-compliance	The Mine Closure Plan (MCP) was submitted to the DPE on 13.04.12 (sighted email from JH to Howard Reed) which was after the required date. Not extension was sighted. The approval following the submission was not sighted.
	The Applicant shall implement the management plan as approved from time to time by the Secretary.	Noted	
Rehabilitation Management Plan			
16B.	The Rehabilitation Management Plan must include:	Non-compliance	The site has a Rehabilitation Management Plan (RMP). Although not all conditions of the Development Consent are addressed within the RMP as required. It was noted during the audit observations that rehabilitation practices on-site represents leading practice and this should be documented in the RMP.
	(i) the objectives for rehabilitation of the site of the development;	Compliant	Objectivities for rehabilitation covered on pg. 8-9 of RMP.
	(ii) a description of the short, medium, and long term measures that would be implemented to rehabilitate the development and the remnant vegetation and habitat on the site;	Compliant	Short, medium and long term measures covered on pg. 9 on RMP.

Condition Number	Condition	Compliance	Evidence and Comments
	(iii) detailed performance and completion criteria for the rehabilitation of the site;	Compliant	Performance and completion criteria covered in Table 2 of RMP.
	(iv) a detailed description of how the performance of the rehabilitation of the mine would be monitored over time to achieve the stated objectives;	Compliant	Monitoring protocol covered on pg. 13-14 of the RMP.
	(v) a detailed description of what measures would be implemented over the next 3 years, including the procedures to be implemented for:		
	<ul style="list-style-type: none"> minimising and rehabilitating disturbed areas; 	Compliant	Minimising and rehabilitating disturbed areas is covered under Resource Planning (Appendix A, pg. A5 – A6).
	<ul style="list-style-type: none"> protecting vegetation and soil outside the disturbance areas; 	Non-compliance	Procedure for protecting vegetation and soil outside the disturbance areas not adequately covered in RMP. Recommendation Procedure to protect vegetation and soil outside the disturbance areas to be included in the monitoring protocol.
	<ul style="list-style-type: none"> undertaking pre-clearance surveys; 	Compliant	“Pre-clearance surveys will be conducted as per the Land Disturbance Management Procedure” (Appendix A, pg. A.5).
	<ul style="list-style-type: none"> managing impacts on fauna; 	Non-compliance	Monitoring protocol covered on page 13 of the RMP includes fauna monitoring however procedure to manage impacts on fauna has not be addressed. Recommendation Procedure to manage impacts on fauna to be included in the monitoring protocol.
	<ul style="list-style-type: none"> landscaping the site to minimise visual impacts; 	Non-compliance	Procedure for landscaping the site to minimise visual impacts not adequately covered in RMP. Recommendation Procedure to landscape the site to minimise visual impacts to be included in the monitoring protocol.
	<ul style="list-style-type: none"> conserving and reusing topsoil; 	Non-compliance	Procedure to conserve and reuse topsoil not adequately covered in RMP. Recommendation Procedure to conserve and reuse topsoil to be included in the monitoring protocol.
	<ul style="list-style-type: none"> collecting and propagating seed for rehabilitation works; 	Compliant	“Tree and grass seed – provenance seed from on-site/district/regional vegetation communities is preferable, but seed is more likely to be bought as a seed mix from seed vendors.” (Appendix A, pg. A.5).
	<ul style="list-style-type: none"> salvaging and reusing material from the site for habitat enhancement; 	Non-compliance	Measures to be implemented over the next three years not adequately covered in RMP. Recommendation Information regarding the salvage and re-use of material to be included in the RMP as the re-use of material was observed to be leading practice during the field inspection.
	<ul style="list-style-type: none"> controlling weeds and feral pests; 	Compliant	Monitoring protocol covered on page 13 of the RMP includes weed monitoring. Scheduling on pg. A.7 includes maintenance activities such a weed treatment to be undertaken.
	<ul style="list-style-type: none"> controlling access; and 	Compliant	“Fencing and signage – may be required to isolate or protect established rehabilitation from interference or vehicle access.” (Appendix A, pg. A6).
	<ul style="list-style-type: none"> bushfire management; 	Compliant	Revegetation – Bushfire Management on pg. A.9 covers this condition.
	(vi) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;	Non-compliance	Monitoring protocol on pg. 13 includes site establishment, general condition of rehabilitation, weeds, fauna, vegetation, nutrient recycling, soils/surface condition and erosion and stability. Pre-clearance surveys will be conducted as per the Land Disturbance Management Procedure. This monitoring protocol does not include all the measures listed in condition 16B (v) including the effectiveness of landscaping the site to minimise visual impacts, conserving and reusing topsoil, collecting and propagating seed for rehabilitation works, salvaging and reusing material from the site for habitat enhancement, controlling access and bushfire management. Recommendation Monitoring program to include all measures in 16B (v) and effectiveness of these measures to be reported in the Annual Review.
	(vii) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that	Compliant	Risks to rehabilitation and contingency measures to mitigate these risks are covered on pg. 15 of the RMP.

Condition Number	Condition	Compliance	Evidence and Comments
	would be implemented to mitigate these risks; and		
	(viii) details of who is responsible for monitoring, reviewing, and implementing the plan.	Non-compliance	Roles and responsibilities are detailed on pg. 6 of the RMP. 'The company directors are responsible for the overall rehabilitation and environmental performance of Bloomfield Colliery.', This should be changed to relevant personnel at Rix's Creek Mine. Recommendation Clearly state who is responsible for monitoring and reviewing the plan.
Final Void Management			
16C.	The Final Void Management Plan must:		
	(i) incorporate design criteria and specifications for the final void based on verified groundwater modelling predictions and a re-assessment of post-mining groundwater equilibration;	Compliant	This condition is covered in Section 2.6 and 3.3.1 of the FVMP.
	(ii) assess the potential interactions between creeks on the site and the final void; and	Compliant	This condition is covered in Section 3.2, 3.4.1 and 3.5 of the FVMP.
	(iii) describe what actions and measures would be implemented to		
	<ul style="list-style-type: none"> minimise any potential adverse impacts associated with the final void; and 	Compliant	This condition is covered in Section 4 of the FVMP.
	<ul style="list-style-type: none"> manage and monitor the potential impacts of the final void. 	Compliant	This condition is covered in Section 4 of the FVMP.
Mine Closure Plan			
16D.	The Mine Closure Plan must:		The Mine Closure Plan was prepared in 2012 to cover the decommissioning and rehabilitation of the Rix's Creek mining operation as it has progressed until the expiry of CL 352 on 19 October 2016.
	(i) define the objectives and criteria for mine closure;	Non-compliance	Post Mining Rehabilitation Objectives of land within CL 352 including landform, infrastructure and roads is covered on pg. 11-12 of the MCP however ML 1432 has not been included. Completion criteria for Sub Domain A (Pasture) and Sub Domain B (Tree Areas) is referenced to be outlined in the RMP. However completion criteria for each domain have not been covered in the RMP. No completion criteria for Sub Domain C (Plantation Forest Areas) and Sub Domain D (Undisturbed Native Grassland) has been included within the MCP or RMP. Recommendation Include objectives and criteria for mine closure for ML 1432 and completion criteria for each domain in the Mine Closure Plan.
	(ii) investigate options for the future use of the site, including the final void/s;	Compliant	Primary and Secondary Domains are listed on pg. 10-11 of the MCP and options for the future use of the site are listed on Page 9.
	(iii) investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local employment levels;	Compliant	Post Closure Socio-Economic Impact is included on pg. 20 of the MCP.
	(iv) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the development; and	Not Verified	Environmental Management is covered on pg. 19 of the MCP and states environmental management must comply with the <i>MinOp Environment Management System (EMS)</i> .
	(v) describe how the performance of these measures would be monitored over time.	Not Verified	Environmental Management is covered on pg. 19 of the MCP and states environmental management must comply with the <i>MinOp Environment Management System (EMS)</i> .
Biodiversity			
16E.	The Applicant shall implement the biodiversity offset strategy as outlined in Table 2 and as generally described in the documents listed in condition 1 (vii) of schedule 2 (and shown conceptually in Appendix 2), to the satisfaction of the Secretary.	Not triggered	Rail loop and rail spur not constructed.
	TABLE 2 – Biodiversity Offset Strategy		

Condition Number	Condition	Compliance	Evidence and Comments																																																														
	<p>Table 2: Biodiversity Offset Strategy</p> <table border="1"> <thead> <tr> <th rowspan="2">Offset Type</th> <th colspan="8">Offset Area (hectares)</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Central Hunter Ironbark-Spotted Grey-Gum Box Forest EEC</td> <td>6.89</td> <td>1.47</td> <td>0.51</td> <td>3.14</td> <td>6.70</td> <td>3.07</td> <td>1.49</td> <td>23.27</td> </tr> <tr> <td>Central Hunter Grey Box-Ironbark Woodland EEC</td> <td>1.07</td> <td>1.55</td> <td>0.86</td> <td>0.06</td> <td>0</td> <td>0.21</td> <td>0</td> <td>3.75</td> </tr> <tr> <td>Hunter Lowlands Redgum Forest EEC</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0.69</td> <td>0.69</td> </tr> <tr> <td>Derived Grassland</td> <td>44.02</td> <td>13.53</td> <td>4.96</td> <td>8.36</td> <td>5.91</td> <td>3.74</td> <td>10.09</td> <td>90.61</td> </tr> <tr> <td>Total</td> <td>51.98</td> <td>16.55</td> <td>6.33</td> <td>11.56</td> <td>12.61</td> <td>7.02</td> <td>12.27</td> <td>118.32</td> </tr> </tbody> </table>	Offset Type	Offset Area (hectares)								1	2	3	4	5	6	7	Total	Central Hunter Ironbark-Spotted Grey-Gum Box Forest EEC	6.89	1.47	0.51	3.14	6.70	3.07	1.49	23.27	Central Hunter Grey Box-Ironbark Woodland EEC	1.07	1.55	0.86	0.06	0	0.21	0	3.75	Hunter Lowlands Redgum Forest EEC	0	0	0	0	0	0	0.69	0.69	Derived Grassland	44.02	13.53	4.96	8.36	5.91	3.74	10.09	90.61	Total	51.98	16.55	6.33	11.56	12.61	7.02	12.27	118.32		
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16F.	The Applicant shall prepare a Biodiversity Management Plan for the rail loop and rail spur as generally described in the documents listed in condition 1 (vii) of schedule 2, to the satisfaction of the Secretary. This plan must:	Not triggered	Rail loop and rail spur not constructed.																																																														
	(i) be prepared in consultation with OEHL, and be submitted to the Secretary for approval prior to construction of the rail loop and rail spur;	Not triggered	Rail loop and rail spur not constructed.																																																														
	(ii) describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the mine site;	Not triggered	Rail loop and rail spur not constructed.																																																														
	(iii) include:	Not triggered	Rail loop and rail spur not constructed.																																																														
	<ul style="list-style-type: none"> • a description of the short, medium, and long term measures that would be implemented to manage: <ul style="list-style-type: none"> ○ the offset strategy; and ○ vegetation and habitat on the site and in the offset areas; • detailed performance and completion criteria for implementation of the offset strategy; • a detailed description of the measures that would be implemented for: <ul style="list-style-type: none"> ○ revegetation and regeneration within the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata; ○ maximising salvage and beneficial use of resources in areas that are to be impacted, including vegetation, fauna habitat and soil; ○ protecting vegetation and soil outside the disturbance areas; ○ conserving and reusing topsoil; ○ undertaking pre-clearance surveys; ○ managing impacts on fauna; ○ collecting and propagating seed; ○ salvaging, transplanting and/or propagating threatened flora and native grassland; ○ controlling weeds and feral pests; ○ managing grazing; ○ controlling access; and ○ bushfire management; • a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; 	Not triggered	Rail loop and rail spur not constructed.																																																														
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Condition Number	Condition	Compliance	Evidence and Comments
	<ul style="list-style-type: none"> a description of the potential risks to successful revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> details of who would be responsible for monitoring, reviewing, and implementing the plan. 	Not triggered	Rail loop and rail spur not constructed.
	The Applicant shall implement the management plan as approved from time to time by the Secretary.	Not triggered	Rail loop and rail spur not constructed.
Heritage			
16G.	The Applicant shall prepare a Heritage Management Plan for the rail loop and rail spur as generally described in the documents listed in condition 1 (vii) of schedule 2, to the satisfaction of the Secretary. This plan must:	Not triggered	Rail loop and rail spur not constructed.
	(i) be prepared in consultation with OEH, registered Aboriginal parties and the Heritage Council NSW, and be submitted to the Secretary for approval prior to construction of the rail loop and rail spur;	Not triggered	Rail loop and rail spur not constructed.
	(ii) include the following for the management of Aboriginal heritage on site:	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> a plan of management for the disturbance of land associated with the rail loop, rail spur and visual bund; and 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> a program/procedures for: <ul style="list-style-type: none"> salvage, test excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area; 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> protection and monitoring of Aboriginal sites outside the project disturbance area; 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> managing the discovery of any new Aboriginal objects or skeletal remains during the project; and 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> ongoing consultation and involvement with all registered Aboriginal parties in the conservation and management of Aboriginal cultural heritage on the site, including prior to any salvage works; and 	Not triggered	Rail loop and rail spur not constructed.
	(iii) include the following for the management of historic heritage on site:	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> a plan of management for the disturbance of land associated with the rail loop and rail spur; and 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> a program/procedures for: <ul style="list-style-type: none"> avoiding and preserving culturally significant sites where possible; 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> monitoring, salvage and/or management of historic heritage sites within the project disturbance area; 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> taking full archival records of historic heritage sites that would be disturbed by the project; 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> protection and monitoring of heritage items outside the project disturbance area; and 	Not triggered	Rail loop and rail spur not constructed.
	<ul style="list-style-type: none"> managing the discovery of any new heritage items identified during the project. 	Not triggered	Rail loop and rail spur not constructed.
	The Applicant shall implement the management plan as approved from time to time by the Secretary.	Not triggered	Rail loop and rail spur not constructed.
17	Acquisition of Affected Lands		
17A	Affected Lands defined in the Development Consent of 19 October 1989	Not triggered	
	The Applicant shall forthwith upon receipt of a request to purchase land identified as being within the area of affectation defined in the development consent for Rixs Creek Coal Mine of 19 October 1989 and owned by any of: R J Eveleigh	Not triggered	R J Eveleigh have not exercised their right to acquisition (JH per comms).

Condition Number	Condition	Compliance	Evidence and Comments
	Wendy Bowman & G R Elder Estate I H. Bowman Elizabeth S. Bowman Durian Holdings purchase such land. In the event of failure to complete the purchase within six (6) months, clause 17C(iv) below, applies.		
17B.	Affected Lands other than those defined in the Development Consent of 19 October, 1989		
	(i) The Applicant shall within six (6) months of receipt of a written request from any of the owners of the properties listed in Attachment 1 of this Consent, purchase the whole of the properties. In the event of failure to complete the purchase within six (6) months, clause 17C(iv) below, applies.	Not triggered	There have been no requests for acquisition from any of the properties listed in attachment 1 of the consent (JH per comms).
	(ii) Where acquisition has not been sought of a property subject to sub-clause 17B(i) an owner or occupier of a dwelling on the property may request the Applicant to carry out measures at the dwelling to mitigate the impact upon the residence of dust fallout/concentration, noise, and vibration, emanating from the mine in excess of the criteria set out in this Consent. The Applicant shall forthwith carry out such measures at its own expense.	Not triggered	There have been no requests for acquisition from any of the properties listed in attachment 1 of the consent (JH per comms).
	(iii) In the event that within one (1) month of a request instigated under sub-clause 17B(ii), the Applicant and the owner or occupier cannot agree upon the measures to be carried out, either party may refer the matter to the Community Consultative Committee. The Applicant shall forthwith carry out the measures which may be required by the said Committee.	Not triggered	There have been no requests for acquisition from any of the properties listed in attachment 1 of the consent (JH per comms).
17C.	Potentially Affected Lands		
	(i) In the event that the EPA determines that noise from the mining operations at any residence (built or with building approval at the date of this Consent) or more than 25% of any property in the vicinity of Maison Dieu Road is in excess of the relevant noise level design goals set out in clause 10 of this Consent for two (2) consecutive monitoring periods, the Applicant shall purchase such property within six (6) months of receipt of a written request from the owner of the affected property.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	(ii) In the event that the EPA determines that dust from the mining operations increases the dust deposition rate by more than 2 gm/m ² /month averaged over any six (6) month period, at any residence (built or with building approval at the date of this Consent) or over more than 25% of any property in the vicinity of Maison Dieu Road is the Applicant shall purchase such property within six (6) months of receipt of a written request from the owner of the affected property.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	(iii) In respect of a request to purchase land arising under subclause 17A, 17B, 17C(i) or 17C(ii), the Applicant shall pay the owners the acquisition price which shall take into account and provide payment for:	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	a) a sum not less than the current market value of the owner's interest in the land or part thereof (as the case may be) having regard to the existing use of the land whosoever is the occupier and all improvements thereon immediately prior to the granting of this consent as if the land was unaffected by the development proposal. The provisions of this subclause do not apply to the holder of an authority under the Mining Act, 1992.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	b) the owners reasonable compensation for disturbance allowance and relocation costs within the Local Government Areas of Singleton	Not triggered	This condition has not been triggered during the audit period (JH per comms).

Condition Number	Condition	Compliance	Evidence and Comments
	or Muswellbrook.		
	c) the owners reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	(iv) In the event that the Applicant and any owner referred to in subclause 17(A) and 17(B)(i) and 17(C) cannot agree within the time limit upon the acquisition price of the land and/or the terms upon which it is to be acquired, then:	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	a) either party may refer the matter to the Secretary who shall request the President for the time being of the Australian Institute of Valuers and Land Economists to appoint a qualified independent valuer, suitably experienced in compensation issues, who shall determine, after consideration of any submissions from the owners and the Applicant, the acquisition price as described and referred to in subclause (iii) herein .	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	b) in the event that the independent valuer requires guidance on any contentious legal, planning or other issues, the independent valuer shall refer the matter to the Secretary , recommending the appointment of a qualified panel. The Secretary , if satisfied that there is need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of: 1) the appointed independent valuer, 2) the Secretary , or her nominee, and/or 3) the President of the Law Society of NSW or his nominee. The qualified panel shall on the advice of the valuer determine the issue referred to it and advise the valuer. The panel may recommend to the Secretary to request the Institution of Surveyors (NSW) to appoint an independent surveyor to determine the part of the land to be acquired in relation to the area of affectation which may reasonably be subdivided and acquired having regard to topography, provisions of planning instruments and other associated matters;	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	c) The Applicant shall bear the costs of any valuation or survey assessment requested by the Secretary in accordance with subclauses (a) and (b) herein.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	d) Upon receipt of a valuation arising pursuant to subclauses (a) and (b), the Applicant shall offer to acquire the relevant land at a price not less than the said valuation. Should the Applicant's offer to acquire not be accepted by an owner within six (6) months of the date of such offer, the Applicant's obligations to such owner pursuant to this Clause shall cease.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	e) Upon settlement of the acquisition referred to in this Clause the Applicant shall also pay to the owner the costs and compensation assessed pursuant to subclause (iii) herein including the owner's reasonable costs in the event of a subdivision.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	All acquisitions of land under this condition shall be reported in the Annual Report. Once sub-clauses 17A, 17B and 17C have been complied with they shall not be reapplied for the duration of the development consent. This applies to lands already purchased under the development consent of 19 October, 1989.	Not triggered	This condition has not been triggered during the audit period (JH per comms).
	Reasons: To provide for acquisition of affected land.	Noted	
Environmental officer			
18.	<i>Deleted</i>	Noted	
Annual Review			
19.	The Applicant shall:		

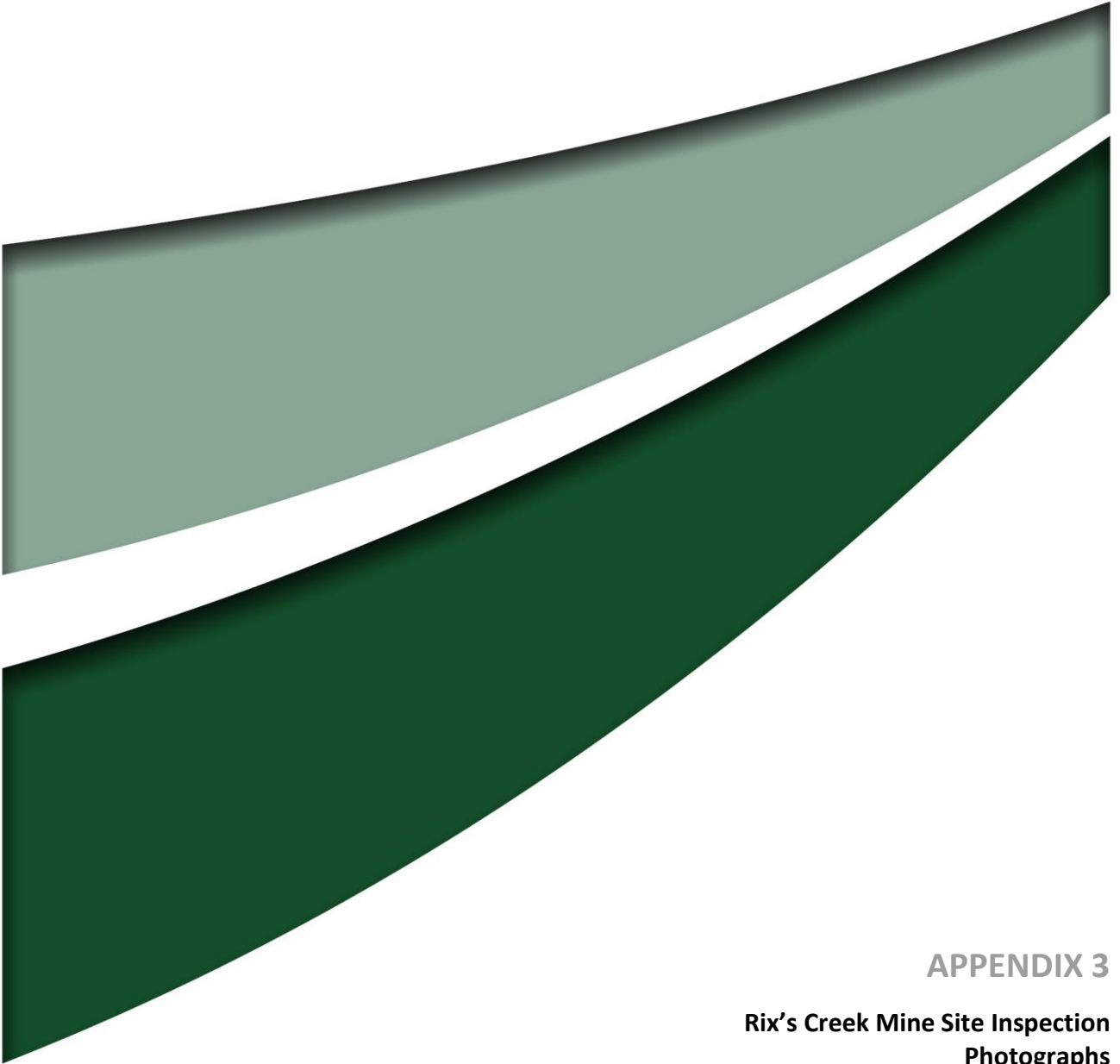
Condition Number	Condition	Compliance	Evidence and Comments
	(i) prepare and submit to the Secretary for approval an Annual Review. The report shall include:	Compliant	Approval of the 2011 – 2014 AEMRs and 2015 Annual Review by the DPE were sighted.
	(a) short, medium and long-term mining plans;	Compliant	Section 2 of the 2011 – 2014 AEMRs and Section 4 of the 2015 Annual Review generally describe the mining plans.
	(b) rehabilitation report in respect of open cut operations;	Compliant	Section 5 of the 2011 – 2014 AEMRs and Section 8 of the 2015 Annual Review covers rehabilitation and monitoring of open cut operations.
	(c) a review of effectiveness of environmental management of the subject area in terms of EPA, OEHL and DRE requirements;	Compliant	Section 3 of the 2011 – 2014 AEMRs and Section 6 of the 2015 Annual Review provides environmental management and performance including reportable incidents and further improvements. Actions required at the previous AEMR review by the DPE and/or DRE are also addressed in Section 1 of the 2011 – 2014 AEMRs and Section 5 of the 2015 Annual Review.
	(d) a review of performance in terms of the conditions of development consent;	Non-Compliant	Previous Audit confirmed a letter sighted from DoPI to Rix's Creek (08.06.11) requesting that in future reports a compliance table be included (Rix's Creek Mine Regulatory Environmental Compliance Audit Report December 2011 Glade Consulting). However compliance tables were not included as required in the 2011 - 2014 AEMRs. Section 11 of the 2015 Annual Review covers non-compliances with the Development Consent during the reporting period (sighted 2015 Annual Review).
	(e) results of environmental monitoring in respect of air, water and noise pollution;	Compliant	Section 3 of the 2011 – 2014 AEMRs and Section 6 of the 2015 Annual Review provides environmental management and monitoring of water, noise and air quality results. Monitoring results for air quality, blast and noise are provided in the appendices.
	(f) a listing of any variations obtained to approvals applicable to the subject area during the previous year;	Compliant	Section 1 and Table 1 within the 2011 – 2014 AEMRs and Section 2.1 and Table 2 of the 2015 Annual Review provides a summary of current approvals and any variations.
	(g) the outcome of the water budget for the year, the quantity of clean water used from water storages. Details of the disposal of any contaminated water on site or into water courses;	Non-Compliant	Section 2.8 of the 2011 AEMR provides a water balance calculated in 2009 which required updating. Section 2.8 of the 2012 AEMR provides a water balance calculated for 2012. Section 2.8 of the 2013 AEMR provides a water balance calculated for 2012 which required updating. Section 2.8 of the 2014 AEMR provides a water balance calculated for 2012 which required updating. Section 7.2 of the 2015 Annual Review provides a water balance calculated for 2015. An action from the DPE and DRE covered in the 2015 Annual Review was to provide an appropriate water balance in the 2015 Annual Review to contain site water for the period 1 Jan – 31 Dec 2015 which is covered in Table 19 (sighted 2015 Annual Review). Recommendation Continue to provide updated water balance for the reporting year.
	(h) set out environmental management targets for the next year.	Non-Compliant	Included in 2012 AEMR. Specific targets for the next year have not been included in the 2011 – 2014 AEMRs or 2015 Annual Review. The activities proposed for the next period are based on the production schedule and rehabilitation planned with each report stating 'Environmental management is an ongoing process at Rix's Creek with continual improvement being made to the existing systems already in place'. This section should be updated with specific environmental management targets. Recommendation Specific targets are required to be included in the Annual Return
	(ii) consult with the Secretary during report preparation concerning any additional requirements.	Compliant	Actions required at the previous AEMR review by the DPE and/or DRE are addressed in Section 1 of the 2011 – 2014 AEMRs and Section 5 of the 2015 Annual Review.
	(iii) ensure that copies of the Annual Review are submitted to the Secretary, EPA, OEHL, NOW, DRE, and the Council.	Compliant	Submission letters for the 2011 – 2014 AEMRs and 2015 Annual Review were sighted
	(iv) ensure that the report for each calendar year is submitted by 31 March of the following year.	Administrative non-compliance	Submission letters for the 2011 – 2014 were sighted It is noted that the 2011 – 2014 were submitted prior to this condition being added to the consent (it was added in MOD 7 in February 2016). The 2015 Annual Review was submitted on 19 April 2016 which is after 31 March as required by this condition. 2011 AEMR 23 April 2012

Condition Number	Condition	Compliance	Evidence and Comments
			2012 AEMR – 27 March 2013 2013 AEMR – dated 20 May 2014 2014 AEMR – dated 25 February 2015 2015 Annual Review –19 April 2016
Complaints			
20.	The Applicant shall observe all requirements of the DRE complaints protocol and refer to complaints received in the Annual Report (Condition 19).	Compliant	Section 2 of the 2011 – 2014 AEMRs and Section 4 of the 2015 Annual Review generally describe the mining plans.
	Reasons: To provide for environmental monitoring and performance reporting.	Noted	
Community Consultative Committee			
21.	The Applicants shall:		
	(i) participate and co-operate in the establishment by the Council of a Community Consultative Committee including four (4) community representatives to monitor compliance with conditions of this consent during the term of the development. The Committee, initially chaired by the Council, shall be convened every four (4) months or as required at the request of any representative to discuss compliance matters.	Compliant	Sighted CCC meeting minutes from 20 September 2016. JH per comms noted that the Development Consent requires four community members however Rix's Creek currently had three community members on the CCC due to Rix's Creek not being able to obtain a 4 th community member to participate on the CCC. The CCC is chaired by a representative from Singleton Council and meets at frequencies requested by the CCC. The Development Consent requires the CCC to meet every 4 months or as agreed by the CCC, with the CCC currently meeting every 6 months as agreed during CCC meetings.
	(ii) The Applicant shall at its own expense:		
	(a) nominate two (2) representatives to attend all meetings of the Committee;	Compliant	CCC members from Rix's Creek as at November 2016 are Luke Murray, John Hindmarsh, Jason Desmond and Chris Quinn.
	(b) provide to the Committee copies of the latest Annual Review , referred to in Condition 19;	Compliant	JH per comms advised that a meeting is nominally held annually during April to provide a copy of the Annual Review to CCC members and discuss the environmental performance of the operation over the previous 12 months. JH advised that environmental monitoring data and a copy of the Annual Review is provided to CCC members.
	(c) promptly provide to the Committee such other information as the Chairman of the Committee may reasonably request concerning the environmental performance of the development;	Compliant	JH per comms advised that information is provided to the CCC as required.
	(d) provide access for site inspections by the Committee;	Compliant	JH per comms advised that a site inspection is offered to members of the CCC as part of the CCC meetings. During the audit it was sighted that a site inspection is a standard item on the CCC agenda.
	(e) take and distribute minutes of Committee Meetings and provide meeting facilities for the Committee.	Compliant	JH per comms advised that minutes are taken by Rix's Creek personnel for distribution to CCC members with the acceptance of the previous CCC meeting minutes an agenda at each CCC meeting.
	Reasons: To provide community access to environmental monitoring and performance.	Noted	
Financial Contributions			
22.	The Applicant shall pay to the Council a financial contribution pursuant to Section 94 of the Environmental Planning and Assessment Act 1979 in the amount of \$900.00 per additional employee (as identified within the EIS and Supplementary Document) according to the requirements of the Council's Section 94 Contributions Plan No. 1. The Applicant shall pay the contribution to Council within six (6) months of acting upon this consent;	Compliant	Previous Audit confirmed compliance with this condition (<i>Environmental Audit of Rix's Creek Mine, May 2007 Pacrim Environmental</i>).
	Reasons: To meet the requirements of the Act in relation to community infrastructure contributions.	Noted	
Closures of the New England Highway for blasting			
23.	The Application shall:		
	(a) The Applicant shall provide road deviations adjacent to the highway in	Not Triggered	JH (pers comm) no road deviations required for the New England Highway due to blasting.

Condition Number	Condition	Compliance	Evidence and Comments
	accordance with Figure 34 of the EIS to the satisfaction of the RMS and the Council unless a valid Management Plan is in operation. These deviations shall be constructed at the Applicant's cost and be constructed to allow two-way traffic movement and to an all weather gravel standard for a design speed of forty (40) kilometres per hour.		
	(b) The Applicant shall conduct all closures of the New England Highway for blasting in accordance with the Management Plan included in Appendix 2 of the EIS Supplementary Document to the satisfaction of the RMS and the Council.	Compliant	
	(c) In the event that the RTA, after consultation with the Applicant and the Council deems that the requirements of the Management Plan are not being met, the Applicant shall cease blasting within 500 metres of the highway.	Not triggered	
Closure/Relocation of Middle Falbrook Road			
24.	The Applicant shall liaise with the Council in regard to the future closure/relocation of Middle Falbrook Road in order to provide an alternative road link and proceed to construct such alternative road link as required, in conjunction with potential alternative road link to be provided by other mines to the north of the development. Any relocation shall be designed and constructed to the Council's bitumen sealed rural roads standard.	Compliant	Previous Audit confirmed compliance with this condition (<i>Environmental Audit of Rix's Creek Mine, May 2007 Pacrim Environmental</i>). There has been no works undertaken in this audit period in relation to this condition.
	Reasons: To provide for road relocations in the event of road closures.	Noted	
Dispute Resolution			
25.	In the event that the Applicant and the Council or a Government body other than the Department, cannot agree on the specification or requirements applicable under this consent, other than in subclause 17C(iv), the matter shall be referred by either party to the Secretary or if not resolved, to the Minister, whose determination of the disagreement shall be final and binding on the parties.	Not triggered	JH per comms confirmed this was not triggered during the audit period.
	Reasons: To provide for dispute resolution in respect to conditions of consent.	Noted	
Independent Environmental Audit			
26.	Within 12 months from the date of Consent, the Applicant shall make arrangements for and bear the total cost of an independent comprehensive environmental audit for the development. Further independent audits are to be conducted every fifth year (ie. from year 6 from the date of Consent) or as directed by the Secretary. The Applicant shall conduct an environmental audit of the mining and infrastructure areas of the development and submit the report to the Secretary who shall provide a copy to the Council.	Compliant	Previous Audit confirmed compliance with this condition (<i>Environmental Audit of Rix's Creek Mine, May 2007 Pacrim Environmental</i>). The last Audit was undertaken by Glade Consulting for the period Jan 2007 – Oct 2011.
	The audit shall be conducted by a duly qualified independent person or team approved by the Secretary in consultation with Council.	Compliant	Daniel Sullivan and Luke Bettridge from Umwelt approved by DPE in consultation with Council in a letter dated 22.08.16.
	The Secretary may, after considering any submission made by Council on the report, notify the Applicant of the Secretary's reasonable requirements with regard to any measures arising from or recommended by the independent environmental report. The Applicant shall comply with those reasonable requirements within such time as the Secretary may reasonably require.	Not triggered	Rix's Creek confirmed that no requests had been made in accordance with this condition.
	Reason: To provide for periodic independent environmental audits.	Noted	
Waste			
27.	The Applicant shall:		
	(i) monitor the amount of waste generated by the project;	Compliant	Table showing quarterly waste volumes generated by the Project including waste oil, waste metal, general waste, paper/cardboard recycling and oil filters covered in Section 2.6 of 2011 - 2014 AEMRs and Section 4.6 of the 2015 Annual Review.

Condition Number	Condition	Compliance	Evidence and Comments
	(ii) investigate ways to minimise waste generated by the project;	Compliant	Two additional solid-bowl centrifuge tailing's drying units commissioned during November 2014 to minimise the need for tailings dams and maximise in-pit dumping of washing plant waste product. During 2015 all three solid-bowl units used for the majority of the year with the successful trial of disposing the solid-bowl waste in-pit (co-disposal) and minimising fine reject deposited into the tailing's dam on-site (sighted 2015 Annual Review).
	(iii) implement reasonable and feasible measures to minimise waste generated by the project;	Compliant	New waste contractor commenced Sep 2011 which included the introduction of several large general and paper/cardboard recycling bins placed on site as well as a waste oil filter bin near the heavy vehicle workshop (sighted 2011 AEMR). Waste segregation observed to occur during site inspection.
	(iv) ensure irrigation of treated wastewater is undertaken in accordance with DECC's Environmental Guideline for the Utilisation of Treated Effluent; and	Compliant	Approval received by Rix's Creek 19/12/2011 from Singleton Council. Water monitoring downstream of site conducted monthly (Sighted 2015 Annual Review). Grey water generated on site consisting of domestic waste water from the bathhouse, associated amenity areas and administration area pass through a septic system approved by Singleton Council (OSSM Approval No: 2820/2002 expiry 1/3/2017). The Septic system is cleaned out 6-monthly by a suitably qualified waste contractor and the resulting waste is removed from site (sighted 2015 Annual Review).
	(v) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.	Compliant	Waste management and general minimisation of waste through recycling and operational processes covered in Section 2.6 of 2011 - 2014 AEMRs and Section 4.6 of the 2015 Annual Review. Recommendation Report waste volumes in the Annual Review compared to previous years to enable identification of waste management performance over time.
Revision of Strategies, Plans and Programs			
28.	Within 3 months of:		
	(i) the submission of an incident report under condition 19 above;	Non-compliance	Non-compliance reported to DPE in April 2015 for the off-site water release during a storm event (sighted 2015 Annual Review). No evidence of an update of the Water Management Plan within 3 months of this incident. Non-compliance reported to DPE in January 2016 for the overflow of five sediment containment dams (sighted Environmental Management Report January – June 2016). No evidence of an update of the Water Management Plan within 3 months of this incident. Recommendation A process of regular review and revision of management plans should be established to confirm compliance with this condition.
	(ii) the submission of an audit under condition 26 above; and	Noted	Relevant management plans to be updated within 3 months following the finalisation and recommendations of this Audit Report.
	(iii) any modification to the conditions of this approval, the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.	Non-compliance	Water Management Plan (including Erosion and Sediment Control Plan) updated within 3 months of the Nov 2013 modification on 22.01.14. No further revisions within 3 months of the Nov 2014 and Feb 2016 modifications undertaken. The following management plans were not revised within 3 months of the approval of the Nov 2013, Nov 2014 and Feb 2016 modifications: The Landscape Management Plan has not been revised since 18.03.10. The Rehabilitation Management Plan has not been revised since 09.11.11. The Final Void Management Plan has not been revised since 19.01.12. The Mine Closure Plan has not been revised since 22.02.12. The Traffic Management Plan, Water Management Plan, Landscape Management Plan, Rehabilitation Management Plan, Final Void Management Plan and Mine Closure Plan were approved by the DPE on 22.01.14 (sighted DPE approval letter).

Condition Number	Condition	Compliance	Evidence and Comments
			Management plans were not reviewed following Development Consent modifications. Recommendation As above
	<p>Note:</p> <ul style="list-style-type: none"> This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project. Revisions related to the rail loop modification must be submitted prior to commencing construction. 	Noted	
Updating & Staging Submission of Strategies, Plans or Programs			
29.	To ensure the strategies, plans or programs under this consent are updated on a regular basis, and that they incorporate any appropriate mitigation measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.	Non-compliance	Management plans have not been updated as required by Condition 28 of the Development Consent. Recommendation As above
	With the agreement of the Secretary, the Applicant may revise any strategy, plan or program approved under this consent without consulting with all the parties nominated under the applicable conditions of consent.	Non-compliance	As noted within this table, management plans have been updated without consultation being undertaken with all parties nominated by the Development Consent. No agreement with the Secretary was sought to revise the management plans without consultation with relevant parties.
	<p>Notes:</p> <ul style="list-style-type: none"> While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program. 	Noted	
	Note: This approval does not relieve the Applicant of the obligation to obtain any other approval under the Local Government Act, 1993 as amended, the Ordinance made there under including approval of building plans, or any other Act.	Noted	



APPENDIX 3

**Rix's Creek Mine Site Inspection
Photographs**



Plate 1 Equipment Service Truck

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Plate 2 Unbundled Refuelling Trailer

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Plate 3 Oil water separator which had over topped

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Plate 4 Hydrocarbon contamination behind workshop area

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Plate 5 Cladding replaced on clean coal truck loading bin

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Plate 6 Real time air quality monitoring unit south-east of West Pit

© Umwelt, 2016



Plate 7 ROM coal bund

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Plate 8 West Pit Operations – looking North

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Plate 9 Completed rehabilitation

© Umwelt, 2016



Plate 10 Poor waste segregation

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Plate 11 Onsite bioremediation area

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Newcastle

75 York Street
Teralba NSW 2284

Ph. 02 4950 5322

Perth

PO Box 8177
Subiaco East WA 6008
33 Ventnor Avenue
West Perth WA 6005

Ph. 08 6260 0700

Canberra

PO Box 6135
56 Bluebell Street
O'Connor ACT 2602

Ph. 02 6262 9484

Sydney

50 York Street
Sydney NSW 2000

Ph. 1300 793 267

Brisbane

GPO Box 459
Brisbane QLD 4001

Ph. 1300 793 267