



BLOOMFIELD COLLIERIES PTY LTD

Independent Environmental Audit of
Rix's Creek North Mine

FINAL

December 2017



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Rix's Creek North Mine

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Prepared by
Umwelt (Australia) Pty Limited

on behalf of
Bloomfield Collieries Pty Ltd

Project Director: Daniel Sullivan
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Document Status

Rev No.	Reviewer		Approved for Issue	
	Name	Date	Name	Date
FINAL	Daniel Sullivan	20/12/2017	Daniel Sullivan	21/12/2017

Executive Summary



Umwelt (Australia) Pty Limited (Umwelt) was commissioned by Bloomfield Collieries Pty Ltd (Bloomfield) to conduct an independent environmental compliance audit against Project Approval 08_0102 (as modified) for Rix's Creek North Coal Mine. This audit was undertaken for the Department of Planning and Environment (DPE) for the period 5 December 2014 to 27 October 2017. The audit also assessed compliance with the conditions of the sites Environment Protection Licence (EPL), key mining authorities and other licence documents.

This audit was conducted by Daniel Sullivan (Exemplar Global International Certified Auditor 113202) and Bridie McWhirter from Umwelt. The field visit component was completed over the period 26 – 27 October 2017.

The audit consisted of a detailed desktop review of documentation, interviews with key Rix's Creek North 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 (NSW Government, 2015)*'.

Key actions and recommendations from the previous independent environmental compliance audit completed in 2014 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 North 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.

Implementation of site rehabilitation during the audit period was found to have fallen behind the targets as per the Mining Operations Plan in 2016. However, this was considered to be partly due to the operation being in care and maintenance until March 2016 and change of ownership. A review of rehabilitation during the field inspection completed for this audit found that rehabilitation areas were being developed and maintained to a good standard with restorative actions being undertaken as necessary to improve previous rehabilitated areas.

A review of management plans for Rix's Creek North found that a number of plans had been developed and submitted to the Department (DPE); however have not been approved. A recommendation has been included to follow up the status of these management plans with DPE.

A review of incidents that occurred at Rix's Creek North Mine since the previous audit indicated that they were classified as low risk and were 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 each of the non-compliances that occurred during the audit period were administrative or low risk in nature. 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 North staff 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.

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1.0 Introduction

Rix's Creek North Pty Ltd (Rix's Creek North) is a wholly owned subsidiary of Bloomfield Collieries Pty Ltd (Bloomfield) who operates Rix's Creek North Mine on behalf of Bloomfield. Rix's Creek North Mine is located in the Singleton area of the Upper Hunter Valley in New South Wales (NSW). Bloomfield commissioned Umwelt (Australia) Pty Limited (Umwelt) to conduct an Independent Environmental Audit (IEA) of Rix's Creek North Mine. The IEA was conducted in accordance with the Project Approval for Rix's Creek North Mine (PA08_0102) Schedule 5, Condition 11 and the NSW Government Independent Audit Guideline *Post-approval requirements for State significant developments* (NSW Audit Guidelines) (NSW Government, 2015).

The IEA was led by Daniel Sullivan (Principal Environmental Consultant) with assistance from Bridie McWhirter (Environmental Scientist) with the Independent Audit Certification Form included as **Appendix 1** as required by the NSW Audit Guidelines. As required by the Project Approval, the audit team was approved by Department of Planning and Environment (DPE) to undertake the audit (refer to **Appendix 2** for a copy of the letter of approval from DPE dated 26 September 2017).

The IEA consisted of a detailed desktop review and onsite component including a site inspection and assessed the compliance status of Rix's Creek North Mine against the Project Approval and other relevant environmental approvals and licences, for operations occurring between 5 December 2014 and 27 October 2017 (the audit period). The on-site component of the IEA was conducted on 26 and 27 October 2017 (see **Appendix 3** for the IEA plan and itinerary). This included a field inspection of key infrastructure, mining and rehabilitation areas conducted in accordance with *ISO 14010 - Guidelines and General Principles for Environmental Auditing*, and *ISO 14011 - Procedures for Environmental Auditing*. Some information requested by the IEA team was not available on-site at the time of the IEA and was subsequently provided to the IEA team for review.

The weather conditions during the site component of this IEA were cool and wet (average temperature of 17.8°C, 20.6mm of rain throughout the day), with moderate humidity. Winds during the audit tended generally north westerly, with speeds of around 6 km/h. In the week preceding the IEA, conditions were relatively wet, with 17.8mm of rainfall recorded at the Singleton BoM monitoring station (site: 061397).

An opening and closing meeting for the IEA was held on site, with Rix's Creek North Environment staff with senior management personnel in attendance at the opening meeting.

This report provides an outline of the IEA methodology and results, and provides recommended actions for achieving full compliance with environmental approvals.

1.1 Audit Objectives

The key objectives identified for the 2017 IEA for Rix's Creek North Mine were as follows:

- to undertake an independent environmental audit as required by the conditions of Project Approval
- to assess the environmental performance of Rix's Creek North 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 North Mine in accordance with the:

- the Rix's Creek North Project Approval (Mod 7, September 2017) (PA 08_0102)
- the Environment Protection Licence (EPL) No. 3391
- the respective Environmental Assessments (EAs), including the EA supporting documents;
- Mining Authorities
- any strategy, plan or program which has been prepared for the operations.

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

1.2 Audit Scope

The IEA was undertaken in accordance with the Project Approval conditions and supporting approval documents as detailed in **Section 1.2**.

1.2.1 Project Approval

As part of the Project Approval conditions, Rix's Creek North 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 11 of Schedule 5 of the Rix's Creek North Mine Project Approval requires that an independent environmental audit be carried out. Specifically, the Project Approval condition states:

“By the end of December 2011, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the Project. This audit must:

- (a) Be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- (b) Include consultation with the relevant agencies*
- (c) Assess the environmental performance of the project and whether it is complying with the relevant requirements of this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);*
- (d) Review the adequacy of any approved strategies, plans or programs required under these approvals, with particular reference to management practices to ensure that they align with contemporary best practice industry standards;*
- (e) Recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and*
- (f) Be conducted and reported to the satisfaction of the Secretary.*

1.2.1.1 Project Approval and Supporting Document Summary

Open cut coal mining at Rix’s Creek North Mine was originally approved in 1990 under Part 4 of the EPA Act with subsequent approvals also granted at the site for the Surface Facilities Project (MP 06_0057) in 2007 and the Northern Open Cut (NOC) Project (MP 06_0073) in 2008. These approvals were superseded by a Project Approval PA 08_0102 granted under Part 3A of the EP&A Act in 2010 which combined the previous approvals. The current approval (PA 08_0102) has been modified on seven occasions with Mod 6 for the modification to separate former combined Integra Mine Complex into two separate approvals for the underground (Glencore) and open cut operations (Bloomfield) with the open cut now referred to as Rix’s Creek North Open Cut. The most recent modification (Mod 7) was for approval for the overburden and dry tailings from Rix’s Creek South Mine to be transported to Rix’s Creek North Mine. The history of project approvals and modifications is provided in **Table 1.2**.

Table 1.1 Rix’s Creek North Mine Project Approval History

Year	Description	Approval Reference
1990	Original application for open cut mining at Camberwell Coal Mine for the NOC and South Open Cut (SOC), development and operation of a coal handling and preparation plant, train loader and associated facilities submitted in 1990.	DA 86/2889 (and subsequently modified) Approved open cut activities were incorporated into the Integra Open Cut Project (MP 08_0102) with DA 86/2889 subsequently surrendered.
2007	Construction of surface facilities at the Complex. This application was submitted in 2006.	Approved under MP 06_0057 in 2007. Approved open cut activities were incorporated into the Integra Open Cut Project (MP 08_0102)
2008	Northern open cut was assessed in the Glennies Creek Open Cut Coal Mine EA prepared by R.W. Crockery & Co. Pty Limited in 200 (referred to as the NOC EA).	Approved under MP 06_0073 in 2008 (and subsequently modified)
2010	Western extension of the existing SOC (the western mining area) and incorporation of the approved NOC operations. An application and accompanying EA (URS 2009) (Open Cut Project EA) was lodged in 2009. This was supported by the Environmental Assessment titled <i>Integra Open Cut Project</i> , dated June 2009.	The combined project approval (08_0102) was granted in 2010 for the Integra Open Cut Project which incorporated the NOC Project (MP 06_003) and surface Facilities Project (MP 06_0057)
2012	Mod 1 – extension of the NOC out-of-pit emplacement area. This was supported by the <i>Integra Mine Complex Modification 1 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan, dated 2 December 2011	PA 08_0102 MOD 1
2013	Mod 2 – amendment to overland conveyor and extension of timeframes to secure biodiversity offsets. This was supported by the <i>Integra Mine Complex Modification 2 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan, dated September 2012	PA 08_0102 MOD 2
2012	Mod 3 – interim modification to timeframes in project approval.	PA 08_0102 MOD 3
2016	Mod 4 – in relation to altering the approved biodiversity offsets strategy. This was supported by the <i>Integra Mine Complex Modification 4 Environmental Assessment</i> , prepared by EMGA Mitchell McLennan and dated 16 May 2014.	PA 08_0102 MOD 4

Year	Description	Approval Reference
2016	Mod 5 – allow ROM coal from Rix’s Creek to be processed at the Rix’s Creek North CHPP. This was supported by the <i>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)</i> , prepared by Bloomfield Collieries Pty Ltd, dated 4 February 2016	PA 08_0102 MOD 5
2016	Mod 6 – separate the combined Project Approval for the former Integra Mine Complex into two separate approvals for the underground (Glencore) and open cut operations (Bloomfield). This was supported by the <i>Application to Modify Project Approval for Integra Underground Project (MP 08_0101) and Integra Open Cut Project (MP 08_0102)</i> , prepared by HV Coking Coal Pty Limited and Bloomfield Collieries Pty Limited, dated February 2016	PA 08_0102 MOD 6
2017	Mod 7 – allow for overburden and dry tailings from Rix’s Creek South Mine to be transported to Rix’s Creek North Mine. This was supported by the <i>Environmental Assessment for Proposed Modifications to Rix’s Creek DA 49/94 N90/00356 (Mod 9) and Rix’s Creek North Open Cut Project 08_0102 (Mod 7)</i>	PA 08_0102 MOD 7

1.2.1.2 Supporting Approvals and Documents

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

- EPL No. 3391
- Mining Authorities
 - Coal Lease 357
 - Mining Lease 1630
 - Mining Lease 1648
 - Mining Lease 1650
 - Mining Lease 1651
- 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 North 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
- **Section 5.0 – Environmental Management Plans**
- **Section 6.0 – Environmental Performance**
- **Section 7.0 – Recommendations and Conclusion**
- **Appendix 1 – Independent Audit Submission Form**
- **Appendix 2 – DPE Correspondence Approving the Audit Team**
- **Appendix 3 – Rix's Creek North Audit Plan and Itinerary**
- **Appendix 4 – Rix's Creek North Compliance Tables for Project Approval 08_0102 and Statement of Commitments**
- **Appendix 5 - Rix's Creek North 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 North and a site inspection of the Rix's Creek North operations to determine the level of environmental performance and compliance of Rix's Creek North 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. Bridie McWhirter was approved by DPE to act as the Environmental Auditor. A copy of the independent audit certification form as required by the NSW Audit Guidelines is included within **Appendix 1** with the DPE correspondence approving the audit team included within **Appendix 2**.

2.2 Agency/Stakeholder Consultation

During the preparation for this IEA, input was sought from regulatory agencies on 16 October 2017 to confirm any areas of compliance or environmental management at Rix's Creek North 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)
- Division of Resources and Geoscience (DRG)
- Office of Environment & Heritage (OEH)
- Crown Lands & Water Division (formerly DPI - Water)
- Singleton Council
- The Community Consultative Committee (CCC) Chairperson

An overview of the agency consultation is included in **Table 2.1**. Representatives from DPE, DRG, Crown Lands and Water Division and OEH responded and provided feedback regarding items to be addressed in addition to the requirements of the Project Approval 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

Stakeholder	Person Contacted	Response	Where Addressed
DPE	Leah Cook (Team Leader Compliance)	As hydrocarbon management has been identified as a past issue this should be given focus during the audit.	Section 6.3.6
DRG	Daniel Adams (DRG – Inspector)	<p>Daniel advised that the audit is to review the compliance of Rix’s Creek to determine whether an approved Mining Operations Plan (MOP) is in place and approved by the Division.</p> <p>The audit is to consider:</p> <ul style="list-style-type: none"> • Is there a current MOP in place and has it been approved by the Division? • 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. <p>The field component of the audit is to consider:</p> <ul style="list-style-type: none"> • Are mining operations being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary? – to be verified by site plans and site inspection • Is rehabilitation process, including vegetation community types, consistent with the approved MOP as verified by site plans and site inspection? This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in Project Approval. • Based on visual inspection, are there any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation? • Are there controls to ensure topsoil management is appropriate to achieve nominated final land uses? For example, is the source of a top soil stockpile recorded to ensure it is used to achieve a specified land use outcome? <p>In addition to the above, the audit should note observations where rehabilitation procedures, practices and outcomes represent best industry practice.</p>	Section 4, 6 and Appendix 4.

Stakeholder	Person Contacted	Response	Where Addressed
Crown Lands & Water Division	Irene Zinger (Manager Regulatory Operations - Metro)	<p>Crown Lands & Water Division (formerly DPI Water) requested that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically:</p> <ul style="list-style-type: none"> • Assessment as to whether the project holds the required water entitlements and licences under the <i>Water Management Act 2000</i> or <i>Water Act 1912</i> (as applicable); • Compliance with the conditions of any water licences/approvals held • Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence. • Quantification of both active and passive take by the project from each relevant water source and a comparison against previously modelled predictions. <p>The following questions may assist in the assessment of water licencing requirements of the mine operation:</p> <ul style="list-style-type: none"> • Does the proponent have enough licensed water entitlement to cater for active and passive take of water? • Are adequate records kept to enable determination of the volume and source of surface and groundwater taken? • Do any exemptions under the Water Management (General) Regulation 2011 or Harvestable Rights Order (gazetted 31 March 2006) apply to the capture of water? 	Section 4, 6 and Appendix 4
Office of Environment and Heritage	Robert Gibson (Regional Biodiversity Conservation Officer)	<p>OEH noted that the Biodiversity Management Plan and Rehabilitation Management Plan have both been updated since the previous audit undertaken in 2014, and recommended these management plans be reviewed against the requirements of the consent conditions.</p> <p>Further, OEH suggests that the audit examine ways in which future drafts of both management plans may be improved in order to better track progress, and also to identify triggers when adaptive management may need to be implemented to ensure required outcomes are realised.</p>	Section 4, 5 and 6, and Appendix 4

2.3 Site Interviews and Inspections

The opening meeting was held at the Rix's Creek North Mine main office commencing at 9.00 am on 26 October 2017. The list of participants is provided in **Table 2.2**.

Table 2.2 Opening Meeting Attendees

Person	Organisation	Title
Garry Bailey	Bloomfield	General Manager Mining Development
Luke Murray	Bloomfield	Mine Manager
Chris Knight	Bloomfield	Environmental Manager
Chris Quinn	Bloomfield	Environmental Advisor
Hannah Bowe	Bloomfield	Environmental Officer
David Sullivan	Umwelt	Lead Auditor
Bridie McWhirter	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 North 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 North Mine staff and contractors identified in **Table 2.3**.

Table 2.3 Personnel Interviewed During the Audit

Person	Organisation	Title
Chris Knight	Bloomfield	Environmental Manager
Chris Quinn	Bloomfield	Environmental Advisor
Hannah Bowe	Bloomfield	Environmental Officer
Ian Lorenz	Rix's Creek North	Workshop Manager

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 and 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 North Mine was undertaken during the audit. The following locations were inspected:

- Active mining areas including the Camberwell pit
- site infrastructure areas including the workshop and laydown areas, fuel farm and bioremediation area
- Rix's Creek North CHPP
- Water management system and water infrastructure including truck re-fill station
- 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
Chris Knight	Bloomfield	Environmental Manager
Chris Quinn	Bloomfield	Environmental Advisor
Hannah Bowe	Bloomfield	Environmental Officer
David Sullivan	Umwelt	Lead Auditor
Bridie McWhirter	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 and Appendix 4
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 and Appendix 4
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
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 North 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 North 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 North.

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 2014 Integra Mine Complex Independent Environmental Audit (R.W. Corkery & Co. Pty Limited, 2015) and the status of the recommendations as at 27 October 2017 are detailed in **Table 3.1**.

Table 3.1 Previous Audit Findings

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
<p>Schedule 2, Condition 1 Schedule 2, Condition 16</p>	<p>The open cut areas were generally considered to be compliant. However, the underground area is non-compliant, principally due to poor hydrocarbon storage and management.</p>	<p>The hydrocarbon spillages and staining within and around the underground surface infrastructure areas should be remediated and appropriate measures put in place to minimise future spillages. This may include provision of additional storage/management facilities, review of equipment and plant maintenance requirements, and additional training in hydrocarbon storage, handling and spill response.</p> <p>The degree and number of hydrocarbon spillages/staining across a range of areas within the underground surface infrastructure areas indicate that hydrocarbon management is not being undertaken in a competent manner.</p>	<p>The underground area is no longer part of the site and is operated by Glencore under a separate approval. Hydrocarbon management at Rix’s Creek North Mine was considered to be acceptable and is discussed further in Section 6.</p>
<p>Schedule 2, Condition 2</p>	<p>The Northern Open Cut out-of-pit waste rock emplacement was found to be non-compliant in August 2011. However, a modification approved 18 March 2012 has brought the site into compliance.</p>	<p>It should be confirmed through survey whether the boundary of Tailings Dam 2 remains within the Project Approval boundary as shown in Project Approval 08_0101 and 08_0102. Should the tailings dam cross the boundary, consideration should be given to seeking a modification to provide for the existing extent as well as any activities required for the final rehabilitation of the tailings dam.</p> <p>The eastern extent of the existing Tailings Dam 2 appears to be outside of the Project Approval boundary. It is noted that figures within the Project Approval itself show the Project Approval boundary crossing through the tailings dam. Additionally, the tailings dam remains fully within the land parcels listed in the Project Approval and within the boundaries of the issued mining tenements. Whilst there may not be a legal issue, it is in the Company’s interests to remove any doubt.</p>	<p>This recommendation was rectified with Modification 5 of the Project Approval.</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
Schedule 2, Condition 5	Non-compliant - A number of issues raised during the Department’s review of the Annual Reviews were either not implemented within a reasonable timeframe or have not yet been implemented. Examples include uploading of information to the Company website, presentation of a compliance review table within the Annual Reviews, Annual Review figure quality has not yet been improved etc.	<p>Future Annual Reviews should address the improvements requested by DPE and other agencies from their review of previously submitted reports.</p> <p>The version of the Stage 2 Non-Aboriginal Heritage Management Plan on the Company website should be replaced with a version containing the cross referenced figures and appendices.</p>	<p>CQ advised that the 2015 and 2016 annual reviews have been approved by DPE and no other specific requirements has been put forward by DPE about improving image quality. It is considered that this recommendation has been achieved</p> <p>The compliance review table has been included in 2015 and 216 Annual Reviews as per the new guidelines. Also progress with actions from previous IEA’s has been covered in Annual Reviews.</p>
Schedule 2, Condition 8	Note: The Annual Reviews do not break down the volumes (e.g. total ROM coal was 5.083Mt for 2013).	A breakdown of ROM coal should be provided in future Annual Reviews to enable confirmation of compliance against Schedule 2 Condition 8 of Project Approval 08_0101 and 08_0102.	ROM coal has been split in the 2016 Annual Review. Prior to 2016, operations were under Integra Coal Operations and were on care and maintenance between September 2014 and 18 December 2015.
Schedule 3, Condition 2 Schedule 3, Condition 4 Schedule 3, Condition 5 Schedule 3, Condition 7	The noise monitoring does not assess the proportion of land for which exceedances may occur. This can only practically be achieved through noise modelling	<p>A submission should be prepared seeking a modification to Project Approval 08_0101 and 08_0102 to remove the need to assess noise limits over 25% of privately owned land. Alternatively, approval may be sought for either annual review (as part of the validation of the noise model) or confirmation using the noise model upon receipt of a valid and non-vexatious claim.</p> <p>The noise consultant should be requested review the quarterly noise reports to:</p> <ul style="list-style-type: none"> – include a definitive review and statement of compliance, or otherwise, for all noise limits, including cumulative noise; and – state the stability class instead of / as well as the Sigma/Theta value. <p>All monitoring reports should provide definitive assessments of compliance against relevant limits and include sufficient information for the reader to interpret the results without reference to additional documentation.</p>	<p>As per previous audit finding. Noise monitoring does not assess the proportion of privately owned land for which exceedances may occur.</p> <p>Recommendation to modify the criteria of the condition to remove 25% of privately owned land.</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
Schedule 3, Condition 8	<p>The POEO Public register does not record any non-compliance with these conditions which are relevant to the site. Compliance assessed on this basis.</p> <p>It is noted that Section 5.1.2 of the 2014 NMP requires annual requests of train operators to supply compliance reports, or similar, to confirm the locomotives are approved. Copies of these compliance reports were not supplied during the audit</p>	<p>Measures should be put in place to request and follow up the supply of compliance reports from train operators confirming that the locomotives are approved to operate on the NSW rail network.</p>	<p>Section 2.2 of the 2016 NMP requires annual requests of train operators to supply compliance reports, or similar, to confirm the locomotives are approved. Copies of these compliance reports were not supplied during the audit however an email was viewed during the audit from Pacific national that confirmed the locomotives are approved.</p> <p>Recommendation to formalise the request of the supply of compliance reports from train operators confirming approval of the locomotives and that these are kept onsite to demonstrate compliance on this condition.</p>
Schedule 3, Condition 9	<p>Non-Compliant - Whilst the Company maintains a policy of informing surrounding mines of any elevated noise levels recorded by Integra monitoring equipment, no formal co-ordinated noise management protocol or agreements are in place. Recommendation IMC02/14.</p>	<p>Operators of surrounding mines, including Ashton, Rix’s Creek and Mt Owen, should be formally approached again in relation to the sharing of noise data and a protocol to minimise the potential for cumulative noise impacts. An agreed protocol should preferably be in place prior to re-commencement of operational activities.</p>	<p>Communication has commenced as initiated by Rix’s Creek North however no formal arrangement had been determined at the time of audit.</p> <p>Recommendation to formalise protocol and include in the noise management plan as required (refer to Schedule 3, Condition 9 in Appendix 4)).</p>
Schedule 3, Condition 10a	<p>Non-compliant - (e)Whilst real-time data sharing is possible, commitments from other mines to facilitate this has not yet been achieved and no formal protocols are in place</p> <p>In the interim, if higher mine noise is detected and considered to be a result of activities at another mine, dispatch is to contact that site and inform them.</p>	<p>The noise model for the complex should be validated on an annual basis in accordance with Project Approval 08_0101 and 08_0102 Schedule 3 Condition 10(d) and the Noise Management Plan updated to reflect the process and information requirements.</p> <p>Operators of surrounding mines, including Ashton, Rix’s Creek and Mt Owen, should be formally approached again in relation to the sharing of noise data and a protocol to minimise the potential for cumulative noise impacts. An agreed protocol should preferably be in place prior to re-commencement of operational activities.</p>	<p>Communication has commenced as initiated by Rix’s Creek North however no formal arrangement had been determined at the time of audit.</p> <p>Recommendation to formalise protocol and include in the noise management plan as required (refer to Schedule 3, Condition 9 in Appendix 4).</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
Schedule 3, Condition 19d	Section 5.1 of the Blast Management Plan (BMP) states that neighbours would be notified in accordance with the contact list and time requirement for notification. Table 3.1 also outlines personnel responsibilities for notification and update of blast signs. The Company website also includes blast notifications and information can be obtained by calling the Community Hotline (1800 505 361). The BMP does not include these two methods	<p>The BMP 2012-2015 should be updated to include the use of the website and Community Hotline as part of the blast notification process. Responsibility for update of the website and addressing enquiries through the hotline should also be included.</p> <p>The current BMP does not include reference to the use and update of the website or use of the Community Hotline.</p>	The Blast Management Plan has been updated to reflect this recommendation. Refer to Appendix 4 for details of compliance under this condition.
Schedule 3, Condition 19e	Non-compliant - Whilst this protocol has not been formalised with surrounding mines, an informal protocol is in place with various examples of correspondence confirming notification between the surrounding mine sites.	A formal protocol should be developed and agreed to with surrounding mine operators to ensure compliance with the Company’s protocol of not initiating blasts within 5 minutes of surrounding mines.	No evidence in the 2017-2020 BMP that a formal protocol has been developed in consultation with the nearby mines as required by the project approval. Recommendation to formalise protocol and include in the blast management plan as required (refer to Schedule 3, Condition 19 in Appendix 4).
Schedule 3, Condition 25f	Non-compliant - Whilst the Company maintains a policy of informing surrounding mines of any elevated monitoring results (including visual observations), no formal co-ordinated air quality management protocol or agreements are in place. Recommendation IM15/14.	Whilst the Company maintains a policy of informing surrounding mines of any elevated monitoring results (including visual observations), no formal co-ordinated air quality management protocol or agreements are in place.	There was no evidence that a formal protocol has been developed in consultation with the nearby mines. Recommendation to formalise protocol and include in the AQGHG management plan as required (refer to Schedule 3, Condition 27 in Appendix 4).

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
Schedule 3, Condition 26d	<p>Compliant - Sections 4 and 9 of the 2014 Air Quality and Greenhouse Gas Management Plan (AQGGMP) outline the monitoring and reporting program which generally addresses these items. Section 4 also confirms that the regional network monitors at Camberwell & Singleton will be utilised for PM2.5 (Recommendation IM14/14).</p> <p>Section 5 also includes a trigger action response plan and corrective measures and Section 9 outlines reporting requirements for exceedances. AQGGMP (01 September 2014).</p>	<p>The 2014 AQGGMP should be updated to include a justification as to the adequacy in using the regional network monitors at Camberwell and Singleton for PM2.5 monitoring. The justification should consider the proximity of the monitors, an analysis of PM2.5 trends across the Upper Hunter and relationship between concurrent PM10 and PM2.5 concentrations at the two monitoring stations.</p> <p>The 2014 AQGGMP should be reviewed prior to the recommencement of operational activities. Where applicable, modified or additional management measures determined through the ongoing pollution reduction studies undertaken under EPL 3390 should be reflected in the reviewed plan. Additionally, care and maintenance measures no longer applicable should be removed.</p>	<p>The 2016 approved Air Quality & Greenhouse Gas Management Plan does not include nor provide justification as to how the regional air quality monitoring network satisfies this.</p> <p>It is noted however that the revised 2017 Management Plan submitted to the Department on 4 April 2017 does include PM2.5 monitoring and provides justification utilising the Upper Hunter Air Quality Monitoring Network (UHAQMN) however as of the date of the audit this management plan has not been approved by the Department.</p> <p>It is recommended that Bloomfield follow up the approval of this plan with the Department to ensure that Rix’s Creek North’s approach to this condition meets the Department’s expectations.</p>
Schedule 3, Condition 26e	<p>Non-compliant - Section 4 of the 2014 AQGGMP states that the Company has been negotiating with neighbouring mines for access to real-time monitoring data but negotiations remain ongoing.</p>	<p>Operators of surrounding mines, including Ashton, Rix’s Creek & Mt Owen, should be formally approached again in relation to the sharing of air quality data and a protocol to minimise the potential for cumulative air quality impacts. An agreed protocol should preferably be in place prior to re-commencement of operational activities. This protocol may ‘piggy back’ the regional forecasting model and regional dust management plan being coordinated by the NSW Minerals Council.</p>	<p>Section 6.1.3 of the AQGGMP Plan notes that Rix’s Creek North will inform adjacent mining operations when the mine’s real time air quality monitors indicate excessive dust being generated and will inform surrounding operators of the current measured air quality levels.</p> <p>However there was no evidence that a formal protocol has been developed in consultation with the nearby mines. (Refer to Schedule 3, Condition 27 in Appendix 4).</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
Schedule 3, Condition 32	<p>Not Determined - The principal water source is ‘dirty water’ from dam D1 which received flows from the open cuts, portal sump and Possum Skin Dam. If required, water can also be sourced from the sediment dams, flows from the clean water diversion system and licenced extraction from Glennies Creek.</p> <p>During the reporting period, no water was sourced from the clean water system or Glennies Creek. However, no data was available to validate the likely groundwater inflow volumes</p>	<p>The volume of groundwater inflows into the open cuts should be calculated / estimated in accordance with the 2014 Water Management Plan (WMP) (and cross referenced procedure – see Recommendation IMC29/14) and details of the estimated volumes reported within the respective Annual Review.</p> <p>The volumes of groundwater inflows do not appear to have been calculated / estimated or reported during the audit period. It is a requirement of Schedule 3 Condition 40 to monitor groundwater inflows and Schedule 5 Condition 3 to report monitoring results within the Annual Review. The measurement of the groundwater inflows are also required in order to determine that the Company has appropriate water entitlements for the volume of water take.</p>	<p>The 2016 WMP has been updated to reflect this recommendation. Refer to Schedule 3, Condition 36 in Appendix 4.</p>
Schedule 3, Condition 40	<p>Whilst the Erosion and Sediment Control Plans (ESCPs) generally cover the requirements a range of improvements are recommended.</p>	<p>The ESCPs should be reviewed and updated to provide an up-to-date, consistent and coordinated plan. In the event that separate ESCPs are retained for each component of the complex, the coverage of each ESCP should be clearly defined on a figure.</p> <p>The site’s regular checklist should be reviewed to ensure that regular checks and subsequent actions are taken to maintain the erosion and sediment control systems. This includes ensuring that outlets and dams are desilted as required and the silt/sediment is appropriately disposed of, the identification and rectification of erosion and scouring and the repair or removal of sediment fencing. The outcomes of these checks should be recorded and retained as a formal log.</p>	<p>No evidence that the ESCPs have been reviewed and updated. 2011 version for the western extension sighted. No others were available.</p> <p>An example of a completed erosion and sediment control checklist was sighted (dated 30 May 2017) which demonstrates that erosion and sediment control structures are being inspected and managed.</p> <p>It is recommended these plans be reviewed and updated and potentially included in the Water Management Plan. Refer to Schedule 3, Condition 36 in Appendix 4</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
<p>Schedule 3, Condition 44c</p>	<p>Non compliant - Management strategies are provided for five vegetation communities within and surrounding the BOAs, waterways, topsoil, fauna, although it is noted that the performance criteria are only generalised and often not auditable. In some areas, the performance criteria provided are not criteria but more appropriately references to reporting or particular actions to be followed (Recommendation IMC32/14).</p> <p>Section 4 includes a range of management strategies and not necessarily specific measures that could be implemented following the review of the document (Recommendation IMC32/14).</p> <p>Management strategies in Section 4.1 are generalised and do not distinguish between vegetation levels.</p>	<p>During the next revision of the Biodiversity Management Plan (BDMP), more auditable performance criteria should be included in the document for all land management measures, e.g. seasonal/annual photo point monitoring of offset areas.</p> <p>During the next revision of the BDMP, the items not fully covered in the Plan (listed in Condition 3(44)(c)) should be addressed in full.</p> <p>The current BDMP will benefit from its revision including each of the nominated items in the condition.</p>	<p>2016 BDMP has been updated to reflect this recommendation. Refer to Schedule 3, Condition 40 in Appendix 4.</p>
<p>Schedule 3, Condition 56</p>	<p>A review of the rehabilitation progress in the 2011 AEMR and 2013 AEMR (dated 28/09/14) and the MOP (2014 to 2017) indicates that the relevant key objectives at this stage are generally being satisfied, although it is noted that not all proposed tree planting (Appendix 9 – Figure A) in the completed areas have yet been undertaken (see Recommendation IMC40/14).</p>	<p>The extent of tree planting on rehabilitated landforms should be reviewed and compared with the areas nominated in the Rehabilitation Management Plan (RMP). A program should then be prepared and implemented to plant the areas not yet planted.</p> <p>A comparison of the progress with woodland planting as displayed in the 2013 RMP/Appendix 9 (Figure A) in Project Approval suggests that the Company’s program for tree planting on areas that have been re shaped and stabilised should be increased.</p>	<p>No evidence was available at the time of audit to confirm that this has been undertaken. Viewed rehabilitation management spreadsheet for the site which contains a column that records vegetation establishment and demonstrates that this is now occurring.</p> <p>Recommendation to complete reshaping and stabilisation on all tree planting areas required in the Project Approval.</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
Schedule 3, Condition 58a	<p>2012 – 2015 RMP approved by NSW P&I on 1 June 2012 although no correspondence was sighted from DRE (see Recommendation IMC52/14).</p> <p>Overall, the document is too generic to assist site personnel to plan and undertake the required rehabilitation activities in the manner required (see Recommendation IMC41/14).</p>	<p>The next version of the RMP should more fully address the requirements of Condition 58a and 58b and either provide a greater level of detail on the various domains or cross-reference to other internal documents where the relevant detail is presented.</p> <p>The text within the RMP is somewhat generic and future on-site personnel would benefit from the inclusion of more detail or the cross referencing to procedures manuals, etc. that are maintained on site.</p>	<p>The RMP is now included as part of the MOP where a greater level of detail on domains is provided. Refer to Schedule 3, Condition 52 in Appendix 4.</p>
Schedule 5, Condition 3a	<p>Non-compliant - A specific compliance review is not undertaken as part of the Annual Reviews.</p>	<p>The Annual Reviews should include as an appendix a compliance review against the conditions of Project Approval 08_0101 and 08_0102.</p> <p>Schedule 5 Condition 3(c) requires the Annual Reviews to identify any non-compliance during the reporting period and actions being taken. Whilst a review of the recommendations from the previous IEA is provided, no formal or methodical review of compliance is presented for the report year. Formal review of compliance should not be restricted to 3 yearly independent audits.</p>	<p>No compliance review has been included in the 2014, 2015 or 2016 Annual Review.</p> <p>Recommendation to include a specific compliance review against Project Approval Conditions in Annual Reviews.</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
<p>Schedule 5, Condition 10a</p>	<p>Copies of the following were not up to date on the website:</p> <ul style="list-style-type: none"> - Environmental Assessment Glennies Creek Open Cut Coal Mine dated October 2007 could not be located on the website - Monthly monitoring reports to September 2014 were available on the Company website. Improvements in the recording and reporting of noise monitoring results are suggested. - monthly complaints summaries were available to May 2014. Complaints received since that time has not been uploaded to the website. - the last CCC meeting minutes available were for the May 2014 meeting. The minutes for 04 August 2014 meeting were not available on the website - Train movement records are provided, however, at the time of the audit inspection, records were only available to July 2014 	<p>The Company’s website should be checked and updated on a regular basis, at least monthly, with all required monitoring data and reporting.</p> <p>A number of reports and monitoring results were not up to date on the website as required by Schedule 5 Condition 10 of Project Approval 08_0101 and 08_0102.</p> <p>Consideration should be given to including a date of publication/upload for documentation uploaded to the Company website. Alternatively, another system may be implemented which records this information.</p> <p>Whilst date stamping is not a conditional requirement, its use assists confirmation of compliance with conditional timeframes for publication of data and reports. It is also a useful tool for the Company in maintaining relevant and up-to-date information on the website.</p> <p>The noise consultant should be requested review the quarterly noise reports to:</p> <ul style="list-style-type: none"> – include a definitive review and statement of compliance, or otherwise, for all noise limits, including cumulative noise; and – state the stability class instead of/as well as the Sigma/Theta value. <p>All monitoring reports should provide definitive assessments of compliance against relevant limits and include sufficient information for the reader to interpret the results without reference to additional documentation.</p>	<p>The 2014 Independent Audit of Rix’s Creek North Response to Recommendations could not be located on the website. A number of other items were located via the Rix’s Creek link, and not located on the Rix’s Creek North link. Refer to Schedule 5, Condition 13 in Appendix 4.</p> <p>Recommendations to ensure all required documents are uploaded onto the website and remain current.</p>

Ref.	2014 - Summary of Audit Finding (non-compliance)	2014 – Audit Recommendations	2017 – Rix’s Creek North Status Update
Schedule 5, Condition 10b	A number of items were not up to date at the time of the audit inspection.	IMC55/14 The Company’s website should be checked and updated on a regular basis, at least monthly, with all required monitoring data and reporting.	<p>The 2014 Independent Audit of Rix’s Creek North Response to Recommendations could not be located on the website. A number of other items were located via the Rix’s Creek link, and not located on the Rix’s Creek North link.</p> <p>Recommendation to put a link to the Annual Review on the Rix’s Creek North website to ensure that this information is readily accessible as required.</p> <p>Refer to Appendix 4, Schedule 5, condition 13 for details of compliance under this condition.</p>

4.0 Compliance Assessment Rix's Creek North

This section provides a discussion of the identified non-compliances and the status of the approvals assessed as part of the audit. **Appendix 4** provides a condition by condition checklist of PA 08_0102 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 Project Approval 08_0102

A summary of the identified non-compliances against PA 08_0102 are provided in **Table 4.1** with further details provided in the compliance tables in **Appendix 4**.

Table 4.1 Non Compliances with Project Approval 08_0102

Condition	Non-Compliance	Risk Level
Schedule 2, Condition 3	Operations at Rix's Creek North were found to be undertaken in accordance with the statement of commitments made in the Project EA's and conditions of this approval with the exception of the non-compliances as identified in this table below.	Low
Schedule 3, Condition 2 Schedule 3, Condition 3 Schedule 3, Condition 4 Schedule 3, Condition 5	Noise monitoring does not assess the proportion of privately owned land for which exceedances may occur.	Administrative
Schedule 3, Condition 9(f)	Evidence of coordination of noise management with Integra Underground and Ashton was not able to be provided.	Administrative
Schedule 3, Condition 10(e)	A cumulative protocol has not been developed in coordination with the nearby mines and included in the noise management plan as required.	Low
Schedule 3, Condition 19(f)	A cumulative protocol has not been developed in coordination with the nearby mines and included in the blast management plan as required.	Low
Schedule 3, Condition 22 Schedule 3, Condition 23	Air quality monitoring does not assess the proportion of privately owned land for which exceedances of the cumulative criteria may occur.	Administrative
Schedule 3, Condition 27(c)	A cumulative protocol has not been developed in coordination with the nearby mines and included in the air quality and greenhouse gas management plan as required.	Low
Schedule 3, Condition 33	During the audit period three unplanned discharges occurred that were in exceedance of the EPL discharge limits	Low
Schedule 3, Condition 36(a)	No evidence of consultation with OEH, EPA, DRG or Council and no evidence that the WMP has been endorsed by DPI-Water.	Low
Schedule 3, Condition 36(d)	Section 5.1.2.2 outlines Erosion and Sediment Control measures for Rix's Creek North, however does not cover all requirements listed under this condition.	Low
Schedule 3, Condition 36(e)	Surface water management plan does not include specific water quality trigger levels.	Low

Condition	Non-Compliance	Risk Level
Schedule 3, Condition 40 (c)	<p>No mention of measures to conserve and/or reuse topsoil in the biodiversity management plan.</p> <p>Further while measures are taken to ensure revegetation reflects that of a native ecosystem, there is no specific section that details how landscaping activities will be carried out to ensure visual impacts are minimised.</p>	Low
Schedule 3, Condition 46(c)	<p>No evidence to support that lighting equipment considers AS 4282 (Int) 1995.</p>	Administrative
Schedule 3, Condition 52(a)	<p>No evidence of the rehabilitation management plan being prepared in consultation with relevant agencies or the CCC prior to submission and approval.</p>	Low
Schedule 3, Condition 52(c) & (e)	<p>Section 5.2 of the rehabilitation management plan lists Rehabilitation Objectives, however not all of the objectives listed in Table 15 are addressed in the MOP including:</p> <ul style="list-style-type: none"> - Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms - Ensure public safety - Minimise the risk of flood interaction for all flood events up to and including the Probable Maximum Flood. 	Low
Schedule 5, Condition 5	<p>Three incident reports were prepared and submitted to the Department during the audit period for uncontrolled water discharges from site. No evidence of a review or update of the WMP within 3 months of two of these incidents.</p> <p>Also no evidence of review and updates to management plans following the annual reviews during the audit period.</p>	Low
Schedule 5, Condition 10(c)	<p>No formal or methodical review of compliance under this project approval presented for each reporting year in the annual reviews.</p>	Low
Schedule 5, Condition 13(a)	<ul style="list-style-type: none"> - Latest CCC minutes published on the Rix's Creek North website are dated February 2016, however the CCC has combined with Rix's Creek and the minutes from the latest meetings (including 20 September 2016 and 1 June 2017) which were for the combined sites are only published on the Rix's Creek website and are not on the Rix's Creek North website. - 2016 Annual Review has not been published on the Rix's Creek North website, however is located on the Rix's Creek website. - 2014 Independent Audit of Rix's Creek North response to recommendations is not located on the website (sighted 24 October 2017). It was noted during the audit that this report was uploaded to the Vale website and had not yet been copied across following change of ownership. 	Administrative
SoC B2	<p>No evidence provided to confirm that material will not be stripped in either extremely wet or dry conditions occurs and is not addressed in MOP.</p>	Administrative
SoC B4	<p>No evidence provided to confirm that tracking over previously laid soil will be avoided to minimise compression effects occurs and is not addressed in MOP.</p>	Administrative
SoC B11	<p>No inventory was able to be provided during the audit and not addressed in MOP.</p>	Low
SoC C5	<p>There is no mention of Groundwater Dependent Ecosystems in the biodiversity offset strategy or rehabilitation management plan in the MOP.</p>	Low

4.1.1 Environmental Assessments

As part of the compliance assessment against Rix's Creek North Project Approval, an assessment of the operations was undertaken against the EAs prepared as part of the original and modification approval processes for Rix's Creek North Mine. This assessment included a review of compliance against the statement of commitments with non-compliances identified and presented in **Table 4.1**. As noted in **Section 1.2.1**, the Project Approval has been modified seven times since it was originally granted in 2010. During the audit period it is noted that there have been four modifications approved (MODs 4-7).

Modification 4 was in relation to altering the approved biodiversity offsets strategy. As noted in **Table 4.1** and in **Appendix 4**, this audit has identified that the revised biodiversity offsets strategy that has been prepared in response to this modification does not appear to meet the minimum offset areas required by the project approval and the biodiversity and offset strategy, as part of the Biodiversity Management Plan, has not been approved by the Department.

Modification 5 allows ROM coal from Rix's Creek to be processed at the Rix's Creek North CHPP however it was noted during the audit that this has not yet been undertaken. Modification 6 separated the combined Project Approval for the former Integra Mine Complex into two separate approvals for the underground (Glencore) and open cut operations (Bloomfield). Following receipt of this modification Bloomfield recommenced operations at Rix's Creek North during March 2016. Modification 7 was approved in 2017 and allows for overburden and dry tailings from Rix's Creek to be transported to Rix's Creek North Mine however this had not occurred during the audit period.

This IEA noted that during the audit period Rix's Creek North appear to have been undertaking operations generally in accordance with the requirements of the EA's except where noted in **Table 4.1** and **Appendix 4**.

4.2 Environment Protection Licence

During the audit period operations undertaken on the Rix's Creek North Mine site have been conducted under two EPL's being EPL 3390 which applied to operation of the Integra Open Cut between December 2014 and December 2015 and EPL 3391 which superseded EPL 3390 in December 2015. EPL 3391 covers both the Rix's Creek Mine and Rix's Creek North Mine which are owned and operated by Bloomfield. With regard to EPL 3391 this audit has only considered compliance against Rix's Creek North Mine. The EPL's as issued under the POEO Act outline Rix's Creek North'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 North reports its performance against the above responsibilities and environmental performance status via the submission of its Annual Return. Generally, Rix's Creek North has demonstrated compliance with the conditions of its EPL, however, some non-compliances have been identified.

The non-compliances identified with EPL 3390 and 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 EPL3390 and 3391

Condition	Non-Compliance	Risk Level
EPL 3390		
3390 – L1	Release of Sediment laden water offsite from B5 Sediment Dam on 21 April 2015.	Low
EPL 3391		
3391 – M2.2	Overflow of sediment dams and mine water dam at rail loading facility on 7 January 2016.	Low
3391 – M2, M2.2, M2.3	Requirements to monitor concentration of discharge were not met. No water samples were collected for Point 2 as required at New England Highway Bridge during May 2016, November 2016, December 2016, January 2017 and February 2017. At Mason Dieu Road Bridge were not collected in December 2016, January 2017 and February 2017. Chris Quinn advised that this was because Point 2, located at Rix’s Creek South was dry and no sample could be taken. This was also noted in the relevant annual reviews as dry and every attempt was made to sample these locations.	Administrative
3391 – M2, M2.1	Requirements to monitor concentration of pollutants discharged were not met. No sample was collected at Gauge 26 in June 2016. Chris Quinn advised that this was due to the gauge being broken and every attempt was made to sample this location.	Administrative
3391 - E1.1, M2.1	Monitoring point 12 not operational by 31 March 2017.	Low

As outlined in **Table 4.2** during the audit period there have been a number of incidents related to water management and lack of success in sampling water from ephemeral creeks under dry conditions.

Due to significant rain events on the 21 April 2015 and 4-7 April 2016, the design capacity of the sediment dams located at Rix’s Creek North overtopped as per there designed intent.

It is recommended that the EPL3391 premises, conduct a review of the water management system, monitoring requirements and procedures with key findings used to update the WMP for the Departments approval.

4.3 Mining Authorities

The audit findings indicate that Rix’s Creek North has achieved compliance with the environmental management conditions of its Mining Authorities. Rix’s Creek North hold Mining Authorities CL357, CL 382, ML1630, ML1648, ML1649, ML1650 and ML1651.

In accordance with conditions of the relevant mining leases, a review of the 2016 – 2022 Mining Operations Plan dated 1 July 2017 was undertaken. Rix’s Creek North developed the Rix’s Creek MOP for the period 4 January 2016 – 31 December 2022 with the MOP approved by DRE on 5 July 2017.

Rehabilitation is progressing in accordance with the schedules for rehabilitation as noted in the Rix’s Creek North MOP; however rehabilitation progress was behind in 2016. This is partly due to the mine being in care and maintenance for an extended period of time until March 2016 and the change of ownership. Chris Quinn (Environmental Advisor) noted that Rix’s Creek North Mine are working to catch up to the rehabilitation progress as outlined in the MOP by the end of 2017. At the time of site inspection, surface disturbance appears to be compliant in approved areas. Rehabilitation areas such as the Falbrook Pit also appear to be progressing well and therefore reducing exposed surfaces.

The rehabilitation security bonds held by Rix’s Creek North 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 DRG.

5.0 Environmental Management Plans

Rix's Creek North has developed a number of EMPs and monitoring programs for the project in accordance with relevant requirements of the Project Approval. These documents address specific impacts associated with the project, such as noise, and reflect the requirements detailed in the Project Approval.

Additionally, the MOP for Rix's Creek North 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 North to guide the environmental management of the mining operations.

An overview of the compliance status of the EMPs and relevant environmental/operational plans (e.g. MOPs) including an overview of the compliance of the management plans with the requirements of the Project Approval and implementation status of the plans is included in **Table 5.1** with further details provided in **Appendix 4** and recommendations as relevant included in **Section 7**.

Table 5.1 Rix's Creek North Mine Environmental Management Plans

Project Approval 08_0102 Condition	Management Plan	Status of Plan
Schedule 3, Condition 10	Noise Management Plan (NMP)	The 2017-2020 NMP was submitted to the Department on 5 April 2017; however it has not been approved. The 2016 NMP is current and is operational until the revised plan has been granted approval. The audit found that a formal protocol with surrounding mines to minimise cumulative noise impacts had not been completed at the time of audit as required under this condition.
Schedule 3, Condition 19	Blast Management Plan (BMP)	The 2017 – 2020 BMP was submitted to the Department on 5 April 2017; however it has not been approved. The 2016 BMP is current and is operational until the revised plan has been granted approval. The audit found that a formal protocol with surrounding mines to minimise cumulative blast impacts had not been completed at the time of audit as required under this condition.
Schedule 3, Condition 27	Air Quality & Greenhouse Gas Management Plan (AQGGMP)	The 2017 – 2020 AQGGMP plan was submitted to the Department on 5 April 2017; however it has not been approved. The 2016 AQGGMP is current and is operational until the revised plan has been granted approval. The audit found that the revised plan submitted to the Department for approval in 2017 does include PM _{2.5} monitoring and provides justification utilising the Upper Hunter Air Quality Monitoring Network (UHAQMN) however as of the date of the audit this management plan has not been approved by the Department. Further, there was no evidence at the time of audit that a formal protocol had been developed in consultation with nearby mines as required under this condition.

Project Approval 08_0102 Condition	Management Plan	Status of Plan
Schedule 3, Condition 36	Water Management Plan (WMP)	<p>The 2016 WMP has been approved by the Department on 16 February 2016.</p> <p>The audit found there was no evidence of consultation with OEH, EPA, DRG or Council and no evidence that the WMP has been endorsed by DPI-Water.</p> <p>Also, specific trigger levels for water quality are not included in the Plan as required under this condition.</p>
Schedule 3, Condition 40	Biodiversity Management Plan (BDMP)	<p>The 2016 BDMP was submitted to the Department on 26 August 2016 however has not been approved. The Biodiversity Offset Strategy as required by Schedule 3, Condition 37 is included in the BDMP</p>
Schedule 3, Condition 44	Heritage Management Plan (HMP)	<p>The 2016 HMP has been approved by the Department on 16 February 2016.</p>
Schedule 3, Condition 52	Rehabilitation Management Plan (RMP)	<p>The RMP is now included as part of Rix's Creek North MOP 2016 – 2022.</p> <p>A number of rehabilitation objectives under Schedule 3, Condition 50 of PA 08_0102 were not included in the MOP as required:</p> <ul style="list-style-type: none"> - Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms - Ensure public safety - Minimise the risk of flood interaction for all flood events up to and including the Probable Maximum Flood.
Schedule 3, Condition 54	Mining Operations Plan (MOP)	<p>The 2016-2022 MOP dated 1 June 2017 was approved by DRG on 18 January 2016 and during the audit period there has been two Amendments which was approved on 5 July 2017.</p> <p>The review of the MOP has found that operations at Rix's Creek North are generally being undertaken in accordance with it however as noted in this report rehabilitation progress was behind in 2016.</p> <p>There were a number of conditions of Project Approval 08_0102 which were not included in the MOP as required:</p> <ul style="list-style-type: none"> - Material will not be stripped in either extremely wet or dry conditions - Tracking over previously laid soil will be avoided to minimise compression effects. - An inventory of available soil will be maintained to ensure adequate topsoil materials are available for planned rehabilitation activities. - Rehabilitation of groundwater dependent ecosystems will be incorporated as part of the Offset Strategy
Schedule 5, Condition 1	Environmental Management Strategy (EMS)	<p>Rix's Creek North 2017-2020 EMS was submitted to the Department on 5 April 2017; however it has not been approved.</p>

6.0 Environmental Performance

6.1 Environmental Management System

6.1.1 Management Commitment and Resourcing

Throughout the audit, Rix's Creek North environmental staff 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 North environmental staff attend daily operational meetings onsite and discuss any environmental works required to be undertaken at this meeting. The environmental staff also raises any meteorological conditions which may require operations to be altered. This is supported by a daily email issued by the Environmental Officer outlining the meteorological conditions expected for the day and predictions based on the EnvMet System. The use of the EnvMet System and its communication within the organisation appears to be integrated and well implemented within day to day management of the operations. The utilisation of the EnvMet System to proactively manage noise, blasting and air quality at Rix's Creek North 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 North (combined with Rix's Creek Mine) have a full time environmental advisor and environmental officer who manage day to day environmental management and a dedicated night time noise environmental monitoring position which is responsible for liaising with the 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 North.

During the audit, Rix's Creek North 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 Project Approval.

6.1.2 Training and Competence

Induction training records were reviewed during the audit to verify that Rix's Creek North 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 01.1) and that plant and equipment on-site is maintained and operated in a proper and efficient manner (EPL Condition 02.1).

The induction process contains an environmental section which is led by the Environmental Advisor educating staff and contractors of the environmental aspects of the operation, obligations under the Project Approval and how they are to be managed. The process also contains an assessment which contains questions relating to the environmental aspects covered during the induction to demonstrate competence.

Training programs and records reviewed during the audit indicated that Rix's Creek North 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 and appears to cover all relevant aspects as required.

6.1.3 Environmental Inspections and Compliance Management

The Rix's Creek North environmental team undertakes periodic site environmental inspections of the operations including operational and rehabilitated areas on site. For example, records of TD2 and Possum Skin Dam inspections were sighted during the audit. 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.

Visual inspections are undertaken by Open Cut Examiners and other personnel for dust and the pulse system captures where operations are modified to address adverse weather conditions.

Rix's Creek North currently have a significant number of commitments and requirements from existing statutory approvals and management plans which are required to be complied with as part of ongoing operations and it is important that these are captured in relevant inspection procedures (including pre-disturbance inspections) in order to be able to demonstrate compliance.

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. During the site inspection, it was identified through an interview with the workshop manager that Rix's Creek North Mine use 'Pulse', a system which manages the maintenance records and scheduling for the Rix's Creek North workshop. The system appeared to be well managed and implemented into operations.

Poorly maintained plant and equipment has the potential to increase the risk of environmental impacts due to increased risk of fuel or oil spills and leaks, increased air emissions and increased noise. During the site inspection undertaken for the audit, the standard of equipment observed to be in operation was of appropriate standard and other equipment viewed to be in the workshop undergoing servicing and/or repairs.

6.1.5 Environmental Monitoring

A range of environmental monitoring programs have been developed within the respective site management plans and in accordance with the Project Approval 08_0102. Monitoring undertaken in accordance with the environmental monitoring programs is displayed on the Rix's Creek North website with the monitoring data also included within the Rix's Creek Annual Review.

Rix's Creek North have implemented the EnvMet predictive environmental monitoring system on site which provides daily weather predictions, as well as predictions of potential for noise enhancement and impacts from planned blasting. This system has been integrated into the management of the operations with the results of the daily noise enhancement and blast emission predictions determining when operations occur on site. The communication to notify of these processes has been well implemented where text messages are issued to residents and email notification to nearby mines in the morning of the planned blasts. An internal email notification is also sent out of the daily forecast and potential for noise enhancement throughout the day. During the audit a number of examples were sighted whereby operations had been amended during the audit period in response to the environmental predictions

Night time monitoring is also undertaken by an Environmental Technician on nights where the mine is operational. The locations for the assessment area are determined by the areas where noise enhancement may occur. Rix's Creek North also utilise a network of real time air loggers and predictive noise model to manage operations in response to predicted and observed weather at the operation. The system appears to be well implemented and integrated into the management of the operations with no noise exceedances occurring within the audit period.

6.2 Reportable Environmental Incidents and Complaints

The reportable environmental incidents and complaints received by Rix's Creek North during the audit period are discussed in the following sections. It is noted that during the audit period there have been no penalty infringement notices received.

6.2.1.1 Reportable Incidents

The reportable environmental incidents which have occurred during the audit period as advised by Rix's Creek North are detailed below:

- 21 April 2015 – Passive release of water from Sediment Dam B5 located in the Western Extension area, into Station Creek as a result of a significant rain event

This event was reported to DPE and EPA on 21 April 2015. Following the event, an incident report was provided to the EPA and DPE on 28 April 2015 in accordance with the requirements of PA 08_0102. The incident report found that this incident was due to the intensity of a rainfall event on 21 April 2015 which exceeded Rix's Creek North's design criteria.

- 22 September 2015 – Uncontrolled release of water from Clean Water Dam C4 at Integra Coal Operations into the ephemeral Station Creek

This event was reported to DPE and EPA on 22 September 2015. Following the event, an incident report was provided to DPE and EPA on 29 September 2015 in accordance with the requirements of PA 08_0102. The incident report found that the incident was due to a partially open gate valve on C4 dam. The incident report also stated that the gate valve on C4 dam had been fixed and a locking mechanism was engaged to prevent unauthorised use following the incident.

- 4-7 January 2016 – Passive release of water offsite

This event was reported to the EPA and DPE were verbally notified by telephone on 4 January 2016. Following, an incident report was issued via email correspondence on 7 January 2016. The incident report found that the site had received 155mm rainfall over the period which resulted in 5 sediment dams and 1 mine water dam filling and overflowing with water running off site.

6.2.2 Community Complaints

During the audit period community complaints were received by Rix's Creek North regarding their operations with the complaints related to:

- Blast, Dust, Water, Light and Noise generation from mining activities at Rix's Creek North

The annual complaints as detailed within the complaints register for Rix's Creek North for the audit period are detailed below:

- December 2014 – No complaints received
- 2015 – 3 complaints
- 2016 – 15 complaints
- 2017 – 9 complaints (to-date)

Based on observations during the site visit and interviews with site personnel there appears to be improved environmental management and monitoring practices with regard to air, noise and blast management through more effective communication methods and better practices. An example of this is the predictive environmental monitoring system that has implemented which provides daily weather predictions, as well as predictions of potential for noise enhancement and impacts from planned blasting. Further, the night time noise monitoring conducted by an Environmental Technician responds to any complaints made and conducts monitoring in locations where the predictive model has determined a higher potential of impact due to meteorological conditions.

Chris Quinn (Environmental Advisor) stated that following any complaints that he personally responds and offers to visit the complainant and discuss the issue and potential actions that can be undertaken to attempt and address the concern. This proactive approach to compliant management and engagement with sensitive receivers is an example of good practice management that is assisting the operation to lower the number of complaints received.

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 and Blasting

In regards to management of noise emissions from site operations, Rix's Creek North utilise the EnvMet System to provide a daily forecast of noise emissions from operations based on predicted weather conditions. From this system, predictions of higher noise impacts are used to make operational changes to ensure compliance under relevant Project Approval and EPL conditions. Rix's Creek North also use forecast information from the EnvMet System to determine where it is suitable to blast on any given day. The blast engineer liaises with environmental personnel to determine the time of each scheduled blast. Communication within the organisation is well managed and implemented with daily emails from the Environmental Officer to operational staff outlining the predicted meteorological conditions and a snap shot of the EnvMet system to notify when the risk of noise impacts are higher.

Noise monitoring conducted at Rix's Creek North does not assess the proportion of privately owned land for which exceedances of the cumulative criteria may occur. This issue was also raised in the previous Independent Environmental Audit conducted in 2014. Recommendations to address this in order to demonstrate compliance with the relevant approval conditions are provided in **Section 7**.

Rix's Creek North also employed an Environmental Technician who is responsible for undertaking night time attended noise monitoring at selected locations, which are determined as a result of the EnvMet System. The Environmental Technician 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.

Rix's Creek North 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 EnvMet System.

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. The dust controls in place at the site were considered appropriate. Real time dust monitors have been installed at Rix's Creek North 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 North personnel to demonstrate where operations had been amended or ceased due to adverse weather conditions.

The EnvMet forecasting system is used to predict weather and operating constraints for periods up to 3 days in advance. This highlights areas where sources of dust are likely and predicts wind shifts. Visual inspections are also undertaken by OCE's and other personnel for dust and the Pulse system captures where operations are modified to address adverse weather conditions.

Progressive rehabilitation of emplacement areas is also a key control to assist to minimise dust generation potential in the future.

6.3.4 Traffic

No significant traffic impacts or issues were identified during the audit period in regards to road closures for blasting.

Rix's Creek North must gain approval from Roads and Maritime Services in order to undertake blasting operations within 500 m of the New England Highway. Further, approval must be sought from ARTC for blasts occurring within 500 m of the Main Northern Railway however this has not been triggered during the audit period as all blasting conducted was greater than 500 metre vicinity of these locations.

6.3.5 Rehabilitation

Rehabilitation during the audit period was observed to have been progressing generally in accordance with the schedule in the Rix's Creek North 2016 – 2022 MOP. However during the audit it was found that the 2016 areas are behind the MOP targets. It is noted that the site has been under care and maintenance until March 2016 and also changed ownership during the audit period.

Rix's Creek North RMP is part of the MOP, which was submitted on 22 December 2015 and approved by DRG on 18 January 2016. A review of this plan has identified that a number of rehabilitation objectives are not included in the RMP as required. It is recommended that the current RMP be reviewed and updated to include all relevant objectives as required. It is important the RMP is updated in this regard and that Rix's Creek North Mine work towards completing the rehabilitation for the site in order to address all of the rehabilitation objectives noted under Schedule 3, Condition 50 of the Project Approval.

A review of rehabilitation during the field inspections completed for this audit found that rehabilitation areas were being developed progressively as areas become available and maintained to a high standard (see **Plates 1 and 2**). The process of rehabilitation completed at the site is well documented and managed, with areas of rehabilitation on site developing well. Surface disturbance appears to be compliant in approved areas. Rehabilitation areas such as the Falbrook Pit also appear to be progressing well and therefore reducing exposed surfaces (see **Plates 3 and 4**).

Progress has been made with regard to removing stands of Acacia Saligna (a Western Australian Wattle species) which had historically been used in site rehabilitation. Rix's Creek North are in the process of removing this and replacing it with local endemic woodland species to improve the quality of site rehabilitation (see **Plate 5**).

Rix's Creek North 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.

6.3.6 Mining and Site Infrastructure Areas

The site inspection component of the audit was conducted on 27 October 2017. The inspections involved a walk-around the administration, CHPP, workshop and hardstand areas (including the fuel farm), followed by a drive to various areas around the site operational areas including the main mining areas, rehabilitation areas, water management system and environmental monitoring network.

During the site inspection, the CHPP and workshop area were found to be well maintained, with all areas managed to a high standard (**Plate 6 of Appendix 5**). During the inspection of the workshop and maintenance area a number of hydrocarbon management measures were being implemented effectively, with spill and containment kits available for use as required. Fuel storage areas and fill points at the fuel farm were being appropriately maintained, with sumps and drains in good condition at the time of the site inspection.

Segregation of waste was also observed to be well managed and implemented within the workshop area.

Minimal dust emissions were observed from drills and mobile equipment during the inspection of active mining areas, with water carts observed to be in operation in the pit and around the workshop hardstand (see **Plates 7 and 8 of Appendix 5**).

Chris Quinn (Environmental Advisor) confirmed that Rix's Creek North Mine operate a bioremediation area for the treatment of soil that has been impacted by hydrocarbons which was visited during the field inspection. It was observed that the site was well set up with adequate bunding and containment and was holding water on the day of the inspection due to recent rainfall **Plate 9 of Appendix 5**.

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 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**.

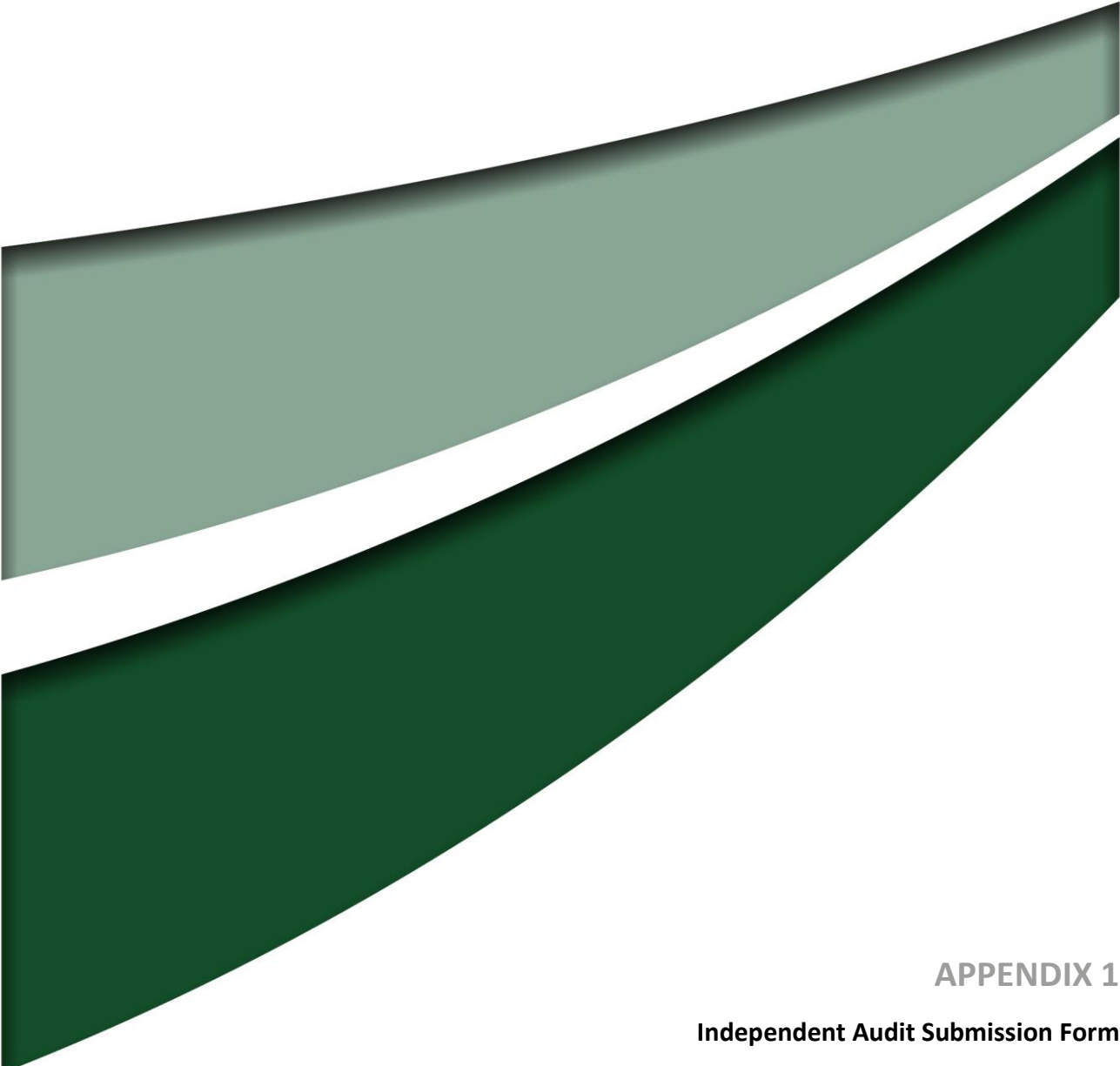
Table 7.1 Consolidated Recommendations

Condition / Issue	Recommendation
PA08_0102	
Schedule 3, Condition 2 Schedule 3, Condition 3 Schedule 3, Condition 4 Schedule 3, Condition 5	Bloomfield either seek to modify the consent to remove the requirement to assess compliance of noise limits over vacant land or approval to complete noise modelling annually to validate noise monitoring results in this regard and report in the annual review or complete modelling as required in response to any complaints received in this regard.
Schedule 3, Condition 8	<p>Bloomfield should seek to formalise the request of compliance reports from train operators to demonstrate that all locomotives are approved to operate on the NSW rail networks.</p> <p>Bloomfield should confirm with the Department appropriate conditions of RailCorp and ARTC EPL's that should be referenced here and that need to be complied with.</p>
Schedule 3, Condition 10	A formal protocol should be developed in consultation with the owners of the nearby mines as required and that it be included in the noise management plan for the Departments approval.
Schedule 3, Condition 16 Schedule 3, Condition 27 Schedule 3, Condition 40	Bloomfield should follow up with the Department the status of the management plans that have been submitted for approval under these conditions.
Schedule 3, Condition 19	A formal protocol should be developed in consultation with the owners of the nearby mines as required and that it be included in the blast management plan for the Departments approval.
Schedule 3, Condition 22 Schedule 3, Condition 23	Bloomfield either seek to modify the consent to remove the requirement to assess compliance of air quality criteria over vacant land or seek approval from the Department to complete air modelling annually to validate monitoring results in this regard and report in the annual review or complete modelling as required in response to any complaints received in this regard.
Schedule 3, Condition 27	A formal protocol should be developed in consultation with the owners of the nearby mines as required and that it be included in the AQGGMP management plan for the Departments approval.
Schedule 3, Condition 33	A review of the water management system, monitoring requirements and procedures should be completed with key findings used to update the water management plan for the Departments approval.
Schedule 3, Condition 36	Detailed erosion and sediment control plans should be reviewed and updated to provide a consistent and coordinated approach and that these are included in the water management plan.
Schedule 3, Condition 36	The water management plan should be updated to include specific trigger levels for water quality as required by this condition.
Schedule 3, Condition 37	It is recommended that the Martins Creek Biodiversity Offset Area be confirmed by a surveyor and if it is below the minimum size advice should be sought from the Department as to whether the area needs to be increased or if any further offsetting arrangements are required to address this condition.

Condition / Issue	Recommendation
Schedule 3, Condition 40	Update the BDMP to include the following: <ul style="list-style-type: none"> - specific mention of introducing naturally scarce elements - specific reference in Section 2.6.8 as to how the measure included will manage salinity - measures to specifically address the reuse of topsoil - a section on pre-clearance surveys and the method - a section on how visual impacts will be minimised
Schedule 3, Condition 44	Incorrect reference to Project Approval Condition – Management Plan states this as Schedule 3, Condition 47 (actually 44) During the next revision of the HMP that this error should be corrected.
Schedule 3, Condition 46	Include a lighting component in an appropriate site management plan and ensure that procurement of all lighting for site complies with this standard.
Schedule 3, Condition 52	Include all Rehabilitation Objectives from Table 15 in the rehabilitation management plan as required by this condition.
Schedule 5, Condition 5	A process of regular review and revision of management plans should be established to confirm compliance with this condition.
Schedule 5, Condition 10	A formal or methodical review of compliance under this project approval should be completed each year in the Annual Reviews.
Schedule 5, Condition 13	Provide a link to CCC meeting minutes and Annual Reviews on the Rix’s Creek North website and update website to explain that the two sites are operated together but under separate consents.
Schedule 5, Condition 13	The 2014 Independent Audit of Rix’s Creek North and response to recommendations should be uploaded to the Rix’s Creek North website.
SoC B2, SoC B4, SoC B11	Update the rehabilitation management plan in the MOP to include discussion on: <ul style="list-style-type: none"> – Material will not be stripped in either extremely wet or dry conditions – Tracking over previously laid soil will be avoided to minimise compression effects – An inventory of available soil will be maintained to ensure adequate topsoil materials are available for planned rehabilitation activities.
SoC C5	The rehabilitation management plan and or biodiversity management plan should be updated to detail how rehabilitation of groundwater dependent ecosystems will be undertaken. This update should include trigger thresholds for the groundwater management response.
SoC C11	At next opportunity change commitment to ‘Bloomfield’ instead of ‘ICO’ in condition.
SoC D5	At next opportunity liaise with the Department to remove portal sump from commitment as this is located at Integra Underground.
SoC D7	Update the Erosion Sediment Control Plans to capture the commitment that If the weather outlook indicates future significant rainfall, water will be pumped out of any dirty water storage (with the potential to discharge offsite) that is within 100 mm of spilling, provided that a suitable alternative storage location is available elsewhere on the site.
SoC H13 SoC H14	Include locations of new TEOMs (including the NW TEOM) in regards to the vicinity of residences listed under these SOCs in the AQGGMP

7.2 Conclusion


This IEA has assessed the compliance status of at Rix's Creek North Mine with the key approvals in place including the Project Approval 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.

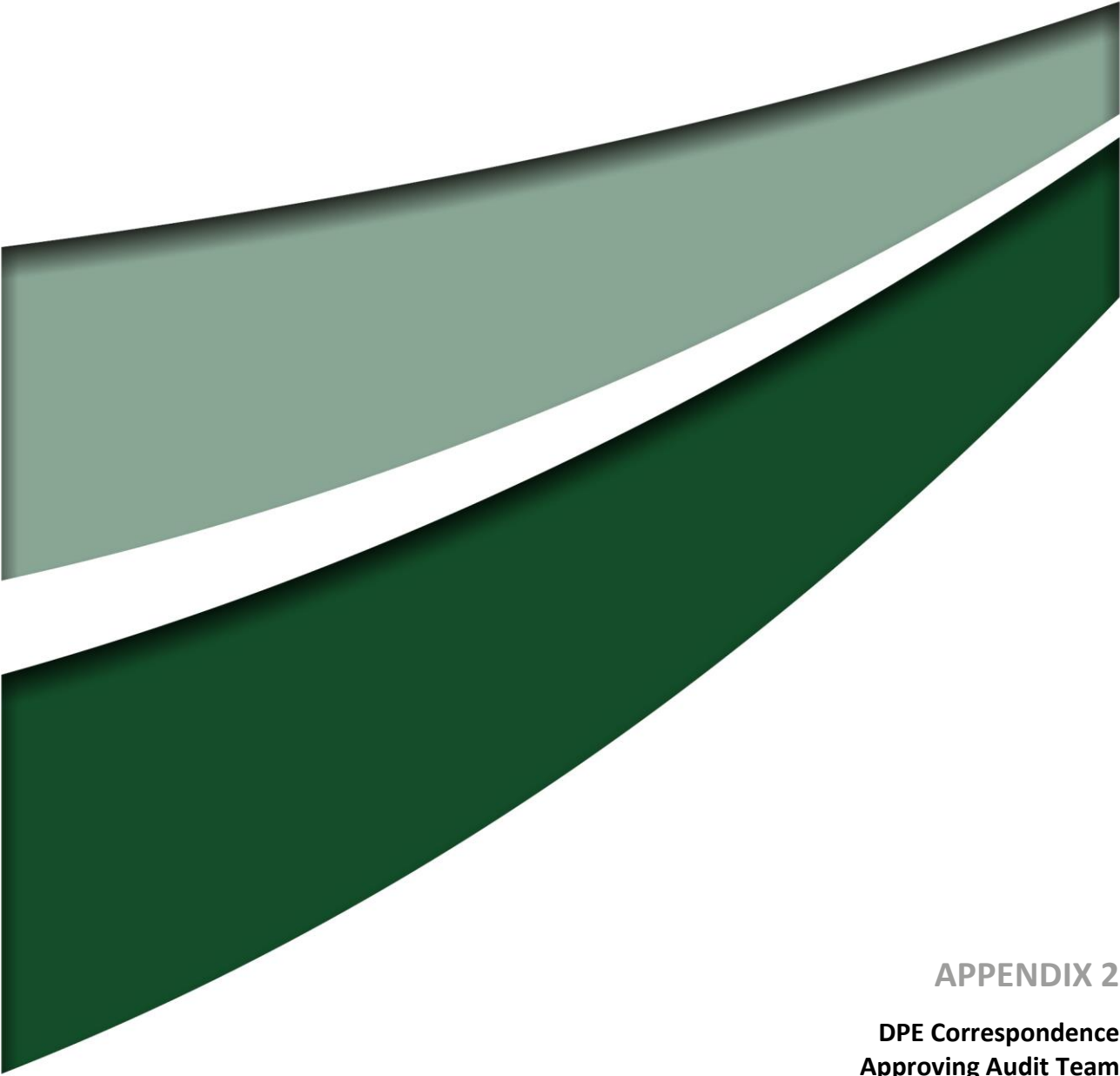


APPENDIX 1

Independent Audit Submission Form

Independent Audit Certification Form

Development Name:	Rix's Creek North Coal Mine
Development Consent No.:	08_0102 (as modified)
Description of Development:	Construction and operation of open cut coal mine
Development Address:	Bridgeman Road Singleton NSW 2330
Independent Audit	
Title of Audit:	Independent Environmental Audit of Rix's Creek North 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>Note.</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:	21 December 2017



APPENDIX 2

**DPE Correspondence
Approving Audit Team**



Contact: Michael Frankcombe
Phone: 02 65753413
Email: michael.frankcombe@planning.nsw.gov.au
compliance@planning.nsw.gov.au
Our ref: PA 08_0102

Garry Bailey
General Manager of Mining Development
Rix's Creek North
PO Box 4
East Maitland NSW 2323

**Rix's Creek North – PA 08_0102
Independent Environmental Audit Team**

Dear Garry,

Thank you for your letter 15 September 2017 regarding the scope and specialist requirements of the proposed audit team to undertake the Independent Environmental Audit (IEA) of Rix's Creek North in accordance with Schedule 5, Condition 11 of PA 08_0102.

The Department has reviewed the information provided and endorses UMWELT and its nominated personnel as the proposed audit team. As hydrocarbon management has been identified as a past issue, the Department requests the audit give this issue focus.

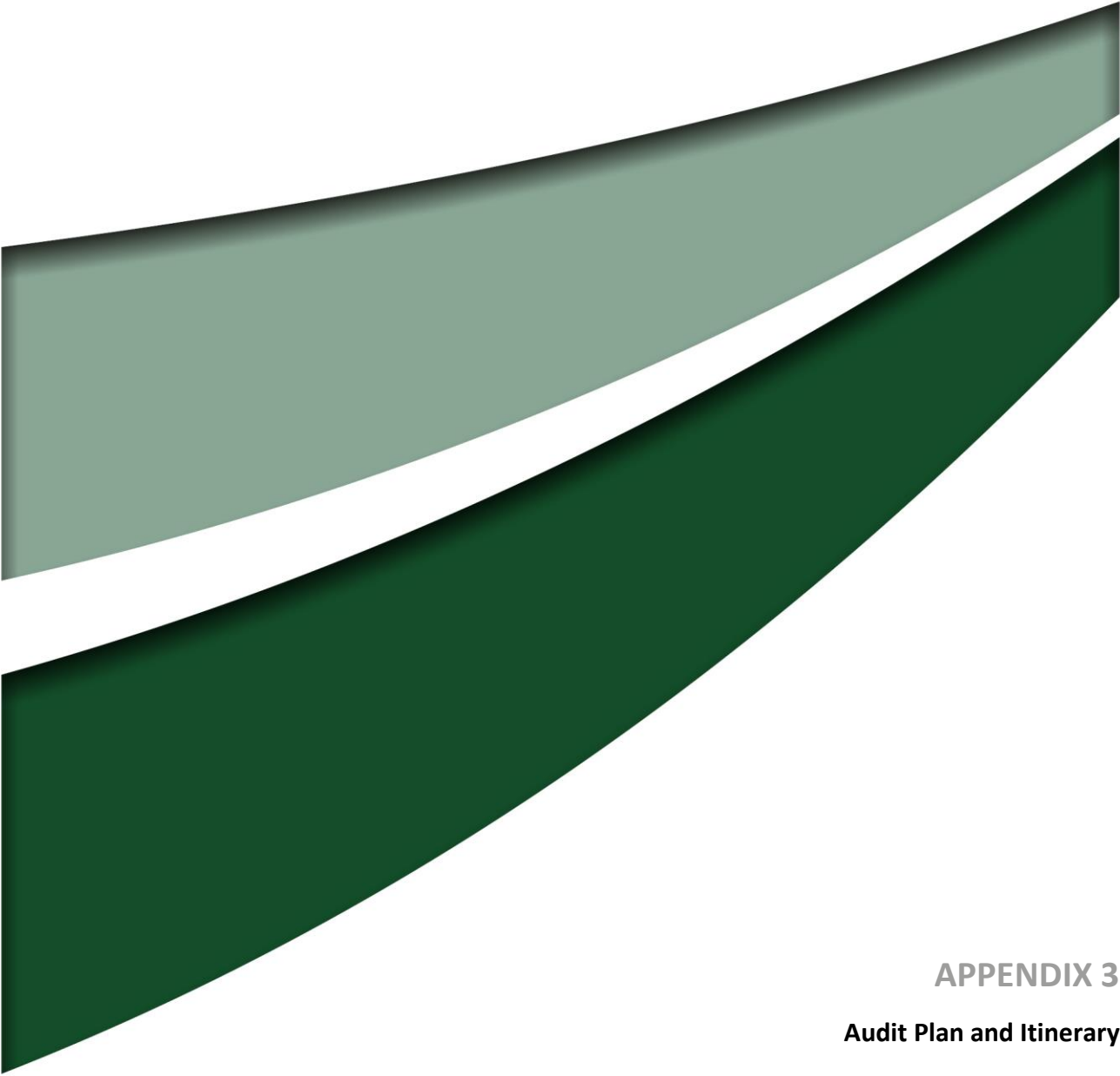
In accordance with Schedule 5, Condition 12 of PA 08_0102, the Department expects that the audit report and response to any recommendations contained within this report is submitted to compliance@planning.nsw.gov.au within 12 weeks of commencing the audit (the audit inspection date).

Should you need to discuss the above, please contact Michael Frankcombe as per the details provided above.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Leah', followed by the date '26/09/17' written in the same ink.

Leah Cook
Team Leader - Compliance
As Nominee of the Secretary



APPENDIX 3

Audit Plan and Itinerary



Rix's Creek North Mine 2017 Independent Environmental Audit Audit Plan

To:	Chris Quinn (Rix's Creek)
From:	Daniel Sullivan (Umwelt)
Author:	Daniel Sullivan (Umwelt)
Date:	24 October 2017
Subject:	Rix's Creek North – 2017 Independent Environmental Audit

Audit Date: 26 – 27 October 2017

Auditors: Lead Auditor – Daniel Sullivan
Auditor – Bridie McWhirter

1.0 Audit Objectives

The key objectives identified for the Audit are as follows:

- to undertake an independent environmental audit as required by conditions in the Project Approval and supporting approvals in accordance with the NSW Government Independent Audit Guideline (2015); and
- to assess the environmental performance of Bloomfield at the Rix's Creek North Mine.

2.0 Audit Scope

In accordance with the Rix's Creek North Mine Project Approval (PA 08_0102 – MOD 7) an Independent Environmental Audit of the operations is required to be undertaken to the satisfaction of the Secretary of the Department of Planning and Environment (DP&E). This audit is proposed to be undertaken in accordance with the NSW Government Independent Audit Guideline (October, 2015).

This plan and any files transmitted with it are confidential and are intended to provide information for use in discussions between Umwelt and the named recipient(s) only.

The Terms of Approval for the respective Project Approval identifies that the project shall be carried out generally in accordance with the:

- Environmental Assessment (EA);
- Supplementary information and documents submitted (as listed in the approval);
- Subsequent modification documents that have been submitted (as listed in the approval) and
- Conditions of the consent

3.0 Audit Criteria

The audit will assess the level of compliance and the environmental performance of Rix's Creek North Mine during the audit period 5 December 2014 to 26 October 2017 against the following approvals and licences:

- PA 08_0102 – MOD 7;
- The Environmental Protection Licence;
- The EA and subsequent modification documents for the operation;
- Mining Leases held by the operation; and
- Any strategy, plan or program which has been prepared for the operation.

4.0 Audit Process

Document Review: The documents listed in Part 1 of **Table 1** below will be reviewed prior to and during the audit to enable compilation of audit checklists and allow the auditors to gain an understanding of the site operations. Documents identified in Part 2 of **Table 1** will be inspected during the audit.

Agency Consultation: Consultation with regulatory authorities as required by the NSW Government Independent Audit Guidelines will be conducted prior to the site inspection.

Site Inspection/Audit: Two days have been allowed for the on-site component of the audit. To maximise the time on site, documentation as discussed below will be reviewed prior to the site inspection. An indicative itinerary for the site inspection is provided in **Table 2**. During the audit, the following people are proposed to be interviewed (if available):

- General Manager/Mine Manager;
- Rix's Creek Environmental Officer;
- Supervisors of operational areas visited during the site inspections; and
- Other persons identified during the course of the audit (as relevant).

For the Opening and Closing Meetings, it is suggested that as a minimum these should be attended by the General Manager, Environmental Officer, relevant area managers and any other personnel nominated by Rix's Creek.

Table 1 - Initial Documentation Requirements

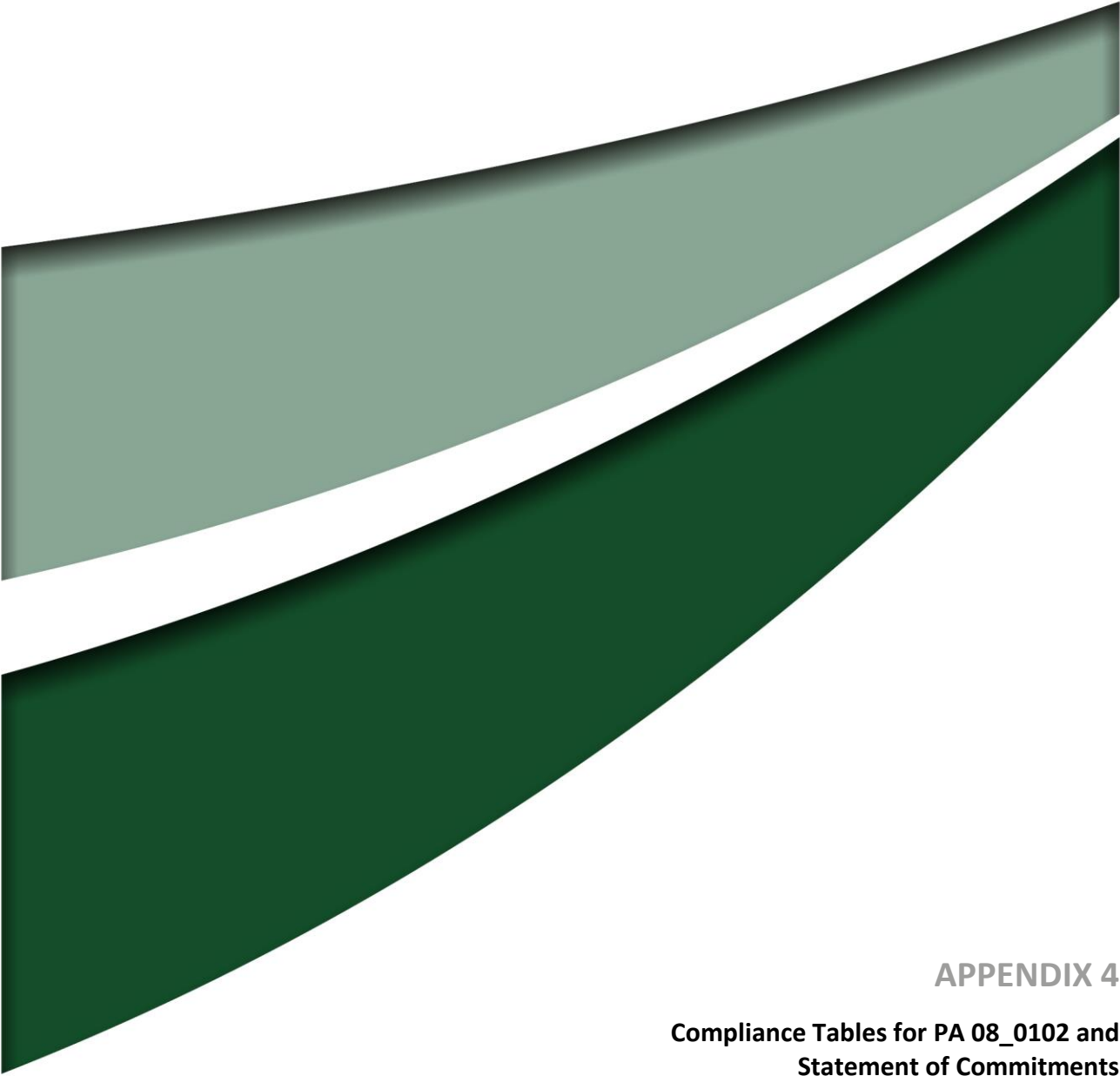
Issue	Document	Status
Part 1 – Documentation Required Prior to Audit		
Approvals/Licences (preferably in word or excel format)	Project Approval (consolidated MOD 7)	Umwelt downloaded
	EA and modification supporting documents	Umwelt downloaded
	Mining Authorities	Received
	Water Licences	Received
	EPL	Umwelt downloaded
	Previous independent audit report	Umwelt downloaded
Environmental Documentation	EPL Annual Returns (2014 – 2017)	2015-2016 AR required
	PIRMP	Received
	Mining Operations Plan	Received
	Noise Management Plan	Umwelt downloaded
	Blast Management Plan	Umwelt downloaded
	AQ&GHG Management Plan	Umwelt downloaded
	Water Management Plan	Umwelt downloaded
	Biodiversity Management Plan	Umwelt downloaded
	Heritage Management Plan	Umwelt downloaded
	Rehabilitation Management Plan	Umwelt downloaded
	Environmental Management Strategy	Required
	Annual Reviews (2014 – 2016)	Received
	Monitoring data for 2017 YTD	Received
	Details of any PINs received and incidents reported within the audit period	Received
	Complaints databases for the audit period (ie. 5 December 2014 to 26 October 2017)	Received
	Copies of correspondence to relevant agencies for consultation, submission and approval of plans	Required
Management Plans	Umwelt downloaded	
Part 2 –Documentation Required During Audit		
Environmental Controls and Monitoring	Production data and coal transport data	During audit
	Waste management records	During audit
	Rehabilitation monitoring data	During audit
	Notification to landowners	During audit
	Acquisition requests if any	During audit
	Independent review reports if any	During audit
	Incident reporting and complaints management	During audit
Other	Copies of correspondence from agencies	During audit
	Plant maintenance, inspection and defects reporting records	During audit
	Training and competency records	During audit

Table 2 – Indicative Itinerary for Site Inspection/Audit

Day/Time	Description	Personnel
Day 1 – Audit of Rix’s Creek North Approvals		
8.00am - 8.30am	Opening Meeting <ul style="list-style-type: none"> • Introductions • Purpose of Audit • Confidentiality Arrangements • Audit Process and Timing 	Mine Manager, Rix’s Creek Environmental personnel and site personnel as invited by Rix’s Creek
8:30am - 9:00am	Presentation on Rix’s Creek North Operations in Audit Period <ul style="list-style-type: none"> • Rix’s Creek personnel to present an overview of the operations on site, including outline of environmental management system and controls 	Rix’s Creek Environmental personnel
9.00am - 12.00 pm	Documentation Compliance Review <ul style="list-style-type: none"> • Review of pa 08_0102 – MOD 7 	Rix’s Creek Environmental personnel and appropriate site personnel as required
12.00pm - 12.30pm	Lunch	
12.30pm - 4.00pm	Documentation Compliance Review (cont) <ul style="list-style-type: none"> • Continue review of PA 08_0102 – MOD 7 • Review key EIS commitments • Review activities against EIS and MOP • Regulator issues and audit feedback • EPL • Mining authorities • Water licences • Reportable incidents and complaints 	Rix’s Creek Environmental personnel and appropriate site personnel as required

Table 2 – Indicative Itinerary for Site Inspection/Audit

Day/Time	Description	Personnel
Day 2 – Audit of Rix’s Creek North Approvals		
8.00am - 12.00pm	Field Inspection <ul style="list-style-type: none"> • Main infrastructure areas (workshop, waste segregation, oil, wash-down, storage, etc.) • Hydrocarbon management areas including bioremediation area • Operations inspection • Rehabilitation areas • Monitoring network: air, noise, water, • Water & waste systems • Heritage sites • Any key private neighbour/stakeholder issues 	Rix’s Creek Environmental personnel and appropriate site personnel as required
12.00 pm - 12.30pm	Lunch	
12.30pm - 2.00pm	Documentation Compliance Review <ul style="list-style-type: none"> • Management plans commitments review • Training and communication • Any outstanding items 	Rix’s Creek Environmental personnel and appropriate site personnel as required
2.00pm - 3.00 pm	Auditors Revision and Preparation for Closeout Meeting	Umwelt Auditors Only
3.00pm - 4.00 pm	Close Out Meeting <ul style="list-style-type: none"> • Overview of findings • Confirmation of outstanding items or documents required • Confirm audit review and completion process 	Mine Manager, Rix’s Creek Environmental personnel and site personnel as invited by Bloomfield



APPENDIX 4

**Compliance Tables for PA 08_0102 and
Statement of Commitments**

Development Consent Compliance Table – Rix’s Creek North Coal Mine – Project Approval 08_0102

Mod 1 (March 2012)

Mod 3 (October 2012)

Mod 2 (February 2013)

Mod 4 (February 2016)

Mod 5 (February 2016)

Mod 6 (August 2016)

Mod 7 (September 2017) – Red text

Condition Number	Condition	Compliance	Evidence and Comments
Schedule 2 – Administrative Conditions			
Obligation to Minimise Harm to the Environment			
1	In addition to meeting the specific performance criteria established under this project approval, the Proponent must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.	Compliant	The Environmental Management Strategy (EMS) document provides the framework for environmental management at Rix’s Creek North. It also generally addresses the requirements of this Project Approval. Generally, there were some minor reportable incidents during the period as described below, however no material harm was shown to occur to the environment
Terms of Approval			
2	The Proponent must carry out the open cut project generally in accordance with the: a) previous EAs; b) open cut project EA; c) EA Mod 1; d) EA Mod 2; e) EA Mod 4; f) EA Mod 5; g) EA Mod 6; h) EA Mod 7; and i) Project layout plan	Compliant	Operations at Rix’s Creek North were undertaken generally in accordance with these documents. See Section 4.1.1 of the main Audit Report which outlines the key components of the EA’s and Rix’s Creek North’s operations conducted during the audit period. Further the Bloomfield Ground Disturbance Permit (GDP) process confirms all approvals are in place prior to any works being undertaken on site (viewed example of a GDP dated 21 March 2017).
3	The Proponent must carry out the project in accordance with the: a) Statement of Commitments; and b) conditions of this approval. <i>Notes to Conditions 2 & 3:</i> · Previous EAs for the project are listed in Appendix 2; · The project layout plan is shown in Appendix 3; · The Statement of Commitments is reproduced in Appendix 9; and · This project approval is intended to regulate all existing and approved development on site.	Non-Compliant	Operations at Rix’s Creek North were found to be undertaken in accordance with the statement of commitments (SOCs) made in the Project EA’s and conditions of this approval with the exception of the non-compliances as identified and detailed in these compliance tables below.
4	If there is any inconsistency between the above documents then the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted	
5	The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department’s assessment of:		
	a) any reports, strategies, plans, programs, reviews, audits, or correspondence that are submitted in accordance with the conditions of this approval;	Not Triggered	Nothing received during the audit period (CQ as per comms).

Condition Number	Condition	Compliance	Evidence and Comments
	b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with the conditions of this approval; and	Compliant	The Department requested a compliance audit of Rix's Creek North to be undertaken as part of an Enforced Undertaking by Bloomfield Collieries in correspondence dated 23 June 2017. Bloomfield have commissioned Umwelt to undertake the audit required as part of the Enforceable Undertaking in addition to this Independent Environmental Audit (IEA) audit report and it is due for submission to the Department in December 2017. Sighted correspondence from the Department dated 26 September 2017 endorsing Umwelt and nominated personnel as the audit team identifying hydrocarbon management as a past issue and one which requires focus for the IEA.
	c) the implementation of any actions or measures contained in these documents.	Not Triggered	
Limits on Approval			
Mining Operations			
6	The Proponent may carry out open cut mining operations on site until 31 December 2035. <i>Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Secretary and DRG. Consequently, this approval will continue to apply in all respects - other than the right to conduct mining operations - until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.</i>	Not triggered	
Coal Production			
7	The Proponent must not extract more than: a) 1.5 million tonnes of ROM coal from the open cut mining operations in the northern mining area in a calendar year;	Compliant	Rix's Creek North Annual Reviews for 2014, 2015 and 2016 indicate: 2014 – 490,210 tonnes 2015 – mine was in care and maintenance and no coal was extracted 2016 – 915,010 tonnes 2017 – No mining in north pit (Falbrook Pit) during the audit period
	b) 4.5 million tonnes of ROM coal from the open cut mining operations in the western mining area in a calendar year.	Compliant	Rix's Creek North Annual Reviews indicate: 2014 – 1,121,174 tonnes 2015 – mine was in care and maintenance and no coal was extracted 2016 – 2,662,223 tonnes 2017 data to 28/10/17 – 1,487,584 tonnes
Coal Transport			
8	The Proponent must not: a) export more than 7.3 million tonnes of coal from the site in a calendar year;	Compliant	Train Movement Records containing tonnage per load is published on the Rix's Creek North website (sighted). 2014 – 1,057,019.40 tonnes 2015 – 145,533.00 tonnes 2016 - 324,876.35 tonnes 2017 train data to 5 October 2017 – 9,038.60 (Sighted 2017 Train Movement Data).
	b) dispatch more than 7 trains a day from the site; and	Compliant	Train Movement Records are published on the Rix's Creek North website (sighted). In 2014, 120 trains were dispatched from the site with a maximum number of 4 trains per day. In 2015, 172 trains were dispatched from the site with a maximum number of 4 trains per day. In 2016, 213 trains were dispatched from the site with a maximum number of 5 trains per day. 2017 Train Movement Data to 5 October 2017 indicates a maximum number of 5 trains per day.
	c) dispatch more than 3 trains a day from the site, when averaged over each calendar year.	Compliant	The average number of trains dispatched per day over each calendar year was less than 3 throughout the audit period (Sighted Train Movement Records).

Condition Number	Condition	Compliance	Evidence and Comments
9	The Proponent must not transport coal from the site by public road, except in an emergency situation and with the prior approval of the Secretary.	Compliant	No coal was transported by road during the audit period (CQ as per comms).
Hours of Operation			
10	The Proponent must only carry out: a) open cut mining operations in the northern mining area from 7am to 10pm, seven days a week (including public holidays); and	Compliant	No open cut mining has occurred in the northern mining area (CQ as per comms). Sighted Permit to Disturb dated 21 March 2017 which states the mining hours of 7am to 10pm.
	b) vegetation clearing and topsoil stripping on site between 7am and 6pm.	Compliant	Employee inductions include an environmental component which addresses vegetation clearing and topsoil (Sighted employee induction presentation 3 November 2017). The Permit to Disturb form contains a checklist which contains this condition (Sighted 3 November 2017).
Surrender of Consents and Approvals			
11	By the end of June 2017, or as otherwise agreed by the Secretary, the Proponent must surrender all existing development consents and project approvals for the site (other than this approval and the development consent for the Glennies Creek to Ashton Water Pipeline granted by Council on 13 February 2004) in accordance with Sections 75YA and 104A of the EP&A Act. <i>Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.</i>	Compliant	Bloomfield requested an extension of surrender of development consents on 22 June 2017 (Sighted correspondence 7 November 2017). Approval for extension was granted until 31 August 2017 by DPE in correspondence dated 31 July 2017. Development consent DA86/2889 and PA 06_0073 was surrendered following approval of property owner on 5 May 2017. Consent of surrender was granted by DPE on 28 August 2017.
12	Prior to the surrender of these consents and/or approvals, the conditions of this approval (including any notes) shall prevail to the extent of any inconsistency with the conditions of these consents and/or approvals.	Noted	
Structural Adequacy			
13	The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. <i>Notes:</i> <ul style="list-style-type: none"> Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; Part 8 of the EP&A Regulation sets out the requirements for the certification of the projects; and The project is located in the Patrick Plains Mine Subsidence District. Under Section 15 of the Mine Subsidence Compensation Act 1961, the Proponent is required to obtain the MSB's approval before constructing or relocating any improvements on site. 	Not triggered	There were no buildings or structures constructed during the audit period (CQ as per comms).
Demolition			
14	The Proponent must ensure that all demolition work is carried out in accordance with the Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	Not triggered	No demolition work was conducted at Rix's Creek North during the audit period (CQ as per comms).
Infrastructure			
Protection of Public Infrastructure			
15	Unless the Proponent and the applicable authority agree otherwise, the Proponent must:		
	a) re-repair or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and	Not triggered	This condition has not been triggered during the audit period.
	b) relocate, or pay the full costs associated with the relocating, any public infrastructure that needs to be relocated as a result of the project, except where impacts to such works have otherwise been fully compensated through the compensation provisions of the <i>Mining Act 1992</i>	Not triggered	This condition has not been triggered during the audit period.

Condition Number	Condition	Compliance	Evidence and Comments																		
Operation of Plant and Equipment																					
16	The Proponent must ensure that all the plant and equipment used on site, or to transport coal from the site, is:																				
	a) maintained in a proper and efficient condition; and	Compliant	Rix's Creek North use Pulse which manages the maintenance records and scheduling for the Rix's Creek North workshop (Sighted 3 November 2017). Sighted completed maintenance records for haul truck 'Time, Expenses Sheet & Services Report' and '2000 hour service 789 Truck Mechanical Service Sheet' dated 9 October 2017, and 'D50K-1 Drill 250 hour Mechanical Service Sheet' dated 25 October 2017.																		
	b) operated in a proper and efficient manner.	Compliant	Rix's Creek North hold an employee and contractor induction presentation followed by an assessment which includes questions on plant and equipment and proper use on site (Sighted Induction Presentation 7 November 2017). A field visit on 26 October 2017 showed little dust from active equipment or overburden emplacement areas and tipping activities. Appropriate water cart activity was observed during the field visit.																		
Compliance																					
17	The proponent must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities	Compliant	Induction presentation contains a section that outlines requirements to comply with conditions of this approval (Sighted induction presentation 7 November 2017). Following the induction all employees and contractors are required to complete an assessment.																		
Schedule 3 – Environmental Performance Conditions																					
Acquisition Upon Request																					
1	<p>Upon receiving a written request for acquisition from an owner of the land containing a residential receiver listed in Table 1, the Proponent must acquire the land in accordance with the procedures in conditions 6 and 7 of Schedule 4.</p> <p><i>Table 1: Land subject to acquisition upon request</i></p> <table border="1"> <thead> <tr> <th>Residential Receiver No.</th> <th>Acquisition Basis</th> </tr> </thead> <tbody> <tr> <td>11 – F Ferraro</td> <td>Noise</td> </tr> <tr> <td>64 – W & A Gardner</td> <td>Noise</td> </tr> <tr> <td>87 – B & R Richards</td> <td>Noise</td> </tr> <tr> <td>106 – B & R Richards</td> <td>Noise</td> </tr> <tr> <td>111 – T Burgess</td> <td>Noise</td> </tr> <tr> <td>153 – R & D Hall</td> <td>Noise and Air Quality</td> </tr> <tr> <td>351 – Andrews</td> <td>Noise</td> </tr> <tr> <td>352 – Andrews</td> <td>Noise</td> </tr> </tbody> </table> <p>For the purpose of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise by the owner of a listed residential receiver should be included as part of the land to be acquired. Where the proponent and the owner(s) cannot agree whether non-contiguous parcels of land should be included, either party may refer the matter to the Secretary for resolution. The Secretary's decision as to the lands to be included for acquisition under the procedures in conditions 7 and 8 of Schedule 4 shall be final.</p> <p><i>Note: To interpret the locations referred to in Table 1, see the applicable figures in Appendix 4.</i></p>	Residential Receiver No.	Acquisition Basis	11 – F Ferraro	Noise	64 – W & A Gardner	Noise	87 – B & R Richards	Noise	106 – B & R Richards	Noise	111 – T Burgess	Noise	153 – R & D Hall	Noise and Air Quality	351 – Andrews	Noise	352 – Andrews	Noise	Compliant	<p>The Bloomfield Group received a request for acquisition from 11 – F Ferraro and purchased the property on 23 December 2016 (Sighted contract of sale on 26 October 2017).</p> <p>No other requests for acquisition for properties listed in Table 1 had been received at the time of audit.</p>
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2	<p>Except for the land referred to in Table 1 for which the acquisition basis is noise, the Proponent must ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence at any privately-owned land or on more than 25% of any privately-owned land.</p> <p>Table 2: Noise criteria dB(A)</p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th colspan="2">Day</th> <th colspan="2">Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> </tr> </thead> <tbody> <tr><td>NAG 1</td><td>All privately-owned land</td><td>38</td><td>38</td><td>36</td><td>46</td></tr> <tr><td>NAG 2</td><td>All privately-owned land</td><td>39</td><td>39</td><td>37</td><td>47</td></tr> <tr><td>NAG 3</td><td>All privately-owned land</td><td>40</td><td>40</td><td>39</td><td>49</td></tr> <tr><td></td><td>99, 100</td><td>39</td><td>39</td><td>39</td><td>47</td></tr> <tr><td>NAG 4</td><td>88, 91, 95</td><td>40</td><td>40</td><td>40</td><td>47</td></tr> <tr><td></td><td>105, 161</td><td>41</td><td>41</td><td>41</td><td>47</td></tr> <tr><td></td><td>All other privately-owned land</td><td>42</td><td>42</td><td>37</td><td>47</td></tr> <tr><td></td><td>104</td><td>35</td><td>35</td><td>35</td><td>52</td></tr> <tr><td></td><td>139</td><td>36</td><td>36</td><td>36</td><td>52</td></tr> <tr><td></td><td>103</td><td>37</td><td>37</td><td>37</td><td>52</td></tr> <tr><td>NAG 5</td><td>121</td><td>40</td><td>40</td><td>40</td><td>52</td></tr> <tr><td></td><td>118, 154</td><td>43</td><td>43</td><td>43</td><td>52</td></tr> <tr><td></td><td>Deleted</td><td>45</td><td>45</td><td>45</td><td>52</td></tr> <tr><td></td><td>Deleted</td><td>47</td><td>47</td><td>47</td><td>52</td></tr> <tr><td></td><td>All other privately-owned land</td><td>50</td><td>46</td><td>42</td><td>52</td></tr> <tr><td>NAG 6</td><td>137</td><td>35</td><td>35</td><td>35</td><td>48</td></tr> <tr><td></td><td>133</td><td>37</td><td>37</td><td>37</td><td>48</td></tr> <tr><td></td><td>132</td><td>38</td><td>38</td><td>38</td><td>48</td></tr> <tr><td></td><td>All other privately-owned land</td><td>41</td><td>41</td><td>38</td><td>48</td></tr> <tr><td>NAG 7</td><td>All privately-owned land</td><td>45</td><td>42</td><td>39</td><td>49</td></tr> <tr><td>NAG 8</td><td>142</td><td>35</td><td>35</td><td>35</td><td>45</td></tr> <tr><td></td><td>All other privately-owned land</td><td>42</td><td>42</td><td>35</td><td>45</td></tr> <tr><td></td><td>146, 148, 149</td><td>35</td><td>35</td><td>35</td><td>48</td></tr> <tr><td></td><td>143, 144, 145, 147, 150, 151, 152</td><td>36</td><td>36</td><td>36</td><td>48</td></tr> <tr><td>NAG 9</td><td>2</td><td>37</td><td>37</td><td>37</td><td>48</td></tr> <tr><td></td><td>3, 4</td><td>39</td><td>39</td><td>39</td><td>48</td></tr> <tr><td></td><td>All other privately-owned 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land</td><td>41</td><td>41</td><td>39</td><td>49</td></tr> <tr><td></td><td>52, 55</td><td>35</td><td>35</td><td>35</td><td>45</td></tr> <tr><td></td><td>51, 56</td><td>37</td><td>37</td><td>37</td><td>45</td></tr> <tr><td></td><td>53, 57</td><td>38</td><td>38</td><td>38</td><td>45</td></tr> <tr><td>NAG 12</td><td>50, 54</td><td>39</td><td>39</td><td>39</td><td>45</td></tr> <tr><td></td><td>62</td><td>40</td><td>40</td><td>40</td><td>45</td></tr> <tr><td></td><td>All other privately-owned land</td><td>38</td><td>38</td><td>35</td><td>45</td></tr> <tr><td></td><td>24, 25, 26, 27, 28, 29, 30, 36, 37, 38, 39, 40, 41</td><td>35</td><td>35</td><td>35</td><td>46</td></tr> <tr><td></td><td>31</td><td>36</td><td>36</td><td>35</td><td>46</td></tr> <tr><td></td><td>42, 43</td><td>36</td><td>36</td><td>36</td><td>46</td></tr> <tr><td>NAG A</td><td>32</td><td>37</td><td>37</td><td>35</td><td>46</td></tr> <tr><td></td><td>22, 23</td><td>37</td><td>37</td><td>37</td><td>46</td></tr> 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land	50	46	42	52	NAG 6	137	35	35	35	48		133	37	37	37	48		132	38	38	38	48		All other privately-owned land	41	41	38	48	NAG 7	All privately-owned land	45	42	39	49	NAG 8	142	35	35	35	45		All other privately-owned land	42	42	35	45		146, 148, 149	35	35	35	48		143, 144, 145, 147, 150, 151, 152	36	36	36	48	NAG 9	2	37	37	37	48		3, 4	39	39	39	48		All other privately-owned land	40	40	38	48		5	40	40	40	47	NAG 10	6, 11	41	41	41	47		8	42	42	42	47		All other privately-owned land	39	39	37	47		18	35	35	35	49		20, 21	37	37	36	49		19	37	37	37	49	NAG 11	17	38	38	38	49		7	39	39	39	49		12, 15	40	40	40	49		14, 16	42	42	42	49		All other privately-owned land	41	41	39	49		52, 55	35	35	35	45		51, 56	37	37	37	45		53, 57	38	38	38	45	NAG 12	50, 54	39	39	39	45		62	40	40	40	45		All other privately-owned land	38	38	35	45		24, 25, 26, 27, 28, 29, 30, 36, 37, 38, 39, 40, 41	35	35	35	46		31	36	36	35	46		42, 43	36	36	36	46	NAG A	32	37	37	35	46		22, 23	37	37	37	46		34	39	39	36	46		35	39	39	35	46		All other privately-owned land	39	39	36	46	NAG B	All privately-owned land	37	37	35	45		47	39	39	39	45	NAG C	63	40	40	40	45		All other privately-owned land	37	37	35	45		44, 48	36	36	36	48	NAG D	49	39	39	39	48		All other privately-owned land	40	40	38	48		65, 66	39	39	39	50	NAG F	67	40	40	40	50		68	42	42	42	50		All other privately-owned land	40	40	40	50	NAG G	All privately-owned land	41	41	39	50		All other privately-owned land	35	35	35	45	<p>Administrative non-compliance</p>	<p>2014 – No attended noise monitoring was undertaken during the December 2014 as the mine was on care and maintenance and no noise complaints were received (Sighted 2014 Annual Review)</p> <p>2015 – No attended noise monitoring was undertaken during the 2015 reporting period as the mine remained on care and maintenance and no noise complaints were received (Sighted 2015 Annual Review)</p> <p>2016 - no exceedances occurred during the 2016 reporting period (Sighted 2016 Annual Review)</p> <p>Monthly noise compliance reports for 2017 indicate no exceedances of criteria occurred (January - September 17). Further it was also noted that Rix's Creek North have received no noise complaints in 2017 (Sighted complaints register).</p> <p>However the noise monitoring does not assess the proportion of privately owned land for which exceedances may occur. Noise modelling and the generation of contours is the only way that this can be achieved. It is noted that the previous audit also identified this and made recommendation to either seek to modify the consent to remove the requirement to assess compliance of noise limits over vacant land or approval to complete noise modelling annually to validate noise monitoring results in this regard and report in the annual review or complete modelling as required in response to any complaints received in this regard.</p> <p>This current IEA finds that this recommendation remains valid.</p>
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Condition Number	Condition	Compliance	Evidence and Comments																																																																																			
	<p>However, these criteria do not apply if the Proponent, or another mining company, has acquired the land or if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	Noted																																																																																				
	<p>Noise generated by the project is to be measured in accordance with the relevant requirements of the INP. Appendix 5 sets out the requirements for evaluating compliance with these criteria.</p> <p><i>Note: To interpret the locations referred to in Table 2, see the applicable figures in Appendix 4.</i></p>	Compliant	Noise monitoring is undertaken in accordance with INP.																																																																																			
Noise Acquisition Criteria																																																																																						
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4	<p>For the purpose of this condition, 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the requirements in conditions 9 and 10 to develop and implement a real-time noise management system that ensures effective operational response to the risk of exceedance of the criteria.</p> <p><i>Note: To identify the locations referred to in Table 4, see the figures in Appendix 4.</i></p>	Compliant	Rix's Creek North operate the EnvMet system which provides weather forecasting and conditions 24 hours in advance (Sighted 26 October 2017). This is used on site as a predictive forecast tool to plan for noise generating activities and to determine appropriate timing of these activities in order to maintain compliance (CQ as per comms).																			
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	a) on the land listed in Table 1 for which the acquisition basis is noise; or	Not triggered	This condition has not been triggered during the audit period.																			
	b) on land listed in Table 6: or	Not triggered	This condition has not been triggered during the audit period.																			
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	The proponent must implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner.	Not triggered	No additional noise mitigation measures have been implemented at residences during the audit period (Sighted Noise Mitigation Register on 26 October 2017).																			
	<p>If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p><i>Table 6: Land where additional noise mitigation measures are available on request</i></p> <table border="1"> <tbody> <tr> <td>5 – D P Cox</td> <td>6 – W G Cox</td> </tr> <tr> <td>8 – DK Geelan</td> <td>16 – A Lambkin</td> </tr> <tr> <td>14 – M Hoggan</td> <td>31 – C Craven</td> </tr> <tr> <td>20 – Mr Garvie</td> <td>48 – G Cheetham</td> </tr> <tr> <td>32 – M Langdon</td> <td>50 – D & M Bridge</td> </tr> <tr> <td>47 – B & R Cherry</td> <td>54 – G Holmes</td> </tr> <tr> <td>53 – K & J Badior</td> <td>63 – J & M Moore</td> </tr> <tr> <td>62 – D Moran</td> <td>95 – J & T Clarke</td> </tr> <tr> <td>91 – T & D Olofsson</td> <td>161 – V Lopes</td> </tr> <tr> <td>105 – J & G McInerney</td> <td>363 – D & L Bynon</td> </tr> </tbody> </table> <p><i>Note: To interpret the locations referred to in Table 6, see the applicable figures in Appendix 4</i></p>	5 – D P Cox	6 – W G Cox	8 – DK Geelan	16 – A Lambkin	14 – M Hoggan	31 – C Craven	20 – Mr Garvie	48 – G Cheetham	32 – M Langdon	50 – D & M Bridge	47 – B & R Cherry	54 – G Holmes	53 – K & J Badior	63 – J & M Moore	62 – D Moran	95 – J & T Clarke	91 – T & D Olofsson	161 – V Lopes	105 – J & G McInerney	363 – D & L Bynon	Not triggered
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8	<p>The Proponent must seek to ensure that its rail spur is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208) and ARTC's EPL (No. 3142) or a Pollution Control Approval issued under the former <i>Pollution Control Act 1970</i>.</p>	Compliant	<p>Sighted email from Pacific National dated 24 May 2017 confirming all locomotives that access the rail spur are approved to operate on the NSW rail network.</p> <p>It was noted that Railcorp's EPL does not contain Section L6.1 to L6.4</p> <p>Recommendation to confirm with the Department appropriate conditions of the RailCorp and ARTC EPL's that should be referenced here and that need to be complied with.</p>																																																																																			

Condition Number	Condition	Compliance	Evidence and Comments
Operating Conditions			
9	The Proponent must:		
	a) implement best practice noise management, including all reasonable and feasible noise mitigation measures, to minimise the operational, low frequency, and rail noise generated by the project at all times, including during temperature inversions;	Compliant	Night time attended noise monitoring is completed at Rix's Creek North every day by an environmental technician to determine the noise levels at the residential receivers. The EnvMet model is also used to predict weather conditions 24 hours in advance. This model is validated by the data from the attended noise monitoring. The use of this predictive forecast system in conjunction with attended noise monitoring enables operations to be planned and modified as might be necessary in order to actively manage compliance (CQ as per comms). Noise monitoring results during the audit period confirm that there have been no exceedances of the relevant noise criteria.
	b) operate a comprehensive noise management system that uses a combination of predicted meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations and the implementation of both proactive and reactive mitigation measures to ensure compliance with the relevant conditions of this approval;	Compliant	Rix's Creek North operate an EnvMet system which provides weather forecasting and conditions 24 hours in advance (Sighted 26 October 2017). This is used on site to plan for noise generating activities to determine appropriate scheduling of these activities (CQ as per comms).
	c) maintain or improve the effectiveness of noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;	Compliant	In accordance with the 2016 Noise Management Plan, sound power level testing is undertaken annually. 'Mobile Plant Sound Power Screening 2017' Report dated 20 October 2017 was completed during the audit period and provided three recommendations for two drills (D75K1 and SK57-1) and one dozer (Sighted 26 October 2017) in order to maintain effectiveness of noise suppression.
	d) ensure that noise attenuated plant is deployed preferentially in locations relevant to sensitive receivers;	Compliant	The EnvMet model is used on site to plan for noise generating activities. The morning toolbox meeting addresses the potential issues and appropriate measures such as plant and haul routes are considered (CQ as per comms). It was also noted that Rix's Creek North have received no noise complaints in 2017 (Sighted complaints register).
	e) minimise the noise impacts of the project during meteorological conditions under which data is to be excluded for the purposes of assessing compliance with these conditions (see Appendix 5); and	Compliant	As per condition (b) above.
f) co-ordinate the noise management on site with noise management at nearby mines (including Integra Underground, Ashton, Rix's Creek and the Mt Owen Complex) to minimise the cumulative noise impacts to the satisfaction of the Secretary.	Administrative non-compliance	Evidence of coordination of noise management for Rix's Creek (operated by Bloomfield) and the Mount Owen Complex was provided where it was noted that Bloomfield have recently signed an agreement with Glendell Mine to share their Sentinex monitor. However evidence of coordination with Integra Underground and Ashton was not able to be provided. Sighted email dated 25 October 2017 to surrounding mines advising them of the requirement and intention of Rix's Creek North to develop a noise management protocol as required by Schedule 3, Condition 10 (e). However it was also noted that there have been no exceedance of the cumulative noise criteria during the audit period and Rix's Creek North have received no noise complaints in 2017. No noise complaints were received in December 2014, 18 noise complaints in 2015 (combined) and 4 complaints in 2016 (Sighted complaints register).	
Noise Management Plan			
10	The Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:		
	a) be prepared in consultation with the EPA, and then submitted to the Secretary for approval;	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Noise Management Plan. EPA provided correspondence to Rix's Creek stating their role is not to review these documents and therefore provided no comments in relation to the Noise Management Plan. It is noted that Rix's Creek North submitted a revised 2017 - 2020 Noise Management Plan to the Department on 5 April 2017; however it has not been approved by the Department and therefore not considered in this audit (Sighted correspondence).
	b) describe the measures that would be implemented to ensure:	Compliant	A number of noise management measures both preventative and corrective are described in the management plan (Section 6).
	- compliance with the noise criteria and operating conditions of this approval; and	Compliant	Measures to ensure compliance with noise criteria and approval conditions are included in the management plan such as: - Separate day and night operating configurations - Daily attended noise monitoring - Continuous unattended noise monitoring - Noise attenuated equipment.

Condition Number	Condition	Compliance	Evidence and Comments																				
	- best management practice is being employed;	Compliant	Measures such as implementation of a predictive noise model with integration from Hunter Valley Meteorological Sound Group JV used to develop half hourly predictions are described in the management plan (Section 6.1.1) .																				
	c) describe the noise management system in detail;	Compliant	The noise management system is described in detail throughout the management plan (Sighted).																				
	d) include a noise monitoring program that:																						
	- uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project;	Compliant	Attended and real-time unattended noise monitoring is used at Rix's Creek (Section 4)(Sighted).																				
	- includes a protocol for determining exceedances of the relevant conditions in this approval;	Compliant	Section 6.2 of the Noise Management Plan outlines measures for determining exceedances (Sighted).																				
	- evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and	Compliant	Section 8 of the Noise Management Plan describes the reporting protocols for the Rix's Creek site (Sighted).																				
	e) includes a protocol that has been prepared in consultation with the owners of nearby mines (including Integra Underground, Ashton, Rix's Creek and the Mount Owen Complex) to minimise the cumulative noise impacts of the mines.	Non-compliant	Section 6.2.2 of the Noise Management Plan states that a cumulative protocol has not been achieved due to the commitment to facilitate this by other mines but will be implemented if and when possible . It is understood that at the time of audit, a formal protocol is being established through consultation with surrounding mines (Sighted email dated 25 October 2017). Recommendation to formalise the protocol with surrounding mines and incorporate this into the noise management plan as required by this condition for approval of the secretary.																				
	The Proponent must implement the approved management plan as approved from time to time by the Secretary.	Compliant	Rix's Creek North operates in accordance with their approved 2016 Noise Management Plan, however it is noted that at the time of audit, a revised 2017 Noise Management Plan had been submitted to the Department on 5 April 2017 but has not been approved.																				
Blasting																							
Blasting Criteria																							
11	<p>The Proponent shall ensure that the blasting on site does not cause exceedances of the criteria in Table 9.</p> <p><i>Table 9: Blasting criteria</i></p> <table border="1"> <thead> <tr> <th>Receiver</th> <th>Airblast Overpressure (dB(Lin Peak))</th> <th>Ground Vibration (ppv(mm/s))</th> <th>Allowable Exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately-owned land</td> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td></td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td>Main Northern Railway culverts and bridges</td> <td>-</td> <td>25</td> <td>0%</td> </tr> <tr> <td>All public infrastructure</td> <td>-</td> <td>50</td> <td>0%</td> </tr> </tbody> </table> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner or infrastructure owner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	Receiver	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (ppv(mm/s))	Allowable Exceedance	Residence on privately-owned land	115	5	5% of the total number of blasts over a period of 12 months		120	10	0%	Main Northern Railway culverts and bridges	-	25	0%	All public infrastructure	-	50	0%	Compliant	<p>In 2014, one blast exceeded the 115dB limit but did not exceed the 120dB limit. The one blast which exceeded the limit equalled 0.98% of total annual blasts (Sighted 2014 Annual Review).</p> <p>In 2015, the mine was under care and maintenance and no blasts were conducted during the yearly period (Sighted 2015 Annual Review).</p> <p>In 2016 no blasts exceeded the approval limits (sighted 2016 Annual Review).</p> <p>2017 Blasting records to 25 October 2017 confirm no exceedances of blasting criteria, with the highest overpressure being 111.8 dB on 31 January 2017.</p>
Receiver	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (ppv(mm/s))	Allowable Exceedance																				
Residence on privately-owned land	115	5	5% of the total number of blasts over a period of 12 months																				
	120	10	0%																				
Main Northern Railway culverts and bridges	-	25	0%																				
All public infrastructure	-	50	0%																				
Blasting Hours																							
12	The Proponent must only carry out blasting on site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.	Compliant	All blasts between 5 December 2014 and 27 October 2017 were undertaken between 9am and 5pm between Monday to Saturday (Sighted Blast records).																				
Blasting Frequency																							
13	The Proponent must not carry out more than:																						
	a) 1 blast a day in the northern mining area unless an additional blast is required following a blast misfire;	Compliant	There has been no mining conducted in the North pit and the area remained on Care and Maintenance for the duration of the audit period (5 December 2014 to 26 October 2017) (CQ as per comms).																				
	b) 2 blasts a day in the existing Camberwell south pit, and then 1 blast a day when the mining moves from this pit into the western mining area unless an additional blast is required following a blast misfire; and	Compliant	Blast Results indicate one blast per day occurred in the West Pit (Sighted Blast records 7 November 2017).																				
	c) 10 blasts a week on site, averaged over any 12 month period.	Compliant	Total blasts during the audit period are below an annual average of 10 blasts per week. An average of 0.8 blasts per week occurred in 2016 and an average of 0.74 blasts per week has occurred thus far in 2017.(to 30 August). Sighted Blast records 7 November 2017).																				

Condition Number	Condition	Compliance	Evidence and Comments
Property Inspections			
14	If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pits on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent must:	Not triggered	No baseline property inspection was requested during the audit period (CQ as per comms).
	a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary to: <ul style="list-style-type: none"> - establish the baseline condition of the buildings and/or structures on the land or update the previous property inspection report; and - identify any measures that should be implemented to minimise the potential blasting impacts of the projects on these buildings and/or structures; and 	Not triggered	This condition has not been triggered during the audit period.
	b) give the landowner a copy of the new or updated property inspection report.	Not triggered	This condition has not been triggered during the audit period.
Property Investigations			
15	If any landowner of privately-owned land within 2 kilometres of any approved open cut mining pit on site claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this request the Proponent must:	Compliant	The Watling residence and Richards's residence both requested an Independent Assessment on their residence due to suspected cracking of their house due to blast induced ground vibrations. The inspection found no evidence to assume blasting was the reasoning for the cracks forming on either house. (Sighted Property Inspection Reports dated 13 December 2016).
	a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to investigate the claim; and	Compliant	Rix's Creek North received approval of an independent person to conduct the inspections (Sighted Secretary approval dated 8 November 2016 approving Bill Jordan & Associates to conduct the inspections).
	b) give the landowner a copy of the property investigation report.	Compliant	The property investigation reports were issued to owners of the Watling residence and Richard's residence in emails dated 13 December 2016.
	If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent must repair the damages to the satisfaction of the Secretary.	Not triggered	Two property investigations occurred during the audit period (Watling Residence and Richards Residence) and neither confirmed the landowner's claim (Sighted Property Inspection Reports dated 13 December 2016).
	If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
Operating Conditions			
16	The Proponent must:		
	a) implement best blasting management practice on site to: <ul style="list-style-type: none"> - protect the safety of people and livestock in the surrounding area; - protect private or public property in the surrounding area; - minimise the dust and fume emissions of the blasting; and 	Compliant	CQ as per comms confirmed Rix's Creek North use their predictive modelling system to plan for the timing of their blasts to occur during periods of low winds. A Blast Monitoring system developed by Terrock has been installed and is used to manage compliance. It is noted that no exceedances of blast criteria have occurred during the audit period.
	b) co-ordinate the blasting on site with the blasting at nearby mines (including Ashton, Rix's Creek and The Mount Owen Complex) to minimise cumulative blasting impacts;	Compliant	Emails are sent to nearby mines prior to all blasts on the morning of the scheduled blast (Sighted example of emails notifying of blasts dated 25 October 2017 and 1 September 2017).
	c) co-ordinate the blasting on site with nearby underground mines (Including Integra Underground) to minimise operational disturbance and to ensure the safety of underground personnel; and	Compliant	Emails are sent to the Integra Underground Environment and Community Manager (Sighted emails) and it was noted that all blasts during the audit period were well outside the 500m exclusion zone from the underground (C. Quinn per comms).
	d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site,	Compliant	Rix's Creek 24 hour Community and Blasting Hotline is published on the Bloomfield Colliery website. Link: http://www.bloomcoll.com.au Text messages are sent on the morning of the blasts to the public who request it. Sighted text record sent 18/10/17
to the satisfaction of the Secretary.	Compliant	The Blast Management Plan has been approved on 16 February 2016; however it was noted that a revised version has since been submitted but was not approved at the time of audit. It is recommended that Bloomfield follow up approval of the revised plan with the Department.	

Condition Number	Condition	Compliance	Evidence and Comments
17	The Proponent must not undertake blasting within 500 metres of:		
	a) Middle Falbrook or Stony Creek Road without the approval of Council;	Compliant	No blasting undertaken within 500m of Middle Falbrook Road or Stony Creek Road during the audit period (CQ as per comms).
	b) the New England Highway without the approval of the RMS; and	Compliant	No blasting undertaken within 500m of the New England Highway during the audit period (CQ as per comms).
	c) the Main Northern Railway without the approval of the ARTC.	Compliant	No blasting undertaken within 500m of the Main Northern Railway during the audit period (CQ as per comms).
18	The Proponent must not carry out blasting in the northern or western mining areas that is within 500 metres of any privately-owned land or land not owned by the Proponent unless:	Compliant	No blasting undertaken within 500m of privately-owned land or land not owned by the Proponent during the audit period (CQ as per comms).
	a) the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement; or b) the Proponent has: – demonstrated to the satisfaction of the Secretary that the blasting can be carried out without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and – updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Blast Management Plan. No blasting undertaken within 500m of New England Highway, the Main Northern Railway, privately-owned land or land not owned by the Proponent during the audit period (CQ as per comms). The 2017 - 2020 Blast Management Plan includes specific measures which will be implemented if blasting is to occur within 500 m of the land (Section 5.1).
Blast Management Plan			
19	The Proponent must prepare a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Blast Management Plan. It is noted that Rix's Creek North submitted a revised 2017 - 2020 Blast Management Plan to the Department on 5 April 2017; however it has not been approved by the Department and therefore not considered in this audit (Sighted correspondence).
	a) be prepared in consultation with OEH, and then submitted to the Secretary for approval;	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Blast Management Plan. Rix's Creek sent the Blast Management Plan to OEH on 22 March 2017 for comment prior to submission on 30 April 2017 (Sighted correspondence).
	b) describe the blast mitigation measures that would be implemented to ensure compliance with the relevant condition of this approval;	Compliant	Management measures are outlined in Section 5 of the Blast Management Plan.
	c) describe the measures that would be implemented to ensure that the public can get up-to-date information on the proposed blasting schedule on site;	Compliant	The Community and Blasting Hotline is advertised on the Bloomfield Group website for Rix's Creek (Section 6).
	d) include an agreed strategy for the management of potential blast interactions with Integra Underground, including details of agreed:	Compliant	Notification procedures are outlined in the Blast Management Plan.
	– systems for the prior and timely notification of scheduled blasting and subsidence activities;	Compliant	Roles and responsibilities including notification and scheduling with nearby mines (Ashton, Rix's Creek, Glendell and Mt Owen) are outlined in the Blast Management Plan.
	– personnel evacuation and safety protocols for specific blast events; and	Compliant	Blasts are designed for particular blasts in accordance with procedures in the Explosive Management Plan, Blast Fume Management Plan and Blasting Checksheet for Rix's Creek.
	– procedures and protocols for managing the interaction of the two mines; and	Compliant	A five minute delay between blasts at Rix's Creek and blasts at other mines has been established through a notification process (Section 3).
e) include blast monitoring program to evaluate the performance of the project; and	Compliant	Blast results and interpretations are reported internally after each blast and summarised monthly, to be included in the Annual Review report (Section 7).	

Condition Number	Condition	Compliance	Evidence and Comments																				
	f) include a protocol that has been prepared in consultation with the owners of the nearby mines (including Ashton, Rix's Creek and the Mount Owen Complex) for minimising and managing the cumulative blasting impacts of the mines.	Not compliant	Section 3 of the plan states that it is the responsibility of the Environmental Officer to contact nearby mines to manage the cumulative impacts of blasting and C. Quinn Per comms advised that emails are sent to nearby mines prior to all blasts on the morning of the scheduled blast (sighted example of emails notifying of blasts dated 25 October 2017 and 1 September 2017). However there was no evidence that a formal protocol has been developed in consultation with the nearby mines and there was no such protocol within the management plan as required. It is recommended that a formal protocol be developed in consultation with the owners of the nearby mines as required and that it be included in the blast management plan for the Departments approval.																				
	The Proponent must implement the approved management plan as approved from time to time by the Secretary.	Compliant	Rix's Creek North operates in accordance with their approved 2016 Blast Management Plan, however it is noted that at the time of audit, a revised 2017 Blast Management Plan had been submitted to the Department on 5 April 2017 but has not been approved.																				
Air Quality and Greenhouse Gas																							
Odour																							
20	The Proponent must ensure that no offensive odours are emitted from the site, as defined under the POEO Act.	Compliant	Rix's Creek North use the sites blast fume strategy and forecast information from the EnvMet system to determine where it is suitable to blast on any given day (C Quinn per comms). Further it was noted that gas loggers are also utilised downstream of blasts to monitor potential for issues (C Quinn pers comm). Odour and management measures to manage the spreading of bio-solid material are used and described in Section 6.3 of the 2016 Air Quality & Greenhouse Gas Management Plan. No complaints have been received by Rix's Creek North with regard to odour during the audit period.																				
Greenhouse Gas Emissions																							
21	The Proponent must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Secretary.	Compliant	Measures to minimise the release of Greenhouse Gas Emissions from the site are described in Section 6.4.3 of the 2016 Air Quality & Greenhouse Gas Management Plan.																				
Air Quality Criteria																							
22	<p>Except for the land referred to in Table 1 for which the acquisition basis is air quality, the Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the project does not or contribute to exceedance of the criteria listed in Table 10 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p><i>Table 10: Air quality criteria</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th colspan="2">Criterion^d</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td colspan="2">^a 30 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td colspan="2">^a 50 µg/m³</td> </tr> <tr> <td>Total suspended particulates (TSP)</td> <td>Annual</td> <td colspan="2">^a 90 µg/m³</td> </tr> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p><i>Notes to Table 10:</i></p> <ul style="list-style-type: none"> ^a Cumulative impact (i.e. increase in concentrations due to the project plus background concentrations due to all other sources); ^b Incremental impact (i.e. incremental increase in concentrations due to the project on its own); ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter -Deposited Matter - Gravimetric Method; and ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity which has been endorsed by the EPA and then agreed to by the Secretary. <p>For the purpose of this condition, 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the requirements in conditions 26 and 27 to develop and implement a real-time air quality management system that ensures effective operational response to the risk of exceedance of the criteria.</p>	Pollutant	Averaging Period	Criterion ^d		Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³		Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³		Total suspended particulates (TSP)	Annual	^a 90 µg/m ³		^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	Administrative non-compliance	<p>Annual reviews for the audit period indicate no exceedances of criteria occurred during the audit period (Sighted 2014, 2015 and 2016 Annual Reviews and October 2017).</p> <p>However the air quality monitoring conducted does not assess the proportion of privately owned land for which exceedances of the cumulative criteria may occur. Modelling and the generation of contours is the only way that this can be achieved.</p> <p>It is recommended that Rix's Creek North either seek to modify the consent to remove the requirement to assess compliance of air quality criteria over vacant land or seek approval from the Department to complete air modelling annually to validate monitoring results in this regard and report in the annual review or complete modelling as required in response to any complaints received in this regard.</p>
Pollutant	Averaging Period	Criterion ^d																					
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³																					
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³																					
Total suspended particulates (TSP)	Annual	^a 90 µg/m ³																					
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month																				

Condition Number	Condition	Compliance	Evidence and Comments																		
Air Quality Acquisition Criteria																					
23	<p>If particulate matter emissions generated by the project cause or contribute to exceedance of the cumulative criteria in Table 11 at any residence on privately-owned land on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the land owner the Proponent must acquire the land in accordance with the procedures in condition 7 and 8 of Schedule 4.</p> <p><i>Table 11: Air quality acquisition criteria</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion^d</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 150 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^b 50 µg/m³</td> </tr> <tr> <td>Total suspended particulates (TSP)</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month ^a 4 g/m²/month</td> </tr> </tbody> </table> <p><i>Notes to Table 11:</i></p> <ul style="list-style-type: none"> ^a Cumulative impact (i.e. increase in concentrations due to the project plus background concentrations due to all other sources); ^b Incremental impact (i.e. incremental increase in concentrations due to the project on its own); ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity which has been endorsed by the EPA and then agreed to by the Secretary. 	Pollutant	Averaging Period	Criterion ^d	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³	Total suspended particulates (TSP)	Annual	^a 90 µg/m ³	^c Deposited dust	Annual	^b 2 g/m ² /month ^a 4 g/m ² /month	Administrative non-compliance	Refer to Schedule 3 Condition 22
Pollutant	Averaging Period	Criterion ^d																			
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³																			
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^c Deposited dust	Annual	^b 2 g/m ² /month ^a 4 g/m ² /month																			
Additional Dust Mitigation Measures																					
24	Upon receiving a written request from the owner of any residence:																				
	a) on the land listed in Table 1 for which the acquisition basis is air quality;	Compliant	A request was received from the Watling Residence dated 25 October 2016 containing an invoice requesting for a shed to be built to house a horse float, however it was deemed not appropriate.																		
	b) on the land listed in Table 12; or	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).																		
	c) on privately-owned land where subsequent air quality monitoring shows the dust generated by the project exceeds the air quality limits in Table 10,	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).																		
	the Proponent must implement additional reasonable and feasible dust mitigation measures (such as a first flush roof system, internal or external air filters, and/or air conditioning) at the residence in consultation with the owner.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).																		
	If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).																		
<p><i>Table 12: Land subject to dust mitigation on request</i></p> <table border="1"> <tbody> <tr> <td>88 – M & T De Jong</td> <td>106 – B & R Richards</td> </tr> <tr> <td>112 – S & C Ernst</td> <td>111 – T Burgess</td> </tr> </tbody> </table> <p><i>Notes:</i></p> <ul style="list-style-type: none"> To interpret the locations referred to in Table 12, see the applicable figures in Appendix 4; and For this condition to apply, the exceedances of the criteria must be systemic. 	88 – M & T De Jong	106 – B & R Richards	112 – S & C Ernst	111 – T Burgess																	
88 – M & T De Jong	106 – B & R Richards																				
112 – S & C Ernst	111 – T Burgess																				

Condition Number	Condition	Compliance	Evidence and Comments
Mine-Owned Land			
25	The Proponent must ensure that particulate matter emissions generated by the project do not exceed the criteria in Table 10 at any occupied residence on any mine-owned land (including land owned by adjacent mines), unless:		
	a) the tenant and/or landowner has been notified of any health risks in accordance with the notification requirements under Schedule 4 of this approval;	Compliant	There have been no exceedances of particulate matter emissions during the audit period. Scheduled water tank cleanouts to any mine owned land tenants on a regular basis. Residents were issued letters via emails to inform them of their rights and a link to 'Mine Dust and You' (Sighted correspondence dated 20 October 2017).
	b) the tenant on land owned by the Proponent can terminate the tenancy agreement without penalty, subject to giving reasonable notice, and the Proponent uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
	c) air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the Proponent);	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
	d) particulate matter air quality monitoring is undertaken to inform the tenant and landowner (where owned by a mine other than the Proponent) of potential health risks; and	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
	e) monitoring data is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property, to the satisfaction of the Secretary.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
Operating Conditions			
26	The Proponent must:		
	a) implement best practice air quality management on site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the project, including those generated by spontaneous combustion;	Compliant	The EnvMet forecasting system is used to predict weather and operating constraints for periods up to 3 days in advance. This highlights areas where sources of dust are likely and predicts wind shifts. Visual inspections are also undertaken by OCE's and other personnel for dust and the Pulse system captures where operations are modified to address adverse weather conditions (Sighted Pulse System report dated 1 September 2017 to 10 October 2017). There are no spontaneous combustion issues on site (CQ as per comms).
	b) minimise any visible air pollution generated by the project;	Compliant	The ENVMET model is used to predict elevated wind conditions and this is used as a tool to determine activities on site (CQ as per comms).
	c) operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;	Compliant	Utilisation of the ENVMET model which predicts forecast three days in advance and identifies elevated wind conditions. Emails are issued to staff by the Environmental Officer in the morning identifying the wind and meteorological conditions for the day and snapshot of the ENVMET model indicating areas of site which may have increased risk of dust. (Sighted emails to staff dated 24 -27, 30 October). The ENVMET model assists in determining daily activities on site and their timing (CQ as per comms).
	d) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d in conditions 22 and 23);	Compliant	As per condition above.
	e) minimise surface disturbance on the site; and	Compliant	At the time of site inspection, surface disturbance appears to be compliant in approved areas. Rehabilitation areas such as the Falbrook Pit also appear to be progressing well and therefore reducing exposed surfaces.
f) co-ordinate the air quality management on site with the air quality management of nearby mines (Including Integra Underground, Ashton, Rix's Creek and the Mount Owen Complex) to minimise cumulative air quality impacts, to the satisfaction of the Secretary	Compliant	The Upper Hunter Air Quality Monitoring Network is implemented and is used on site on an as needs basis (CQ as per comms). It is noted that during the audit period there have been no exceedances o the cumulative criteria for Rix's Creek North.	

Condition Number	Condition	Compliance	Evidence and Comments
Air Quality and Greenhouse Gas Management Plan			
27	The Proponent must prepare an Air Quality & Greenhouse Gas Management Plan for the project to the satisfaction of the Secretary. This plan must:		
	a) be prepared in consultation with EPA, and then submitted to the Secretary for approval;	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Air Quality and Greenhouse Gas Management Plan. It is noted that Rix's Creek North submitted a revised 2017 - 2020 Air Quality and Greenhouse Gas Management Plan to the Department on 5 April 2017; however it has not been approved by the Department and therefore not able to be considered in this audit (Sighted correspondence). It is recommended that Bloomfield follow up the approval of this plan with the Department.
	describe the measures that would be implemented to ensure:		
	– compliance with the air quality criteria and operating conditions of this approval; and	Compliant	Section 6 outlines the management measures to ensure compliance with air quality criteria and operating conditions of approval.
	– best practice air quality management is being employed;	Compliant	Particulate emission controls are reviewed every three years against industry best practice (Section 6.1.1)
	b) describe the air quality management system in detail;	Compliant	Section 7 of the management plan describes the air quality monitoring network at Rix's Creek North.
	include an air quality monitoring program that:		
	– uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the project;	Compliant	Monitoring methods are outlined in Section 7.1 of the management plan and include real time monitoring (TEOMs), HVAS, dust deposition and meteorological monitoring.
	– includes a protocol for determining any exceedances of the relevant conditions of this approval;	Compliant	Rix's Creek North have developed a system for monitoring data validation which occurs on a monthly basis (Section 7.3).
	– adequately supports the proactive and reactive air quality management system;	Compliant	Measures to respond to changing dust conditions using real time weather and dust monitoring data and a range of approved potential actions that can be taken at short notice (Section 6.1.2).
– includes PM2.5 monitoring (although this obligation could be satisfied by the regional air quality monitoring network if sufficient justification is provided);	Not verified	The 2016 approved Air Quality & Greenhouse Gas Management Plan does not include nor provide justification as to how the regional air quality monitoring network satisfies this. It is noted however that the revised 2017 Management Plan submitted to the Department on 4 April 2017 does include PM2.5 monitoring and provides justification utilising the Upper Hunter Air Quality Monitoring Network (UHAQMN) however as of the date of the audit this management plan has not been approved by the Department. It is recommended that Bloomfield follow up the approval of this plan with the Department to ensure that Rix's Creek North's approach to this condition meets the Department's expectations.	
– evaluates and reports on the effectiveness of the air quality management system and the best practice air quality management measures; and	Compliant	The performance of the AQMP and the environmental performance will be reviewed annually (Section 9).	
c) include a protocol that has been prepared in consultation with the owners of nearby mines (including Integra Underground, Ashton, Rix's Creek and the Mount Owen Complex) to minimise the cumulative air quality impacts of the mines.	Non-compliant	Section 6.1.3 of the Plan notes that Rix's Creek North will inform adjacent mining operations when the mine's real time air quality monitors indicate excessive dust being generated and will inform surrounding operators of the current measured air quality levels. However there was no evidence that a formal protocol has been developed in consultation with the nearby mines and there was no such protocol within the management plan as required. It is recommended that a formal protocol be developed in consultation with the owners of the nearby mines as required and that it be included in the air quality and greenhouse gas management plan for the Departments approval.	
The Proponent must implement the approved management plan as approved from time to time by the Secretary.	Compliant	There appeared to be no dust issues on site during the site inspection. The ENVMET system is displayed in the workshops where pre-shift meetings and toolbox talks occur. Further it is noted that there have been no exceedances of the relevant air quality criteria during the audit period.	
Meteorological Monitoring			
28	For the life of the project, the Proponent must ensure that there is a meteorological station in the vicinity of the site that:		
	a) complies with the requirements in the <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guidelines; and	Compliant	Rix's Creek North operate a meteorological station on site located near the entry lane/main administration office that complies with the guidelines (CQ as per comms).
	b) is capable of continuous real-time measurements of temperature lapse rate in accordance with the <i>NSW Industrial Noise Policy</i> or as otherwise approved by the EPA.	Compliant	Meteorological monitoring at Rix's Creek North is capable of continuously monitoring temperature lapse rate (Section 7.1.4 of the Air Quality and Greenhouse Gas Management Plan). During site visit sighted real SCADA network indicating sigma theta and neon system showing real time temperature lapse rate data.

Condition Number	Condition	Compliance	Evidence and Comments
Soil and Water			
Water Supply			
29	The Proponent must obtain all necessary water licences for the project under the Water Act 1912 or the Water Management Act 2000.	Compliant	Water Licences held by Rix's Creek North : <ul style="list-style-type: none"> - WAL10095 for 230ML/yr take from Zone 3A Glennies Creek - WAL 833 for 54ML/yr take from Zone 3A Glennies Creek - WAL476 for 51ML/yr take from Zone 3A Glennies Creek - WAL 672 for 102ML/yr take from Zone 3A Glennies Creek - WAL 785 for 23ML/yr take from Zone 3A Glennies Creek - WAL 797 for 14ML/yr take from Zone 3A Glennies Creek - WAL 874 for 240ML/yr take from Zone 3A Glennies Creek - WAL 1273 for 1.2ML/yr take from Zone 3A Glennies Creek - WAL 18002 for 6ML/yr take from Hunter Unregulated and Alluvial Water Sources - WAL 18004 for 5ML/yr take from Hunter Unregulated and Alluvial Water Sources - Bore licences: - 20BL169513- associated with Camberwell mining area - 20BL172249 – associated with North Open cut mining area
30	The Proponent must ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operation to match its available water supply, to the satisfaction of the Secretary.	Compliant	There are no water supply issues at Rix's Creek North as there is a water sharing agreement with Rix's Creek South (CQ as per comms). The Water Management Plan has been developed for both Rix's Creek South and Rix's Creek North sites.
Baseflow Offsets			
31	The Proponent must offset the loss of any baseflow to the surrounding watercourses and/or associated creeks caused by the project to the satisfaction of the Secretary. <i>Notes:</i> <ul style="list-style-type: none"> – <i>This condition does not apply in the case of losses of baseflow which are negligible.</i> – <i>offsets should be provided via the retirement of adequate water entitlements to account for the loss attributable to the project.</i> – <i>The Proponent is not required to provide additional baseflow offsets where such offsets have already been provided under previous consents or approvals for the project. These existing offsets are to be described and evaluated in the Surface and Ground Water Response Plan (see below).</i> 	Compliant	No loss of baseflow has occurred during the audit period (CQ as per comms). This was verified following review of the audit period annual reviews which each provide a summary of Rix's Creek Norths groundwater monitoring results and confirms that the standing ground water levels and piezometers relevant to the alluvium have been recorded as stable and not outside the normal climatic variation of the piezometers. Groundwater monitoring results indicate relatively consistent water depths and it was confirmed that an external groundwater specialist undertakes the analysis each year and provide a summary in Annual Reviews (Sighted).
Compensatory Water Supply			
32	The Proponent must provide compensatory water supply to any landowner of privately-owned land whose water entitlements are impacted (other than an impact that is negligible) as a result of the project, in consultation with DPI Water, and to the satisfaction of the Secretary.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
	The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply must be provided (at least on an interim basis) as soon as practicable after the loss being identified.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
	If the proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).
	If the proponent is unable to provide an alternative long-term supply of water, then the Proponent must provide alternative compensation to the satisfaction of the secretary.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).

Condition Number	Condition	Compliance	Evidence and Comments
Surface Water Discharges			
33	<p>The Proponent must ensure that all surface water discharges from the site comply with the</p> <ul style="list-style-type: none"> a) discharge limits (both volume and quality) set for the project in any EPL; or b) relevant provisions of the POEO Act or Protection of the Environment Operations (hunter River Salinity Trading Scheme) Regulation 2002. 	Not Compliant	<p>During the audit period, Three unplanned discharge events occurred:</p> <p>21 April 2015 – Release of water offsite from B5 Sediment Dam. The event was reported via the EPA Incident hotline and the DPE on the same day of the event and a report was provided to EPA on 28 April 2015.</p> <p>22 September 2015 – Release of water offsite from C4 Clean Water Dam. The event was reported via the EPA Incident hotline and the DPE on the same day of the event and a report was provided to EPA on 29 September 2015.</p> <p>4 January 2016 – 7 January 2017 – Passive release of water offsite. The event was reported to the EPA and DPE were verbally notified by telephone. CQ to confirm incident report timing</p> <p>It is recommended that a review of the water management system, monitoring requirements and procedures should be completed with key findings used to update the water management plan for the Departments approval.</p>
Glennies Creek and Station Creek Alluvial Aquifers			
34	<p>The Proponent must not undertake any open cut mining operations within 150 meters of the Glennies Creek alluvial aquifer or station Creek alluvial aquifer without the prior written approval of the Secretary. In seeking this approval, the Proponent must consult with DPI Water and demonstrate to the satisfaction of the Secretary that adequate safeguards have been incorporated into the Surface and Groundwater Response Plan (see below) to minimise, prevent and/or adequately offset groundwater leakage from the alluvial aquifers.</p> <p><i>Notes: The alluvial aquifers and 150metre buffer zones are shown conceptually on the figure in Appendix 6. This condition does not restrict the Proponents right to construct and use water management works, access tracks, environmental bunds, remediation works and other similar works.</i></p>	Compliant	No mining has been undertaken within 150 meters of the Glennies Creek alluvial aquifer or station Creek alluvial aquifer during the audit period (CQ as per comms).

Condition Number	Condition	Compliance	Evidence and Comments																								
Water Management Performance Measures																											
35	<p>The Proponent must comply with the performance measures in Table 13 to the satisfaction of the Secretary.</p> <p><i>Table 13: Water management performance measures</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Performance Measure</th> </tr> </thead> <tbody> <tr> <td>Water management – General</td> <td> <ul style="list-style-type: none"> Maximise water sharing with the other mines in the region Minimise the use of clean water on site Minimise the need for supplementary water from external supplies </td> </tr> <tr> <td>Glennies Creek and Station Creek alluvial aquifers</td> <td> <ul style="list-style-type: none"> Negligible environmental consequences to the alluvial aquifer beyond those predicted in the documents referred to in conditions 2 and 3 of Schedule 2, including: <ul style="list-style-type: none"> negligible change in groundwater levels; negligible change in groundwater quality; and negligible impact to other groundwater users </td> </tr> <tr> <td>Construction and operation of infrastructure</td> <td> <ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1, Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i> Design, install and maintain all new infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI 2007)</i>, or its latest version Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, 2003)</i> and <i>Why Do Fish Need To Cross The Road? 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Other potential sources of water supply are pumped inflows from sediment dams and from the clean water diversion system and licenced extraction from Glennies Creek (Sighted 2016 Water Management Plan). CQ (per comms) advised that 6.2kms of clean water diversion drains were installed in 2016 (this was viewed during the site inspection) Construction operation of infrastructure was not triggered during the audit period as no creek crossings were constructed (CQ confirmed as per comms) Imported potable water to Rix's Creek North (Sighted 2014, 2015 and 2016 Annual Reviews): <ul style="list-style-type: none"> 2014 – No potable water imported 2015 – 10ML imported potable 2016 - 10ML imported potable Groundwater results indicate no negligible environmental consequences. No groundwater level triggers were exceeded and no reportable events occurred during the audit period (Sighted 2014, 2015 and 2016 Annual Reviews). Seepage through the South and South western embankments of the prescribed Tailings dam TD2 is minimised by the tailings selectively beaching against the dam wall (Sighted 2014, 2015 and 2016 Annual Reviews). Monitoring wells B1 to B5 have been installed to evaluate hydrological impacts on TD2 dam wall (Sighted 2016 Annual Review). Material used in the construction of dumps has no relevant characteristics, acid forming or spontaneous combustion potential e.g. Falbrook Pit Stoney Creek Road Batter (Sighted 2016 Annual Review).
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Water Management Plan																											
	The Proponent must prepare a Water Management Plan for the project to the satisfaction of the Secretary.	Compliant	Sighted letter from the Department dated 19 February 2016 granting approval of the Water Management Plan.																								
36	This plan must:																										
	a) be prepared in consultation with OEH, EPA, DRG and Council, and be endorsed by DPI Water and then submitted to the Secretary for approval;	Non-compliant	Sighted submission to DPE on 12 February 2016. However there was no evidence of consultation with OEH, EPA, DRG or Council and no evidence that the plan has been endorsed by DPI-Water.																								
	b) include detailed performance criteria and describe measures to ensure that the Proponent complies with the Water Management Performance Measures (see Table 13);	Compliant	Preventative measures are discussed in Section 5 of the plan.																								

Condition Number	Condition	Compliance	Evidence and Comments
	<p>c) include a Site Water Balance, which must:</p> <ul style="list-style-type: none"> - include details of: - sources and security of water supply; - water use on site - water management on site; and - any off-site water transfers, and - describe what measures would be implemented to minimise clean water use on site; 	Compliant	<p>Site water balance is included in Section 2.4 of the Water Management Plan and contains:</p> <ul style="list-style-type: none"> - sources and security of water supply; - water use on site - water management on site; - off-site transfers; and - measures implemented to reduce clean water use.
	<p>d) include an Erosion and Sediment Control Plan, which must:</p> <ul style="list-style-type: none"> - identify activities that could cause soil erosion and generate sediment: - describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk: - describe the location, function and capacity of erosion and sediment control structures and flood management structures; and - describe what measures would be implemented to maintain the structures over time 	Non-compliant	<p>Section 5.1.2.2 outlines Erosion Sediment Control measures for Rix's Creek North which do not cover all requirements listed under this condition including:</p> <ul style="list-style-type: none"> - describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk - describe what measures would be implemented to maintain the structures over time <p>Reference is made to detailed plans being presented in EIS Volume 2, however this could not be viewed at the time of audit. It is noted that an erosion and sediment plan for the western extension area dated 2011 was sighted however this is considered to be out dated.</p> <p>It is recommended that the detailed erosion and sediment control plans are reviewed and updated to provide a consistent and coordinated approach and that these are included in the Water Management Plan.</p>
	<p>e) include a Surface Water Management Plan, which must include:</p>		
	<ul style="list-style-type: none"> - detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project; 	Compliant	Appendix C of the Water Management Plan details the baseline data for Rix's Creek North operations including data for Glennies Creek and Station Creek.
	<ul style="list-style-type: none"> - surface water and stream health impact assessment criteria including trigger levels for investigating and potentially adverse surface water impacts from the project (for existing creeks and reinstated/rehabilitated creeks); 	Non-compliant	<p>Discussion of triggers is included in Section 5.2, however no specific water quality levels are specified to demonstrate when the trigger should be activated.</p> <p>Recommendation to include specific trigger levels for water quality in Water Management Plan.</p>
	<ul style="list-style-type: none"> - a program to monitor and assess: <ul style="list-style-type: none"> o surface water flows and quality; o impacts on water users; o stream health; and o channel stability. 	Compliant	<p>Section 4 and Section 5 of the Water Management Plan outlines the Surface Water Monitoring which has been developed for implementation at Rix's Creek North.</p> <ul style="list-style-type: none"> - surface water flows and quality (5.2) - impacts on water users (5.2) - stream health (5.1.1) and - Channel stability (5.2.7).
	<p>f) Include a Groundwater Management Plan, which must include:</p>		
	<ul style="list-style-type: none"> - detailed baseline date of groundwater levels, yield and quality in the region, particularly for privately-owned groundwater bores that could be affected by the project: 	Compliant	Appendix D of the Water Management Plan details the baseline data for Rix's Creek North operations including data for the North Open Cut Project Area and Extended South Pit (Western Extension) Open Cut Area.
	<ul style="list-style-type: none"> - groundwater impact assessment criteria including trigger levels for investigating and potentially adverse groundwater water impacts: and 	Compliant	Groundwater level triggers are outlined in Section 7.1 of the Water Management Plan.
	<ul style="list-style-type: none"> - a program to monitor and assess: <ul style="list-style-type: none"> o groundwater inflows to the mining operations; o impacts on regional aquifers; o impacts on the groundwater supply of potentially affected landowners; o impacts on the Glennies Creek and Station Creek; and o impacts on groundwater dependent ecosystems and riparian vegetation; 	Compliant	<p>Section of the Water Management Plan outlines the Groundwater Monitoring which has been developed for implementation at Rix's Creek North and assesses:</p> <ul style="list-style-type: none"> - groundwater inflows to the mining operations (7.1.1) - impacts on regional aquifers (7.2.7) - Impacts on groundwater supply of potentially affected landowners (7.2.4) - Impacts on the Glennies Creek and Station Creek (7.2.6) - Impacts on groundwater dependent ecosystems and riparian vegetation (7.2.8)
	<p>g) a Surface and Groundwater Response Plan, which must include:</p>		
	<ul style="list-style-type: none"> - a response protocol for any exceedances of the surface water and groundwater assessment criteria, including provisions for independent investigation by a suitable qualified hydrogeologist whose appointment has been approved by the Secretary; 	Compliant	Section 5.2 of the Water Management Plan addresses corrective measures regarding Surface Water and Section 7.2 of the Water Management Plan addresses the Groundwater corrective measures (Sighted).

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	– measures to offset the loss of any baseflow to watercourses caused by the project;	Compliant	Baseflow offsets are addressed in Section 7.2 of the Water Management Plan																					
	– measures to compensate landowners of privately-owned land whose water supply is adversely affected by the project; and	Compliant	Rix's creek will enter into negotiations with affected landowners with the intent of formulating an agreement for one or a combination of: <ul style="list-style-type: none"> - reestablishment of saturated thickness or water level; - establishment of additional bores - access to alternative sources of water - compensation to reflect increased water extraction costs (7.2.5) 																					
	– measures to mitigate and/or offset adverse impacts on groundwater dependent ecosystems or riparian vegetation.	Compliant	No groundwater dependent ecosystems are in the vicinity of either open cuts or the underground workings and hence no measures are required to protect such systems there (Section 7.2.8)																					
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Biodiversity																								
Biodiversity Offset																								
37	<p>The Proponent must implement the biodiversity offset strategy summarised in Table 14, described in the open cut and underground project EAs (as amended by EA Mod 4), and shown conceptually in the figures in Appendix 8 to the satisfaction of the Secretary.</p> <p><i>Table 14: Biodiversity offset strategy</i></p> <table border="1"> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Minimum Size (hectares)</th> </tr> </thead> <tbody> <tr> <td>Northern Biodiversity Offset Area</td> <td>Existing vegetation to be enhanced and restored to re-establish functioning ecosystems, and additional vegetation to be established, including regeneration of a minimum of 87 hectares of Derived Grassland/Native Pasture to vegetation communities representative of the Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC.</td> <td>88</td> </tr> <tr> <td>Southern Biodiversity Offset Area</td> <td></td> <td>30</td> </tr> <tr> <td>Bridgeman Biodiversity Offset Area</td> <td></td> <td>86</td> </tr> <tr> <td>Martins Creek Biodiversity Offset Area</td> <td></td> <td>194</td> </tr> <tr> <td>Appletree Flat Biodiversity Offset Area</td> <td>Existing vegetation to be enhanced and restored to re-establish functioning ecosystems.</td> <td>216</td> </tr> <tr> <td>TOTAL</td> <td></td> <td>614</td> </tr> </tbody> </table>	Area	Offset Type	Minimum Size (hectares)	Northern Biodiversity Offset Area	Existing vegetation to be enhanced and restored to re-establish functioning ecosystems, and additional vegetation to be established, including regeneration of a minimum of 87 hectares of Derived Grassland/Native Pasture to vegetation communities representative of the Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC.	88	Southern Biodiversity Offset Area		30	Bridgeman Biodiversity Offset Area		86	Martins Creek Biodiversity Offset Area		194	Appletree Flat Biodiversity Offset Area	Existing vegetation to be enhanced and restored to re-establish functioning ecosystems.	216	TOTAL		614	Not verified	<p>The draft biodiversity management plan as submitted to the Department for approval on 26 August 2016 (and not yet approved) outlines the minimum size biodiversity offset areas (Section 2.1.1) and the actual size of the Biodiversity offset areas (Section 2.4.4).</p> <p>The draft biodiversity management plan states that Martin's Creek BOA is 193.6 Ha indicating it is 0.4Ha short of the minimum size. All other offset areas listed in Table 14 are above the minimum size of the offset area. Further as the management plan has not yet been approved it is not able to be verified if this is to the satisfaction of the Secretary.</p> <p>It is recommended that this area be confirmed by a surveyor and if it is below the minimum size advice should be sought from planning as to whether the area needs to be increased or if any further offsetting arrangements are required to address this condition.</p>
Area	Offset Type	Minimum Size (hectares)																						
Northern Biodiversity Offset Area	Existing vegetation to be enhanced and restored to re-establish functioning ecosystems, and additional vegetation to be established, including regeneration of a minimum of 87 hectares of Derived Grassland/Native Pasture to vegetation communities representative of the Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC.	88																						
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TOTAL		614																						
38	<p>The biodiversity offset strategy must:</p> <p>a) ensure provision of at least 140 hectares of Narrow-leafed Ironbark-Spotted Gum-Forest Red Gum Forest (or a suitable equivalent) to further offset the impact of the open cut project;</p> <p>b) include an additional 6 hectares of Central Hunter Swamp Oak Forest (or a suitable equivalent) to offset the impacts from Integra Underground on the Glendell Biodiversity Offset Area; and</p> <p>c) include an offer to transfer the Appletree Flat Biodiversity Offset Area to OEH for long term conservation purposes. This offer must include sufficient funding for the ongoing management of the Appletree Flat Biodiversity Offset Area to the satisfaction of the Secretary.</p>	<p>Not verified</p> <p>Compliant</p> <p>Compliant</p>	<p>The draft biodiversity management plan as submitted to the Department (and not yet approved) outlines two core management zones for biodiversity offset areas being habitat management areas (consisting of remnant woodland vegetation) and habitat restoration areas for areas of derived native grassland is proposed to be restored to provide the remaining offset areas. For Narrow-leafed Ironbark-Spotted Gum-Grey Box Open Forest 116.2Ha of remnant woodland vegetation and 87.2ha of derived native grassland for habitat restoration has been included in the management plan which equals 203.4ha which is above the 140ha required by this condition.</p> <p>However as the management plan has not yet been approved it is not able to be verified if this is to the satisfaction of the Secretary.</p> <p>It is recommended that Rix's Creek north follow up with the Department to seek approval of this management plan.</p> <p>Biodiversity Offset Strategy states that Swamp Oak Forest equals a total of 49.7Ha .</p> <p>Section 2.1.2 of the Biodiversity Offset Strategy states that the Apple Tree Flat Biodiversity Offset Area is to be handed to OEH.</p>																					
Long Term Security of Offsets																								
39	By 31 October 2016, or as otherwise agreed by the Secretary, the Proponent must make suitable arrangements to provide appropriate long term security for all the areas in the biodiversity offset strategy to the satisfaction of the Secretary.	Not triggered	Rix's Creek North have previously sought two extensions of their long term security offsets. Rix's Creek North have been granted extension until 31 October 2018 (Sighted DP&E correspondence dated 4 October 2017).																					

Condition Number	Condition	Compliance	Evidence and Comments
Biodiversity Management Plan			
40	The Proponent must prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:		
	a) be prepared in consultation with OEH and then submitted to the Secretary for approval;	Compliant	Meetings were held with OEH and draft Biodiversity Management Plan was supplied to OEH for review and feedback prior to submission in correspondence dated 24 August 2016. It is noted that Rix's Creek North submitted a Biodiversity Management Plan to the Department on 26 August 2016 however it has not been approved by the Department. It is recommended that Rix's Creek north follow up with the Department to seek approval of this management plan.
	b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;	Compliant	Land management strategies addressing the implementation of the Biodiversity Offset Strategy with the overall rehabilitation of Rix's Creek North are addressed in Section 2.6 of the Biodiversity Management Plan.
	c) include: – a description of the short, medium and long term measures that would be implemented to: ○ implement the biodiversity offset strategy; and ○ manage the remnant vegetation and habitat, both on site and in the biodiversity offset areas;	Compliant	Short, medium and long term management measures to implement the offset strategy and manage remnant vegetation and habitat are described in Section 2.3 and 2.6 of the Biodiversity Management Plan.
	– detailed performance and completion criteria for the implementation of the biodiversity offset strategy;	Compliant	Pathogen management and hygiene and revegetation and regeneration strategies such as review of stem densities for the Biodiversity Offset Strategy will be implemented (Section 2.6.3 and Appendix A).
	– a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:		
	○ enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas with ecological functions that are comparable with similar, undisturbed ecosystems;	Compliant	Biodiversity Offset Areas will be managed to maintain or enhance the diversity of its structure and species composition (Section 2.6.11)
	○ restoring native vegetation and fauna habitat in the biodiversity offset areas through focusing on assisted natural regeneration:	Compliant	Revegetation steps such as species selection, sowing rates and species proportions and tube stock densities are used at Rix's Creek North (Section 2.6.12).
	○ targeting vegetation establishment including a program for active revegetation of 87.2 ha of Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC on the site and the timeframe in which this will be achieved:	Compliant	A program targeting the Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC has been described throughout the Management Plan with the revegetation steps for the species described in Section 2.6.12.
	○ introducing naturally scarce elements of fauna habitat (where practicable):	Not verified	Section 2.6.11 addresses habitat augmentation although there is no specific mention of introducing naturally scarce elements. However it was noted by Chris Quinn (Environmental Advisor) that Appendix B of the Biodiversity Management Plan contains a Conservation Bond Cover Note and Cost Calculator which specifically includes introducing naturally scarce elements, however this could not be determined at the time of audit. Recommendation to include in Biodiversity Management Plan.
	○ acquiring quantitative baseline data for existing ecosystems in the Appletree Flat Biodiversity Offset Area and on the site, including the Northern, Southern, Bridgman and Martins Creek Biodiversity areas – these must include habitat, flora and fauna baseline data;	Compliant	Baseline environment information such as climate and vegetation communities are described in Section 2.4 of the Biodiversity Management Plan.
	○ maximising salvage and beneficial use of resources in areas that are to be impacted, including vegetative, soil and cultural heritage resources;	Compliant	Salvage and reuse of suitable fauna habitat to occur during the life of the project as clearing occurs on the adjoining mine site (Section 2.6.11). Procedures for the salvage and care of cultural heritage items is addressed in Section 2.6.4
	○ protecting vegetation and soil outside the areas that are to be impacted;	Compliant	Fencing gates and signage (2.6.5), access tracks (2.6.6), soil management (2.6.8) and stock management are methods of protecting vegetation and soil as described in the Biodiversity Management Plan.
○ managing salinity	Compliant	Section 2.6.8 of the draft biodiversity management plan (Erosion, Sediment and Soil Management) outlines a range of management measures that would assist in managing salinity including retain and regenerate native vegetation, exclusion of cattle in the BOA's, minimise vehicle traffic and having defined roads to minimise soil compaction. However there is no specific reference to these measures being used to manage salinity. Recommendation to include specific reference to the fact that these measures as presented in Section 2.6.8 are intended to will manage salinity.	
○ conserving and reusing topsoil;	Non-compliant	No mention of measures to conserve and/or reuse topsoil. Recommendation to include measures to specifically address the reuse of topsoil.	

Condition Number	Condition	Compliance	Evidence and Comments
	<ul style="list-style-type: none"> undertaking pre-clearance surveys; 	Compliant	The Bloomfield Group Land Disturbance Management Procedure is referenced in Section 2.6.4 (Cultural Heritage Management) which outlines requirements for pre-clearance surveys should any clearing of vegetation be required. Recommendation to include a specific section for pre-clearance surveys and the method that would be followed in the management plan rather than in a separate document that is referenced.
	<ul style="list-style-type: none"> managing impacts on fauna; 	Compliant	Habitat augmentation through structural diversity and shelter is used to manage fauna impacts (Section 2.6.11)
	<ul style="list-style-type: none"> landscaping the site to minimise visual impacts; 	Administrative non-compliance	Based on the information within the management plan it is clear that measures are taken to ensure revegetation reflects that of a native ecosystem, however there is no specific section that details how landscaping activities will be carried out to ensure visual impacts are minimised. Recommendation to include discussion on minimising visual impacts as required.
	<ul style="list-style-type: none"> collecting and propagating seed; 	Compliant	The revegetation program will utilise locally sourced seed, where practicable, to ensure locally endemic species are incorporated into revegetation areas (Section 2.6.10).
	<ul style="list-style-type: none"> salvaging and reusing material from the site for habitat enhancement; 	Compliant	Salvage and reuse of suitable fauna habitat to occur during the life of the project as clearing occurs on the adjoining mine site (Section 2.6.11).
	<ul style="list-style-type: none"> controlling weeds and feral pests, including terrestrial and aquatic species; 	Compliant	An annual feral animal management and control program will be carried out across the Biodiversity Offset Areas (2.6.14). Mitigation measures such as livestock being quarantined prior to entry to Biodiversity Offset Areas is addressed in Section 2.6.13.
	<ul style="list-style-type: none"> managing grazing and agriculture on site and in the biodiversity offset areas; 	Compliant	Stock management through controlled grazing is used (Section 2.6.9).
	<ul style="list-style-type: none"> controlling access; 	Compliant	Fencing, gates and signage and access tracks are used as controls (Section 2.6.5 and Section 2.6.6)
	<ul style="list-style-type: none"> bushfire management; and 	Compliant	Section 2.6.15 addresses bushfire management across the Biodiversity Offset Areas.
	<ul style="list-style-type: none"> managing potential conflicts between the biodiversity offset areas and Aboriginal cultural heritage values; 	Compliant	Cultural heritage management is addressed in Section 2.6.4
	<ul style="list-style-type: none"> a description of the potential risks to the successful implementation of the biodiversity offset strategy, and a description of the contingency measures that would be implemented to mitigate these risks; 	Compliant	Risks to the Biodiversity Offset Strategy are outlined in Section 2.6.1.
	<ul style="list-style-type: none"> a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; and 	Compliant	Section 2.7 details the monitoring program to determine the effectiveness of the measures.
	<ul style="list-style-type: none"> details of who would be responsible for monitoring, reviewing, and implementing the plan. 	Compliant	Roles and responsibilities are outlined in Section 1.5 of the plan.
	The Proponent must implement the approved management plan as approved from time to time by the Secretary.	Not triggered	The Biodiversity Management Plan was submitted to the Department for approval on 5 April 2017 however has not been approved.
41	The Proponent must commission a suitably qualified, experienced and independent person approved by the Secretary to conduct an audit by 31 December 2020, and a second audit 5 years thereafter, of all biodiversity areas subject to regeneration, restoration and/or protection as Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC, as referred to in condition 37. A report on each audit is to be submitted to the Secretary within 6 months of completing the audit for approval.	Not triggered	This condition has not been triggered during the audit period.
	Each report must, for each area of Derived Grassland/Native Pasture proposed for regeneration and restoration as Central Hunter Ironbark-Spotted Gum-Grey Box Forest EEC and for each existing area of Central Hunter Ironbark-Spotted Gum-Grey Box Forrest EEC:	Not triggered	This condition has not been triggered during the audit period.
	a) report all relevant baseline data (as at the date of project approval) concerning flora and fauna, ecosystem condition and ecosystem function;	Not triggered	This condition has not been triggered during the audit period.
	b) report all relevant current data (as at the time of the audit) concerning flora and fauna, ecosystem condition and ecosystem function;	Not triggered	This condition has not been triggered during the audit period.
	c) provide a scientifically-valid comparison of the baseline data with current data	Not triggered	This condition has not been triggered during the audit period.
	d) provide a scientifically-valid comparison of the current data with the data from the first audit and including the baseline data (in the case of the second audit);	Not triggered	This condition has not been triggered during the audit period.

Condition Number	Condition	Compliance	Evidence and Comments
	e) report on any works and/or other disturbance that has taken place in the areas since project approval;	Not triggered	This condition has not been triggered during the audit period.
	f) describe the management measures undertaken to regenerate and/or restore the areas, including the dates and/or periods during which those measures were implemented;	Not triggered	This condition has not been triggered during the audit period.
	g) evaluate the effectiveness of the management measures undertaken; and	Not triggered	This condition has not been triggered during the audit period.
	h) recommend any additional management measures to regenerate, restore and/or protect the EEC and provide a schedule for their implementation.	Not triggered	This condition has not been triggered during the audit period.
Conservation Bond			
42	Within 6 months of the approval of the Biodiversity Management Plan (see above), the Proponent must lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.	Not triggered	The Biodiversity Management Plan has not been approved by the Department and therefore this condition has not been triggered. It was noted that the conservation bond has been prepared and submitted for approval with the Biodiversity Management Plan.
	The sum of the bond must be determined by:		
	a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and	Not triggered	This condition has not been triggered during the audit period.
	b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.	Not triggered	This condition has not been triggered during the audit period.
	The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.	Not triggered	This condition has not been triggered during the audit period.
	If the biodiversity offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond. If the biodiversity offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will call in all or part of the conservation bond and arrange for the satisfactory completion of the relevant works. <i>Notes:</i> - Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a BioBanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation bond. - The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.	Not triggered	This condition has not been triggered during the audit period.

Condition Number	Condition	Compliance	Evidence and Comments
Targeted Survey			
42A	<p>Prior to the commencement of the exploration drilling program, the Proponent must:</p> <p>a) conduct a targeted survey for <i>Diuris tricolor</i> during its known flowering time (mid-September to mid-October) within the area of disturbance of each proposed borehole, in consultation with OEH.</p>	Compliant	The targeted survey works have been completed by Steven Bell of East Coast Flora Assessments with initial field survey of the area being conducted on 22 September 2017 and the assessment was conducted on 2 October 2017. No orchids were detected and no recommendations provided (Sighted report dated 10 October 2017).
	<p>b) Prepare a report, to the satisfaction of the Secretary, detailing:</p> <ul style="list-style-type: none"> The results of the survey; Whether the proposed exploration activities would harm <i>Diuris tricolor</i>; What measures would be implemented to avoid impacts on <i>Diuris tricolor</i> and other threatened species, populations or their habitats; and Suitable offset arrangements in accordance with the NSW Biodiversity Offsets Policy for Major Projects, if the survey concludes that <i>Diuris tricolor</i> would be harmed by the proposed boreholes. <p>The proponent must implement the findings of the report, to the satisfaction of the Secretary.</p>	Compliant	The survey report was approved by the Department in correspondence dated 25 October 2017.
Heritage			
Further Archaeological Investigation			
43	Prior to carrying out any development in the parts of the site outlined in purple on the figure in Appendix 8, unless the Secretary agrees otherwise, the Proponent must carry out further archaeological testing and investigation within the broader area outlined in purple on the figure in Appendix 7 to the satisfaction of the Secretary.	Not triggered	This condition has not been triggered during the audit period.
Heritage Management Plan			
44	The Proponent must prepare a Heritage Management Plan for the project to the satisfaction of the Secretary.	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Heritage Management Plan.
	This plan must:		
	a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Heritage Management Plan.
	b) be prepared in consultation with OEH, the Aboriginal community, the Heritage Division, Council, local historical organisations and relevant landowners:	Not verified	Section 4.2 of the management plan as approved states that consultation with OEH, the heritage division, council, local historical organisations and relevant landowners has occurred. However no proof of correspondence was found during the time of audit. Incorrect reference to Project Approval Condition – Management Plan states this as Schedule 3, Condition 47 (actually 44) Recommendation that during the next revision that this error be corrected.
	c) be submitted to the Secretary for approval;	Compliant	Sighted letter from the Department dated 16 February 2016 granting approval of the Heritage Management Plan.
	d) include the following for the management of Aboriginal cultural heritage on site:		
	o recording, salvaging and/or managing all Aboriginal sites, objects and deposits that are to be destroyed within the open cut project area;	Compliant	Section 4.4 details the Aboriginal Site Salvage methods including site collection, archaeological excavations and timing of salvage objects.
	o conserving, managing and monitoring all Aboriginal sites and deposits that are to be protected within the open cut project area, including the 3 scarred trees identified within the western mining area;	Compliant	Section 4.3 details the mapping and fencing of aboriginal sites including the three scarred trees within the western mining area.
o maintaining and managing access to Aboriginal sites, objects and deposits by the Aboriginal community, including provision of an appropriate Keeping Place;	Compliant	The Aboriginal Keeping Place is described in Section 4.5 of the plan.	
o managing the discovery of any new Aboriginal objects or skeletal remains identified during the project; and	Compliant	The procedure for the discovery of human remains is detailed in Section 4.9 of the plan	

Condition Number	Condition	Compliance	Evidence and Comments
	<ul style="list-style-type: none"> ongoing consultation and involvement of the Aboriginal community in the conservation and management of Aboriginal cultural heritage values on the site. 	Compliant	Ongoing consultation during mining will occur as aboriginal stakeholders will be involved in the mitigation works on site and be notified of any human remains found (Section 3.4).
	e) include programs/ procedures for the following, in accordance with the applicable guidelines of the Heritage Division:		
	<ul style="list-style-type: none"> further historical investigation of the area outlines in purple on the figure in Appendix 7 to identify the potential archaeological resources within the area; 	Compliant	A procedure for further archaeological/historical investigation is outlined in Section 4.3 of the plan.
	<ul style="list-style-type: none"> archaeological testing of the potential archaeological resources within the area outlined in purple on the figure in Appendix 7; 	Compliant	A procedure for testing archaeological resources is outlined in Section 4.3 of the plan.
	<ul style="list-style-type: none"> further archaeological investigation of any areas where the archaeological testing (referred to above) identifies significant archaeological deposits; 	Compliant	A procedure for further archaeological/historical investigation is outlined in Section 4.3 of the plan.
	<ul style="list-style-type: none"> archaeological excavation of the known grave on site, identified as the James Halliday Glennie grave site; 	Compliant	The James Halliday Glennie Grave Site is currently outside the area of proposed disturbance (Section 4.4).
	<ul style="list-style-type: none"> detailed archival recording of the Dulwich property if it is to be mined, or the preparation of a detailed conservation management plan for the Dulwich property if it is not to be mined (subject to the agreement of the landowner); 	Compliant	The Dulwich property is not to be mined as part of the western extension of the existing south pit (Section 4.5).
	<ul style="list-style-type: none"> archival recording of any other heritage items to be destroyed by the project; 	Compliant	No heritage items are planned to be destroyed however Section 4.6 outlines the procedures if it does occur in the future.
	<ul style="list-style-type: none"> conserving, managing, monitoring, and where appropriate, relocating any non-Aboriginal sites, objects and deposits on the site; 	Compliant	Section 4.7 of the plan addresses the conservation, management, monitoring and relocation of archaeological remains.
	<ul style="list-style-type: none"> interpreting the findings of the additional heritage or archaeological investigations carried out on the site; and 	Compliant	Interpretation of findings is outlined in Section 4.8 of the plan.
	<ul style="list-style-type: none"> managing the discovery of any new non-Aboriginal objects or skeletal remains identified during the project. 	Compliant	Management of the discovery of new non-aboriginal objects are addressed in Section 4.9.4 of the plan.
	The Proponent must implement the approved management plan as approved from time to time by the Secretary.		
Transport			
Monitoring of Coal Transport			
	The Proponent must:		
	a) keep accurate records of:		
45	<ul style="list-style-type: none"> amount of coal transported from the site (on a monthly basis); 	Compliant	Train Movement Records indicate the tonnage coal loads transported from the site (Sighted Train Movement Records).
	<ul style="list-style-type: none"> the date and time of each train movement from the site; and 	Compliant	Train movements are published on Bloomfield's website and detail arrival and departure time and date. Website : http://www.bloomcoll.com.au
	b) make these records publicly available on its website at the end of each calendar year.	Compliant	Yearly records of train movements are located on the website for the audit period and are up to date (latest published online 2016).
Visual			
Visual Amenity and Lighting			
	The Proponent must:		
46	a) implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts of the project;	Compliant	In order to minimise available views of Rix's Creek North along the New England Highway additional tree screens have been planted in May 2017 which included rows of over 1200 native tube stock (CQ Per comms.) Rix's Creek North undertake attended night time noise monitoring and include any lighting issues or comments on visibility (Sighted 'Rix's Creek Night Time Noise Monitoring Record Sheet' dated 31/01/16). OCE inspection reports include lighting where relevant. Sighted OCE inspection report dated 4 April 2017 addressing the lighting of of plant due to low dump edge.

Condition Number	Condition	Compliance	Evidence and Comments
	b) ensure no unshielded outdoor lights shine above the horizontal; and	Compliant	CQ per comms explained that all lighting is set up to ensure that it does not shine above the horizontal with the majority of lighting being down in the pit or shielded from external view in any case. Further it was noted that there have been no complaints received during the audit period with regard to lighting impacts.
	c) ensure that all external lighting associated with the project complies with <i>Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting</i> , or its latest version,	Administrative non-compliance	No evidence to support that lighting equipment considers AS 4282 (Int) 1995. However service reports are completed to ensure equipment is fit for purpose and during the audit period no complaints have been received with regard to offsite lighting impacts (CQ as per comms). Recommendation to include a lighting component in an appropriate site management plan and ensure that procurement of all lighting for site complies with this standard.
	to the satisfaction of the Secretary		
Additional Visual Mitigation Measures			
47	Upon receiving a written request from the owner of any residence on privately-owned land which has significant direct views of the open cut mining operations on site, the Proponent must implement additional visual mitigation measures (such as landscaping treatments or vegetation screens) on the land in consultation with the landowner. These measures must be reasonable and feasible, and directed towards minimizing the visibility of the operations from the residence.	Not triggered	This condition has not been triggered during the audit period.
	If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.	Not triggered	This condition has not been triggered during the audit period.
Waste			
	The Proponent must:		
48	a) minimise and monitor the waste generated by the project; and	Compliant	Rix's Creek North operate under a Waste Management Plan 2016 – 2018 (Sighted 7 November 2017).
	b) ensure that the waste generated by the project is appropriately stored, handled, and disposed of;	Compliant	Table 5.1 of the Waste Management Plan describes how waste is stored, handled and disposed.
	c) manage on-site sewage treatment and disposal in accordance with the requirements of Council; and	Compliant	Rix's Creek North sewage system is approved by Singleton Council (Section 5.2 of the Waste Management Plan). Services on the septic system at Rix's Creek North are completed quarterly (CQ as per comms). Sighted 'All Septic' service report dated 24 August 2017.
	d) report on waste management and minimisation in the annual review,	Compliant	Waste management and minimisation has been addressed in the 2014, 2015 and 2016 Annual Reviews (sighted).
	to the satisfaction of the Secretary.		
Bushfire Management			
	The Proponent must:		
49	a) ensure that the project is suitably equipped to respond to fires on site; and	Compliant	Rix's Creek North operate under a Bushfire Hazard Reduction Plan (2016) which outlines the procedures to respond and report a fire on site (Sighted 7 November 2017). During the site inspection viewed that water carts are equipped with firefighting equipment and hoses.
	b) assist the Rural Fire service and emergency services as much as possible if there is a fire in the vicinity of the site.	Not triggered	This condition has not been triggered during the audit period (CQ as per comms).

Condition Number	Condition	Compliance	Evidence and Comments														
Rehabilitation																	
Rehabilitation Objectives																	
50	<p>The Proponent must rehabilitate the site in a manner that is generally consistent with the rehabilitation strategy described in the documents referred to in conditions 2 and 3 of schedule 2 - and depicted conceptually in the figure in Appendix 8 - and the objective in Table 15.</p> <p><i>Table 15: Rehabilitation objectives</i></p> <table border="1"> <thead> <tr> <th>Area/Domain</th> <th>Rehabilitation Objectives</th> </tr> </thead> <tbody> <tr> <td>Site (as a whole)</td> <td> <ul style="list-style-type: none"> Safe, stable & non-polluting Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms Constructed landforms maximise surface water drainage to the natural environment (excluding final void catchments) Minimise long term groundwater seepage zones Minimise visual impact of final landforms as far as is reasonable and feasible </td> </tr> <tr> <td>Final voids</td> <td> <ul style="list-style-type: none"> Safe, stable & non-polluting Minimise the size and depth of the final void as far as is reasonable and feasible Minimise the drainage catchment of the final void as far as is reasonable and feasible Minimise the risk of flood interaction for all flood events up to and including the Probable Maximum Flood Negligible high wall instability risk </td> </tr> <tr> <td>Surface infrastructure</td> <td>To be decommissioned and removed, unless DRE agrees otherwise</td> </tr> <tr> <td>Historic underground workings</td> <td>Safe, stable & non-polluting</td> </tr> <tr> <td>Other land affected by the project</td> <td> Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"> local native plant species (unless DRE agrees otherwise); and a landform consistent with the surrounding environment </td> </tr> <tr> <td>Community</td> <td> <ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects associated with mine closure </td> </tr> </tbody> </table>	Area/Domain	Rehabilitation Objectives	Site (as a whole)	<ul style="list-style-type: none"> Safe, stable & non-polluting Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms Constructed landforms maximise surface water drainage to the natural environment (excluding final void catchments) Minimise long term groundwater seepage zones Minimise visual impact of final landforms as far as is reasonable and feasible 	Final voids	<ul style="list-style-type: none"> Safe, stable & non-polluting Minimise the size and depth of the final void as far as is reasonable and feasible Minimise the drainage catchment of the final void as far as is reasonable and feasible Minimise the risk of flood interaction for all flood events up to and including the Probable Maximum Flood Negligible high wall instability risk 	Surface infrastructure	To be decommissioned and removed, unless DRE agrees otherwise	Historic underground workings	Safe, stable & non-polluting	Other land affected by the project	Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"> local native plant species (unless DRE agrees otherwise); and a landform consistent with the surrounding environment 	Community	<ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects associated with mine closure 	Compliant	<p>A summary of rehabilitation performance was included in the audit period AR's. Rehabilitation was confirmed to be generally in accordance with the EA and MOP during the site visit and inspections with the 2016 areas behind the MOP targets. It was noted that the site has been under care and maintenance for an extended period during the audit period and also changed ownership.</p> <p>It was noted that progress has been made with regard to removing stands of Acacia Saligna (a Western Australian species) which had historically been used in site rehabilitation. Rix's Creek North are in the process of removing this and replacing it with local endemic woodland species to improve the quality of site rehabilitation.</p>
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Progressive Rehabilitation																	
51	The Proponent must carry out rehabilitation of the site progressively, that is, as soon as reasonably practicable following the disturbance.	Compliant	<p>Rehabilitation at Rix's Creek North is conducted progressively as soon as practicable (CQ as per comms). In 2016, Rix's Creek North was behind in predicted rehabilitation progress as per the Mining Operations Plan, however it is noted that the mine did not start operating until March 2016. It is planned to make the 2017 target by the end of the year (CQ as per comms) and this will be reported in the 2017 Annual Review.</p> <p>Previous audit found that</p>														
Rehabilitation Management Plan																	
52	The Proponent must prepare a Rehabilitation Management Plan for the project to the satisfaction of DRG.	Compliant	<p>Rix's Creek North Rehabilitation Management Plan is part of the Mining Operations Plan (MOP), which was submitted on 22 December 2015 and approved by DRG on 18 January 2016 (Sighted correspondence).</p> <p>An amendment to the Mining Operations Plan was submitted on 1 June 2017 and approved on 5 July 2017 (Sighted correspondence).</p>														
	This plan must:																
	a) be prepared in consultation with the Department, OEH, DPI Water, Council and the CCC;	Non-compliant	Sighted correspondence from DRG on 17 October 2017 stating the Mining Operations Plan serves as the Rehabilitation Management Plan; however there is no evidence of it being prepared in consultation with relevant agencies or the CCC prior to submission and approval.														
	b) be submitted to the DRG for approval;	Compliant	<p>Rix's Creek North Rehabilitation Management Plan is part of the Mining Operations Plan (MOP), which was submitted on 22 December 2015 and approved by DRG on 18 January 2016 (Sighted correspondence).</p> <p>An amendment to the Mining Operations Plan was submitted on 1 June 2017 and approved on 5 July 2017 (Sighted correspondence).</p>														
c) be prepared in accordance with any relevant DRG guideline, and be consistent with the rehabilitation objectives in Table 15 and in the documents referred to in conditions 2 and 3 of Schedule 2;	Non-compliant	<p>Section 5.2 of the Plan lists Rehabilitation Objectives, however not all of the objectives listed in Table 15 are addressed in the Mining Operations Plan including:</p> <ul style="list-style-type: none"> - Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms - Ensure public safety - Minimise the risk of flood interaction for all flood events up to and including the Probable Maximum Flood. <p>Recommendation to include all Rehabilitation Objectives from Table 15 in the MOP as required by this condition.</p>															

Condition Number	Condition	Compliance	Evidence and Comments
	d) build, the maximum extent practicable, on the other management plan required under this approval; and	Compliant	The Rehabilitation Management Plan builds on and refers to other management plans including the Biodiversity Management Plan, Air Quality Management Plan, Water Management Plan, Noise Management Plan, Heritage Management Plan, Waste Management Plan and Final Void Management Plan.
	e) address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring.	Non-compliant	Table 18 in the MOP outlines the objectives, performance indicators, measures and criteria. However a number of rehabilitation objectives are not included as is required by Schedule 3, Condition 50 including: <ul style="list-style-type: none"> - final landforms designed to incorporate micro-relief - minimise long term groundwater seepage zones - ensure public safety - minimise socio-economic effects associated with mine closure. Post mining land use is addressed in Section 4.
	The Proponent must implement the approved management plan as approved from time to time by the Secretary.		
53	Within 12 months of the completion of the exploration drilling program, the Proponent shall plant 2 trees for every established tree removed during the exploration drilling program. The replacement trees must be of like-for-like species, planted in the same area from which they were removed, and be maintained until established. <i>Note: An established tree is considered to be two metres or greater in height.</i>	Not triggered	This condition has not been triggered during the audit period.
54	Rehabilitation of all areas disturbed by the exploration drilling program is to be undertaken in accordance with an approved Mining Operations Plan/Rehabilitation Management Plan, to the satisfaction of DRG.	Not triggered	This condition has not been triggered during the audit period.
Schedule 4			
Additional Procedures			
Notification of Landowners			
1	By the end of December 2010, the Proponent must: a) notify in writing the owners of: <ul style="list-style-type: none"> o the land listed in Table 1 of Schedule 3 that they have the right to require the Proponent to acquire their land at certain stages during the project; o any residence on the land listed in Table , for which the acquisition basis is noise, or Table 6 of Schedule 3 that they are entitled to ask for additional air quality mitigation measures to be installed at their residence at certain stages of the project; and o any residence on the land listed in Table , for which the acquisition basis is air quality, or Table12 of Schedule 3 that they are entitled to ask for additional air quality measures to be installed at their residence at certain stages of the project; and o any privately-owned land within 2 kilometres of any approved open cut mining pit on site that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; and 	Compliant	Previous Audit confirmed compliance with this condition (<i>Independent Audit of the Integra Mine Complex 2015, R.W. Corkery & Co. Pty Limited</i>).
	b) send a copy of NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where predictions in the open cut project EAs identify that dust emissions from the project are likely to be greater than relevant air quality criteria in Schedule 3 at any time during the life of the project.	Compliant	Previous Audit confirmed compliance with this condition (<i>Independent Audit of the Integra Mine Complex 2015, R.W. Corkery & Co. Pty Limited</i>).

Condition Number	Condition	Compliance	Evidence and Comments
2	Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the relevant noise criteria or dust criteria in Schedule 3, the Proponent must:		
	a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and	Not triggered	This condition has not been triggered during the audit period. However as per Schedule 3, Condition 25, Residents were issued letters via emails to inform them of their rights and a link to 'Mine Dust and You' (Sighted correspondence dated 20 October 2017).
	b) advise the prospective tenants of the rights they would have under this approval,	Not triggered	This condition has not been triggered during the audit period.
	to the satisfaction of the Secretary.	Not triggered	This condition has not been triggered during the audit period.
3	As soon as practicable after obtaining monitoring results showing:		
	a) an exceedance of any relevant criteria in Schedule 3, the Proponent must notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is again complying with the relevant criteria;	Not triggered	This condition has not been triggered during the audit period.
	b) an exceedance of any relevant criteria in conditions 6(c) or 7 of Schedule 3, the Proponent must notify the applicable owner in writing that they are entitled to ask for additional noise mitigation to be installed at their residence;	Not triggered	This condition has not been triggered during the audit period.
	c) an exceedance of any relevant criteria in condition 22 or 23 of Schedule 3, the Proponent must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land); and	Not triggered	This condition has not been triggered during the audit period.
d) an exceedance of relevant criteria in condition 24 (c) of Schedule 3, the Proponent must notify the applicable owner of any residences on the land that they are entitled to ask for additional air quality mitigation measures to be installed at their residence.	Not triggered	This condition has not been triggered during the audit period.	
Independent Review			
4	If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impact of the project on his/her land.	Not triggered	This condition has not been triggered during the audit period.
	If the secretary is not satisfied that an independent review is warranted, the Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 60 days of the request for a review.	Not triggered	This condition has not been triggered during the audit period.
	If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Proponent must:	Not triggered	This condition has not been triggered during the audit period.
	a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to: <ul style="list-style-type: none"> – consult with the landowner to determine his/her concerns; – conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and – if the project is not complying with these criteria then: <ul style="list-style-type: none"> – determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine towards the impact on the land; – identify the measures that could be implemented to ensure compliance with the relevant criteria; and 	Not triggered	This condition has not been triggered during the audit period.
	b) give the Secretary and landowner a copy of the independent review.	Not triggered	This condition has not been triggered during the audit period.
5	If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.	Not triggered	This condition has not been triggered during the audit period.

Condition Number	Condition	Compliance	Evidence and Comments
	If the independent review determines that the project is not complying with the relevant criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent must:	Not triggered	This condition has not been triggered during the audit period.
	a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or	Not triggered	This condition has not been triggered during the audit period.
	b) secure a written agreement with the landowner to allow the exceedances of the relevant criteria, to the satisfaction of the Secretary.	Not triggered	This condition has not been triggered during the audit period.
	If the independent review determines that the project is not complying with the relevant acquisition criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent must acquire all or part of the landowner's land in accordance with the procedures in conditions 8 to 9 below.	Not triggered	This condition has not been triggered during the audit period.
6	If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Proponent must:	Not triggered	This condition has not been triggered during the audit period.
	a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or	Not triggered	This condition has not been triggered during the audit period.
	b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Secretary.	Not triggered	This condition has not been triggered during the audit period.
	If the independent review determines that relevant acquisition criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for the exceedance, then upon receiving a written request from the landowner, the Proponent must acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s in accordance with the procedures in conditions 7 to 8 below.	Not triggered	This condition has not been triggered during the audit period.
Land Acquisition			
7	Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent must make a binding written offer to the landowner based on:	Compliant	The Bloomfield Group received a request for acquisition from Frank Ferraro and purchased the property on 23 December 2016 (Sighted contract of sale dated 14 December 2016). No other requests for acquisition for properties listed in Table 1 had been received at the time of audit.
	a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the: <ul style="list-style-type: none"> o existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and o presence of improvements on the land and/or any approved building or structure which has been physically commenced on the land at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of any additional mitigation measures required under conditions 6, 7 or 24 of Schedule 3; 	Compliant	Bloomfield paid all reasonable costs associated with the purchase of the Ferraro Estate (Sighted contract dated 14 December 2016).
	b) the reasonable costs associated with: <ul style="list-style-type: none"> o relocating within the Singleton or Muswellbrook local government areas, or to any other local government area determined by the Secretary; and o obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and 	Compliant	Bloomfield paid all reasonable costs associated with the purchase of the Ferraro Estate (Sighted contract dated 14 December 2016).
	c) reasonable compensation for any disturbance caused by the land acquisition process.	Compliant	Bloomfield paid all reasonable costs associated with the purchase of the Ferraro Estate (Sighted contract dated 14 December 2016).
	However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.	Not triggered	Rix's Creek North agreed to the acquisition of the Ferrero residence (CQ as per comms).

Condition Number	Condition	Compliance	Evidence and Comments
	Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute (the API) to appoint a qualified independent valuer to:	Not triggered	
	o consider submissions from both parties;	Not triggered	
	o determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;	Not triggered	
	o prepare a detailed report setting out the reasons for any determination; and	Not triggered	
	o provide a copy of the report to both parties.	Not triggered	
	Within 14 days of receiving the valuer's report, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.	Not triggered	
	However if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report disputing the independent valuer's determination, and any other relevant submissions.	Not triggered	This condition has not been triggered during the audit period.
	Within 14 days of this determination, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.	Not triggered	This condition has not been triggered during the audit period.
	If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponents obligations to acquire the land shall cease unless the Secretary determines otherwise.	Not triggered	This condition has not been triggered during the audit period.
8	The Proponent must pay all reasonable costs associated with the land acquisition process described above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible). And registration of this plan at the Office of the Registrar-General.	Not triggered	This condition has not been triggered during the audit period.
Schedule 5			
Environmental Management, Reporting and Auditing			
Environmental Management			
Environmental Management Strategy			
	If the Secretary requires, the Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:	Compliant	It is noted that the approved Environmental Management Strategy is dated 2012 – 2015. Rix's Creek North submitted a revised Environmental Management Strategy to the Department for approval on 5 April 2017. It is noted that at the time of audit, approval has not been granted from the Department.
	a) be submitted to the Secretary for approval;	Compliant	Latest version of Environmental Management Strategy submitted to the Department on 5 April 2017, however no response has been received from the Department.
	b) provide the strategic framework for the environmental management of the project;	Compliant	Section 4 of the EMS provides the strategic framework for the environmental management of the project
	c) identify the statutory approvals that apply to the project;	Compliant	Statutory approvals are described in Section 4.1 of the EMS.
	d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;	Compliant	Section 6 of the EMS outlines the roles and responsibilities.
	e) describe the procedures that would be implemented to:		
	o keep the local community and relevant agencies informed about the operation and environmental performance of the project;	Compliant	Stakeholders and consultation strategies are described in Section 5 of the EMS.
1			

Condition Number	Condition	Compliance	Evidence and Comments
	o receive, handle, respond to, and record complaints;	Compliant	Section 10 of the EMS addresses the complaints handling and response process.
	o resolve any disputes that may arise during the course of the project;	Compliant	Dispute resolution processes are addressed in Section 10.1 of the EMS.
	o respond to any non-compliance; and	Compliant	Section 12.1 of the EMS outlines the environmental Incident reporting process.
	o respond to emergencies; and	Compliant	Emergency preparedness and response is described in Section 11 of the EMS.
	f) include:		
	o copies of any strategies, plans and programs approved under the conditions of this approval; and	Compliant	Management plans and standards are listed in Section 4.2 of the EMS.
	o a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.	Compliant	Monitoring requirements are detailed in Section 12 of the EMS.
	The Proponent must implement the approved strategy as approved from time to time by the Secretary.	Compliant	Rix's Creek North submitted a revised Environmental Management Strategy to the Department for approval on 5 April 2017. It is noted that at the time of audit, approval has not been granted from the Department. It is recommended that Bloomfield follow up with the Department.
Evidence of Consultation			
1A	Where consultation with any public authority is required by the conditions of this approval, the Proponent must: a) consult with the relevant public authority prior to submitting the required document to the Secretary for approval; b) submit evidence of consultation as part of the relevant document c) describe how matters raised by the authority have been addressed and any matters not resolved; and d) include details of any outstanding issues raised by the authority and an explanation of disagreement between any public authority and the Proponent.	Non-compliant	While evidence was available for the majority of management plans that have been prepared and submitted under this project approval it was identified that evidence was not available to confirm that consultation with the required agencies was undertaken prior to the submission of the Rehabilitation Management Plan or the Water Management Plan.
Management Plan Requirements			
	The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:		
	a) detailed baseline data;	Compliant	Where applicable, the management plans include the baseline data i.e. water and air.
	b) a description of: o the relevant statutory requirements (including any relevant approval, licence or lease conditions); o any relevant limits or performance measures/criteria; and o the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;	Compliant	All required management plans include a summary of the relevant statutory requirements, criteria and performance indicators.
2	c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Compliant	All management plans include preventative measures or operational measures to comply within limits or statutory requirements.
	d) a program to monitor and report on the: o impacts and environmental performance of the project; and o effectiveness of any management measures (see (c) above);	Compliant	All required management plans include a monitoring program, where relevant.
	e) a contingency plan to manage any unpredicted impacts and their consequences;	Compliant	All required management plans include trigger action response, corrective measures and preventative measures where applicable.
	f) a program to implement and investigate ways to improve environmental performance of the project over time;	Compliant	All required management plans include key performance indicators and monitoring and review measures where applicable.
	g) a program to regularly review management practices to align with contemporary best practice industry standards;	Compliant	All required management plans contain a section on review where applicable.

Condition Number	Condition	Compliance	Evidence and Comments
	<p>h) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> o incidents o complaints o non-compliances with the conditions of this approval and statutory requirements; and o exceedances of the impact assessment criteria and/or performance criteria; and 	Compliant	All required management plans where applicable, include a protocol for managing and reporting incidents, complaints, non-compliances and exceedances of relevant criteria.
	<p>i) a protocol for periodic review of the pan.</p>	Compliant	All management plans include a protocol for review of the plan and provide a timeline for the process.
	<i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i>		
Preparation of Management Plans			
3	Prior to approval of management plans required under Schedule 3, all existing management plans, monitoring programs, strategies, programs, protocols, etc approved as at the date of approval of Modification 6 shall continue to have full force and effect, and may be revised under the requirements of condition 5 below as if subject to the conditions of this approval that applied prior to the approval of Modification 6, or otherwise with the approval of the Secretary.	Noted	<p>It is noted that the following plans have been revised and submitted to the Department on 5 April 2017 and are awaiting the Department's approval:</p> <ul style="list-style-type: none"> - AQ&GHG Management Plan - Blast Management Plan - Noise Management Plan - Environmental Management Strategy <p>The preceding management plans will continue to have full force and affect until approval is granted by the Secretary.</p>
Relationships Between Management Plans			
4	With the agreement of the Secretary, the Proponent may combine any strategy, plan or program required by this approval with any similar strategy, plan or program required for Rix's Creek.	Compliant	<p>The following management plans were combined with Rix's Creek Mine following approval from the Secretary, were submitted on 5 April 2017 and are awaiting approval:</p> <ul style="list-style-type: none"> - AQ&GHG Management Plan - Blast Management Plan - Noise Management Plan - Environmental Management Strategy
Revision of Strategies, Plans and Programs			
5	<p>Within 3 months of:</p> <ul style="list-style-type: none"> a) the submission of an incident report under condition 8 below; b) the submission of an annual review under condition 10 below; c) the submission of an audit report under condition 11 below, or d) any modification of the conditions of this approval (unless the conditions require otherwise), <p>the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. The Proponent must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i></p>	Non-compliant	<p>Three incident reports were prepared and submitted to the Department during the audit period for uncontrolled water discharges from site. Following the discharge event on 21 April 2015, the Water Management Plan was updated on 5 May 2015 and accepted by the Department on 28 May 2015. No evidence of a review or update of the Water Management Plan within 3 months of the other two events which occurred on 22 September 2015 and 4-7 January 2016.</p> <p>Also no evidence of review and updates to management plans following the annual reviews during the audit period.</p> <p>It is recommended that a process of regular review and revision of management plans should be established to confirm compliance with this condition.</p>
Updating and Staging Submissions of Strategies, Plans or Programs			
6	The Proponent must regularly review the strategies, plans and programs required under this approval and ensure that these documents are updated to incorporate measures to improve the environmental performance of the project and reflect current best practice in the mining industry. To facilitate these updates, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis.	Compliant	Rix's Creek North submitted revised Management plans on 5 April 2017 for the Department's approval; however no response from the Department had been received at the time of audit.

Condition Number	Condition	Compliance	Evidence and Comments
	<p>The Secretary may approve a revised strategy, plan or program required under this approval, or the stated submission of any of these documents, at any time. With the agreement of the Secretary, the Proponent may revise any strategy, plan or program approved under this approval without consulting with all parties nominated under the applicable conditions of approval.</p> <p>While any strategy, plan or program may be submitted on a progressive basis, the Proponent must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.</p> <p>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 further stages, and the trigger for updating the strategy, plan or program.</p> <p>Notes:</p> <ul style="list-style-type: none"> - while any strategy, plan or program may be submitted on a progressive basis, the Proponent 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 further stages, and the trigger for updating the strategy, plan or program. 	Noted	
Community Consultative Committee			
7	<p>The Proponent must operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the <i>Department's Community Consultative Committee Guidelines, November 2016 (or later version)</i>.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; - In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community; - The Proponent may, with the approval of the secretary, combine the function of this CCC with the function of other CCCs in the area. 	Not verified	<p>Rix's Creek North and Rix's Creek South operate a joint Community Consultative Committee for the Project. Latest CCC meeting was conducted 1 June 2017 (Sighted meeting minutes).</p> <p>It is noted that as described in the EA for MOD6 approval was sought for the previous Integra CCC to be modified to allow Committee members focused on the open cut operations to be integrated with the Rix's Creek South CCC and those members focused on the underground mining activities to be integrated into Glencore's adjacent Mt Owen Mine CCC.</p> <p>During the audit Chris Quinn advised that the new chair person has not been chosen because the DPE candidate pool has not been formed as yet and during the interim the CCC is being chaired by Sarah Lukeman (SSC Councillor). As it is was not able to be confirmed if the current arrangement for the CCC chair is to the Secretaries satisfaction it has been noted as not verified.</p>
Reporting			
Incident Reporting			
8	<p>The Proponent must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident.</p>	Compliant	Sighted incident reports confirming three discharge events were verbally reported to EPA and DPE on the same day the incident occurred (21 April 2015, 22 September 2015 and 7 January 2016).
8A	<p>Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify and non-compliance with this approval.</p>	Compliant	Sighted incident reports confirming three discharge events were provided to the EPA and the Department within 7 days of the incident occurring (28 April 2015, 29 September 2015 and 7 January 2016).
Regular Reporting			
9	<p>The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any approved plans or programs of the conditions of this approval.</p>	Compliant	The Bloomfield website contains reporting requirements

Condition Number	Condition	Compliance	Evidence and Comments
Annual Review			
10	By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must submit a report to the Department reviewing the environmental performance of the project to the satisfaction of the Secretary. This review must:		
	a) describe the works (including any rehabilitation) that were carried out during the previous calendar year, and the works that are proposed to be carried out over the current calendar year;	Compliant	Annual Reviews prepared during the audit period include includes rehabilitation of disturbed land and actions and improvements form the previous reporting period as well as works proposed mining activities for the year (Sighted 2014, 2015 and 2016 Annual Reviews).
	b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the: <ul style="list-style-type: none"> o relevant statutory requirements, limits or performance measures/criteria; o monitoring results of previous years; and o relevant predictions in the documents referred to in condition 2 of Schedule 2; 	Compliant	Monitoring results and complaints records are described in the Annual Reviews for the audit period and compare these results against previous years and the relevant requirements and criteria (Sighted 2014, 2015 and 2016 Annual Reviews).
	c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;	Non-compliant	Non-compliances which occurred throughout the reporting period are addressed and actions taken to ensure compliance are described throughout the Annual Reviews (Sighted 2014, 2015 and 2016 Annual Reviews). Whilst a review of the recommendations from the previous Independent Environmental Audit is provided in the 2014 and 2015 annual reviews for Rix's Creek North this information is not included in the 2016 report. Further there is no formal or methodical review of compliance under this project approval presented for the report year in the annual reviews. Recommendation formal review of compliance should not be restricted to 3 yearly independent audits.
	d) identify any trends in the monitoring data over the life of the project;	Compliant	Monitoring results are compared against previous data and trends are discussed where applicable (Sighted 2014, 2015 and 2016 Annual Reviews).
	e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and	Compliant	Actual impacts of Rix's Creek North are discussed in reference to the predicted impacts throughout the Annual Reviews where relevant. In particular, groundwater modelling predicted vs actual impacts are described (Sighted 2014, 2015 and 2016 Annual Reviews).
f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.	Compliant	Measures and activities to be implemented over the calendar year are addressed throughout the Annual Reviews including the progression of rehabilitation (Sighted 2014, 2015 and 2016 Annual Reviews).	
Independent Environmental Audit			
11	By the end of December 2011, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project.	Compliant	The 2011 Independent Environmental Audit was conducted by Graham A Brown & Associates. The previous Independent Environmental Audit was undertaken by R.W. Corkery & Co. Pty Limited in December 2014 for the audit period 3 December 2011 to 4 December 2014. Umwelt (Australia) Pty Limited was endorsed by the Secretary to complete this 2017 Independent Environmental Audit in correspondence dated 26 September 2017 (Sighted).
	This audit must:		
	a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Compliant	As per above.
	b) include consultation with the relevant agencies;	Compliant	Section 2.2 of the Audit report summarises the consultation undertaken and the issues raised.
	c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);	Compliant	This audit assessed compliance of the relevant conditions of the Project Approval, EPL and relevant Mining Leases.
d) review the adequacy of any approved strategies, plans or programs required under these approvals, with particular reference to management practices to ensure that they align with the contemporary best practice industry standards;	Compliant	This audit assessed compliance of the plans against the conditions of the project approval at the time of audit (PA 08_0102) and relevant management plans.	

Condition Number	Condition	Compliance	Evidence and Comments
	e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the above mentioned approvals; and f) be conducted and reported to the satisfaction of the Secretary. <i>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.</i>	Compliant	This audit provided a range of recommendation to improve the environmental performance of the project.
12	Within 12 weeks of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. The Proponent must implement these recommendations, to the satisfaction of the Secretary.	Not Verified	The previous 2014 audit was issued to the Department on 20 March 2015 following approval for extension of time in correspondence from the Department dated 3 March 2015. However there is no evidence to suggest response to audit recommendations were submitted to the Department.
Access to Information			
13	The Proponent must:		
	a) make copies of the following publicly available on its website:		
	o the documents referred to in conditions 2 and 3 of Schedule2;	Compliant	The Environmental Assessment for Rix's Creek North is located on the website.
	o all current statutory approvals for the project;	Compliant	All current approvals were located on the Rix's Creek North website.
	o all approved strategies, plans and programs required under the conditions of this approval;	Compliant	All approved management plans are located on the Rix's Creek North website. It is noted that once approval of the management plans is granted by DPE, they should replace the existing plans online.
	o the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans or programs;	Compliant	Monitoring reports are available online; however they are accessible via the 'Rix's Creek' link not the 'Rix's Creek North' link. It is recommended that a link to the documents is placed via the 'Rix's Creek North' page for clarity.
	o a complaints register, which is to be updated on a monthly basis;	Compliant	The website contains a link to 2016 complaints register, which provides a link back to the 2015 complaints. Currently, there is no 2016 or 2017 complaints published on the Rix's Creek North website, however a combined complaints register for Rix's Creek South and Rix's Creek North is located via the Rix's Creek link (Sighted 24 October 2017). Recommendation to put a link to the same register on the Rix's Creek North link for clarity.
	o minutes of CCC meetings;	Administrative non-compliant	Latest CCC minutes published on the Rix's Creek North website are dated February 2016, however the CCC has combined with Rix's Creek and the minutes from the latest meetings (including 20 September 2016 and 1 June 2017) which were for the combined sites are only published on the Rix's Creek website and are not on the Rix's Creek North website.. Recommendation to provide a link to CCC meeting minutes on the Rix's Creek North website and update website to explain that the two sites are operated together but under separate consents.
	o the annual reviews over the life of the project;	Administrative non-compliant	2016 Annual Review has not been published on the Rix's Creek North website, however is located on the Rix's Creek website. Recommendation to put a link to the Annual Review on the Rix's Creek North website to ensure that this information is readily accessible as required.
	o any independent environmental audit, and the Proponent's response to the recommendations in any audit; and	Administrative non-compliant	2014 Independent Audit of Rix's Creek North response to recommendations is not located on the website (Sighted 24 October 2017). It was noted during the audit that this report was uploaded to the Vale website and had not yet been copied across following change of ownership. Recommendation to copy this across to the Rix's Creek North website as required.
o any other matter required by the Secretary;	Not triggered	There have been no other requests from the Secretary to publish online.	
b) keep this information up-to-date, to the satisfaction of the Secretary.	Compliant	All information appears to be up to date on the website where applicable.	

Project Approval Compliance Table – Rix Creek North Mine – Statement of Commitments PA 08_0102

Condition Number	Condition	Compliance	Evidence and Comments
General			
A1	Bloomfield will comply with all conditional requirements in all approvals, licences and leases.	Non-compliant	Non-compliances identified as per audit report.
A2	Bloomfield will conduct all operations in accordance with all relevant documentation including: <ul style="list-style-type: none"> • Mining Operations Plan; • environmental procedures; and • safety management plans and/or site specific documentation. 	Compliant	This audit assesses the compliance of Rix's Creek North against all relevant documentation.
Soils and Land Capability			
B1	Strip material to the depths stated in Table 6.3 .		
B2	Material will not be stripped in either extremely wet or dry conditions.	Administrative non-compliant	No evidence provided to confirm that this occurs and is not addressed in MOP. Recommendation to include in MOP.
B3	Stripped material will be used immediately (where practicable) to avoid the requirement for stockpiling.	Compliant	Section 3.2.2.1 of the current MOP addresses this requirement.
B4	Tracking over previously laid soil will be avoided to minimise compression effects.	Administrative non-compliant	No evidence provided to confirm that this occurs and is not addressed in MOP. Recommendation to include in MOP
B5	The surface of soil stockpiles will be left in as a coarsely textured a condition as possible to promote rainfall infiltration and minimise erosion.	Compliant	Section 3.2.2.1 of the current MOP addresses this requirement.
B6	A maximum stockpile height of 3m will be maintained where practicable.	Compliant	Section 3.2.2.1 of the current MOP addresses this requirement.
B7	Stockpiles will be positioned away from drainage lines and/or upslope water diversion banks or similar controls will be installed.	Compliant	Section 3.2.2.1 of the current MOP addresses this requirement.
B8	Downslope sedimentation controls will be installed until the soil stockpiles are appropriately stabilised.	Compliant	Section 3.2.2.1 of the current MOP addresses this requirement.
B9	If long-term stockpiling is planned (i.e. greater than 3 months), stockpiles will be seeded and fertilised as soon as possible.	Compliant	Section 3.2.2.1 of the current MOP addresses this requirement.
B10	Prior to re-spreading stockpiled topsoil onto reshaped overburden, it will be decided if individual stockpiles require herbicide application and / or 'scalping' of weed species prior to topsoil spreading.	Compliant	Section 3.2.2.1 of the current MOP addresses this requirement.
B11	An inventory of available soil will be maintained to ensure adequate topsoil materials are available for planned rehabilitation activities.	Non-compliant	No inventory was able to be provided during the audit and not addressed in MOP. Recommendation to include in MOP and ensure that this inventory is used to plan for and complete rehabilitation activities.
B12	Topsoil will be spread to a nominal depth of 0.10m.	Compliant	Section 5.3.3 of the current MOP addresses this requirement.
Groundwater			
C1	Standing water levels and groundwater quality will be assessed in accordance with Table 7.3, Table 7.4 and Table 7.5 .	Compliant	Groundwater monitoring results for the audit period indicate relatively consistent water depths and it was confirmed that an external groundwater specialist undertakes the analysis each year and provides a summary in the Annual Reviews (Sighted).
C2	All results will be reviewed and updated monitoring and remediation plans will be developed as required in consultation with DPI Water, DRG and OEH.	Not triggered	The water monitoring results are assessed on a monthly basis. No remediation plan has been required due to water levels and ground water quality triggers not exceeded (CQ per comms)
C3	If required, contingency measures will be developed to manage any adverse impacts identified by monitoring that may indicate unanticipated effects in the groundwater system's response to mining in the proposed Pit.	Not triggered	Not triggered during audit period.

Condition Number	Condition	Compliance	Evidence and Comments
C4	If the impacts of mining on the alluvium and Foybrook Formation groundwater systems are demonstrated to be greater than anticipated, Bloomfield will: <ul style="list-style-type: none"> assess the significance of these impacts; investigate measures to minimise these impacts; and describe what measures will be implemented to reduce, minimise, mitigate or remediate these impacts in the future to the satisfaction of the Director-General. 	Not triggered	Not triggered during audit period.
C5	Rehabilitation of groundwater dependent ecosystems will be incorporated as part of the Offset Strategy (refer Commitment E10). Trigger thresholds for the groundwater management response will be identified and included in the Rehabilitation Strategy.	Non-compliant	There is no mention of Groundwater Dependent Ecosystems in the Biodiversity Offset Strategy or Rehabilitation management plan in the MOP. Recommendation to include in required documents.
C6	The amount of water pumped into or out of the proposed Pit will be monitored to assess the actual volume of water stored within the pit as well as to assess the groundwater inflows and evaporation effects.	Compliant	Monitoring has been completed throughout the audit period. Ongoing monitoring spreadsheet from 2015 – current is updated on a weekly basis (Sighted).
C7	All new bores will be installed by suitably licensed drillers after obtaining the relevant license from DPI Water.	Not triggered	No new bores have been installed during the audit period.
C8	If monitoring results indicate the agreed standard or performance indicators are not being achieved, remedial actions will be implemented as appropriate.	Not triggered	Not triggered as per Annual Review results (Sighted).
C9	An annual report will be prepared by a qualified hydrogeologist and include a statistical analysis of the results of the parameters measured, an interpretation of water quality and standing water level changes.	Compliant	Statistical analysis of groundwater is undertaken and included in the 2014 Annual Review (Section 3.5.2), 2015 Annual Review (Section 7.3.2) and 2016 Annual Review (Section 7.4.2)(Sighted).
C10	All relevant monitoring and management activities for each year will be reported in the Annual Review.	Compliant	Management activities and monitoring results are included in the Annual Reviews for the Audit period (2014, 2015 and 2016).
C11	ICO will adhere to the operating rules of the Hunter Regulated River Water Sharing Plan (HRRWSP) and the Hunter Unregulated River Water Sharing Plan (HURRWSP), thereby ensuring that the operation of the proposed extended Pit will protect Glennies Creek and its associated well connected alluvial water sources.	Compliant	Rix's Creek North operate under Water Access Licences (WAL's) and trigger levels are included in Annual Reviews for the audit period (Sighted). Recommendation to change commitment to 'Bloomfield' instead of 'ICO'.
C12	Ongoing verification of the EA predictions and contingency measures will be attained by development and adherence to a surface water and groundwater monitoring and management plan (SW&GWMP) that will be prepared, in consultation with DPI Water. Cut off thresholds that relate to potential mining induced depressurisation impacts in the connected Glennies Creek Alluvium will be established and documented in the SW&GWMP.	Compliant	The 2016 Water Management Plan addresses this requirement.
C13	During excavation of the western periphery of the pit, geological mapping will be used to assess the potential southerly extension of a fault identified in the drift to Integra Underground and, if identified, its significance. If the fault is present in the pit, it will be investigated to assess whether it can provide a connective hydrological pathway between the pit and the Glennies Creek alluvium through re-activation of the fault. If appropriate, the hydrological significance of the fault will be assessed through incorporating its hydrological properties into the existing FEFLOW groundwater model.	Compliant	This condition has not been triggered during the audit period. However it is noted that the groundwater model is being updated to cover these conditions (CQ as per comms).
Surface Water			
D1	Construct diversions to direct clean water away from areas of disturbance, to a standard suitable to contain an ARI 50 year rainfall event.	Compliant	CQ advised that 6.2kms of clean water diversion drains were installed in 2016 (this was viewed during the site inspection)
D2	Construct dirty water diversions to collect stormwater runoff from disturbed areas and deliver this water to sedimentation basins.	Compliant	Section 5.1.1 of the 2016 Water Management plan addresses this condition. There was no evidence of runoff issues during the site inspection.
D3	Construct sedimentation basins to treat disturbed area runoff prior to discharge.	Not triggered	No sediment basins have been built during the audit period (CQ as per comms).
D4	Continue and extend existing Water Management System.	Compliant	Ongoing as per the above
D5	Continue the existing Surface Water Monitoring Program and extend to include: <ul style="list-style-type: none"> collection of grab samples along ephemeral watercourses such as Station Creek, during or immediately after surface runoff events; monthly water quality sampling of water storages on the site; and regular collection of data on water quality, storage water levels (including the Portal Sump) and pumping volumes between storages. 	Compliant	Monthly monitoring and water sampling occurs at Rix's Creek North. Recommend to remove portal sump from commitment as this is located at Integra Underground.

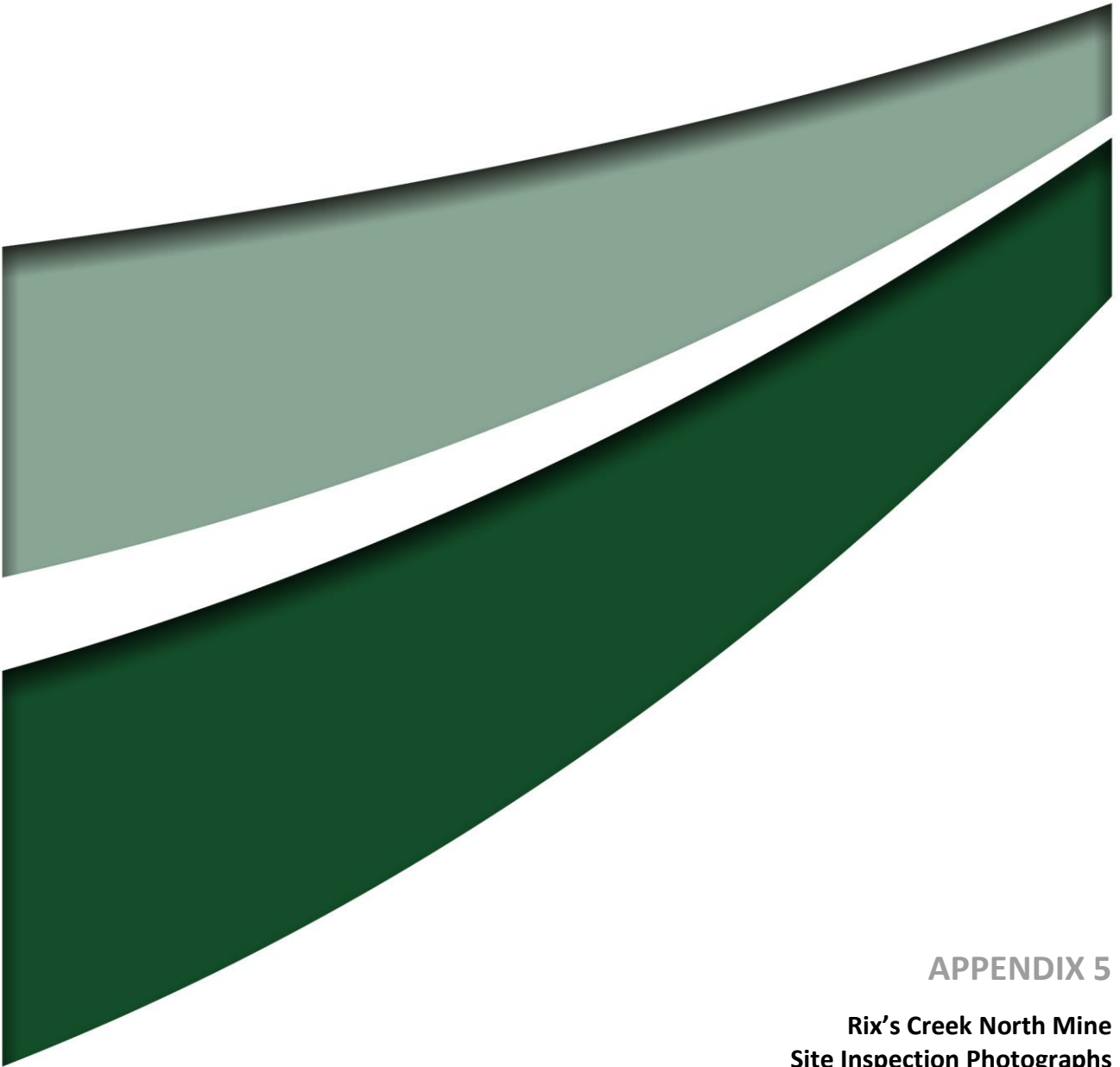
Condition Number	Condition	Compliance	Evidence and Comments
D6	All pumped inflows to dirty water storages will cease when the storage water level reaches a defined Maximum Operating Level.	Compliant	Possum Skin Dam has an alarm system through the SCADA system which has a functional supply level (Sighted Possum Skin Dam Inspection Report). D1 dirty water dam has pump activation as needed (CQ as per comms).
D7	If the weather outlook indicates future significant rainfall, water will be pumped out of any dirty water storage (with the potential to discharge offsite) that is within 100 mm of spilling, provided that a suitable alternative storage location is available elsewhere on the site.	Compliant	Communication from pump crew occurs on site as part of the morning meetings (CQ as per comms). Recommendation to prepare a formal procedure that documents this as part of Erosion Sediment Control Plan
D8	In the event of a dirty water discharge offsite, water samples will be collected at the overflow from the spilling storage and at the surface water sampling locations along Station Creek (for spills within the Station Creek catchment). For a spill from Possum Skin Dam, a sample will be collected at the discharge point and at the point of inflow to Glennies Creek.	Compliant	Water samples are collected and completed off site (CQ as per comms).
D9	If a spill occurs, an incident report will be prepared which documents the circumstances leading to the spill, the measures taken to prevent the spill, the estimated spill volume and duration, and the measured water quality results. Any spillage will be reported to EPA in accordance with the requirements of the site's Environment Protection Licence.	Compliant	Three spills occurred during the audit period, all of which were reported to the EPA in accordance with this commitment and relevant conditions of the Project Approval.
D10	After construction of drainage works is complete, disturbed areas will be top soiled and revegetated using a combination of pasture grasses and cover crops to stabilise the ground surface.	Compliant	Sighted Establishment Records register (26 October 2017).
D11	As part of the rehabilitation activities, above ground landforms will feature drainage provisions designed to effectively capture and divert surface water run-off to stable disposal areas prior to being discharged into surrounding watercourses.	Compliant	Sighted Establishment Records register (26 October 2017).
Biodiversity			
E1	A Flora and Fauna Management Plan will be developed and include measurements for the minimisation or avoidance of impacts on native flora and fauna. This will include: <ul style="list-style-type: none"> • pre-clearance surveys; • groundcover clearance protocol; • site management measures such a temporary exclusion fencing, maximum vehicle speeds and reducing the use of lighting to decrease impacts on nocturnal fauna; and • limiting vehicular and personnel entry into retained vegetation through temporary exclusion fencing, locating access roads and tracks to avoid habitat and use of signage where necessary. 	Compliant	Section 2.7 of the Biodiversity Management plan addresses Flora and Fauna
E2	Fauna management procedures will include: <ul style="list-style-type: none"> • monitoring of trees for fauna before and during clearing operations; • avoiding trees with resident fauna as much as practicable; • demarcation and avoidance of identified hollow bearing trees wherever possible; • carefully sawing and placing intact hollow-bearing trunks and branches into adjacent areas of native vegetation; • replacing habitat, such as nest boxes, where habitat trees are to be removed; • maintaining existing maximum vehicle speed limits within the Open Cut Project Area to reduce fauna road fatalities; • limiting vehicular and personnel entry into retained vegetation through temporary exclusion fencing; and • directing lighting at operating equipment to reduce light spill onto nocturnal fauna species in adjacent vegetation. 	Compliant	Pre-clearance surveys are undertaken at Rix's Creek North. Viewed example of permit to disturb dated 21/3/17 that covers these requirements.
E3	Pre-clearance surveys will involve: <ul style="list-style-type: none"> • diurnal searches for birds, nests and roosts including targeted searches for communal nests of the Grey-crowned Babbler; • active searches for microbats, including checking under exfoliating bark; and • nocturnal surveys, including stag watching of identified habitat trees, specifically focusing on observing use of trees by microbats. 	Compliant	Viewed example of permit to disturb sighted for 21 March 2017.
E4	If threatened species nests or nestlings are observed within or close to the Open Cut Area then clearing will be postponed until the nestlings have hatched and fully-fledged. If operational constraints mean that this delay is not practicable then OEH will be consulted to determine if relocating the species is acceptable.	Not triggered	This commitment was not triggered during the audit period.

Condition Number	Condition	Compliance	Evidence and Comments
E5	A groundcover clearance protocol will be implemented and involve: <ul style="list-style-type: none"> removal of large woody debris using excavator grabs or raking if practicable; placing of intact large woody debris within adjacent areas of intact vegetation; stripping and stockpiling leaf litter and topsoil separately from deeper fill material; and reusing leaf litter and topsoil in rehabilitation works. 	Compliant	Permit to disturb sighted for 21 March 2017 (Sighted 26 October 2017).
E6	Fencing will be implemented to exclude grazing by cattle within retained patches of remnant vegetation to improve habitat value and floral diversity.	Compliant	Site inspection confirmed fencing has been implemented where appropriate.
E7	A weed and pest management plan will be prepared and implemented as part of management procedures in order to control feral animals and to limit the spread of weeds.	Compliant	Weed and pest management is included in Section 2.6.13 of the 2016 Biodiversity Management Plan (Sighted).
E8	Revegetation of suitable components of the Open Cut Area will be undertaken using species representative of the Ironbark Woodland.	Compliant	Sighted records of tree seed purchased from Global Soils containing Ironbark Woodland.
E9	Subject to the receipt of all necessary approvals/permits, a creek rehabilitation program will be undertaken along Station and Glennies Creeks and will include: <ul style="list-style-type: none"> erosion control, rubbish removal, complementary planting, weed control, habitat enhancement and exclusion of grazing stock from riparian zones; and a monitoring and management program to identify and manage noxious weed infestations. 	Compliant	1000 tubestock establishment and erosion control and fencing was undertaken. Sighted Glennies Creek Rehabilitation Program undertaken in 2017.
E10	Bloomfield will implement a biodiversity offset package in consultation with OEH to compensate for the potential clearing of 19ha of remnant native vegetation and will include: <ul style="list-style-type: none"> Revegetation of suitable components of the Open Cut Area; Conservation and rehabilitation of the degraded riparian and forest habitat along Glennies and Station Creeks; and Identification and permanent conservation of a suitable woodland offset in the locality, a minimum of 30ha in size, in consultation with OEH. Pending the satisfaction of the 3 components above, Bloomfield will provide a bond or security to OEH which could be used in the event that Bloomfield does not identify a suitable offset in the specified timeframe. 	Compliant	Meetings were held with OEH throughout the preparation of the BMP (Section 1.2 of the 2016 Biodiversity Management Plan).
Traffic and Transportation			
F1	Adhere to RMS and Council restrictions on transport hours and safety/warning requirements for transportation of oversize loads on local roads.	Compliant	The induction process contains speed limits and addresses road safety.
F2	Minimise the duration of road closures on the southern end of Middle Falbrook Road during blasting.	Not triggered	Not triggered during audit period.
F3	Blasting within 500m of the Main Northern Railway line will be controlled under the existing procedure (PRO_2029 Blasting Adjacent to the Main Northern Railway Line) that has been developed in consultation with ARTC.	Not triggered	Not triggered during audit period.
F4	Provide notification on the morning prior to a blast of blast times to residents and others who request to be included on the blast notification list.	Compliant	Rix's Creek North operate a text message notification system which is sent out on the morning of the planned blast.
Noise and Blasting			
G1	Use noise mitigated mobile equipment to achieve the predicted noise emission levels at the identified receptors.	Compliant	Screening is used for continual improvement of
G2	Restrict evening and night-time mining operations, where practicable, to areas that minimise emission levels outside of the Project boundary.	Compliant	Carried out in accordance with EnvMet predictions (Sighted EnvMet system)
G3	Undertake development activities such as tree clearing and soil stripping during day time operations only, where practicable.	Compliant	Sighted Disturbance Permit which states the hours permitting to be 7am to 6pm
G4	Refine on-site noise mitigation measures and operating procedures, i.e. based upon monitoring results.	Compliant	Conducted in Noise Management Plan and Noise TARP

Condition Number	Condition	Compliance	Evidence and Comments
G5	Initiate regular discussions with potentially affected residents to proactively identify noise-related issues of concern.	Compliant	Discussions occur with complainants and during nightly monitoring (CQ as per comms).
G6	Consider acoustic mitigation at residences where exceedances of the project specific criteria are substantiated by monitoring.	Not triggered	Not triggered during audit period
G7	Consider negotiated agreements with landowners where exceedances of the project specific criteria are substantiated by monitoring.	Not triggered	Not triggered during audit period
G8	Continued implementation of the existing Explosive Hazard Management Plan to ensure the safety of employees and the public during explosives handling and blasting operations.	Compliant	Rix's Creek North operate an Explosive Hazard Management Plan.
G9	Restrict blasting to between the hours of 9.00am and 5.00pm Monday to Saturday, unless blasts outside this time are required for misfire re-blast, emergency or safety reasons.	Compliant	All blasts were completed between the hours of 9am and 5pm during the audit period (Sighted blast records).
G10	Blast design and implementation to be undertaken by a suitably qualified blasting engineer and/or experienced shot-firer to ensure ANZEC Guidelines are met at all non-project related residences surrounding the Open Cut Project Area.	Compliant	Rix's Creek North's Blast engineer designs and implements all blasts at the site (CQ as per comms).
G11	Refine blast mitigation measures and operating procedures as required, based on monitoring results.	Compliant	The Envmet forecasting system is used at Rix's Creek North to determine the most suitable time of blast (Sighted).
G12	Provide notification on the morning prior to a blast of blast times to local residents and others who request to be included on the notification list.	Compliant	Emails are issued to surrounding mines and text messages are issued to residents in the morning of the planned blast (Sighted correspondence).
G13	Use aggregate as the stemming material (not drill dust) in order to fully contain the explosives within the blasthole.	Compliant	Aggregate is used for all blasts at Rix's Creek North (CQ as per comms).
G14	In the case of the Part Pit Extent (i.e. Bloomfield is unable to acquire Residence 153 or negotiate an agreement with the owner), blasting will not be undertaken within a 500m Exclusion Zone surrounding the 'Dulwich' residence and 200m from the property boundary until such time that it can demonstrate to the Secretary that blasting can be undertaken without an unacceptable risk to the resident, residents, their stock or residence.	Compliant	Not within the zone (CQ as per comms).
Air Quality			
H1	Only the minimum area required for the operation of the Open Cut Project will be disturbed. Reshaping, topsoil emplacement and rehabilitation of overburden emplacement areas will occur as soon as practicable after the completion of overburden emplacement.	Compliant	Operations progressing generally in accordance with EA's and MOP.
H2	Coal handling areas/stockpiles will be kept in a moist condition using water carts to minimise wind-blown and traffic-generated dust.	Compliant	Water carts were visible and in use during the site inspection. Water carts are also mentioned as a management measure in Section 6.1.1 of the approved 2016 Air Quality and Greenhouse Gas Management Plan (Sighted).
H3	Water sprays will be available for use on ROM coal stockpiles as required to reduce airborne dust.	Compliant	Water sprays are used when required Section 6.1.1 of the 2016 Air Quality and Greenhouse Gas Management Plan
H4	All roads and trafficked areas will be watered when required using water trucks.	Compliant	As per condition H2 above.
H5	All haul roads would be clearly defined, especially where they cross overburden emplacement areas.	Compliant	When required (CQ as per comms).
H6	Development of minor roads will be limited and the locations of these will be clearly defined.	Compliant	When required (CQ as per comms).
H7	Minor roads used regularly for access etc will be watered.	Compliant	When required (CQ as per comms).
H8	Obsolete roads will be ripped and re-vegetated.	Not triggered	Not triggered during audit period.
H9	Access tracks used by topsoil stripping equipment during their loading and unloading cycle will be watered.	Compliant	When required (CQ as per comms).
H10	Long term soil stockpiles (not used for over 3 months) will be revegetated.	Compliant	Section 3.2.2.1 of the MOP addresses soil stockpile management.
H11	Dust aprons, dust extraction systems or water injection will be used during drilling operations.	Compliant	Section 3.2.1 of the current MOP addresses this requirement.

Condition Number	Condition	Compliance	Evidence and Comments
H12	Adequate stemming will be used during blasting.	Compliant	Section 5.1.1 of the Blast Management Plan addresses this requirement.
H13	A real-time PM ₁₀ monitor (TEOM) will be implemented at the location agreed with the EPA in accordance Conditions of Consent for North Open Cut (PA 06_0073). This will be located in the vicinity of Residence 48. Should the 24-hour average concentrations of PM ₁₀ approach the cumulative assessment criteria 150 µg/m ³ , the Operations Manager (Open Cut) of the mine would review the current Open Cut operations and take remedial action to ensure the impact on the property is kept below the criteria. Should the criteria be reached, then all Open Cut operations will cease.	Compliant	The NW TEOM is located in this vicinity (CQ as per comms). However there is no mention of the TEOM in the vicinity of this residence located in the Air Quality and Greenhouse Gas Management Plan. Recommendation to include in Air Quality and Greenhouse Gas Management Plan.
H14	A real-time PM ₁₀ (TEOM) will be located in the vicinity of Residences 108 to 112. Should the 24-hour average concentrations of PM ₁₀ approach the cumulative assessment criteria 150 µg/m ³ , the Operations Manager (Open Cut) will review the current Open Cut operations and take remedial action to ensure the impact on the property is kept below the criteria. Should the criteria be reached, then all Open Cut operations will cease.	Compliant	The NW TEOM is located in this vicinity (CQ as per comms). However there is no mention of the TEOM in the vicinity of this residence located in the Air Quality and Greenhouse Gas Management Plan. Recommendation to include in Air Quality and Greenhouse Gas Management Plan.
H15	Rather than establish an additional monitor at Residence 87, Bloomfield will negotiate with Ashton mine the joint use of data from the existing real-time PM ₁₀ (TEOM) monitor at this location (see TEOM No. 3 on Figure 12-3 for location).	Compliant	Ashton monitor has been decommissioned by Ashton on 25 January 2017. The Richards monitor was installed to replace the Ashton monitor at 248 Glennies Creek Road on 31 May 2017.
H16	Bloomfield will negotiate with Ashton Coal for the joint use of data from the other sites in the Ashton mine monitoring network (see Figure 12-3 for locations). This will enable real-time monitoring of the impacts of the operations to the west of the Open Cut Project Area.	Not triggered	Did not occur during audit period. Recommendation to consider removing this condition as it is no longer relevant to operations.
H17	The results from the dust monitoring program will be regularly reviewed to ensure the data being collected is meaningful. Where warranted, the program will be adjusted in consultation with EPA, with operating/management measures modified accordingly.	Compliant	Ongoing and completed as part of the monthly monitoring reports (CQ as per comms).
H18	During Years 1 -3 of the Part Pit Extent (i.e. in the case that Bloomfield is unable to acquire Residence 153 or negotiate an agreement with the owner), additional controls will be implemented and will include: <ul style="list-style-type: none"> re-positioning of the main waste and coal haul routes to reduce impacts on Dulwich; treatment of the main haul routes to achieve a level of dust control greater than 75%; development of an Environmental Management Plan that will address environmental controls to be implemented as part of pre-operational phase soil removal activities; control of emissions from drilling operations through the application of water; and increasing the moisture content of the ROM coal in-pit. 	Compliant	All elements of this commitment have been completed (CQ as per comms).
Aboriginal Archaeology			
I1	All actions and strategies for the management of cultural heritage values will be defined in an Aboriginal Cultural Heritage Management Plan developed in consultation with participating Aboriginal groups.	Compliant	Rix's Creek North operate under an approved Heritage Management Plan (Sighted).
I2	Prior to any soil disturbing activities, archaeological surveys will be conducted in those areas within the Open Cut Area to be impacted but which have not been surveyed to date. These areas include the Dulwich Property.	Not triggered	This commitment has not been triggered during the audit period.
I3	Sites which will not be impacted by open cut mining will be identified on mine plans with the requirement not to disturb the ground in these areas. If there is risk of impact, temporary fencing will be erected and restrictions placed on access.	Compliant	Aboriginal plans are located in the Heritage Management Plan (Sighted).
I4	Sites which may be directly or indirectly impacted by activities associated with mining will be identified on mine plans with development avoiding impact to these sites. Where development associated activities occur in close proximity to sites, temporary fencing will be constructed. Where direct impact is unavoidable the strategies outlined in I5 will be followed.	Compliant	Section 4 of the Heritage Management Plan addresses this commitment (Sighted).
I5	Sites which will be directly impacted by open cut mining will be subject to: <ul style="list-style-type: none"> collection and recording of surface artefacts and storage in accordance with the requirements of Aboriginal Groups; and targeted subsurface salvage excavation programs as determined in consultation with the Aboriginal stakeholders. 	Compliant	Section 4 of the Heritage Management Plan addresses this commitment (Sighted).
I6	A 'Keeping Place' will be provided for the secure storage of cultural material collected. The Keeping Place will be determined and agreed in consultation with the Aboriginal Groups during the formulation of the Aboriginal Cultural Heritage Management Plan. The Keeping Place will be retained in perpetuity subject to the recommendations of the Aboriginal Groups with regard to the long-term positioning of the sites.	Compliant	A keeping place is located in Southern Biodiversity Area (CQ as per comms). Section 4.5 of the Heritage Management Plan addresses this commitment (Sighted).

Condition Number	Condition	Compliance	Evidence and Comments
European Heritage			
J1	Work Method Statements for archaeological investigation will be prepared for Zone 1 and, dependent on the acquisition of Dulwich, for Zone 2 as identified in Figure 14-2 .	Not triggered	Not triggered during audit period (CQ as per comms).
J2	Project planning and timing will take into consideration any heritage management requirements.	Noted	
J3	If Dulwich is acquired, a WMS for heritage management and archaeological investigation will be prepared specifically for Zone 3 (Figure 14-2); or If Dulwich is not acquired, a Conservation Management Plan will be prepared to minimise and monitor project impacts on Dulwich.	Not triggered	Not triggered during audit period (CQ as per comms).
J4	A forensic anthropologist will be engaged to prepare a detailed management plan for the excavation of the grave of James Glennie.	Not triggered	Not triggered during audit period (CQ as per comms).
J5	Should any other burial sites be exposed during surface scraping operations within the Mine Area, work will cease and appropriate personnel and authorities informed. If the remains are identified as historical in nature, management for skeletal remains will be undertaken by appropriate personnel and a report issued to the Coroner.	Not triggered	Not triggered during audit period (CQ as per comms).
J6	In the case of an intersection between European and Indigenous management strategies, or any other environmental management strategy, Bloomfield will co-ordinate appropriate consultation between the parties in order to develop and agreement on how to proceed.	Not triggered	Not triggered during audit period (CQ as per comms).
J7	Copies of final excavation reports will be issued to local libraries, historical societies, the NSW Heritage Branch Library and State Library of NSW.	Not triggered	Not triggered during audit period (CQ as per comms).
Visual			
K1	To the extent practicable, reduce the potential visual impact through the construction of visual amenity bunds/screens or soil stockpiles to temporarily screen views towards the proposed Open Cut Area.	Compliant	Site inspection confirmed tree screening is used in the open cut area and to reduce visibility from the Highway.
K2	To reduce lighting impacts to sensitive receptors, work programs will be arranged, where possible, so that some activities that may be visible from surrounding view locations occur within daylight hours of operation.	Compliant	There have been minimal visual complaints during the audit period. The location of activities is adjusted to reduce potential impacts as required (CQ as per comms).
K3	Floodlights within the Open Cut Extension Area will be positioned to minimise the potential for lighting to impact sensitive receptors.	Compliant	Lighting has been positioned away from the nearby Dulwich residence (CQ as per comms).
K4	Where possible, haulage roads and overburden tipping areas will be configured to minimise the potential impact associated with headlights and flashing lights associated with vehicles travelling across the Open Cut Project Area.	Compliant	As per commitment K3 above.
K5	Bloomfield will consider any reasonable request by a residential receptor for assistance to establish a visual screen within their property through planting and/or landscape works, where such works would effectively reduce the visual impact of activities associated with the proposed Open Cut Extension.	Compliant	Dumps are positioned away from the nearby Dulwich residence (CQ as per comms).
Rehabilitation			
L1	Suitable species of vegetation will be planted and established to achieve the nominated post-mine land uses. The rehabilitation plan will clarify the project rehabilitation goals and outcomes and will confirm the monitoring and management proposals.	Compliant	As per mining operations plan.
L2	The majority of the post-mine landform will be revegetated with a combination of native and improved pasture species with scattered tree lots and tree corridors linking the surrounding rehabilitated areas, proposed tree planting corridors and surrounding existing native vegetation.	Compliant	As per mining operations plan.
L3	The final landform will be stable and not subject to slumping or excessive erosion which would result in the agreed post mining landform not being achieved.	Not triggered	Not triggered during audit period (CQ as per comms).
L4	The outside facing slopes of the post-mine landform will generally be a maximum of 10° where they are above the natural land surface. The internal facing slopes and those below natural surface reporting to the final void (including the low wall areas) will generally be a maximum of 18°.	Not triggered	Not triggered during audit period (CQ as per comms).



APPENDIX 5

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



Plate 1 - Recently shaped Rehabilitation with bio solids spread in preparation for seeding



Plate 2 – Shaped and topsoiled rehabilitation with habitat timber ready for seeding



Plate 3 – December 2016 Rehabilitation in the Falbrook Pit



Plate 4 – Shaped area of Rehabilitation in Falbrook Pit ready for topsoil and seeding



Plate 5 – Rehabilitation area when Acacia Saligna clearing has been completed



Plate 6 – Rix's Creek North Mine Coal Handling Processing Plant (CHPP)



Plate 7 – Camberwell Pit



Plate 8 – Camberwell Pit (drilling)



Plate 9 – Bioremediation area located at RL100 Dump (full of water from recent rainfall)



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