

Wambo Coal

Independent Environmental Audit - EPBC Approval and NSW Development Consent

Peabody Energy

31 January 2020

Final




Report No. 19186RP1

The preparation of this report has been in accordance with the brief provided by the Client and has relied upon the data and results collected at or under the times and conditions specified in the report. All findings, conclusions or commendations contained within the report are based only on the aforementioned circumstances. The report has been prepared for use by the Client and no responsibility for its use by other parties is accepted by Cumberland Ecology.

Version	Date Issued	Amended by	Details
1	31 January 2020	K. Wolf	Issued to client

Approved by: Katrina Wolf

Position: Principal

Signed: 

Date: 31 January, 2020

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Glossary

Term / Abbreviation	Definition
BCT	Biodiversity Conservation Trust
BMP	Biodiversity Management Plan
DoEE	Commonwealth Department of the Environment and Energy
DP&E	NSW Department of Planning and Environment
DPIE	NSW Department of Planning, Industry and Environment
MOD	Modification
MOP	Mining Operations Plan
NSW	New South Wales
RWEA	Remnant Woodland Enhancement Area
the audit	An Independent Environmental Compliance Audit of the NSW Development Consent conditions (DA 305-7-2003) and the Commonwealth EPBC Approval conditions (2003/1138) for the Wambo Coal Mine.
WCPL	Wambo Coal Pty Ltd

1. Introduction

Cumberland Ecology was commissioned by Peabody Energy to undertake an Independent Environmental Compliance Audit (the 'audit') of the Commonwealth EPBC Approval conditions (2003/1138) and the New South Wales (NSW) Development Consent conditions (DA 305-7-2003) for the Wambo Coal Mine.

1.1. Objective and Criteria

The objective of the audit is to assess compliance and performance against the following:

- Conditions 1-7 of the EPBC Approval; and
- Conditions 40-41A and 43-50 of the NSW Development Consent (Modification (MOD) 17), which relate to the Biodiversity Management Plan and offset strategy.

This audit also seeks to provide recommendations for actions or measures to address any non-compliances and improve the performance of management measures.

1.2. Scope

The scope of the audit is contained within Condition 4 of the EPBC Approval and Condition 50 of the NSW Development Content. These conditions are reproduced below.

EPBC Approval - Condition 4

Within five years of the commencement of this action, and every subsequent five years, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.

NSW Development Consent – Condition 50 (Schedule 4)

Within 5 years of the date of this consent, and every 5 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, and pay the full cost of, an Independent Audit of the offset strategy. This audit must:

- (a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the Secretary;*
- (b) assess the performance of the offset strategy;*
- (c) review the adequacy of the Flora & Fauna Management Plan; and, if necessary,*
- (d) recommend actions or measures to improve the performance of the offset strategy, and the adequacy of the Flora & Fauna Management Plan.*

It is noted that NSW Development Consent for DA 305-7-2003 was modified on 29 August 2020, which set out new auditing requirements, which are not part of the scope of the current audit.

1.3. Project Background

Wambo Coal Pty Ltd (WCPL) is an open cut and underground coal mining operation located approximately 15 kilometres west of Singleton, near the village of Warkworth, New South Wales. Operations at WCPL consist of underground and open cut mining operations. Mining operations include the integrated use of the WCPL coal handling and preparation plant, coal stockpiles and rail load-out facility.

WCPL is bounded by the Wollombi Brook to the east, coal mining operations to the north and east, grazing land to the south and north-west and the Wollemi National Park to the west. Land use in the vicinity of the Mine is a combination of coal mining operations, conservation areas, National Parks, agriculture and rural residential development.

WCPL operates with three Federal EPBC approvals, being EPBC 2003/1138, received on 23/11/2004, EPBC 2016/7636 for the South Wambo Underground Mine extension approval received on 30/04/2017 and EPBC 2016/7816, for the South Bates Extension area.

WCPL received NSW Development Consent for DA 305-7-2003 on 4 February 2004. A number of modification to this consent have subsequently been approved. The latest modification (MOD 16) was approved on 29 August 2019. Under MOD 16, the requirement for an Independent Audit against the Biodiversity Management Plan and offset strategy is no longer specified. For this audit, relevant Conditions of Modification¹⁷ (approved 20 December 2017) have been reproduced.

Wambo operates under an approved Biodiversity Management Plan (Version 16). Two Conservation Agreements are in place, one for the Remnant Woodland Enhancement Areas (RWEAs) A, B, C, and D, and one for the RWEA Wambo Coal Terminal. RWEA E offsets the South Wambo Underground Mine Modification (DA 305-7-2003 MOD 12). A variation to include RWEA E in the Conservation Agreement was lodged with the Biodiversity Conservation Trust (BCT) in 2017 and is currently awaiting finalisation.

1.4. Audit Period

This audit has been undertaken for the following periods:

- EPBC Approval: 1 January 2015 – 31 December 2019; and
- NSW Development Consent: 1 January 2015 – 28 August 2019.

The previous audit undertaken by Umwelt (2015) did not specify an audit period. The then Commonwealth Department of the Environment and the NSW Department of Planning approved the previous audit team in December 2014 and March 2015, respectively.

The date of commencement for the current audit was selected to ensure some overlap with the previous audit. The audit period for the NSW Development Consent extends to the day prior to approval of MOD 16, which was granted on 29 August 2019.

2. Methodology

2.1. Audit Team

The audit team comprises the following Cumberland Ecology personnel:

- Katrina Wolf – Principal; and
- Dr Gitanjali Katrak – Senior Project Manager / Ecologist.

In accordance with Condition 4 of the EPBC Approval, the audit team was approved by a delegate of the Minister for the Environment on 10 October 2019 (see **Appendix A**).

2.2. Audit Criteria

The audit criteria comprises compliance checklists that were developed based on the conditions within the EPBC Approval and NSW Development Consent. The fields within the checklists include the relevant conditions, an assessment of compliance, evidence sighted and recommendations. A checklist was also developed for the management requirements of the Biodiversity Management Plan.

In accordance with Condition 4 of the EPBC Approval, the audit criteria was approved by a delegate of the Minister for the Environment in November 2019 (see **Appendix B**).

2.3. Document Review

The following key documents were reviewed for this audit:

- EPBC Approval 2003/1138;
- Development Consent DA 305-7-2003 Schedule 4, Conditions 40 -50;
- Wambo Coal Biodiversity Management Plan;
- Umwelt (2015) Wambo Coal Independent Environmental Compliance Audit, EPBC Act Approval Development Consent Conditions 40 – 50 and Flora and Fauna Management Plan. Umwelt (Australia) Pty Limited, Toronto NSW.
- WCPL Annual Reviews; and
- Annual Ecological Monitoring Reports.

In addition to these key documents, a number of other documents were considered in the audit including Surface Disturbance Permits and weed management invoices. Where relevant to the assessment of compliance, these documents are referenced in the aforementioned checklists (see **Appendix C-F**).

2.4. Site Inspection

The site inspection component of the audit was undertaken at Wambo Coal Mine on Wednesday 27 November 2019. The site inspection included an opening meeting, site inspection of the RWEA areas and Revegetation Areas (mine rehabilitation areas). Further details of these components are provided below.

2.4.1. Opening Meeting and Interviews

The opening meeting and interviews were held in the Wambo Coal Mine site office. The meeting and interviews were attended by the following:

- Audit team:
 - Katrina Wolf – Principal, Cumberland Ecology; and
 - Dr Gitanjali Katrak – Senior Project Manager / Ecologist, Cumberland Ecology.
- WCPL personnel:
 - Peter Jaeger – Manager: Environment & Community;
 - Nicole Dobbins – Senior Environmental Advisor; and
 - Brent Frondall – Environmental Graduate.

The opening meeting included introduction of the audit team, an explanation of the purpose and scope of the audit and the methodology of the audit. The interviews were conducted throughout the day and included requests for clarification and additional information.

2.4.2. Site Inspection

A site inspection was undertaken by the audit team accompanied by Nicole Dobbins and Brent Frondall. The site inspection included inspection of RWEA A-E, RWEA Wambo Coal Terminal, and mine rehabilitation areas. The inspection focused on observations of the following:

- Presence of fencing and signage; and
- Vegetative condition within revegetation areas.

Example site photographs are provided in **Appendix G**.

2.4.3. Closing Meeting

A closing meeting was held at the Wambo Coal Mine site office following the site inspection and completion of interviews. The closing meeting was attended by the audit team and WCPL personnel listed in **Section 2.4.1**. The preliminary findings of the audit were presented by the audit team and outstanding matters were identified.

2.5. Reporting

This audit report has been prepared following the completion of the document review and site inspection. The report provides an overview of the status of compliance by reference to the relevant documentation and any other information gathered during the site inspection. The assessment of compliance has utilised the assessment criteria within the NSW Government's *Independent Audit Guideline (2015)*, which are reproduced in **Table 1**. Key findings are summarised within the report, with the detailed assessment of compliance presented in the form of checklists.

Table 1 Compliance assessment criteria (NSW Government, 2015)

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 monitor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a 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.

3. Findings

3.1. EPBC Approval

A compliance checklist against the EPBC Approval is provided in **Appendix C**. In this checklist, all relevant biodiversity approval conditions from EPBC Approval 2003/1138 have been reproduced verbatim. The compliance with each condition is indicated in the table in this appendix, including evidence used to determine compliance.

The findings of this audit indicate that the majority of the relevant biodiversity conditions of EPBC Approval 2003/1138 have been addressed. However, one item is not considered to be compliant and falls within the category of 'non-compliant' as described in **Table 1**. Further details are provided below.

Condition 1 (part): Non-compliant

The approved plan must be implemented.

An audit of the BMP commitments (**Appendix E**) and BMP Three Year Management Strategy (**Appendix F**) have determined a number of non-compliances in relation to the implementation of management actions. Whilst evidence of implementation of a number of management actions exists, a number of the actions have not been undertaken in accordance with the commitments or strategy.

3.2. NSW Development Consent

A compliance checklist against the NSW Development Consent is provided in **Appendix D**. In this checklist, all relevant biodiversity approval conditions from NSW Development Consent Development Consent DA 305-7-2003 Schedule 4 (Conditions 40 -50) have been reproduced verbatim. The compliance with each condition is indicated in the table in this appendix, including evidence used to determine compliance.

The findings of this audit indicate that the majority of the relevant biodiversity conditions of the NSW Development Consent have been addressed. However, a number of items are not considered to be compliant and fall within the categories of 'not verified', 'non-compliant' and 'administrative non-compliance' as described in **Table 1**. Further details are provided below.

Condition 41 (part): Administrative Non-compliance

By the end of December 2017, unless otherwise agreed by the Secretary, the Applicant must:

(a) enter into a conservation agreement/s pursuant to section 69B of the National Parks and Wildlife Act 1974 covering all offset areas listed in Table 16 (see condition 40) and which records the Applicant's obligations under the conditions of this consent in relation to the management of these areas, and register the agreement/s pursuant to section 69F of the National Parks and Wildlife Act 1974; or

The Conservation Agreement for RWEA A-D was registered on 1 September 2017 and the Conservation Agreement for RWEA Wambo Coal Terminal was registered on 24 November 2017.

The variation to the existing Conservation Agreement for RWEAs A-D to include RWEA E has not yet been finalised. Numerous email correspondence from WCPL to the BCT requesting a timeline for the finalisation of

the variation was sighted during the audit. As there have not been any further extensions granted beyond 31 July 2018, this condition has been assessed as an administrative non-compliance.

Condition 41 (part): Not Verified

The conservation agreement or the public positive covenant and/or restriction on the use of land, as the case may be, must remain in force in perpetuity in relation to the area.

The registered Conservation Agreement for RWEAs A-D indicates that the agreement operates in perpetuity (Clause 3). A draft of the variation to this agreement (sighted from email to BCT on 10 October 2019) does not propose to amend this clause.

The variation to amend the Conservation Agreement is currently with the BCT. As the amended Conservation Agreement is not yet finalised, compliance could not be verified, however there are no reasons to believe that the Conservation Agreement would not be compliant with the condition.

Condition 44 (part): Non-compliant

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

An audit of the BMP commitments (**Appendix E**) and BMP Three Year Management Strategy (**Appendix F**) have determined a number of non-compliances in relation to the implementation of management actions. Whilst evidence of implementation of a number of management actions exists, a number of the actions have not been undertaken in accordance with the commitments or strategy within the BMP.

It is recommended that WCPL ensure that all required management actions are undertaken in accordance with the commitments and strategy within the BMP. It is also recommended that the BMP be updated to ensure consistency between the commitments, the strategy and the relevant Conservation Agreements. It is noted that the current version of the BMP has incorporated the strategy from the relevant Conservation Agreements, however the commitments do not necessarily align with these.

Condition 49 (part): Non-compliant

(b) revise the document as necessary to take into account any recommendations from the annual review.

The annual performance reviews undertaken by Eco Logical Australia in 2015, 2016, 2017 and 2018 make a number of recommendations in relation to the management of the RWEAs. Whilst the corresponding Annual Reviews summarise the proposed actions to address some of these recommendations (e.g. Section 5.6.4 of 2018 Annual Review notes priority weeds will be targeted, which follows the recommendation in the 2018 annual performance review by Eco Logical Australia), not all recommendations are addressed in the summary, and it is not demonstrated if or how the BMP was updated in accordance with the recommendations (e.g. no mention of priority weeds within the BMP).

Condition 50 (part): Administrative non-compliance

Within 5 years of the date of this consent, and every 5 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, and pay the full cost of, an Independent Audit of the offset strategy. This audit must:

Previous audit (Umwelt, 2015) notes a delay to the first audit, which was due by 4 February 2009. It also notes that an extension was granted for the 2014 audit on 18 December 2014. Although the current audit not undertaken as per the 5-year periods specified in the condition (i.e. prior to 4 February 2019), it has been undertaken within 5 years of the previous audit which was dated May 2015.

Condition 50 (part): Administrative non-compliance

(a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the Secretary;

A request for endorsement for the current audit team was not sought as this condition was removed in the most recent Consent modification (Modification 16) issued on 29 August 2019.

It is noted that both members of the audit team were approved by DoE for the EPBC Approval component of the audit, and both have previously been approved by DPIE to undertake the ecological components of other Independent Environmental Audits.

3.3. BMP Commitments

A compliance checklist against the BMP commitments and BMP Three Year Management Strategy is provided in **Appendix E**. In this checklist, all relevant commitments have been reproduced. The compliance with each item is indicated in the table in this appendix, including evidence used to determine compliance.

The findings of this audit indicate that a number of the commitments have not been adequately conducted. In some instances, management actions have been undertaken, however not at the frequency set out in the BMP, and in some instances the management action has not been undertaken.

A number of items have been assessed as compliant, and those which are not fall within the categories of ‘not verified’, ‘non-compliant’ and ‘administrative non-compliance’ as described in **Table 1**. Further details are provided below.

Fencing, gates and signage

Whilst appropriate fencing, gates and signage were observed during the site inspection, this audit has determined that some works were not undertaken in accordance with the timing specified within Section 6.3.1 of the BMP. The BMP requires boundary fence integrity to be inspected quarterly and maintained during all management periods.

Seed collection and propagation

The native seed collection and propagation program is not defined, despite the BMP indicating that a program has been implemented. The 2014 Annual Review indicates seed collection program undertaken in 2014, with commencement of a further seed collection program in January 2015 (Section 6.2.3). A seed collection program is not detailed in Annual Reviews 2015-2018. Section 6.3.2 of the BMP requires the collection of locally sourced native seed will be carried out annually by a licensed provider.

WCPL has indicated that seed collection has been undertaken by Cumberland Plain Seeds in October 2019 for the revegetation program for the creek diversion.

Weed management

Whilst weed management has been undertaken within the RWEAs and Revegetation Areas, it does not appear to have included six monthly inspections or undertaken as part of a routine annual program. WCPL have advised that a new weed management treatment plan was developed in 2019.

Vertebrate pest management

Whilst vertebrate pest management has been undertaken within the RWEAs and Revegetation Areas, it does not appear to be complemented by a year round agister-managed pest control program.

Waste management

Routine inspections of the RWEAs and Revegetation Areas for the purposes of waste management have not been undertaken, which are required under the BMP. It is noted that no obvious waste issues were observed during the site inspection.

Erosion, sedimentation and soil management

Routine inspections of the RWEAs and Revegetation Areas for the purposes of erosion, sedimentation and soil management have not been undertaken, which are required under the BMP.

Vegetation clearance protocol

The Vegetation Clearance Protocol identifies a number of steps to be undertaken when clearing vegetation. It is unclear from the reviewed Surface Disturbance Permits if all these steps have been followed.

Threatened species management protocol

Two reviewed Surface Disturbance Permits (from a total of 114 sighted), indicated the need for implementation of the Threatened Species Management Protocol. It is unclear from the Surface Disturbance Permits and Annual Reviews that all requirements of the protocol have been followed.

3.4. BMP Three Year Management Strategy

A compliance checklist against the BMP Three Year Management Strategy is provided in **Appendix F**. In this checklist, all relevant strategies have been reproduced. The compliance with each item is indicated in the table in this appendix, including evidence used to determine compliance.

A number of items have been assessed as compliant, however the findings of this audit indicate that some of the strategies could not be verified. In these instances, although management actions have been undertaken, it has not been confirmed if there were undertaken in accordance with the annual requirements. Further details are provided below.

Weed control

Whilst weed control activities have been implemented, as documented in the Annual Reviews, there is insufficient evidence of these being undertaken in accordance with the commitments. Results indicate a general reduction in weed cover, however the annual monitoring reports suggest this may be related to the dry weather conditions.

No detailed breakdown of costs for each RWEA exists and therefore there is insufficient evidence that management effort targets (hours and cost) have been met.

Fencing

Specific fencing requirements are provided for RWEAs A- D, RWEA Wambo Coal Terminal and RWEA E. The Annual Review indicates fencing audited in 2016 and 1km of internal fence line removed from RWEA A (Section 5.6.2). No further reference to fencing activities between 2016-2018. Invoices sighted from Rural & Environmental Management indicated fencing activities (removal, repair, installation) undertaken in 2015, 2016, 2017 and 2018, however unclear if all works were for the RWEAs. Following a fencing audit conducted early 2019, 1,239 m of fencing was repaired and 930 m of new fencing was erected, primarily in RWEAs A and C.

3.5. Assessment of Offset Strategy Performance

Condition 50 of the NSW Development Consent requires the audit to assess the performance of the offset strategy. Two Conservation Agreements have been prepared for the project for RWEAs A-D and RWEA Wambo Coal Terminal. A variation to the Conservation Agreement for RWEAs A-D has been sought to include RWEA E.

The annual monitoring reports have documented the performance of the RWEAs and Revegetation Areas (mine rehabilitation) during the audit period. Recent key findings are as follows:

- The RWEAs are floristically performing well. Most of the monitoring sites within the RWEAs are either meeting, or just falling short of the completion criteria, with shortfalls not requiring additional management. Areas of concern are the monitoring sites within River Red Gum / River Oak riparian woodland, which have historically been disturbed. Ongoing weed management is required to ensure completion criteria are met. The 2018 annual monitoring reports recommends plantings within RWEA A where natural regeneration is unlikely to occur within a reasonable timeframe. *Opuntia stricta* (Prickly Pear) was observed during the site inspection within the grassland areas of the RWEAs (see **Appendix G**). Targeted weed management is required to ensure significant weed outbreaks are controlled.
- The woodland areas are in good condition and support a large diversity of birds, including threatened species (e.g. Grey-crowned Babbler, Little Lorikeet, Brown Treecreeper). The annual monitoring reports suggest bird diversity and abundance has remained consistent with previous monitoring years.
- Woodland Revegetation Areas are generally meeting landscape function completion criteria, however these areas are falling below the biometric completion criteria.

- The completion criteria for the North Wambo Creek Diversion have not yet been met, and continued management is required.
- Decreased scores for riparian sites on North Wambo Creek, Wambo Creek and Stoney Creek were lower than previous years, which is likely a result of dry conditions. The 2018 annual monitoring report recommends preventing stock access to these areas, along with planning of native trees in cleared areas.

Overall, the offset strategy is considered to be performing well. No major biodiversity incidents have been noted within the audit period. As noted previously, a number of implementation issues have been identified, however these do not appear to have a significant impact on the performance of the strategy.

The continued implementation of the management actions detailed within the BMP, and additional requirements from the Conservation Agreements, will allow for the continued improvement of biodiversity values within the offsets.

3.6. Adequacy of the Biodiversity Management Plan

Condition 50 of the NSW Development Consent requires the audit to review the adequacy of the Flora and Fauna Management Plan (the BMP). The BMP was initially developed in 2005 and has undergone a number of amendments, with a major revision undertaken in 2016, which converted the Flora and Fauna Management Plan into a Biodiversity Management Plan (BMP). The current version (Version 16) of the BMP is dated May 2019.

The content of the BMP aligns with the requirements of the NSW Development Consent (Condition 44), as well as the EPBC Approval (Condition 2). The BMP includes details on the existing environmental, biodiversity management domains, completion criteria, management measures and strategies, monitoring, reviews and reporting.

The management measures detailed within the BMP are considered appropriate to adequately manage biodiversity values within the mine site and RWEAs. Due to Conservation Agreements being registered for the RWEAs, the BMP would benefit from consistency with the management actions within the Conservation Agreement.

A Three Year Management Strategy has been provided in Appendix F of the BMP, which appears to be derived from the Conservation Agreements. This strategy is not current, as it only covers the period 2016-2018, therefore the current strategy is not defined within the BMP. The BMP should be updated to provide the current strategy for upcoming years of management.

A detailed monitoring program is detailed within the BMP, and the results of monitoring have been appropriately reported annually. The annual monitoring reports should provide a concise summary of the recommendations for amending the BMP. The Annual Review should subsequently detail which recommendations will be undertaken, and the BMP updated accordingly.

3.7. Recommendations

Condition 50 of the NSW Development Consent requires the audit to recommend actions or measures to improve the performance of the offset strategy, and the adequacy of the Flora and Fauna Management Plan (the BMP). Whilst it is noted that overall the offset strategy is performing well and the BMP is adequate, this audit has found that management actions have not always been undertaken as described within the BMP. This has therefore resulted in a number of non-compliances. As such, it is recommended that WCPL ensures that all required management actions are undertaken in accordance with the commitments and strategy within the BMP. Further specific recommendations on the offset strategy and BMP are provided below.

The following recommendations are made in relation to the offset strategy:

- The variation to the Conservation Agreement for RWEAs A-D to include RWEA E be finalised as soon as possible. It is noted that the timing for this finalisation is reliant on the BCT.
- WCPL review the recommendations made in the annual monitoring reports and determine and document which additional actions will be undertaken;
- Corrective actions undertaken where annual targets have not been met (e.g. exotic foliage cover) as required by the Trigger Action Response Plan in the BMP, are undertaken and documented.

The following recommendations are made in relation to the BMP:

- Ensure steps within the Vegetation Clearance Protocol are consistent between Section 6.5.2 and Appendix J;
- Ensure steps within the Threatened Species Management Protocol are consistent between Section 6.5.3 and Appendix K;
- Amend section 6.1.1.3.8 to described general strategies for minimising impacts of exploration. Following approval and undertaking of exploration activities, document the extent of disturbance and the cumulative disturbance in relation to the permitted 12.6 ha;
- Update Table 33 to include specific reference to the implementation of management strategies detailed within Section 6.0 of the BMP;
- It is recommended the BMP is updated to ensure consistency with the new weed management treatment plan. The BMP will also need to be consistent with the requirements of the relevant Conservation Agreements;
- The BMP should be updated to detail biannual vertebrate pest management rather than agister managed pest control. The BMP will need to be consistent with the vertebrate pest requirements of the relevant Conservation Agreements;
- The SDP be updated to describe the specific weed control activities related to surface disturbance, rather than the weed management requirements and completion criteria management measures for the RWEA and Revegetation Areas;

- A weed management report is prepared by the qualified bush regeneration contractor to document that the works have been undertaken in accordance with the required actions;
- The BMP be updated to reflect the timing of the strategy as described within the Conservation Agreements. The BMP should also be updated to reflect the next three years of the strategy within the Conservation Agreements; and
- The annual performance review should provide a concise summary of the recommendations for amending the BMP. The Annual Review should subsequently detail which recommendations will be undertaken, and the BMP updated accordingly.

In addition to the above recommendations, the BMP should also be updated to reflect the current conditions of consent, which were issued in 29 August 2019.

APPENDIX A :

Auditor Approval





Reference: EPBC 2003/1138

Ms Nicole Dobbins
Senior Environmental Advisor
Wambo Coal Pty Ltd
PMB 1
SINGLETON, NSW 2330

Dear Ms Dobbins

Re: EPBC 2003/1138 Wambo Coal Mine Development, Singleton, New South Wales – Appointment of independent audit team

Thank you for your correspondence dated 17 September 2019, regarding the nomination of an independent audit team for the five yearly compliance audit of the *Wambo Coal Mine Development* approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

You have sought, in accordance with Condition 4 of the EPBC Act, approval for an audit team from Cumberland Ecology to be appointed as the independent auditors for the five yearly compliance audit.

This request has been assessed and I am pleased to inform you, as delegate of the Minister for the Environment, that I approve the appointment of the audit team from Cumberland Ecology to undertake the 2019 compliance audit of the EPBC Act approval.

I would be appreciated if the compliance audit can be completed within two (2) months from the date of this letter.

If you would like to discuss this matter further please contact Nicholas Scholar on (02) 6274 1284 or email audit@environment.gov.au.

Yours sincerely

Mr Matt Dutkiewicz
A/g Chief Compliance Officer
Office of Compliance

10 October 2019

APPENDIX B :

Audit Criteria Approval





Our reference: EPBC 2003/1138

Ms Nicole Dobbins
Senior Environmental Advisor
Peabody Australia
PMB 1
SINGLETON, NSW 2330

Dear Ms Dobbins

Re: Wambo Coal Mine Expansion (EPBC 2003/1138) – Approval of Audit Criteria and Methodology

I refer to correspondence of 1 November 2019 in which *Cumberland Ecology* submitted the proposed audit criteria and methodology for the independent audit of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval EPBC 2003/1138.

Officers of the Department of the Environment and Energy (the Department) have reviewed the audit criteria and consider that it provides sufficient scope for an assessment of compliance with the conditions attached to the approval.

As delegate of the Minister for the Environment, I am pleased to inform you that I approve the proposed audit criteria.

I request that you please submit the audit report to the Department by February 2020. I look forward to receiving a copy of the audit report.

I take this opportunity to remind you of the Department's expectations in terms of audit reports being required to include details of measurements made, sample sizes and audit evidence obtained. In considering the audit evidence obtained:

- there must not be an over-reliance on representations made by the approval holder or their representatives (i.e. audit findings should be based on independently verifiable third party evidence);
- where sample records are referenced (e.g. pre-clearance surveys) a representative random sample of a minimum of 10 per cent of the records must be reviewed; and
- statements that support audit findings must not include terms that are open to interpretation and they must provide sufficient context to inform the basis for audit conclusions.

Should you require any further information please contact Mr Nicholas Scholar on 02 6274 1284 or email at audit@environment.gov.au.

Yours sincerely

Mr Drew McLean
A/g Chief Compliance Officer
Office of Compliance
November 2019

APPENDIX C :

EPBC Approval Compliance Checklist

Table 2 Compliance with EPBC Approval conditions

Condition	Details	Assessment	Evidence
1	The person taking the action must not clear any vegetation in the area designated as Remnant Woodland Enhancement Area A without the prior written agreement of the Minister.	Compliant	<p>MOP 2015-2020 (MOP Amendment D) and MOP 2018-2020 do not indicate any clearing of vegetation was proposed within RWEA A during the audit period.</p> <p>Annual Reviews undertaken for 2015, 2016, 2017 and 2018 do not indicate any clearing within RWEA A.</p> <p>No evidence of clearing was observed within RWEA A during the site inspection.</p>
2	Prior to commence of the mine expansion, the person taking the action must submit for the Minister's approval a plan for managing the impacts of the mine expansion on listed threatened and migratory species. The plan must include measures to:	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p> <p>Major revision of the management plan undertaken in 2016, which converted the Flora and Fauna Management Plan into a Biodiversity Management Plan (BMP). June 2016 version of BMP approved by DoEE on 17 November 2016.</p> <p>Current version of the management plan (Version 16) is dated May 2019.</p>
	<p>(a) define and implement an offsets strategy that provides:</p> <ul style="list-style-type: none"> - protection in perpetuity for Remnant Woodland Enhancement Area A; and - long-term protection of Remnant Woodland Enhancement Areas B and C; 	Compliant	<p>Boundary of RWEA C approved for amendment in Variation to Conditions in Approved Conditions for 2003/1138 on 9 September 2011.</p> <p>Offset strategy and areas defined in Section 4.0 of the BMP.</p> <p>Conservation Agreement (under Part 4 Division 12 of the <i>National Parks and Wildlife Act 1974</i>) for RWEA A-D sighted. Letter dated 1 September 2017 confirming registration of Conservation Agreement sighted. A variation to the Conservation Agreement has been sought to include an additional parcel of land, however this has not yet been finalised (N. Dobbins pers. comm.).</p>

Condition	Details	Assessment	Evidence
	(b) define and implement a Remnant Woodland Enhancement Program that includes the fencing of remnants to exclude livestock, weed and feral animal management, restrictions on site access, and bushfire management;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Management measures and strategies for management of the RWEAs are detailed within Section 6.1.1 and Section 6.3 of the BMP. This includes fencing (Section 6.1.1.3.2 and 6.3.1), weed management (Section 6.3.2.2), feral animal management (Section 6.1.1.3.1 and 6.3.2.3), restrictions on site access (Section 6.3.1) and bushfire management (Section 6.1.1.3.3).
	(c) define and implement a Vegetation Clearance Protocol that includes the delineation of areas of remnant vegetation to be cleared, progressive clearing, and the salvage and reuse of materials;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Vegetation Clearance Protocol detailed within Section 6.5.2 and Appendix J. Recommendation: <i>Ensure steps within the protocol are consistent between Section 6.5.2 and Appendix J.</i>
	(d) define and implement a Threatened Species Management Protocol that includes surveys for threatened species, the implementation of threatened species management strategies, and the development and implementation of a Flora and Fauna Monitoring Program;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Threatened Species Management Protocol detailed within Section 6.5.3 and Appendix K. Recommendation: <i>Ensure steps within the protocol are consistent between Section 6.5.3 and Appendix K.</i>
	(e) define and implement a Project Area Rehabilitation Programme that includes progressive rehabilitation, erosion and sediment control, revegetation, and maintenance and monitoring;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Management measures for rehabilitation are summarised in Section 6.1.2 of the BMP. The BMP cross-references the MOP as containing detailed information on the rehabilitation program. This includes progressive rehabilitation (Section 4.3.1 of the MOP), erosion and sediment control (Section 3.3.5 of the MOP), maintenance (Section 7.0 of the MOP) and monitoring (Section 8.0 of the MOP).

Condition	Details	Assessment	Evidence
			Evidence of mine rehabilitation works sighted during the site inspection.
	(f) a process to review and report annually on this plan and the offsets strategy; and	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Annual review process detailed within Section 11.2 of the BMP.
	(g) outline a process for stakeholder consultation.	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Stakeholder consultation detailed within Section 2.1 of the BMP.
	The mine expansion must not commence until the plan has been approved.	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant.
	The approved plan must be implemented.	Non-compliant	An assessment of compliance against the commitments within the BMP is provided in Appendix E and Appendix F . As noted within these appendices a number of non-compliances have been identified. It is noted that whilst management actions outlined within the BMP, a number of these have not been undertaken in accordance with the commitments (e.g. reduced frequency of implementation).
3	Within three months of the date of this approval, the person taking the action must submit for the Minister's approval a plan for managing the impacts of the rail spur on listed threatened and migratory species. The plan must include measures for:	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Major revision of the management plan undertaken in 2016, which converted the Flora and Fauna Management Plan for the Rail Spur into a Biodiversity Management Plan (BMP). June 2016 version of BMP approved by DoEE on 17 November 2016. Current version of the management plan (Version 16) is dated May 2019.
	(a) the permanent protection and ongoing management of woodland areas in the vicinity of the rail spur;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Letter dated 24 November 2017 confirming registration of Conservation Agreement sighted.

Condition	Details	Assessment	Evidence
			Ongoing management of woodland areas within the RWEA Rail Loop are detailed within Section 6.1.1 of the BMP.
	(b) defining and implementing a Vegetation Clearance Protocol;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Vegetation Clearance Protocol detailed within Section 6.5.2 and Appendix J.
	(c) a revegetation and landscaping plan that includes the fencing of woodland remnants to exclude livestock, weed and feral animal management, restrictions on site access, and bushfire management; and	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Management measures and strategies for management of the RWEA Rail Loop are detailed within Section 6.1.1 and Section 6.3 of the BMP. This includes fencing (Section 6.1.1.3.2 and 6.3.1), weed management (Section 6.3.2.2), feral animal management (Section 6.1.1.3.1 and 6.3.2.3), restrictions on site access (Section 6.3.1) and bushfire management (Section 6.1.1.3.3).
	(d) a process to review and report annually on this plan.	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Annual review process detailed within Section 11.2 of the BMP.
	Construction of the rail spur must not commence until the plan has been approved.	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant.
	The approved plan must be implemented.	Non-compliant	An assessment of compliance against the commitments within the BMP is provided in Appendix E and Appendix F . As noted within these appendices a number of non-compliances have been identified. It is noted that whilst management actions outlined within the BMP, a number of these have not been undertaken in accordance with the commitments (e.g. reduced frequency of implementation).
4	Within five years of the commencement of this action, and every subsequent five years, the person taking the action must ensure that an independent audit of	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Previous audit granted extension to February 2015.

Condition	Details	Assessment	Evidence
	<p>compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.</p>		<p>As no dates included within the previous audit, this audit covers the period 1 January 2015 – 31 December 2019. Approval of current audit team approved by DoEE on 10 October 2019 (see Appendix A). Approval of audit criteria by DoEE in November 2019 (see Appendix B). The last correspondence issued by DoEE requested that the audit be submitted by February 2020.</p>
5	<p>If the person taking the action wishes to carry out any activity otherwise than in accordance with the plans referred to in paragraphs 2 and 3, the person taking the action may submit for the Minister's approval a revised version of any such plan. If the Minister approves such a revised plan, that plan must be implemented in place of the plan originally approved.</p>	Compliant	<p>MOP 2015-2020 (MOP Amendment D) and MOP 2018-2020 do not indicate any additional activities beyond those permitted under the BMP. Annual Reviews undertaken for 2015, 2016, 2017 and 2018 do not indicate any additional activities beyond those permitted under the BMP.</p>
6	<p>If the Minister believes that it is necessary or desirable for the better protection of the listed threatened and migratory species to do so, the Minister may request that the person taking the action make specified revisions to the plans approved pursuant to paragraphs 2 and 3 and submit the revised plan for the Minister's approval. The person taking the action must comply with any such request. The revised approved plan must be implemented.</p>	Not Triggered	<p>Previous audit (Umwelt, 2015) confirmed as not triggered, as no requests made by DoEE up to and during the previous audit. No requests made by DoEE in the current audit period (N. Dobbins pers. comm.).</p>
7	<p>If, at any time after 5 years from the date of this approval, the Minister notified the person taking the action in writing that the Minister is not satisfied that there has been substantial commencement of the</p>	Not Triggered	<p>Previous audit (Umwelt, 2015) confirmed as not triggered as the project had commenced.</p>

Condition	Details	Assessment	Evidence
	Wambo Coal Mine expansion, the Wambo Coal Mine expansion must not thereafter be commenced.		

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APPENDIX D :

NSW Development Consent Compliance Checklist

Table 3 Compliance with NSW Development Consent conditions

Condition*	Details	Assessment	Evidence																				
Offset Strategy																							
40	<p>Within the limits of current technology and best practice flora and fauna management, the Applicant must implement the biodiversity offset strategy summarised in Table 16 (including any subsequent revisions approved in writing by the Secretary), to the satisfaction of the Secretary.</p> <p>Table 16: Biodiversity Offset Strategy</p> <table border="1" data-bbox="331 767 1010 1362"> <thead> <tr> <th data-bbox="344 778 405 810">Area</th> <th data-bbox="875 778 936 810">Size</th> </tr> </thead> <tbody> <tr> <td data-bbox="344 820 786 852">Remnant Woodland Enhancement Area A</td> <td data-bbox="860 820 952 852">424 ha</td> </tr> <tr> <td data-bbox="344 861 786 893">Remnant Woodland Enhancement Area B</td> <td data-bbox="860 861 952 893">454 ha</td> </tr> <tr> <td data-bbox="344 903 786 935">Remnant Woodland Enhancement Area C</td> <td data-bbox="860 903 952 935">211 ha</td> </tr> <tr> <td data-bbox="344 944 712 976">Open Cut Woodland Revegetation</td> <td data-bbox="860 944 952 976">1,570ha</td> </tr> <tr> <td data-bbox="344 986 786 1018">Remnant Woodland Enhancement Area D</td> <td data-bbox="860 986 952 1018">46 ha</td> </tr> <tr> <td data-bbox="344 1027 786 1107">Remnant Woodland Enhancement Area D Extension</td> <td data-bbox="860 1027 952 1059">2 ha</td> </tr> <tr> <td data-bbox="344 1114 786 1145">Remnant Woodland Enhancement Area E</td> <td data-bbox="860 1114 952 1145">41.6 ha</td> </tr> <tr> <td data-bbox="344 1155 786 1219">Remnant Woodland Enhancement Area for the Wambo Coal Terminal</td> <td data-bbox="837 1155 974 1219">As shown in Appendix 4</td> </tr> <tr> <td data-bbox="344 1228 472 1260">Other Areas</td> <td data-bbox="815 1228 996 1362">As identified under Condition 47(b) and/or as</td> </tr> </tbody> </table>	Area	Size	Remnant Woodland Enhancement Area A	424 ha	Remnant Woodland Enhancement Area B	454 ha	Remnant Woodland Enhancement Area C	211 ha	Open Cut Woodland Revegetation	1,570ha	Remnant Woodland Enhancement Area D	46 ha	Remnant Woodland Enhancement Area D Extension	2 ha	Remnant Woodland Enhancement Area E	41.6 ha	Remnant Woodland Enhancement Area for the Wambo Coal Terminal	As shown in Appendix 4	Other Areas	As identified under Condition 47(b) and/or as	Compliant	<p>The offset strategy is implemented through the BMP. Offset area management areas are detailed within Table 12 of the BMP, which match the areas in this condition as well as indicating that the RWEA Wambo Coal Terminal is 15.52 ha in size.</p> <p>The additional area potentially required by Condition 47(b) refers to the <i>Acacia anuera</i> Community (Community 15) and the Southern Area. Section 4.2.1 of the BMP details investigations undertaken by WCPL within these areas and note that these areas have not been added to the offset strategy.</p> <p>No requests made by DPIE in the current audit period under Condition 22 (N. Dobbins pers. comm.).</p>
Area	Size																						
Remnant Woodland Enhancement Area A	424 ha																						
Remnant Woodland Enhancement Area B	454 ha																						
Remnant Woodland Enhancement Area C	211 ha																						
Open Cut Woodland Revegetation	1,570ha																						
Remnant Woodland Enhancement Area D	46 ha																						
Remnant Woodland Enhancement Area D Extension	2 ha																						
Remnant Woodland Enhancement Area E	41.6 ha																						
Remnant Woodland Enhancement Area for the Wambo Coal Terminal	As shown in Appendix 4																						
Other Areas	As identified under Condition 47(b) and/or as																						

Condition*	Details	Assessment	Evidence
	<p style="text-align: center;">required under Condition 22</p> <p><i>Notes:</i> (a) The areas specified in table 16 are shown in Appendix 4. (b) The area of Open Cut Woodland Revegetation in Table 16 is based on the establishment of 50% woodland within the mixed woodland/pasture areas shown in the EIS, and with the agreement of the Secretary, may vary depending on the shape of the final landform and the approved mine closure plan. (c) Should the Secretary determine that an additional offset is required under Condition 22, the Applicant will be required to provide this offset in addition to the specified offsets in Table 16. The size of any additional offset required must be determined in consultation with OEH and to the satisfaction of the Secretary.</p>	-	-
Conservation Agreement			
41	<p>By the end of December 2017, unless otherwise agreed by the Secretary, the Applicant must:</p> <p>(a) enter into a conservation agreement/s pursuant to section 69B of the <i>National Parks and Wildlife Act 1974</i> covering all offset areas listed in Table 16 (see condition 40) and which records the Applicant’s obligations under the conditions of this consent in relation to the management of these areas, and register the agreement/s pursuant to section 69F of the <i>National Parks and Wildlife Act 1974</i>; or</p>	<p>-</p> <p>Administrative non-compliance</p>	<p style="text-align: center;">-</p> <p>Previous audit (Umwelt, 2015) indicated extension granted until end of June 2015.</p> <p>Key dates of sighted documentation are as follows:</p> <ul style="list-style-type: none"> - Request made by Peabody (letter dated 22 June 2015) to extend the timeframe to December 2016. - Conservation Agreement for RWEA A-D registered on 1 September 2017. - Conservation Agreement for RWEA Wambo Coal Terminal (which is the rail spur offset area) registered on 24 November 2017.

Condition*	Details	Assessment	Evidence
			<ul style="list-style-type: none"> - Consolidated conditions for DA 305-7-2003 MOD 12, requires conservation agreements by end of December 2017, which includes the additional RWEA E. - Request made by Peabody (email dated 15 February 2018) to extend the timeframe to 31 July 2018. - DP&E (now DPIE) granted extension (letter dated 26 February 2018) to 31 July 2018. <p>A variation to amend the Conservation Agreement is currently with the BCT (N. Dobbins pers. comm.). Evidence sighted of attempts by WCPL to contact BCT to finalise the agreement via emails dated 15 April, 3 May, 24 May, 19 July and 10 October 2019.</p>
	<p>(b) where OEH has advised in writing that it is of the view that any such offset area or part of such an area should not be subject to a conservation agreement for a period of time, then the Applicant must by the same date cause to be registered against the land title(s) of the area/s a public positive covenant and/or restriction on the use of the land, in favour of the Secretary, requiring the Applicant to implement and observe all obligations under the conditions of this consent in relation to the management of these areas.</p>	Not Triggered	<p>Previous audit (Umwelt, 2015) indicated no requests made by OEH up to and during the previous audit.</p> <p>No requests made by OEH during the current audit period (P. Jaeger and N. Dobbins pers. comm.).</p>
	<p>The conservation agreement or the public positive covenant and/or restriction on the use of land, as the case may be, must remain in force in perpetuity in relation to the area.</p>	Compliant	<p>The Conservation Agreement for RWEAs A-D indicates that the agreement operates in perpetuity (Clause 3). The variation to amend the Conservation Agreement is currently with the BCT (N. Dobbins pers. comm.). A draft of the variation to this agreement (sighted from email to BCT on 10 October 2019) does not proposed to amend this clause.</p>

Condition*	Details	Assessment	Evidence
			The Conservation Agreement for RWEAs Wambo Coal Terminal indicates that the agreement operates in perpetuity (Clause 3).
	<i>Note: Should the Secretary determine that the specified conservation mechanism is no longer appropriate, the Secretary may approve an alternative conservation mechanism to satisfy this condition, in consultation with OEH.</i>	Not Triggered	No requests made by Secretary during the current audit period (N.Dobbins pers. comm.).
Offset Conservation			
41A	The Applicant must not undertake any mining operations (except approved underground mining operations) or other activities within the offset areas listed in Table 16, other than:	-	-
	(a) activities under an approved Biodiversity Management Plan, Flora & Fauna Management Plan or Heritage Management Plan;	Compliant	Section 6.1.1.3 of the BMP identifies permitted activities within the RWEAs. Section 6.1.1.2 identifies non-permitted activities which can only be undertaken with approval from the Chief Executive of OEH. No evidence of non-permitted activities being undertaken within the RWEAs sighted during the site inspection.
	(b) environmental management, environmental monitoring or other monitoring required under this consent or under an approved management plan or monitoring program; and	Compliant	Section 6.1.1.3 of the BMP identifies permitted activities within the RWEAs, including environmental management and monitoring. Evidence of environmental management (e.g. fencing) sighted during the site inspection. Monitoring activities documents within the annual monitoring reports (2015, 2016, 2017, 2018).
	c) rehabilitation activities under an approved Extraction Plan.	Compliant	Section 6.1.1.3 of the BMP identifies permitted activities within the RWEAs, including rehabilitation activities. Rehabilitation activities summarised in Section 6.1.2 of the BMP. Planned rehabilitation activities are detailed within the MOP and completed rehabilitation is

Condition*	Details	Assessment	Evidence
			detailed within the Annual Reviews. Evidence of rehabilitation activities sighted during the site inspection.
Strategic Study Contribution			
43	If, during the development, the Department commissions a strategic study into the regional vegetation corridor stretching from the Wollemi National park to the Barrington Tops National Park, then the Applicant must contribute a reasonable amount, up to \$20,000, towards the completion of this study.	Not Triggered	No requests made by DPIE during the current audit period (N.Dobbins pers. comm.).
Flora & Fauna Management Plan			
44	Before carrying out any development, the Applicant must prepare a Flora and Fauna Management Plan for the development, in consultation with the Hunter Coalfield Flora and Fauna Advisory Committee (when established), and to the satisfaction of the Secretary. This plan must include:	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p> <p>Major revision of the management plan undertaken in 2016, which converted the Flora and Fauna Management Plan into a Biodiversity Management Plan (BMP). Current version of the management plan (Version 16) is dated May 2019.</p> <p>It is noted that the established of the Hunter Coalfield Flora and Fauna Advisory Committee was previously detailed within Condition 42, which was deleted from the conditions as part of the April 2015 Modification.</p>
	(a) a Vegetation Clearance Protocol;	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p> <p>Vegetation Clearance Protocol detailed within Section 6.5.2 and Appendix J.</p>
	(b) a Threatened Species Management Protocol;	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p> <p>Threatened Species Management Protocol detailed within Section 6.5.3 and Appendix K.</p>

Condition*	Details	Assessment	Evidence
	(c) a Remnant Woodland Enhancement Program;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. RWEAs defined in Section 4.0 of the BMP. Management strategies for the RWEAs are detailed within Section 6.1.1 and 6.3 of the BMP.
	(d) a Flora and Fauna Monitoring Program;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Biodiversity monitoring program contained within Section 7.0 of the BMP.
	(e) strategies to manage any subsidence impacts in the Remnant Woodland Enhancement Areas;	Compliant	Previous audit (Umwelt, 2015) confirmed as an area of concern. Strategies to manage subsidence impacts in the RWEAs are detailed within Section 6.2 of the BMP.
	(f) strategies to avoid clearing of Warkworth Sands Endangered Ecological Community and minimise the extent of clearing in other ecological communities for gas drainage infrastructure in the Remnant Woodland Enhancement Areas, to the satisfaction of the Secretary;	Not Triggered	No activities undertaken for gas drainage infrastructure during the audit period (P. Jaeger pers. comm.). Section 6.1.1.3.8 notes that the BMP will be updated, if required, to include strategies to avoid clearing of Warkworth Sands Woodland, and minimise clearing of other ecological communities, for any proposed gas drainage infrastructure.
	(g) strategies for the minimisation of impacts of exploration activity in the Remnant Woodland Enhancement Areas; and	Compliant	Section 6.1.1.3.8 notes selection of exploration site Gas18_6 to minimise impacts. Section 6.1.1.3.8 notes that the BMP will be updated, if required, to include strategies to minimise impacts of other exploration activities (i.e. in addition to site Gas18_6) in the RWEA. Recommendation: Amend the BMP to described general strategies for minimising impacts. Following approval and undertaking of exploration activities, document the extent of disturbance and the cumulative disturbance in relation to the permitted 12.6 ha.
	(h) a description of who would be responsible for monitoring, reviewing, and implementing the plan.	Compliant	Table 33 in Section 12.0 of the BMP details responsibilities for key matters contained within the BMP, including monitoring and review.

Condition*	Details	Assessment	Evidence
			<p>Whilst responsibilities for implementation are noted throughout the BMP.</p> <p>Recommendation: Table 33 be updated to include specific reference to the implementation of management strategies detailed within Section 6.0 of the BMP.</p>
	By the end of March 2013, the applicant must revise the Flora and Fauna Management Plan for the development to the satisfaction of the Secretary.	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p> <p>Major revision of the management plan undertaken in 2016, which converted the Flora and Fauna Management Plan into a Biodiversity Management Plan (BMP). Current version of the management plan (Version 16) is dated May 2019.</p>
	The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Non-compliant	<p>An assessment of compliance against the commitments within the BMP is provided in Appendix E and Appendix F. As noted within these appendices a number of non-compliances have been identified. It is noted that whilst management actions outlined within the BMP, a number of these have not been undertaken in accordance with the commitments (e.g. reduced frequency of implementation).</p>
45	The Vegetation Clearance Protocol must include:	-	-
	(a) the delineation of areas of remnant vegetation to be cleared;	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p> <p>Section 3.1 of Appendix J (Vegetation Clearance Protocol) of the BMP details the requirements for delineation of the disturbance area.</p>
	(b) progressive clearing;	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p> <p>Section 5.0 of Appendix J (Vegetation Clearance Protocol) of the BMP details the progressive clearing.</p>
	(c) pre-clearance surveys;	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as compliant.</p>

Condition*	Details	Assessment	Evidence
			Section 3.2 of Appendix J (Vegetation Clearance Protocol) of the BMP details the requirements for pre-clearance surveys.
	(d) identification of fauna management strategies;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Section 3.3 of Appendix J (Vegetation Clearance Protocol) of the BMP details the fauna management strategies.
	(e) collection of seed from the local area;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Section 4.0 of Appendix J (Vegetation Clearance Protocol) of the BMP details the collection of seed.
	(f) salvage and reuse of material from the site; and	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Section 3.4 of Appendix J (Vegetation Clearance Protocol) of the BMP details the salvage and reuse of material.
	(g) control of weeds during clearing activities.	Compliant	Previous audit (Umwelt, 2015) confirmed as non-compliant. Section 4.0 of Appendix J (Vegetation Clearance Protocol) of the BMP details control of weeds during clearing activities.
46	The key components of the Threatened Species Management Protocol must include:	-	-
	(a) observations/surveys for threatened species (facilitated by the vegetation clearance surveys and Flora and Fauna Monitoring Program);	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Section 3.1 of Appendix K (Threatened Species Management Protocol) of the BMP details the requirements for observations of threatened species.
	(b) consultation with regulatory authorities; and	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Section 3.3 of Appendix K (Threatened Species Management Protocol) of the BMP details consultation with regulatory authorities.

Condition*	Details	Assessment	Evidence
	(c) threatened species management strategies and reporting.	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Section 3.2 of Appendix K (Threatened Species Management Protocol) of the BMP details the threatened species management strategies. Section 3.3 of Appendix K (Threatened Species Management Protocol) of the BMP details the reporting requirements.
47	The Remnant Woodland Enhancement Program must include:	-	-
	(a) a habitat assessment of all areas listed in Table 16, to obtain additional information on existing habitat resources and characteristics of each area;	Compliant	Previous audit (Umwelt, 2015) identified as an area of concern, and refers to the 2010 monitoring report as containing habitat information at flora monitoring sites. Section 6.1.1 of the BMP notes that the enhancement measures were agreed with OEH as part of the development of the Conservation Agreements. It also noted that the measures were developed on the basis of a habitat assessment, with the results of the baseline habitat assessment documented in the Conservation Agreements. The Conservation Agreements for RWEAs A-D and REWA Wambo Coal Terminal were sighted, and both include details on conservation values and the baseline biometric data, the latter of which incorporates assessment of habitat.
	(b) investigation of other areas to be included in the Program, including the Acacia anuera Community (Community 15) and the Southern Area;	Compliant	Previous audit (Umwelt, 2015) confirmed as compliant. Section 4.2.1 of the BMP details investigations undertaken by WCPL within these areas and note that these areas have not been added to the offset strategy.
	(c) appropriate enhancement strategies to be implemented based on the habitat assessment including:	-	-

Condition*	Details	Assessment	Evidence
	<ul style="list-style-type: none"> the fencing of remnants to exclude livestock; 	Compliant	<p>Section 6.1.1.3.2 and 6.3.1 of the BMP address fencing to exclude livestock. Although the BMP doesn't detail how these measures relate to the habitat assessment, Section 6.1.1 of the BMP notes that the enhancement measures were agreed with OEH as part of the development of the Conservation Agreements. It also noted that the measures were developed on the basis of a habitat assessment, with the results of the baseline habitat assessment documented in the Conservation Agreements.</p>
	<ul style="list-style-type: none"> control measures to minimise the occurrence of weeds; 	Compliant	<p>Section 6.3.2.2 of the BMP addresses weed management. Although the BMP doesn't detail how these measures relate to the habitat assessment, Section 6.1.1 of the BMP notes that the enhancement measures were agreed with OEH as part of the development of the Conservation Agreements. It also noted that the measures were developed on the basis of a habitat assessment, with the results of the baseline habitat assessment documented in the Conservation Agreements.</p>
	<ul style="list-style-type: none"> control measures to minimise the occurrence of feral pests; 	Compliant	<p>Section 6.1.1.3.1 and 6.3.2.3 of the BMP address feral animal management. Although the BMP doesn't detail how these measures relate to the habitat assessment, Section 6.1.1 of the BMP notes that the enhancement measures were agreed with OEH as part of the development of the Conservation Agreements. It also noted that the measures were developed on the basis of a habitat assessment, with the results of the baseline habitat assessment documented in the Conservation Agreements.</p>
	<ul style="list-style-type: none"> limiting vehicular traffic; 	Compliant	<p>Section 6.3.1 of the BMP addresses site access within the RWEAs. Although the BMP doesn't detail how these measures relate to the habitat assessment, Section 6.1.1 of the BMP notes that the</p>

Condition*	Details	Assessment	Evidence
			enhancement measures were agreed with OEH as part of the development of the Conservation Agreements. It also noted that the measures were developed on the basis of a habitat assessment, with the results of the baseline habitat assessment documented in the Conservation Agreements.
	<ul style="list-style-type: none"> selective planting of native vegetation; and 	Compliant	Section 6.1.1.3.6 of the BMP details restoration of indigenous vegetation, however this does not specifically mention selective planting. Section 6.1.2.6 of the BMP details tubestock planting within the rehabilitation areas. Although the BMP doesn't detail how these measures relate to the habitat assessment, Section 6.1.1 of the BMP notes that the enhancement measures were agreed with OEH as part of the development of the Conservation Agreements. It also noted that the measures were developed on the basis of a habitat assessment, with the results of the baseline habitat assessment documented in the Conservation Agreements.
	<ul style="list-style-type: none"> the provision of roosting/nesting resources for fauna. 	Compliant	Section 6.3.5 of the BMP outlines the installation of nest boxes. Although the BMP doesn't detail how these measures relate to the habitat assessment, Section 6.1.1 of the BMP notes that the enhancement measures were agreed with OEH as part of the development of the Conservation Agreements. It also noted that the measures were developed on the basis of a habitat assessment, with the results of the baseline habitat assessment documented in the Conservation Agreements.
48	The Flora and Fauna Monitoring Program must include:	-	-
	(a) a program to monitor revegetation of disturbance areas including:	-	-

Condition*	Details	Assessment	Evidence								
	<ul style="list-style-type: none"> visual monitoring to determine the need for maintenance and/or contingency measures; and 	Compliant	Section 7.2.2.1 of the BMP details visual monitoring within rehabilitation areas.								
	<ul style="list-style-type: none"> monitoring of the quality of rehabilitation using Ecosystem Function Analysis (or a similar systems based approach) through the assessment of landscape function, vegetation dynamics and habitat complexity; and 	Compliant	Section 7.2.2.2 of the BMP details Landscape Function Analysis and Biometric Vegetation Assessment monitoring within rehabilitation areas.								
	<p>(b) a program to monitor the effectiveness of offset strategy in accordance with the description in Table 17. Table 17: Flora & Fauna Monitoring Program</p> <table border="1"> <thead> <tr> <th>Monitoring Component</th> <th>Monitoring Description</th> </tr> </thead> <tbody> <tr> <td>Flora</td> <td>A number of permanent flora survey quadrats (of varying sizes to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.</td> </tr> <tr> <td>Habitat Complexity</td> <td>Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.</td> </tr> <tr> <td>Terrestrial Fauna</td> <td>Terrestrial fauna surveys should be conducted to monitor the usage of</td> </tr> </tbody> </table>	Monitoring Component	Monitoring Description	Flora	A number of permanent flora survey quadrats (of varying sizes to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.	Habitat Complexity	Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.	Terrestrial Fauna	Terrestrial fauna surveys should be conducted to monitor the usage of	Compliant	<p>Table 26 and Section 7.2.1.3 of the BMP details flora monitoring, including use for permanent Biometric quadrats.</p> <p>Table 26 of the BMP details habitat complexity monitoring, which is undertaken as part of the Biometric quadrats detailed within Section 7.2.1.3.</p> <p>Table 26 and Section 7.2.1.5 of the BMP details terrestrial fauna monitoring.</p> <p>Table 26 and 28 of the BMP details aquatic fauna monitoring.</p>
Monitoring Component	Monitoring Description										
Flora	A number of permanent flora survey quadrats (of varying sizes to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.										
Habitat Complexity	Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.										
Terrestrial Fauna	Terrestrial fauna surveys should be conducted to monitor the usage of										

Condition*	Details	Assessment	Evidence
	enhancement areas by vertebrate fauna. Monitoring may include fauna species diversity and abundance or, alternatively, the use of indicator species to measure the effectiveness of enhancement measures.		
	Aquatic Fauna		Freshwater macro-invertebrate monitoring, including an assessment of SIGNAL A values and water quality (e.g. temperature, pH, and salinity).
	Specific Enhancement Initiatives		Monitoring of specific enhancement initiatives (e.g. the provision of nesting/roosting boxes, weed control or feral animal control).
Annual Review			
49	The Applicant must:	-	-
	(a) review the performance of the Flora and Fauna Management Plan annually, in consultation with the Hunter Coalfield Flora & Fauna Advisory Committee (when established); and	Compliant	<p>Previous audit (Umwelt, 2015) confirmed as non-compliant, as not previously undertaken annually.</p> <p>During the current audit period, the performance of the BMP was assessed in 2015, 2016, 2017 and 2018 by Eco Logical Australia. The associated reports and summary of findings are contained within the respective Annual Reviews.</p> <p>It is noted that the established of the Hunter Coalfield Flora and Fauna Advisory Committee was previously detailed within Condition 42, which was deleted from the conditions as part of the April 2015 Modification.</p>
	(b) revise the document as necessary to take into account any recommendations from the annual review.	Non-compliant	The annual performance reviews undertaken by Eco Logical Australia in 2015, 2016, 2017 and 2018 make a number of recommendations in

Condition*	Details	Assessment	Evidence
			<p>relation to the management of the RWEAs. Whilst the corresponding Annual Reviews summarise the proposed actions to address some of these recommendations (e.g. Section 5.6.4 of 2018 Annual Review notes priority weeds will be targeted, which follows the recommendation in the 2018 annual performance review by Eco Logical Australia), not all recommendations are addressed in the summary, and it is not demonstrated if or how the BMP was updated in accordance with the recommendations (e.g. no mention of priority weeds within the BMP).</p> <p>Recommendation: <i>The annual monitoring report should provide a concise summary of the recommendations for amending the BMP. The Annual Review should subsequently detail which recommendations will be undertaken, and the BMP updated accordingly.</i></p>
Independent Audit			
50	Within 5 years of the date of this consent, and every 5 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, and pay the full cost of, an Independent Audit of the offset strategy. This audit must:	Administrative non-compliance	<p>Previous audit (Umwelt, 2015) notes a delay to the first audit, which was due by 4 February 2009. It also notes that an extension was granted for the 2014 audit on 18 December 2014.</p> <p>Although the current audit not undertaken as per the 5-year periods specified in the condition (i.e. prior to 4 February 2019), it has been undertaken within 5 years of the previous audit which was dated May 2015.</p> <p>A request for extension for the current audit period was not sought as the approval was superseded on 29 August 2019 (N. Dobbins pers. comm.).</p>

Condition*	Details	Assessment	Evidence
	(a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the Secretary;	Administrative non-compliance	<p>A request for endorsement for the current audit team was not sought as the approval was superseded on 29 August 2019 (N. Dobbins pers. comm.).</p> <p>It is noted that both members of the audit team were approved by DoE for the EPBC Approval component of the audit, and both have previously been approved by DPIE to undertake the ecological components of other Independent Environmental Audits.</p>
	(b) assess the performance of the offset strategy;	Compliant	Section 4.4 of the previous audit (Umwelt, 2015) assessed the overall performance of the offset strategy. The current audit assesses the performance of the offset strategy in Section 3.4.
	(c) review the adequacy of the Flora & Fauna Management Plan; and, if necessary,	Compliant	<p>Section 4.5 of the previous audit (Umwelt, 2015) assessed the adequacy of the then FFMP.</p> <p>The current audit assesses the adequacy of the BMP in Section 3.5.</p>
	(d) recommend actions or measures to improve the performance of the offset strategy, and the adequacy of the Flora & Fauna Management Plan.	Compliant	<p>Section 4.5 of the previous audit (Umwelt, 2015) provides recommendation to improve the performance of the offset strategy and adequacy of the FFMP. It is noted that the BMP has been updated to take into account certain recommendations made within the previous audit, such as the installation of nest boxes.</p> <p>The current audit provides recommendations in Section 3.7.</p>

* Schedule 3 of NSW Development Consent

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APPENDIX E :

BMP Commitments Compliance Checklist

Table 4 Compliance with BMP commitments

BMP Section	Details	Assessment	Evidence
Management Strategies			
6.3.1	<p>Fencing, gates and signage</p> <ul style="list-style-type: none"> - Boundary fence integrity will be inspected quarterly and maintained during all management periods - New fencing erected within or on the boundary of the RWEAs will use post and two or three strand non-barbed (plain) wire only. If required boundary fences to these areas may use a top barbed wire (or electric fencing). - Existing fencing within the boundaries of the Domains will be removed in areas where it is providing no benefit to revegetation outcomes. 	Non-compliant	<p>2015 Annual Review indicates fencing investigated in 2015 and removal of internal fence line from RWEA A (Section 5.6.2).</p> <p>2016 Annual Review indicates fencing audited in 2016 and 1km of internal fence line removed from RWEA A (Section 5.6.2).</p> <p>No reference to quarterly inspections in Annual Review 2015-2018. No reference to fencing activities in 2017-2018.</p> <p>Invoices sighted from Rural & Environmental Management indicated fencing activities (removal, repair, installation) undertaken in 2015, 2016, 2017 and 2018, however unclear if all works were for the RWEAs.</p> <p>Appropriate fencing, gates and signage were observed during the site inspection.</p> <p>A survey of all fence lines within the RWEAs was conducted in 2019 which made recommendations to replace or repair fence lines (N. Dobbins pers. comm.). 1,239 m of fencing was repaired and 930 m of new fencing was erected, primarily in RWEAs A and C.</p> <p>Evidence of fence repair and replacement sighted during the site inspection.</p>

BMP Section	Details	Assessment	Evidence
6.3.2	<p>Seed collection and propagation</p> <ul style="list-style-type: none"> - WCPL has implemented a native seed collection and propagation program - The collection of locally sourced native seed will be carried out annually by a licensed provider with the Florabank guidelines used to guide the seed collection process. - The seed collection program will take into account seasonality of seed availability and the specific target seed lists. 	Non-compliant	<p>2014 Annual Review indicates seed collection program undertaken in 2014, with commencement of a further seed collection program in January 2015 (Section 6.2.3).</p> <p>Seed collection program not detailed in Annual Reviews 2015-2018.</p> <p>Seed collection undertaken by Cumberland Plain Seeds in October 2019 for the revegetation program for the creek diversion (N. Dobbins pers. comm.).</p>
6.3.2.1	<p>Progressive rehabilitation</p> <ul style="list-style-type: none"> - Rehabilitation of the mine waste rock emplacements and other areas of disturbance will be conducted progressively over the life of the mine - Revegetation of open cut mining disturbed areas will be undertaken in accordance with the approved WCPL MOP (2015-2020). 	Compliant	<p>Progressive rehabilitation documented in the Annual Reviews (tables, figures and photographs). Rehabilitation visible on aerials obtained from NearMap (dated July 2014, March 2015, January 2016, November 2016, November 2017, September 2018, August 2019). Evidence of progressive rehabilitation sighted during the site inspection.</p> <p>2015 Annual Review indicates that rehabilitation targets were not met due to rainfall events in April (Section 7.1.1), with shortfall to be made up in 2016. 2016 Annual Review indicates a slightly reduced area of rehabilitation due to updates to mine planning and scheduling. 2017-2018 Annual Review indicates target amount met.</p> <p>Wambo Coal Mine Mining Operations Plan 2015-2020 superseded by the Wambo Coal Mining Operations Plan 2018-2020.</p>

BMP Section	Details	Assessment	Evidence
6.3.2.2	<p>Weed management</p> <ul style="list-style-type: none"> - WCPL's weed management program will involve six monthly inspections of the RWEAs and Revegetation Areas. - An annual routine weed management program will be implemented whereby herbaceous weed species are treated to prevent further spread. - Treatment of all weeds will be undertaken by suitably qualified and experienced personnel. 	Non-compliant	<p>2015 Annual Review indicates weed control undertaken (Section 5.15).</p> <p>2016 Annual Review indicates weed control undertaken (Section 5.15), including details on target species.</p> <p>2017 Annual Review indicates weed control undertaken, including personnel, target species and techniques.</p> <p>2018 Annual Review indicates weed control undertaken, including personnel, target species and techniques.</p> <p>Invoices sighted from Rural & Environmental Management indicate weed management undertaken in 2015, 2016, 2017 and 2018, however unclear if all works were for the RWEAs.</p> <p>No evidence of six-monthly inspections, and uncertainty of routine weed management within all RWEAs.</p> <p>A new weed management treatment plan was developed in 2019 to guide future management (N. Dobbins pers. comm.).</p> <p>Recommendation: <i>It is recommended the BMP is updated to ensure consistency with the new weed management treatment plan. The BMP will also need to be consistent with the requirements of the relevant Conservation Agreements.</i></p>

BMP Section	Details	Assessment	Evidence
6.3.2.3	<p>Vertebrate pest management</p> <ul style="list-style-type: none"> - The WCPL operated pest control program is complemented by a year round agister-managed pest control program. - The agister-managed program primarily targets feral pigs on grazing and buffer lands surrounding WCPLs open cut mine site. - The agister-managed program utilises WCPL-owned night vision cameras to monitor the movement of pest species. - Humane trapping and shooting practices are employed to capture and euthanize targeted feral species. 	Non-compliant	<p>2015 Annual Review indicates pest control undertaken (Section 5.15). 2016 Annual Review indicates pest control undertaken (Section 5.15). 2017 Annual Review indicates pest control undertaken (Section 5.15). 2018 Annual Review indicates pest control undertaken (Section 5.15). 2018 Annual Review indicates pest control undertaken (Section 5.15).</p> <p>Vertebrate Pest Management Reports by Rural & Environmental Management for the periods:</p> <ul style="list-style-type: none"> - 8 July – 5 August 2015 - 6 – 27 September 2016 - 17 February – 3 March 2017 - 5 – 19 September 2017 - 22 May – 15 June 2018 - 13 – 28 September 2018 - 8 – 20 May 2019 <p>Additional feral pig management was also reported for the period 1 – 10 April 2019.</p> <p>Reporting indicates use of motion-sensor cameras. Feral pigs have been shot by Agistees (Caban and Nichols), however no formal report to confirm (N. Dobbins pers. comm.). No further evidence of an agister-managed pest control program.</p> <p>Recommendation: <i>The BMP should be updated to detail biannual vertebrate pest management. The BMP will need to be consistent with the requirements of the relevant Conservation Agreements.</i></p>

BMP Section	Details	Assessment	Evidence
6.3.3	<p>Waste management</p> <ul style="list-style-type: none"> - Routine inspections of the RWEAs and Revegetation Areas will include monitoring of potential waste management issues, including illegal dumping of waste, and removal of waste if/when required. - All waste removed from these areas will be managed in accordance with WCPL’s Waste Management Plan. 	Non-compliant	<p>2015-2018 Annual Reviews do not include reference to routine inspections for waste management issues. No obvious waste issues observed during the site inspection.</p>
6.3.4	<p>Erosion, sedimentation and soil management</p> <ul style="list-style-type: none"> - Routine inspections of the RWEAs and Revegetation Areas will include monitoring of potential erosion, sedimentation and soil management issues. - All erosion and sediment control works will be carried out in accordance with WCPL’s Erosion and Sediment Control Plan. 	Non-compliant	<p>2015-2019 Annual Reviews do not indicate routine inspections. Implementation of actions within the Erosion and Sediment Control Plan undertaken within Revegetation Areas in 2015-2018. The revegetation areas are managed in accordance with the Erosion and Sediment Control Plan (N. Dobbins pers. comm.).</p>
6.3.5	<p>Nest boxes</p> <ul style="list-style-type: none"> - 50 nest boxes were installed at five locations across the Mine site in December 2018 	Compliant	<p>Table 41/42 of 2018 Annual Review indicates nest boxes installed in 2018. Nest box details provided in Section 6.3.5 of the BMP.</p>
Management Protocols			
6.5.1 / Appendix H	<p>Surface disturbance permit</p> <ul style="list-style-type: none"> - WCPL has implemented a Surface Disturbance Permit (SDP) procedure and checklist. - The SDP is implemented and approved by WCPL’s Environmental Department prior to any 	Compliant	<p>A total of 114 SDPs were sighted, including 91 signed versions and 23 unsigned versions. The format of the SDPs follows the format contained within the BMP from 2016 onwards.</p>

BMP Section	Details	Assessment	Evidence
	<p>land disturbance activities on undisturbed or rehabilitated land taking place.</p> <ul style="list-style-type: none"> - The SDP aims to identify and manage any environmental restraints such as cultural heritage sites, flora and fauna communities, surface drainage, threatened species and permitting required prior to disturbance. 		
6.5.2 / Appendix J	<p>Vegetation clearance protocol:</p> <ul style="list-style-type: none"> - A Vegetation Clearance Protocol (VCP) has been developed to minimise impacts on both non-threatened and threatened flora and fauna (as listed under the TSC Act or the EPBC Act). - The VCP consists of the following steps: <ul style="list-style-type: none"> - Delineation of Disturbance Area - Pre-Clearance Surveys - Clearing Process and Fauna Management Strategies - Habitat Feature Salvage - Seed Collection - Progressive Clearing - Weed Control 	-	-
	<p><i>Delineation of Disturbance Area</i></p> <ul style="list-style-type: none"> - The proposed disturbance area will be identified by the project manager in consultation with the Environmental Department as part of the Surface Disturbance Permit process. 	Not Verified	<p>The SDPs identify the location of the disturbance areas, and in some cases access tracks. Archaeological sites held in master database, and most items have already been salvaged - if not yet salvaged, an archaeologist completes the salvage (B. Frondall pers. comm.).</p>

BMP Section	Details	Assessment	Evidence
	<ul style="list-style-type: none"> - The extent of disturbance will be selected to minimise or prevent impact to adjacent flora and archaeological sites. - The extent of disturbance will be demarcated by GPS and made visible using temporary fencing, marking tape or GPS guided dozer dependant on the particular project. 		SDP680 sighted and demonstrates demarcation of disturbance areas. It is anticipated that some SDPs will utilise GPS guided dozers, however this could not be verified.
	<p><i>Pre-Clearance Surveys</i></p> <ul style="list-style-type: none"> - Pre-clearance surveys undertaken by the Environmental Advisor or ecological consultant involve the inspection of flora communities located within proposed disturbance areas. - The survey aims to identify habitat features and threatened or endangered fauna and flora. - Habitat features generally consist of hollow bearing trees or other features (fallen logs and rock features) which may provide habitat to birds, mammals and reptiles. - In the event that any threatened flora or fauna species are observed during the habitat assessment the Threatened Species Management Protocol is initiated. 	Not Verified	<p>Where pre-clearance surveys are required, they are undertaken primarily by the environmental advisor, and on occasion Eco Logical Australia (B. Frondall pers. comm.). Pre-clearance surveys have been confirmed as being undertaken by Niche Environment and Heritage (SDP 546) and Eco Logical Australia (SPD 546 and SDP 547). One SDP documented the findings of a pre-clearance survey (SDP703).</p> <p>In some SDPs, the need for a pre-clearance survey was identified, however the survey was not appended to the SDP (e.g. SDP 526, SDP541, SDP560, SDP680 and SDP679). Some SDPs recommend a site walk through for tree hollows (SDP680 and SDP679), however no evidence of the walk through being undertaken.</p> <p>Recommendation: <i>The SDP should be updated to detail pre-clearance surveys, including when no items have been identified.</i></p>

BMP Section	Details	Assessment	Evidence
	<p><i>Clearing Process and Fauna Management Strategies</i></p> <ul style="list-style-type: none"> - A two stage vegetation clearing process has been adopted at WCPL to mitigate harm to fauna. - The location of habitat features and above procedure is to be communicated to operators by the project manager prior to the commencement of clearing activities. - Long term fauna management strategies such as the placement of nesting or roosting boxes will be implemented as detailed in the Biodiversity Management Plan. 	Not Verified	<p>In some instances, the SDP makes reference to the Vegetation Clearance Protocol for the felling of trees (e.g. SDP642-car park, SDP642-haul road, SDP642-MIA and SDP681).</p> <p>Table 41/42 of 2018 Annual Review indicates nest boxes installed in 2018. Nest box details provided in Section 6.3.5 of the BMP.</p> <p>Recommendation: <i>The SDP should be updated to make reference to the clearing process.</i></p>
	<p><i>Habitat Feature Salvage</i></p> <ul style="list-style-type: none"> - Habitat features from disturbed areas such as rocks or hollow bearing trees and logs may be stored in designated areas for relocation onto rehabilitation areas where possible. 	Not Verified	<p>No evidence sighted of whether any habitat feature salvage has occurred at disturbance sites. SDP646 indicates that felled trees are to be relocated to rehabilitation areas.</p> <p>Recommendation: <i>The SDP should be updated to make reference to whether any habitat items will be salvaged.</i></p>
	<p><i>Seed Collection</i></p> <ul style="list-style-type: none"> - Seed collection will be on-going over the life of the mine the timing of which will be determined by WCPL’s Environmental Department. - Seed collection will be sourced from onsite ecological communities identified across WCPL mine and RWEAs. 	Not Verified	<p>No evidence sighted of whether any seed collection has occurred at disturbance sites.</p> <p>Recommendation: <i>The Vegetation Clearing Protocol be updated to describe the seed collection related to surface disturbance. The SDP should be updated to make reference to whether any seed collection will be undertaken.</i></p>

BMP Section	Details	Assessment	Evidence
	<ul style="list-style-type: none"> - Where seed is required and not available from onsite sources in adequate volumes supplies may be supplemented from external providers. 		
	<p><i>Weed Control</i></p> <ul style="list-style-type: none"> - Surveys of weed coverage within rehabilitation and RWEAs are undertaken as part of the annual Biodiversity Monitoring Program. - Where weed coverage exceeds the approved completion criteria management measures will be implemented to reduce infestation levels and minimise the spread of weeds. - The type and timing of the adopted control measures will be appropriate for the weed species identified for example, application of approved herbicide/s to stripped topsoil. 	Not Verified	<p>No evidence sighted of whether any weed control undertaken at disturbance sites.</p> <p>Recommendation: <i>The Vegetation Clearing Protocol be updated to describe the specific weed control activities related to surface disturbance, rather than the weed management requirements and completion criteria management measures for the RWEA and Revegetation Areas. The SDP should be updated to make reference to weed management required at disturbance sites.</i></p>
6.5.3 / Appendix K	<p>Threatened Species Management Protocol</p> <ul style="list-style-type: none"> - A Threatened Species Management Protocol (TSMP) has been developed to facilitate implementation of threatened species management strategies to minimise the potential impacts on threatened flora and fauna species. - The key components of the TSMP are: <ul style="list-style-type: none"> - Observation/Surveys for Threatened Species - Threatened Species Management Strategies - Consultation and Reporting 	-	-

BMP Section	Details	Assessment	Evidence
	<p><i>Observation/Surveys for Threatened Species:</i></p> <ul style="list-style-type: none"> - Pre-clearance surveys of proposed disturbance areas will be undertaken as part of the VCP by a suitably qualified ecologist or the WCPL Environmental Advisor. - Surveys of rehabilitation and offset areas are also undertaken annually as part of the WCPL annual rehabilitation monitoring program. 	Not Verified	<p>Two SDPs make reference to threatened species, including threatened flora (SDP576 – species not specified) and threatened fauna (SDP546 – Glossy Black-cockatoo).</p> <p>In some SDPs, the need for a pre-clearance survey was identified, however the survey was not appended to the SDP (e.g. SDP 526, SDP541, SDP560, SDP680 and SDP679). Some SDPs recommend a site walk through for tree hollows (SDP680 and SDP679), however no evidence of the walk through being undertaken.</p>
	<p><i>Threatened Species Management Strategies - Avoiding Remnant Woodland Enhancement Areas:</i></p> <ul style="list-style-type: none"> - WCPL shall not undertake any activities within the RWEA other than the following: <ul style="list-style-type: none"> - Approved underground mining operations - Activities under an approved Biodiversity Management Plan, Flora & Fauna Management Plan or Heritage Management Plan - Environmental management, environmental monitoring or other monitoring required under this consent or under an approved management plan or monitoring program - Rehabilitation activities under an approved Extraction Plan - Prior to any disturbance within the RWEA WCPL will seek approval from: 	Compliant	<p>Section 6.1.1.3 of the BMP identifies permitted activities within the RWEAs. Section 6.1.1.2 identifies non-permitted activities which can only be undertaken with approval from the Chief Executive of OEH.</p> <p>No evidence of non-permitted activities being undertaken within the RWEAs sighted during the site inspection.</p> <p>MOP 2015-2020 (MOP Amendment D) and MOP 2018-2020 do not indicate any clearing of vegetation was proposed within RWEAs during the audit period. Annual Reviews undertaken for 2015, 2016, 2017 and 2018 do not indicate any clearing within RWEAs. No evidence of clearing was observed within RWEAs during the site inspection.</p> <p>Activities have been conducted in accordance with conditions 40, 41 and 41A of DA 305-7-2003 (see Appendix D).</p>

BMP Section	Details	Assessment	Evidence
	<ul style="list-style-type: none"> - The Federal Minister of the Department of the Environment for any proposed disturbance activities in RWEA A - The Director General for Department of Planning and Environment for any proposed disturbance activities in all RWEA Areas - Ensure that proposed activities are conducted in accordance with conditions 40, 41 and 41A of DA 305-7-2003 		
	<p><i>Threatened Species Management Strategies - Threat Abatement:</i></p> <ul style="list-style-type: none"> - Actions may include: <ul style="list-style-type: none"> - Activity modification to reduce or prevent impacts - Scheduling of vegetation clearance activities - Relocation of identified species - Strategies will be dependent on the degree of flexibility provided by mine planning and practicality of available options. Where there is some flexibility in the location of the disturbance (for example some access tracks and exploration drill holes) and the extent of the threatened species or its habitat is limited, WCPL will relocate the disturbance to avoid impacts 	Not Verified	Niche Environment and Heritage proposed a number of management strategies for SDP546 (dated June 2015). SDP576 (dated December 2017) provides limited details on management strategies for the unnamed threatened flora species. No details relating to implementation of these strategies are documented within the 2015 and 2017 Annual Reviews.

BMP Section	Details	Assessment	Evidence
	<p><i>Threatened Species Management Strategies - Capture and Release</i></p> <ul style="list-style-type: none"> - Capture and relocation of identified threatened fauna will be attempted where conditions allow utilising accepted trapping techniques. - Captured fauna will be released into suitable habitat as identified by a qualified ecologist. - All capture and relocation activities will be undertaken by a suitably qualified and licensed ecologist. 	Not Triggered	Capture and release was not proposed within the pre-clearance assessment of SDP546 (dated June 2015).
	<p><i>Consultation and Reporting</i></p> <ul style="list-style-type: none"> - The activities conducted as a result of the TSMP will be undertaken under the guidance of the supervising ecologist in consultation with WCPL Environment and Community Manager or delegate. - The results of actions undertaken as part of the TSMP will be reported in the Annual Review. - Regulatory authorities will be consulted with as required in compliance with the Biodiversity Management Plan and DA 305-7-2003. 	Non-compliant	Activities relating to the implementation of the TSMP in relation to SDP546 (June 2015) or SDP576 (dated December 2017) have not been documented within the Annual Reviews.

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APPENDIX F :

BMP Three Year Management Strategy Compliance Checklist

Table 5 Compliance with Three Year Management Strategy

Management Strategy	Aim	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)	Assessment	Evidence																										
Weed control	Exotic plant cover within the Conservation Area must not be permitted to exceed: <table border="1"> <thead> <tr> <th rowspan="2">Monitoring Site/s</th> <th colspan="2">Foliage Cover (%)</th> </tr> <tr> <th>Year 1</th> <th>Year 2-3</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>70</td> <td>60</td> </tr> <tr> <td>A2</td> <td>20</td> <td>15</td> </tr> <tr> <td>A3</td> <td>30</td> <td>20</td> </tr> <tr> <td>CT2</td> <td>15</td> <td>15</td> </tr> <tr> <td>A4</td> <td>10</td> <td>5</td> </tr> <tr> <td>B1, B2, C1, D1, CT1</td> <td>5</td> <td>5</td> </tr> <tr> <td>E1</td> <td>-¹</td> <td>-¹</td> </tr> </tbody> </table>	Monitoring Site/s	Foliage Cover (%)		Year 1	Year 2-3	A1	70	60	A2	20	15	A3	30	20	CT2	15	15	A4	10	5	B1, B2, C1, D1, CT1	5	5	E1	- ¹	- ¹	Primary weed control, consisting of bush regeneration by qualified bush regeneration contractor, applying a range of techniques including: <ul style="list-style-type: none"> - Removal of weeds ensuring that all plant parts which can reproduce are removed and that soils do not become prone to erosion. - Use of carefully selected herbicide according to label directions and/or current off label permit, ensuring minimal off target damage. - Use of appropriate control measures as recommended in the Department of Primary Industries Noxious and Environmental Weed Control Handbook 5th Edition 2011 or equivalent replacements for control of weeds, ensuring minimal off target damage. - Use of forestry mulching or slashing machinery only with prior written permission from OEH. - Ensure control programs are commenced when timing and extent of weed removal will minimise adverse effects on wildlife (weeds may provide protection or habitat for native fauna). Dense thickets of lantana should be removed in gradually mosaic patterns to minimise disturbance to the habitat of native animals. - Contact OEH if any uncertainty exists regarding weed control methods. Other weed control methods may be undertaken with prior written permission of OEH.	Follow up weed control, consisting of bush regeneration by qualified bush regeneration contractor, applying a range of techniques as described for Year 1. Targets for exotic weed cover will be reviewed annually with the aim of them being reduced, based on the performance of weed management documented within the annual report for the monitoring program.	As per Year 2.	Not Verified	Invoices sighted from Rural & Environmental Management indicate weed management activities undertaken in 2015, 2016, 2017 and 2018, however unclear if all works were for the RWEAs. Whilst activities have been occurring, as documented in the Annual Reviews, there is insufficient evidence of these being undertaken in accordance with the commitments. Discussion of exotic plant cover is provided in the annual monitoring reports. No reduced targets have been documented. Exotic plant cover at four monitoring sites exceeded foliage cover limits as follows:: <ul style="list-style-type: none"> - A1: 2016 (84%); - A2: 2017 (16%), 2018 (18%); - A3: 2016 (66%), 2017 (42%), 2018 (44%); and - CT2: 2016 (52%). No data is currently available for 2019, and no results for site E1 were reported in 2018. It is noted that the current strategy within the BMP is derived from the Conservation Agreements, however the conservation agreements were not registered until 2017. <p>Recommendation: A weed management report is prepared by the qualified bush regeneration contractor to document that the works have been undertaken in accordance with the required actions. The BMP be updated to reflect the timing of the strategy as described within the Conservation Agreements. The BMP should also be updated to reflect the next three years of the strategy within the Conservation Agreements.</p>
			Monitoring Site/s	Foliage Cover (%)																												
Year 1	Year 2-3																															
A1	70	60																														
A2	20	15																														
A3	30	20																														
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B1, B2, C1, D1, CT1	5	5																														
E1	- ¹	- ¹																														
Management Effort Required: RWEAs A-D: between approximately 300 and 500 hours up to a maximum of \$30,000/year (depending on contract rate and chemical requirement). RWEA Coal terminal: between approximately 100 and 167 hours up to a maximum of \$10,000/year (depending on contract rate and chemical requirement).	Not Verified	No detailed breakdown of costs for each RWEA exists and therefore there is insufficient evidence that targets have been met.																														
Pest control	Liaise with LLS and OEH annually and participate in coordinated pest animal control activities as required.	Pest animal control activities to be determined based on density and species of pest animals. Methods for monitoring pest animal activity may include: <ul style="list-style-type: none"> - observations and/or hearing calls, 	As per Year 1	As per Year 1	Compliant	Vertebrate pest management undertaken by Rural & Environmental Management in 2016, 2017 and 2019. WCPL participates in LLS meetings for land managers (B. Frondall pers. comm.).																										

Management Strategy	Aim	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)	Assessment	Evidence
		<ul style="list-style-type: none"> - the use of standard remote infra-red camera traps, - the use of non-poisoned "bait stations", - scat counts, and - other quantitative techniques which can be designed in discussion with OEH or Local Land Services (LLS). <p>Methods for pest animal control can include; shooting, trapping and use of poisonous baits consistent with advice from OEH and LLS. Use control methods identified as 'humane' as defined in the <i>NSW Codes of Practice and Standard Operating Procedures for Humane Pest Vertebrate Control (Control Capture and Destruction of Feral Animals in Australia)</i> as developed by the NSW Department of Primary Industries.</p>				
Fire hazard reduction burn ¹	Operate with NSW Rural Fire Service or fire management contractor to implement hazard reduction burn. Liaise with RFS and NPWS regarding appropriate timing.	Implement 1 hazard reduction burn during low risk fire season. Must take into account the recommended fire intervals given in the <i>Bush Fire Environmental Assessment Code for New South Wales</i> (Rural Fire Service February 2006) and the guidelines contained in the <i>Threatened Species Hazard Reduction Lists for the Bush Fire Environmental Assessment Code</i> or equivalent replacements.			Not Triggered	Whilst this is included as part of the Three Year Management Strategy, it is derived from the Conservation Agreement, which provides a 10-year timeframe to undertake this action.
Vehicle access to Remnant Woodland Enhancement Areas	Maintain vehicle access to RWEAs for visitor management, fire management, weed and fencing management.	Repair existing tracks/trails and fire breaks.	Maintain existing tracks/trails and fire breaks as required.	Maintain existing tracks/trails and fire breaks as required.	Compliant	Invoices of track repair by Rural & Environmental Management sighted. Evidence of suitable tracks observed during the site inspection.
Fencing	Erect/repair and maintain stock proof fencing on boundaries of RWEAs.	<p>RWEAs A-D: Erect 2450 metres stock proof fence on boundary of RWEAs and repair 2.1 km of existing fence on other boundaries of the RWEAs as required.</p> <p>RWEA Coal terminal: Erect 340 metres stock proof fence on boundary of RWEA and repair 3.82 km of existing fence on other boundaries of the RWEA as required.</p> <p>RWEA E: Erect fencing on the boundary of the RWEA and/or repair existing fencing as required.</p> <p>The fencing must have plain wire on the top and bottom strands to minimise harm to fauna.</p>	Maintain fences as required.	Maintain fences as required.	Not Verified	<p>2016 Annual Review indicates fencing audited in 2016 and 1km of internal fence line removed from RWEA A (Section 5.6.2). No further reference to fencing activities between 2016-2018.</p> <p>Invoices sighted from Rural & Environmental Management indicated fencing activities (removal, repair, installation) undertaken in 2015, 2016, 2017 and 2018, however unclear if all works were for the RWEAs.</p> <p>Replacement and repaired fencing observed during the site inspection appeared to be compliant with the requirements to minimise harm to fauna.</p> <p>A survey of all fence lines within the RWEAs was conducted in 2019 which made recommendations to replace or repair fence lines (N. Dobbins pers. comm.). 1,239 m of fencing was repaired and 930 m of new fencing was erected in 2019, primarily in RWEAs A and C. Evidence of fence repair and replacement sighted during the site inspection.</p>

Management Strategy	Aim	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)	Assessment	Evidence
Annual Reports	Annual reports to be prepared in accordance with requirements detailed in Section 11.3.	Prepare and submit Annual Report for Monitoring Program.	Prepare and submit Annual Report for Monitoring Program.	Prepare and submit Annual Report for Monitoring Program.	Compliant	Annual reports prepared for monitoring undertaken in 2016, 2017 and 2018.

1. WCPL's Conservation Agreements require a fire hazard reduction burn to occur within the RWEAs between Year 1-10. It is assumed that one fire hazard reduction burn will take place across the RWEAs during the 3 year management strategy period, however the timing of these burns will be determined in consultation with RFS and NPWS. The cost of the burn has been included in the total cost of this 3 year strategy.

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APPENDIX G :

Photographs



Photograph 1 Entry gates to RWEA



Photograph 2 Signage within RWEA



Photograph 3 Newly installed fencing within RWEA A



Photograph 4 *Opuntia stricta* observed within RWEA Wambo Coal Terminal



Photograph 5 Nest box within the RWEAs



Photograph 6 Established mine rehabilitation



Photograph 7 Preparation works for mine rehabilitation

