

WAMBO COAL PTY LIMITED



SOUTH BATES EXTENSION MODIFICATION ENVIRONMENTAL ASSESSMENT

ATTACHMENT 1 Wambo Consolidated Development Consent

Development Consent

Section 80 of the *Environmental Planning & Assessment Act 1979*

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), approve the Development Application referred to in schedule 1, subject to the conditions in schedules 3 to 6.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the development.

SIGNED

Diane Beamer MP
**Minister Assisting the
Minister for Infrastructure and Planning
(Planning Administration)**

Sydney

4 February 2004

File No: S02/02197

Blue type represents 2004 modification

Red type represents May 2005 modification

Green represents January 2006 modification

Pink represents April 2006 Modification

Orange represents October 2006 Modification

Violet represents January 2007 Modification

Brown represents June 2009 Modification

Lime represents August 2009 Modification

Blue with yellow background represents February 2011 Modification

Taupe represents January 2013 Modification

Light Blue represents July 2013 Modification

Blue with grey background represents April 2015 Modification

Purple represents October 2015 Modification

Maroon represents October 2016 Modification

SCHEDULE 1

Development Application: DA 305-7-2003

Applicant Wambo Coal Pty Limited;

Consent Authority: Minister for Infrastructure and Planning;

Land: See Appendix 1;

Proposed Development: The development of open cut and underground mining operations at the Wambo coal mine, which includes:

- continued development of open cut and underground mining operations within existing Wambo Coal Pty Limited (WCPL) mining and coal leases and into new mining lease application area;
- selective auger mining of the Whybrow, Redbank Creek, Wambo and Whynot seams up to 200 m beyond the open cut limits within WCPL owned land;
- continued placement of waste rock and coarse rejects within mine waste rock emplacements;

- continued placement of tailings within open cut voids and capping with waste rock and coarse rejects;
- an extension to the existing Wollemi Underground Mine Box Cut (within the limits of the development open cut mining area) to provide direct access for three underground longwall panels in the Whybrow Seam;
- longwall mining of the Wambo Seam via the open cut highwall;
- construction of a portal access to facilitate longwall mining of the Arrowfield and Woodlands Hill Seams;
- an upgrade of the existing Coal Handling and Preparation Plant (CHPP) to facilitate increased coal production;
- development of a water control structure across North Wambo Creek at the north-western limit of the open cut operation, and a channel to allow the passage of flows to the lower reaches of North Wambo Creek around the open cut development;
- degazettal and physical closure of Pinegrove Road;
- development of new access roads and internal haul roads;
- relocation of the existing explosives magazine and construction of additional hydrocarbon storage facilities;
- relocation of the administration area and site offices;
- extraction of up to 14.7 million tonnes of run-of-mine (ROM) coal a year;
- operation of the mine 24 hours a day, 7 days a week;
- continued haulage of coal by road from Wambo Coal Mine to Mt Thorley Coal Loader prior to the commissioning of the Wambo "Rail and Train Loading Infrastructure" (which is the subject of a separate development application: DA 177-8-2004); and
- haulage of coal by the Wambo "Rail and Train Loading Infrastructure".

State Significant Development:

The proposal is classified as State significant development, under section 76A(7) of the *Environmental Planning & Assessment Act 1979*, because it involves coal-mining related development that requires a new mining lease under section 63 of the *Mining Act 1992*.

Integrated Development:

The proposal is classified as integrated development, under section 91 of the *Environmental Planning & Assessment Act 1979*, because it requires additional approvals under the:

- *Protection of the Environment Operations Act 1997*;
- *National Parks & Wildlife Act 1974*;
- *Water Act 1912*;
- *Fisheries Management Act 1994*;
- *Heritage Act 1977*;
- *Roads Act 1993*; and
- *Mine Subsidence Compensation Act 1961*.

Designated Development:

The proposal is classified as designated development, under section 77A of the *Environmental Planning & Assessment Act 1979*, because it is for a coal mine that would "produce or process more than 500 tonnes of coal a day", and consequently meets the criteria for designated development in schedule 3 of the *Environmental Planning & Assessment Regulation 2000*.

BCA Classification:

| | |
|------------|----------------------------|
| Class 5: | Office upgrade |
| Class 9b: | Bathhouse |
| Class 10a: | Car park |
| | Heavy vehicle wash station |
| | Gas drainage bores |
| | De-watering bores |
| Class 10b: | Coal conveyor |

Note:

- 1) To find out when this consent becomes effective, see section 83 of the *Environmental Planning & Assessment Act 1979* (EP&A Act);
- 2) To find out when this consent is liable to lapse, see section 95 of the EP&A Act; and

3) *To find out about appeal rights, see section 97 of the EP&A Act.*

SCHEDULE 2 DEFINITIONS

| | |
|----------------------------------|---|
| Adaptive management | Adaptive management includes monitoring subsidence impacts and subsidence effects and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and designated ranges and in compliance with the conditions of this consent |
| Annual Review | The review required by Condition 5 of Schedule 6 |
| Applicant | Wambo Coal Pty Limited |
| Associated surface development | Includes ventilation shafts, gas drainage and gas flaring infrastructure, pit top facilities, access road, offices, car park, electrical sub-station, and associated services and easements such as powerlines, water supply, fire control, communications and waste water |
| BCA | Building Code of Australia |
| Bore | Any bore or well or excavation or other work connected or proposed to be connected with sources of sub-surface water, and used or proposed to be used or capable of being used to obtain supplies of such water whether the water flows naturally at all times or has to be raised whether wholly or at times by pumping or other artificial means |
| Built features | Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; any pipeline, water, sewer, telephone, gas or other service main |
| CCC | Community Consultative Committee |
| Conditions of this consent | Conditions contained in schedules 2 to 6 inclusive |
| Construction | The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent |
| Council | Singleton Shire Council |
| DA | Development Application |
| Day | Day is defined as the period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays |
| Department | Department of Planning and Environment |
| DPI-Water | Department of Primary Industries - Water |
| DRE | Division of Resources and Energy within the NSW Department of Industry |
| DSC | Dams Safety Committee |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| Environmental consequences | The environmental consequences of subsidence impacts, including: damage to infrastructure, buildings and residential dwellings; loss of surface flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; ponding |
| EPA | Environment Protection Authority |
| EP&A Act | Environmental Planning and Assessment Act 1979 |
| EP&A Regulation | Environmental Planning and Assessment Regulation 2000 |
| EPL | Environment Protection Licence issued under the POEO Act |
| Evening | Evening is defined as the period from 6pm to 10pm |
| Feasible | Feasible relates to engineering considerations and what is practical to build or to implement |
| First Workings | Underground workings which establish access to the coal resource area |
| GTA | General Term of Approval |
| Heritage item | An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal object or Aboriginal place as defined under the <i>National Parks and Wildlife Act 1974</i> |
| Incident | A set of circumstances that: <ul style="list-style-type: none"> causes or threatens to cause material harm to the environment; and/or breaches or exceeds the limits or performance measures/criteria in this consent |
| Land | Land means the whole of a lot in a current plan registered at the Land Titles Office at the date of this consent |
| Longwall domain | Areas 1, 2, 3 and 4 as identified in Figure 9 of the document titled <i>South Wambo Underground Mine Modification Environmental Assessment</i> (see condition 2(q) of Schedule 3) |
| Material harm to the environment | Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial |
| Mining operations | Includes the removal of overburden and extraction, processing, handling, storage and transportation of coal at the Wambo Mining Complex |
| Minister | Minister for Planning, or delegate |

| | |
|--------------------------------|---|
| Minor Mitigation | Not very large, important or serious Activities associated with reducing the impacts of the development prior to or during those impacts occurring |
| MOP | Mining Operations Plan |
| MSB | Mine Subsidence Board |
| Negligible | Small and unimportant, such as to be not worth considering |
| Night | Night is defined as the period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays |
| OEH | Office of Environment and Heritage |
| Offset Strategy | The revegetation and enhancement program described in the EIS for the Wambo Development Project, dated July 2003 |
| PCA | Principal Certifying Authority appointed under Section 109E of the Act |
| POEO Act | <i>Protection of the Environment Operations Act 1997</i> |
| Privately-owned land | Land excluding land owned by a mining company, where: <ul style="list-style-type: none"> • A private agreement does not exist between the Applicant and the land owner; and • There are no land acquisition provisions requiring the Applicant to purchase the land upon request from the land owner. |
| Reasonable | Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements |
| Reasonable costs | The costs agreed between the Department and the Applicant for obtaining independent experts to review the adequacy of any aspects of the extraction plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process |
| Rehabilitation | The treatment or management of land disturbed by the development for the purpose of establishing a safe, stable and non-polluting environment, including the remediation of impacts |
| Remediation | Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact |
| ROM Coal | Run-of-mine coal |
| RMS | Roads and Maritime Services |
| Secretary | Secretary of the Department, or nominee |
| SEE | Statement of Environmental Effects |
| Safe, serviceable & repairable | Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically |
| Southern Area | See Figure HA-5 in Appendix HA of Volume 4 of the EIS for the Wambo Development Project |
| Second workings | Extraction of coal from longwall panels, mini-wall panels or pillar extraction |
| Site | Land to which the DA applies (see schedule 1 and Appendix 1) |
| SMP | Subsidence Management Plan |
| Subsidence | The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts |
| Subsidence effects | Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature |
| Subsidence impacts | Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs |
| Vacant land | Vacant land is defined as the whole of the lot in a current plan registered at the Land Titles Office that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot at the date of this consent. |
| Wambo Mining Complex | The development approved under this consent, together with the development approved under the consent for the Wambo rail and coal loading infrastructure (177-8-2004) considered collectively |

TABLE OF CONTENTS

| | | |
|-----------|---|-----------|
| 1. | ADMINISTRATIVE CONDITIONS | 7 |
| 2. | SPECIFIC ENVIRONMENTAL CONDITIONS | 9 |
| | Acquisition Upon Request | 9 |
| | Air Quality | 9 |
| | Noise | 11 |
| | Meteorological Monitoring | 13 |
| | Blasting & Vibration | 14 |
| | Subsidence | 16 |
| | Rejects Emplacement Strategy | 18 |
| | Surface & Ground Water | 18 |
| | Flora & Fauna | 22 |
| | Aboriginal Cultural Heritage | 25 |
| | Wambo Homestead Complex | 26 |
| | Traffic & Transport | 27 |
| | Visual Impact | 28 |
| | Greenhouse Gas | 29 |
| | Waste Minimisation | 29 |
| | Hazards Management | 29 |
| | Bushfire Management | 29 |
| | Rehabilitation | 29 |
| | Mine Exit Strategy | 31 |
| 3. | ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT | 32 |
| 4. | ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING | 35 |
| | Environmental Management Strategy | 35 |
| | Annual Review | 36 |
| | Revision of Strategies, Plans and Programs | 36 |
| | Independent Environmental Audit | 36 |
| | Community Consultative Committee | 36 |
| | Reporting | 37 |
| | Access to Information | 37 |
| 5. | APPENDIX 1: SCHEDULE OF LAND | 39 |
| 6. | APPENDIX 2: INDEPENDENT DISPUTE RESOLUTION PROCESS | 42 |
| 7. | APPENDIX 3: MAPS FOR ABORIGINAL CULTURAL HERITAGE INVESTIGATIONS | 43 |
| 8. | APPENDIX 4: BIODIVERSITY OFFSET AREAS | 45 |
| 9. | APPENDIX 5: APPROVED LAYOUT | 47 |

SCHEDULE 3 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Applicant **must** implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

Terms of Approval

2. The Applicant **must** carry out the development generally in accordance with the:
 - (a) DA 305-7-2003;
 - (b) EIS titled *Wambo Development Project*, volumes 1-5, dated July 2003, and prepared by Resource Strategies Pty. Ltd.;
 - (c) letter from Holmes Air Sciences to the Department, dated 3 September 2003, and titled *Wambo Development Project - Response Air Quality Assessment*;
 - (d) letter from Wambo Coal Pty. Ltd. to the Department, dated 24 October 2003, and titled *Wambo Development Project – Development Application Amendment (DA 305-7-2003-i)*;
 - (e) Statement of Environmental Effects titled *Wambo Development project – Wambo Seam Underground Mine Modification*, dated January 2005, and prepared by Wambo Coal Pty Ltd;
 - (f) document titled *Wambo Development Project – Modification of DA 305-7-2003-I*, dated 24 October 2005;
 - (g) document titled *Wambo Development Project – Modification of DA 305-7-2003-I*; dated 23 January 2006;
 - (h) document titled *Wambo Development Project – Modification of DA 305-7-2003-I*; dated 27 July 2006;
 - (i) document titled *Wambo Coal Mine Modification Statement of Environmental Effects*; dated September 2006;
 - (j) document titled *Wambo Coal Mine Statement of Environmental Effects on Proposed Modification*, dated March 2009;
 - (k) document titled *Wambo Coal Mine Modification Statement of Environmental Effects*, dated June 2009 and the response to submissions dated July 2009;
 - (l) the modification application DA 305-7-2003 MOD 9 and accompanying letter prepared by Wambo Coal Pty Ltd;
 - (m) the modification application DA 305-7-2003 MOD 11 and accompanying documents titled *Wambo Montrose Water Storage Modification Environmental Assessment* dated June 2012 and *Wambo Montrose Water Storage Modification Response to Submissions* dated 4 September 2012;
 - (n) the modification application DA 305-7-2003 MOD 13 and accompanying documents entitled *North Wambo Mine Modification Environmental Assessment - The addition of North Wambo Underground Mine Longwalls 9 and 10* dated December 2012 and *North Wambo Underground Mine Modification - Response to Submissions* dated April 2013;
 - (o) the modification application DA 305-7-2003 MOD 14 and accompanying documents entitled *North Wambo Underground Mine Longwall 10A Modification Environmental Assessment - The addition of North Wambo Underground Mine Longwall 10A*, dated September 2014, and associated *Response to Submissions* dated December 2014;
 - (p) the modification application DA 305-7-2003 MOD 15 and accompanying documents entitled *South Bates (Wambo Seam) Underground Mine Modification Environmental Assessment – The addition of South Bates (Wambo Seam) Underground Mine Longwalls 14 to 16*, dated August 2015, and associated *Response to Submissions* dated September 2015 and letter from Peabody Energy to the Department titled *Modification 15 to DA 305-7-2003 – Supplementary Request to Include Revised Portal Location*, dated 2 November 2015;
 - (q) the modification application DA 305-7-2003 MOD 12 and accompanying documents entitled *South Wambo Underground Mine Modification Environmental Assessment*, dated April 2016, associated *Response to Submissions* dated June 2016 and letter from Peabody Energy to the Department titled *Modification 12 to DA 305-7-2003 – Request to Revise First Workings Layout*, dated 13 July 2016; and
 - (r) Approved Layout, shown in Appendix 5.

Note: With the approval of the Secretary, longwall panels may be shortened or narrowed, providing that the proposed variations do not result in increased subsidence impacts or environmental consequences.

- 2A. The Applicant must carry out the development in accordance with the conditions of this consent.
3. If there is any inconsistency between the documents listed in condition 2, the most recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over the documents in condition 2 to the extent of any inconsistency.
4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:

- (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents);
- (b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and
- (c) the implementation of any actions or measures contained in these documents.

Deferred Commencement

- 5. This consent shall only commence when the Applicant has surrendered all previous development consents for the Wambo coal mine, excluding DA No. 108/91 issued by Singleton Shire Council, to the satisfaction of the [Secretary](#).

Limits on Approval

- 6. The Applicant may carry out mining operations at the Wambo Mining Complex until 1 March 2032.

Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the [Secretary](#) and DRE. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and those additional undertakings have been carried out satisfactorily.

- 7. The Applicant **must** not extract more than 14.7 million tonnes of ROM coal a year from the development.

Staged Submission of any Strategy, Plan or Program

- 7A. With the approval of the [Secretary](#), the Applicant may:
 - (a) submit any strategy, plan or program required by this consent on a progressive basis; and
 - (b) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required under DA 177-8-2004.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

- 7B. With the agreement of the Secretary, the Applicant may prepare a revision of a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition of consent.

Structural Adequacy

- 8. The Applicant **must** ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of development.
- The development is located in the Patrick Plains Mine Subsidence District. Under section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the Mine Subsidence Board's approval before constructing or relocating any improvements on the site.

Demolition

- 9. The Applicant **must** ensure that all demolition work is carried out in accordance with AS 2601-2001: *The Demolition of Structures*, or its latest version.

Operation of Plant and Equipment

- 10. The Applicant **must** ensure that all plant and equipment used at the site, or to transport coal off-site, are:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

11. *Deleted*

12. *Deleted*

SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS

ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from the landowner of the land listed in Table 1, the Applicant **must** acquire the land in accordance with the procedures in conditions 9-11 of schedule 5:

Table 1: Land subject to acquisition upon request

| | |
|-----------------|----------------------|
| 2 – Lambkin | 23A & B - Kannar |
| 13C - Skinner | 31A,B,C & D - Fisher |
| 19A & B – Kelly | 51 – Hawkes |
| 22 – Henderson | 56 - Haynes |

Note: For more information on the numbering and identification of properties used in this consent, see Attachment 1 of the EIS for the Wambo Development Project. Lands titled 23A & B – Kannar, 31A,B,C & D – Fisher, 51 – Hawkes and 56 – Haynes have been acquired and are now mine-owned.

AIR QUALITY

Odour

2. The Applicant **must** ensure that no offensive odours, as defined under the POEO Act, are emitted from the Wambo Mining Complex.

Greenhouse Gas Emissions

3. The Applicant **must** implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the Wambo Mining Complex to the satisfaction of the [Secretary](#).

Air Quality Criteria

4. Except for the air quality affected land in Table 1, the Applicant **must** ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the Wambo Mining Complex do not exceed the criteria listed in Tables 2, 3 and 4 at any residence on privately owned land, or on more than 25 percent of any privately owned land.

Table 2: Long term impact assessment criteria for particulate matter

| Pollutant | Averaging period | ^d Criterion |
|--|-------------------------|-----------------------------------|
| Total suspended particulate (TSP) matter | Annual | ^a 90 µg/m ³ |
| Particulate matter < 10 µm (PM ₁₀) | Annual | ^a 30 µg/m ³ |

Table 3: Short term impact assessment criterion for particulate matter

| Pollutant | Averaging period | ^d Criterion |
|--|-------------------------|-----------------------------------|
| Particulate matter < 10 µm (PM ₁₀) | 24 hour | ^a 50 µg/m ³ |

Table 4: Long term impact assessment criteria for deposited dust

| Pollutant | Averaging period | Maximum increase² in deposited dust level | Maximum total¹ deposited dust level |
|-----------------------------|-------------------------|---|---|
| ^c Deposited dust | Annual | ^b 2 g/m ² /month | ^a 4 g/m ² /month |

Notes to Tables 2-4

^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);

^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the [Secretary](#).

Air Quality Acquisition Criteria

5. If particulate matter emissions generated by the Wambo Mining Complex exceed the criteria in Tables 5, 6, and 7 at any residence on privately-owned land, or on more than 25 percent of any privately owned land, then upon written request for acquisition from the landowner, the Applicant **must** acquire the land in accordance with the procedures in conditions 9 - 11 of schedule 5.

Table 5: Long term land acquisition criteria for particulate matter

| Pollutant | Averaging period | ^d Criterion |
|--|------------------|-----------------------------------|
| Total suspended particulate (TSP) matter | Annual | ^a 90 µg/m ³ |
| Particulate matter < 10 µm (PM ₁₀) | Annual | ^a 30 µg/m ³ |

Table 6: Short term land acquisition criteria for particulate matter

| Pollutant | Averaging period | ^{da} Criterion |
|--|------------------|------------------------------------|
| Particulate matter < 10 µm (PM ₁₀) | 24 hour | ^a 150 µg/m ³ |
| Particulate matter < 10 µm (PM ₁₀) | 24 hour | ^b 50 µg/m ³ |

Table 7: Long term land acquisition criteria for deposited dust

| Pollutant | Averaging period | Maximum increase ² in deposited dust level | Maximum total ¹ deposited dust level |
|-----------------------------|------------------|---|---|
| ^c Deposited dust | Annual | ^b 2 g/m ² /month | ^a 4 g/m ² /month |

Notes to Tables 5-7

^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);

^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the [Secretary](#).

Mine-owned Land

- 5A. The Applicant **must** ensure that particulate matter emissions generated by the Wambo Mining Complex do not exceed the criteria listed in Tables 2, 3 and 4 at any occupied residence on any mine-owned land (including land owned by adjacent mines) unless:
- the tenant and landowner has been notified of health risks in accordance with the notification requirements under schedule 5 of this consent;
 - the tenant on land owned by the Applicant can terminate their tenancy agreement without penalty, subject to giving reasonable notice, and the Applicant uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;
 - air mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the Applicant);
 - particulate matter air quality monitoring is undertaken to inform the tenant and landowner of potential health risks; and
 - monitoring data is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property,
- to the satisfaction of the [Secretary](#).

Air Quality Operating Conditions

5B. The Applicant **must**:

- (a) implement best management practice to minimise the off-site odour, fume and dust emissions from the Wambo Mining Complex, including best practice coal loading and profiling and other measures to minimise dust emissions from coal transportation by rail;
- (b) operate a comprehensive air quality management system at the Wambo Mining Complex that uses a combination of predictive meteorological forecasting, predictive and real time air dispersion modelling and real-time air quality monitoring data to guide the day to day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;
- (c) manage PM2.5 levels in accordance with any requirements of any EPL;
- (d) minimise the air quality impacts of the Wambo Mining Complex during adverse meteorological conditions and extraordinary events (see note d above under Tables 5-7);
- (e) minimise any visible off-site air pollution;
- (f) minimise the surface disturbance of the site generated by the Wambo Mining Complex; and
- (g) co-ordinate air quality management at the Wambo Mining Complex with the air quality management at nearby mines (HVO South, HVO North and Mount Thorley Warkworth mines) to minimise the cumulative air quality impacts of these mines and the Wambo Mining Complex, to the satisfaction of the [Secretary](#).

Air Quality and Greenhouse Gas Management Plan

5C. The Applicant **must** prepare a detailed Air Quality & Greenhouse Gas Management Plan for the Wambo Mining Complex to the satisfaction of the [Secretary](#). This plan must:

- (a) be prepared in consultation with the EPA, and submitted to the [Secretary](#) for approval by the end of June 2013;
- (b) describe the measures that would be implemented to ensure:
 - best management practice is being employed;
 - the air quality impacts of the Wambo Mining Complex are minimised during adverse meteorological conditions and extraordinary events; and
 - compliance with the relevant conditions of this consent.
- (c) describe the proposed air quality management system;
- (d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;
- (e) include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from air quality monitoring;
- (f) include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development;
 - adequately supports the proactive and reactive air quality management system;
 - includes PM2.5 monitoring;
 - includes monitoring of occupied development-related residences and residences on air quality-affected land listed in Table 1, subject to the agreement of the tenant;
 - evaluates and reports on the effectiveness of the air quality management system; and
 - includes a protocol for determining any exceedances of the relevant conditions in this consent; and
- (g) include a protocol that has been prepared in consultation with the owners of nearby mines (HVO South, HVO North and Mount Thorley Warkworth mines) to minimise the cumulative air quality impacts of these mines and the Wambo Mining Complex.

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

¹NOISE

Noise Impact Assessment Criteria

6. The Applicant **must** ensure that the noise generated by the Wambo Mining Complex does not exceed the noise impact assessment criteria presented in Table 9.

Table 9: Noise impact assessment criteria dB(A)

| Day <i>L_{Aeq}(15 minute)</i> | Evening/Night <i>L_{Aeq}(15 minute)</i> | Night <i>L_{A1}(1 minute)</i> | Land Number |
|--|--|--|---------------|
| 35 | 41 | 50 | 94 – Curlewis |
| | | | 3 – Birrell |

¹ Incorporates EPA GTAs

| Day <i>L_{Aeq}(15 minute)</i> | Evening/Night <i>L_{Aeq}(15 minute)</i> | Night <i>L_{A1}(1 minute)</i> | Land Number |
|---|---|---|---|
| 35 | 40 | 50 | 4B – Circosta |
| | | | 15B - McGowen/Caslick |
| | | | 16 – Cooper |
| | | | 23C – Kannar |
| | | | 25 – Fenwick |
| | | | 28A & B – Garland |
| | | | 33 -Thelander/O'Neill |
| | | | 39 – Northcote |
| | | | 40 – Muller |
| | | | 254A – Algie |
| 35 | 39 | 50 | 5 – Strachan |
| | | | 6 - Merrick |
| | | | 7 - Maizey |
| | | | 37 - Lawry |
| | | | 48 - Ponder |
| 35 | 38 | 50 | 1 - Brosi |
| | | | 17 - Carter |
| | | | 18 - Denney |
| | | | 38 - Williams |
| | | | 49 - Oliver |
| | | | 63 - Abrocuff |
| | | | 75 - Barnes |
| | | | 91 - Bailey |
| 35 | 37 | 50 | 27 - Birralea |
| | | | 43 - Carmody |
| | | | 137 - Woodruff |
| | | | 163 - Rodger/Williams |
| | | | 246 - Bailey |
| 35 | 36 | 50 | 13B - Skinner |
| | | | 178 - Smith |
| | | | 188 - Fuller |
| | | | 262A, B & C - Moses |
| 35 | 35 | 50 | All other residential or sensitive receptors, excluding the receptors listed in condition 1 above |

Notes:

- Noise generated by the Wambo Mining Complex is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy

Land Acquisition Criteria

- If the noise generated by the Wambo Mining Complex exceeds the criteria in Table 10, the Applicant **must**, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 9-11 of schedule 5.

Table 10: Land acquisition criteria dB(A)

| Day/Evening/Night <i>L_{Aeq}(15 minute)</i> | Property |
|---|--|
| 43 | 94 - Curlewis |
| | 23C – Kannar |
| | 254A - Algie |
| 40 | All other residential or sensitive receptor, excluding the receptors listed in condition 1 above |

Note: Noise generated by the Wambo Mining Complex is to be measured in accordance with the notes presented below Table 9 above. **Property 23C – Kannar has been acquired and is now mine-owned.**

Operating Conditions

- The Applicant **must**:
 - implement best management practice to minimise the operational, low frequency and traffic noise of the Wambo Mining Complex;

- (b) operate a comprehensive noise management system for the Wambo Mining Complex that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
- (c) maintain the effectiveness of noise suppression equipment (if fitted) on plant at all times and ensure defective plant is not used operationally until fully repaired;
- (d) ensure that noise attenuated plant (if used) is deployed preferentially in locations relevant to sensitive receivers;
- (e) minimise the noise impacts of the Wambo Mining Complex during meteorological conditions when the noise limits in this consent do not apply;
- (f) co-ordinate the noise management for the Wambo Mining Complex with the noise management at nearby mines (including HVO South, HVO North and Mt Thorley Warkworth mines) to minimise the cumulative noise impacts of these mines and the Wambo Mining Complex, to the satisfaction of the [Secretary](#).

Noise Management Plan

9. The Applicant **must** prepare a Noise Management Plan for the Wambo Mining Complex to the satisfaction of the [Secretary](#). This plan must:
 - (a) be prepared in consultation with the EPA, and submitted to the [Secretary](#) for approval by the end of June 2013;
 - (b) describe the measures that would be implemented to ensure:
 - best management practice is being employed;
 - the noise impacts of the Wambo Mining Complex are minimised during meteorological conditions when the noise limits in this consent do not apply; and
 - compliance with the relevant conditions of this consent;
 - (c) describe the proposed noise management system in detail;
 - (d) include a monitoring program that:
 - uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the Wambo Mining Complex;
 - adequately supports the proactive and reactive noise management system for the Wambo Mining Complex;
 - includes a protocol for determining exceedances of the relevant conditions in this consent;
 - evaluates and reports on the effectiveness of the noise management system for the Wambo Mining Complex;
 - provides for the annual validation of the noise model for the Wambo Mining Complex; and
 - (e) include a protocol that has been prepared in consultation with the owners of nearby mines (including HVO South, HVO North and Mount Thorley Warkworth mines) to minimise the cumulative noise impacts of these mines and the Wambo Mining Complex.

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

²METEOROLOGICAL MONITORING

10. The Applicant **must** establish a permanent meteorological station at a location approved by the EPA, and to the satisfaction of the [Secretary](#), to monitor the parameters specified in Table 11, using the specified units of measure, averaging period, frequency, and sampling method in the table.

[Table 11: Meteorological monitoring](#)

| Parameter | Units of measure | Averaging period | Frequency | Sampling method¹ |
|-----------------------------|-------------------------|-------------------------|------------------|------------------------------------|
| Lapse rate | °C/100m | 1 hour | Continuous | Note ² |
| Rainfall | mm/hr | 1 hour | Continuous | AM-4 |
| Sigma Theta @ 10 m | ° | 1 hour | Continuous | AM-2 |
| Siting | - | - | - | AM-1 |
| Temperature @ 10 m | K | 1 hour | Continuous | AM-4 |
| Temperature @ 2 m | K | 1 hour | Continuous | AM-4 |
| Total Solar Radiation @ 10m | W/m ² | 1 hour | Continuous | AM-4 |
| Wind Direction @ 10 m | ° | 1 hour | Continuous | AM-2 |
| Wind Speed @ 10 m | m/s | 1 hour | Continuous | AM-2 |

¹ NSW EPA, 2001, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

² Incorporates EPA GTA

²The Applicant **must** calculate lapse rate from measurements made at 2m and 10m.

3BLASTING & VIBRATION

Airblast Overpressure Limits

11. The Applicant **must** ensure that the airblast overpressure level from blasting at the **Wambo Mining Complex** does not exceed the criteria in Table 12 at any residence on privately-owned land with the exception of property 13C (Skinner) (see condition 20 below).

Table 12: Airblast overpressure impact assessment criteria

| Airblast overpressure level (dB(Lin Peak)) | Allowable exceedance |
|---|---|
| 115 | 5% of the total number of blasts over a period of 12 months |
| 120 | 0% |

Ground Vibration Impact Assessment Criteria

12. The Applicant **must** ensure that the ground vibration level from blasting at the **Wambo Mining Complex** does not exceed the criteria in Table 13 at any residence on privately-owned land with the exception of property 13C (Skinner) (see condition 20 below).

Table 13: Ground vibration impact assessment criteria

| Peak particle velocity (mm/s) | Allowable exceedance |
|----------------------------------|---|
| 5 | 5% of the total number of blasts over a period of 12 months |
| 10 | 0% |

Blasting Hours

13. The Applicant **must** only carry out blasting at the **Wambo Mining Complex** between 9 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays or any other time without the written approval of **EPA**.

Blasting Frequency

- 13A. The Applicant may carry out a maximum of:
- (a) 3 blasts a day, unless an additional blast is required following a blast misfire; and
 - (b) 15 blasts a week,
- for all operations at the **Wambo Mining Complex**.

This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or blasts required to ensure the safety of the mine or its workers.

Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.

Public Notice

14. During the life of the **Wambo Mining Complex**, the Applicant **must**:
- (a) operate a Blasting Hotline, or alternate system agreed to by the **Secretary**, to enable the public to get up-to-date information on blasting operations at the **Wambo Mining Complex**; and
 - (a) notify the occupants of any land within 2 km of the site about this hotline or system on an annual basis.

Property Inspection

15. Before carrying out any blasting, the Applicant **must** advise all landowners within 2 km of the site that they are entitled to a property inspection.

³ Incorporates **EPA** GTA

16. If the Applicant receives a written request for a property inspection from any landowner within 2 km of the site, the Applicant **must**:
- (a) **within 28 days** of receiving the request, commission a suitably qualified person, whose appointment has been approved by the **Secretary**, to inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and
 - (b) give the landowner a copy of this property inspection report within 14 days of receiving the report.

Cumulative Impacts

17. The Applicant **must** undertake all reasonable steps to co-ordinate blasting at the **Wambo Mining Complex** with the blasting at surrounding mines – such as Bulga, Mount Thorley, Warkworth, and Hunter Valley Operations – to minimise the cumulative impacts of blasting in the region.

Operating Conditions

18. During mining operations at the Wambo Mining Complex, the Applicant **must**:
- (a) implement best management practice to:
 - protect the safety of people and livestock in the surrounding area;
 - protect public or private infrastructure/property in the surrounding area from any damage; and
 - minimise the dust and fume emissions of any blasting;
 - (b) minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods;
 - (c) co-ordinate the timing of blasting at the Wambo Mining Complex with the timing of blasting at nearby mines (including HVO South, HVO North and Mt Thorley Warkworth mines) to minimise the cumulative blasting impacts of these mines and the Wambo Mining Complex; and
 - (d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule at the Wambo Mining Complex, to the satisfaction of the **Secretary**.
19. The Applicant **must** not undertake blasting within 500 metres of:
- (a) any public road without the approval of the appropriate road authority; or
 - (b) any land outside the site that is not owned by the Applicant, unless:
 - the Applicant has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Applicant has advised the Department in writing of the terms of this agreement, or
 - the Applicant has:
 - demonstrated to the satisfaction of the **Secretary** that the blasting can be carried out closer to the land without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and
 - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.

Blast Management Plan

20. The Applicant **must** prepare a Blast Management Plan for the Wambo Mining Complex to the satisfaction of the **Secretary**. This plan must:
- (a) be submitted to the **Secretary** for approval by the end of June 2013;
 - (b) propose and justify any alternative ground vibration limits for any public infrastructure in the vicinity of the Wambo Mining Complex;
 - (c) describe the measures that would be implemented to ensure:
 - best management practice is being employed;
 - compliance with the relevant conditions of this consent;
 - (d) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with the RMS and Council;
 - (e) include measures to minimise, mitigate, and if necessary remediate the blasting impacts on property 13C (Skinner);
 - (f) address the requirements of conditions 63 – 68 of schedule 4;
 - (g) include a monitoring program for evaluating the performance of the Wambo Mining Complex, including:
 - compliance with the applicable criteria; and
 - minimising the fume emissions from the Wambo Mining Complex; and
 - (h) include a protocol that has been prepared in consultation with the owners of nearby mines (including HVO South, HVO North and Mt Thorley Warkworth mines) to minimise the cumulative blasting impacts of these mines and the Wambo Mining Complex.

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

- 20A. The Applicant **must** not carry out more than 1 blast a day within 500 metres of Wallaby Scrub Road or the Golden Highway.

Property Investigations

21. If any landowner within a 2 km radius of the site claims that his/her property has been damaged as a result of blasting at the development, the Applicant **must**:
- (a) **within 28 days** of receiving this claim in writing, commission a suitably qualified person whose appointment has been approved by the **Secretary** to investigate the claim; and
 - (b) give the landowner a copy of the property investigation report within 14 days of receiving the report.

If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant **must** repair the damages to the satisfaction of the **Secretary**.

If the Applicant or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the **Secretary** for resolution.

If the matter cannot be resolved within 21 days, the **Secretary** shall refer the matter to an Independent Dispute Resolution Process (See Appendix 2).

SUBSIDENCE

Performance Measures – Natural and Heritage Features, etc

22. The Applicant **must** ensure that the development does not cause any exceedances of the performance measures in Table 14A, to the satisfaction of the **Secretary**.

Table 14A: Subsidence Impact Performance Measures

| | |
|---|--|
| Water | |
| Wollombi Brook | Negligible subsidence impacts. Negligible environmental consequences. Controlled release of excess site water only in accordance with EPL requirements |
| Biodiversity | |
| Wollemi National Park | Negligible subsidence impacts. Negligible environmental consequences. |
| Warkworth Sands Woodland Community | Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences |
| White Box, Yellow Box, Blakely's Red Gum Woodland/Grassy White Box Woodland Community | Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences |
| Other threatened species, populations or communities | Minor cracking and ponding of the land surface or other impact. Negligible environmental consequences |
| Heritage | |
| Wambo Homestead Complex | Negligible impact on heritage values, unless approval has been granted by the Heritage Branch and/or the Minister |

Notes:

- 1) The Applicant will be required to define more detailed performance indicators for each of these performance measures in the various management plans that are required under this consent (see condition 22C below).
- 2) The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of approval of modification 9.

If the Applicant exceeds the performance measures in Table 14A and the Secretary determines that:

- (a) it is not reasonable or feasible to remediate the impact or environmental consequences; or
- (b) remediation measures implemented by the Applicant have failed to satisfactorily remediate the impact or environmental consequence,

then the Applicant **must** provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Secretary.

Note: An offset required under this condition must be proportionate with the significance of the impact or environmental consequence.

Performance Measures – Built Features

22A. The Applicant must ensure that the development does not cause any exceedances of the performance measures in Table 14B, to the satisfaction of DRE.

Table 14B: Subsidence Impact Performance Measures

| Built Features | |
|-----------------------|--|
| All built features | <p>Always safe.</p> <p>Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated.</p> <p>Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</p> |
| Public Safety | |
| Public Safety | No additional risk |

Notes:

- 1) The Applicant will be required to define more detailed performance indicators for each of these performance measures in Built Features Management Plans or Public Safety Management Plan (see condition 22C below).
- 2) The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of modification 9.
- 3) Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
- 4) Compensation required under this condition includes any compensation payable under the Mine Subsidence Compensation Act 1961 and/or the Mining Act 1992.

22B. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 14B is to be settled by DRE. DRE may seek the advice of the MSB on the matter. Any decision by DRE shall be final and not subject to further dispute resolution under this consent.

Extraction Plan

22C. The Applicant must prepare an Extraction Plan for the second workings within each seam to be mined to the satisfaction of the Secretary. Each Extraction Plan must:

- (a) be prepared by a team of suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
- (b) be approved by the Secretary before the Applicant carries out any of the second workings covered by the plan;
- (c) include detailed plans of the proposed first and second workings and any associated surface development;
- (d) include detailed performance indicators for each of the performance measures in Tables 14A and 14B;
- (e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this consent;
- (f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 14A and 14B, and manage or remediate any impacts and/or environmental consequences;
- (g) include the following to the satisfaction of DRE:
 - a coal resource recovery plan that demonstrates effective recovery of the available resource;
 - a subsidence monitoring program to:
 - provide data to assist with the management of the risks associated with subsidence;
 - validate the subsidence predictions; and
 - analyse the relationship between the subsidence effects and impacts under the plan and any ensuing environmental consequences;
 - a Built Features Management Plan to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:
 - addresses in appropriate detail all items of public infrastructure and all classes of other built features; and
 - has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;
 - a Public Safety Management Plan to ensure public safety in the mining area; and
 - appropriate revisions to the Rehabilitation Management Plan required under condition 94C;
- (h) include a:

- Water Management Plan, which has been prepared in consultation with EPA and DPI-Water, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on surface water resources, groundwater resources and flooding, and which includes:
 - surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
 - a program to monitor and report groundwater inflows to underground workings; and
 - a program to manage and monitor impacts on groundwater bores on privately-owned land;
 - Biodiversity Management Plan, which has been prepared in consultation with the OEHL, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on flora and fauna;
 - Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general;
 - Heritage Management Plan, which has been prepared in consultation with OEHL and relevant stakeholders for Aboriginal and non-Aboriginal heritage, to manage the potential environmental consequences of the proposed second workings on heritage sites or values; and
- (i) include a program to collect sufficient baseline data for future Extraction Plans.

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

Notes:

- 1) An SMP approved by DRE prior to 30 July 2011 is taken to satisfy the requirements of this condition for the workings covered by this plan.
- 2) Management plans prepared under condition 22C(h) should address all potential impacts of proposed underground coal extraction on the relevant features. Other similar management plans required under this consent (eg under conditions 30 - 35 and 44 - 48) are not required to duplicate these plans or to otherwise address the impacts associated with underground coal extraction.

- 22D. The Applicant must ensure that the management plans required under condition 22C(h) above include:
- (a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this consent;
 - (b) a detailed description of the measures that would be implemented to remediate predicted impacts; and
 - (c) a contingency plan that expressly provides for adaptive management.

First Workings

- 22E. The Applicant may carry out first workings within the underground mining area, other than in accordance with an approved extraction plan, provided that DRE is satisfied that the first workings are designed to remain stable and non-subsiding in the long term, except insofar as they may be impacted by approved second workings.

Note: The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long term stability, with negligible resulting direct subsidence impacts.

Payment of Reasonable Costs

- 22F. The Applicant must pay all reasonable costs incurred by the Department to engage independent experts to review the adequacy of any aspect of an Extraction Plan.

REJECTS EMPLACEMENT STRATEGY

- 22G. Within 6 months of this consent commencing, the Applicant must prepare a Life of Mine Rejects Emplacement Strategy for the development, to the satisfaction of DRE.

⁴SURFACE & GROUND WATER

Water Supply

23. The Applicant must ensure that it has sufficient water during each stage of the development, and if necessary, adjust the scale of mining operations to match its available water supply.

⁴ Incorporates EPA GTA

Note: The Applicant is required to obtain necessary licences for the development under the Water Act 1912 and Water Management Act 2000.

Pollution of Waters

- 23A. Except as may be expressly provided by an EPA licence, the Applicant **must** comply with section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the development.

Discharge Limits

24. Except as may be expressly provided by a EPA licence or the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*, the Applicant **must**:
- (a) not discharge more than 250 ML/day from the licenced discharge point/s at the development;
 - (b) ensure that the discharges from any licenced discharge point comply with the limits in Table 15:

Table 15: Discharge Limits

| Pollutant | Units of measure | 100 percentile concentration limit |
|------------------------|------------------|------------------------------------|
| pH | pH | 6.5 to 9.5 |
| Total suspended solids | mg/litre | 120 |

Note: This condition does not authorise the pollution of waters by any other pollutants.

Site Water Balance

25. ⁵Each year, the Applicant **must**:
- (a) review the site water balance for the development against the predictions in the EIS;
 - (b) re-calculate the site water balance for the development;
 - (c) assess current and forecast compliance with the rules of the Hunter River Salinity Trading Scheme; and
 - (d) report the results in the **Annual Review**.

North Wambo Creek Diversion

26. The Applicant **must** design, construct, maintain, and rehabilitate the temporary North Wambo Creek Bypass, the temporary North Wambo Creek Pipeline, and the North Wambo Creek Diversion in consultation with DRE, DPI-Water and to the satisfaction of the **Secretary**.

Note: The Department accepts that the Applicant is not required to "rehabilitate" the temporary North Wambo Creek Bypass.

27. Within one month of completing the construction of the temporary North Wambo Creek Bypass, the temporary North Wambo Creek Pipeline, and the North Wambo Creek Diversion, the Applicant **must** submit an as-executed report, certified by a practising registered engineer, to the **Secretary**.
28. Prior to destroying the original creek line by open cut mining, the Applicant **must** demonstrate that the relevant stage of the North Wambo Creek Diversion is operating successfully from a hydrological and biological point of view to the satisfaction of DRE and the **Secretary**.

Note: This condition does not apply to the temporary North Wambo Creek Bypass.

- 28A. *Deleted*

South Wambo Dam

- 28B. The Applicant **must** design, construct and operate the South Wambo Dam to the satisfaction of the DSC and DRE. The design of the dam must be accompanied by a detailed assessment of the potential operational and environmental risks associated with the dam, particularly in relation to potential subsidence-related impacts.

⁵ These calculations must exclude the clean water system, including any sediment control structures, and any dams in the mine lease area which fall under the Maximum Harvestable Right Dam Capacity; include any dams that are licensable under Section 205 of the Water Act 1912, and water harvested from any non-harvestable rights dam on the mine lease area; address balances of inflows, licenced water extractions, and transfers of water from the site to other sites; include an accounting system for water budgets; and include a salt budget.

- 28C. The South Wambo Dam must be drained prior to the commencement of mining in the underlying longwalls to the satisfaction of DSC to minimise the risk of operational or environmental impacts from subsidence.

Monitoring

29. The Applicant must:
- measure:
 - the volume of water discharged from the site;
 - water use on the site;
 - dam and water structure storage levels;
 - water transfers across the site; and
 - water transfers between the site and surrounding mines;
 - monitor the quality of the surface water:
 - discharged from the licenced discharge point/s at the development; and
 - upstream and downstream of the development;
 - monitor flows in the Wollombi Brook; and North Wambo, South Wambo, and Stony Creeks;
 - monitor the volume and quality of water inflows from each separate source to the underground and open cut workings; and
 - monitor regional ground water levels and quality in the alluvial and overburden aquifers during the development and at least 10 years after mining; and
 - periodically assess groundwater pressure response in the coal measures; to the satisfaction of EPA, DPI-Water and the Secretary.

Site Water Management Plan

30. Before carrying out any development, the Applicant must prepare a Site Water Management Plan for the development in consultation with DRE and DPI-Water, and to the satisfaction of the Secretary. This plan must include:
- the predicted site water balance;
 - the predicted salt balance for the site;
 - the North Wambo Creek Diversion Plan;
 - an Erosion and Sediment Control Plan;
 - a Surface Water Monitoring Program;
 - a Ground Water Monitoring Program;
 - a Surface and Ground Water Response Plan; and
 - a strategy for the decommissioning water management structures on the site.

By the end of October 2009, the Applicant must revise the Site Water Management Plan in consultation with DRE, EPA and DPI-Water, and to the satisfaction of the Secretary.

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

Note: The North Wambo Creek Diversion Plan must also be prepared in consultation with NSW Fisheries.

- 30A. The predicted salt balance for the site must:
- include details of:
 - the sources of saline material on the site;
 - saline material and saline water management on site;
 - reporting procedures, including the preparation of an annual salt balance; and
 - describe the measures that would be implemented to minimise short term and long term discharge of saline water from the site.
31. The North Wambo Creek Diversion Plan must include:
- the detailed design and specifications of the creek diversion, including the flow control bund, cut off wall, and channel;
 - a revegetation program for the channel using a range of suitable native riparian and floodplain species;
 - the detailed design of the system that would return intercepted ground water to the alluvial aquifer downstream of the open cut;
 - a construction program for the creek diversion, describing how the work would be staged, and progressively integrated with the mining operations and the mine waste emplacement drainage system;
 - water quality, ecological and geomorphic performance criteria for the creek diversion;
 - a program to monitor water quality, ecological, and geomorphic integrity of the creek diversion; and
 - a program to inspect and maintain the creek diversion and revegetation works during the

development.

Note: The Applicant may prepare and submit the North Wambo Diversion Plan on a progressive basis to reflect the relevant stages of the proposed diversion.

32. The Erosion and Sediment Control Plan **must**:
- (a) be consistent with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual;
 - (b) identify activities that could cause soil erosion and generate sediment;
 - (c) describe the location, function, and capacity of erosion and sediment control structures; and
 - (d) describe measures to minimise soil erosion and the potential for the migration of sediments to downstream waters.
33. ⁶The Surface Water Monitoring Program **must** include:
- (a) detailed baseline data on surface water flows and quality in the Wollombi Brook, and North Wambo, South Wambo, and Stony Creeks;
 - (b) surface water impact assessment criteria;
 - (c) a **detailed** program to monitor surface water flows and quality in the Wollombi Brook; and North Wambo, South Wambo, and Stony Creeks;
 - (d) a **detailed** program to monitor bank and bed stability in North Wambo, South Wambo, and Stony Creeks;
 - (e) a **detailed** program to monitor the quantity and quality of the vegetation in the riparian zones adjacent to North Wambo, South Wambo, and Stony Creeks; and
 - (f) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.
34. The Ground Water Monitoring Program **must** include:
- (a) detailed baseline data on ground water levels and quality, based on statistical analysis, to benchmark the pre-mining natural variation in groundwater levels and quality;
 - (b) ground water impact assessment criteria;
 - (c) a **comprehensive and detailed** program to monitor the volume and quality of ground water seeping into the open cut and underground mining workings;
 - (d) a **detailed** program to monitor regional ground water levels and quality in the alluvial and overburden aquifers; and
 - (e) a program to investigate and monitor potential water loss from the Chitter Dump Dam and South Wambo Dam, and Montrose East Dam, including potential migration of stored water toward Wollombi Brook.
- 34A Prior to submitting the first Extraction Plan for the Longwall Domains, the Applicant must revise the Groundwater Monitoring Program to:
- (a) include the installation of paired monitoring bores for the South Wambo Underground Mine, in consultation with DPI-Water, to assess potential fracture interconnections between surface water resources, alluvial and hardrock aquifers; and
 - (b) provide detailed information on the groundwater levels within the alluvial and hardrock aquifers within the Longwall Domains.
35. The Surface and Ground Water Response Plan **must** include:
- (a) measures to mitigate any adverse impacts on existing water supply bores or wells, **including trigger levels for the provision of suitable compensatory water supplies**;
 - (b) measures to mitigate the loss of surface water flows in the surface water streams or channel on the site;
 - (c) **deleted**;
 - (d) measures to mitigate the long term direct hydraulic connection between the backfilled open cut and the North Wambo Creek alluvium if the potential for an downstream adverse impact is detected;
 - (e) measures to address the decrease in throughflow rates caused by the development within the Wollombi Brook alluvium downstream of the open cut;
 - (f) measures to address any reduction in the stability or ecological quality of the North Wambo Creek Diversion, Wambo Creek and Stony Creek below the established performance criteria;
 - (g) **measures to minimise and/or offset potential groundwater leakage from Wollombi Brook and associated alluvial aquifers; and**
 - (h) **measures to mitigate adverse impacts on groundwater dependent ecosystems or riparian vegetation and offset any impacts above the predicted impacts;**
 - (i) **trigger levels for the relinquishment of water extraction rights to compensate for surface and groundwater losses from streams, channels or alluvials to open cut and underground mining workings;**
 - (j) **the procedures that would be followed if any unforeseen impacts are detected during the development; and**

⁶ Incorporates EPA GTA

(k) response times for undertaking the above measures.

Surface & Sub-surface Investigation Program

36. Deleted

Independent Audit

37. Prior to seeking approval from the Department for an extraction plan in any coal seam not previously subject to second workings within the relevant longwall domain, unless the Secretary directs otherwise, the Applicant must commission a suitably qualified person, whose appointment has been approved by the Secretary, to conduct an independent audit of the subsidence, surface water, and ground water impacts of the development. This audit must:
- (a) review the monitoring data for the development;
 - (b) identify any trends in the monitoring data;
 - (c) examine the subsidence, surface water, and ground water impacts of the development;
 - (d) compare these impacts against the relevant impact assessment criteria and predictions in the EIS; and, if necessary;
 - (e) recommend measures to reduce, mitigate, or remediate these impacts.
38. If the independent audit determines that the subsidence, surface water, and/or ground water impacts resulting from the underground mining operations are greater than those predicted in the EIS, the Applicant must:
- (a) assess the significance of these impacts;
 - (b) investigate measures to minimise these impacts, including modifying subsequent mine plans;
 - (c) describe what measures would be implemented to reduce, minimise, mitigate or remediate these impacts in the future; and
 - (d) implement the measures as described in (c);
- to the satisfaction of the Secretary.

Final Void Strategy

39. At the end of Year 7 of the development, or as directed otherwise by the Secretary, the Applicant must prepare a Final Void Management Plan for the development, in consultation with the DRE, the Secretary and Council, and to the satisfaction of the Secretary. This Plan must:
- (a) investigate options for the future use of the final void;
 - (b) re-assess the potential groundwater impacts of the development; and
 - (c) describe what actions and measures would be implemented to:
 - minimise any potential adverse impacts associated with the final void; and
 - manage, and monitor the potential impacts of, the final void over time.

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

FAUNA & FLORA

Offset Strategy

40. 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.

Table 16: Biodiversity Offset Strategy

| 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 required under Condition 22 |

Notes:

- (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.

Conservation Agreement

41. 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
 - (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.

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.

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.

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;
 - (b) environmental management, environmental monitoring or other monitoring required under this consent or under an approved management plan or monitoring program; and
 - (c) rehabilitation activities under an approved Extraction Plan.

42. Deleted.

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.

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:
- (a) a Vegetation Clearance Protocol;
 - (b) a Threatened Species Management Protocol;
 - (c) a Remnant Woodland Enhancement Program;
 - (d) a Flora and Fauna Monitoring Program;
 - (e) strategies to manage any subsidence impacts in the Remnant Woodland Enhancement Areas;
 - (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**;
 - (g) strategies for the minimisation of impacts of exploration activity in the Remnant Woodland Enhancement Areas; and
 - (h) a description of who would be responsible for monitoring, reviewing, and implementing the plan.

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**.

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

45. The Vegetation Clearance Protocol **must** include:
 - (a) the delineation of areas of remnant vegetation to be cleared;
 - (b) progressive clearing;
 - (c) pre-clearance surveys;
 - (d) identification of fauna management strategies;
 - (e) collection of seed from the local area;
 - (f) salvage and reuse of material from the site; and
 - (g) 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);
 - (b) consultation with regulatory authorities; and
 - (c) threatened species management strategies and reporting.
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;
 - (b) investigation of other areas to be included in the Program, including the *Acacia anuera* Community (Community 15) and the Southern Area;
 - (c) appropriate enhancement strategies to be implemented based on the habitat assessment including:
 - the fencing of remnants to exclude livestock;
 - control measures to minimise the occurrence of weeds;
 - control measures to minimise the occurrence of feral pests;
 - limiting vehicular traffic;
 - selective planting of native vegetation; and
 - the provision of roosting/nesting resources for fauna.
48. The Flora and Fauna Monitoring Program **must** include:
 - (a) a program to monitor revegetation of disturbance areas including:
 - visual monitoring to determine the need for maintenance and/or contingency measures; and
 - 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
 - (b) a program to monitor the effectiveness of offset strategy in accordance with the description in Table 17.

Table 17: Flora & Fauna Monitoring Program

| Monitoring Component | Monitoring Description |
|---|--|
| <i>Flora</i> | <i>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.</i> |
| <i>Habitat Complexity</i> | <i>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.</i> |
| <i>Terrestrial Fauna</i> | <i>Terrestrial fauna surveys should be conducted to monitor the usage of 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.</i> |
| <i>Aquatic Fauna</i> | <i>Freshwater macro-invertebrate monitoring, including an assessment of SIGNAL A values and water quality (e.g. temperature, pH, and salinity).</i> |
| <i>Specific Enhancement Initiatives</i> | <i>Monitoring of specific enhancement initiatives (e.g. the provision of nesting/roosting boxes, weed control or feral animal control).</i> |

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

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:
- (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.

⁷ABORIGINAL CULTURAL HERITAGE

*Note: The Applicant is required to obtain consent from **OEH** under the National Parks Wildlife Act 1974 to destroy Aboriginal sites and objects on the site.*

Conservation Agreement

51. Within 12 months of the commencement of this consent, the Applicant **must** develop a conservation agreement (as part of the Deed of Agreement with the Minister referred to in condition 41 above) for the management of Aboriginal cultural heritage in Remnant Woodland Enhancement Area A in consultation with the Aboriginal Communities and **OEH**.

Salvage

52. Before making application for section 90 consents under *the National Parks & Wildlife Act 1974*, the Applicant **must** develop a targeted, strategic salvage program for the development in consultation with **OEH** and the Aboriginal communities.
53. Before the commencement of salvage operations, the Applicant **must** ensure that a keeping place is established to house objects recovered from the salvage program.
54. The Applicant **must** house the objects recovered during the salvage program in the keeping place established for the purpose.

Further Investigations

55. The Applicant **must**:
- (a) investigate the cultural significance of the corridors A – Southern and B – Middle (see map in appendix 3) in consultation with the Aboriginal Communities;
 - (b) examine the possible pathways between Remnant Woodland Enhancement Area A (which includes the camp ground associated with the bora) and Wollemi National Park to the east; and
 - (c) investigate the feasibility of reserving from future mining operations, those areas identified as being of cultural significance to the Aboriginal Communities in consultation with **OEH**.

Trust Fund Contribution

56. Before carrying out the development, or as agreed otherwise by the **Secretary**, the Applicant **must** contribute \$50,000 to the Hunter Aboriginal Cultural Heritage Trust Fund for further investigations into Aboriginal cultural heritage, as defined by the Trust Deed.

Aboriginal Cultural Heritage Management

- 56A. The Applicant **must** continue to consult with and involve all the registered local Aboriginal representatives in the ongoing management of the Aboriginal Cultural Heritage values at the Wambo

⁷ Incorporates EPA GTAs

Mining Complex. Evidence of this consultation must be collated and provided to the [Secretary](#) on request.

- 56B. In the event that surface disturbance reveals a new Aboriginal object(s) at the Wambo Mining Complex, all work **must** halt in the immediate area to prevent any further impacts to the object(s). The Applicant **must** contact a suitably qualified archaeologist and the registered Aboriginal representatives to determine the significance of the object(s) and to develop an appropriate management strategy. The management strategy **must** be developed in accordance with the *National Parks and Wildlife Act 1974*. Management may include avoiding impact, additional investigations and/or submission of an Aboriginal Heritage Impact Permit application. The Applicant **must** register the site in the Aboriginal Heritage Information Management System (AHIMS) (managed by the OEH). The management outcome for the site **must** be included in the information provided to the AHIMS.
- 56C. In the event that surface disturbance reveals human remains at the Wambo Mining Complex, all works **must** halt in the immediate area to prevent any further impacts to the remains. The Applicant **must** immediately notify Police. No further work **must** be undertaken until Police provide written authorisation. If the remains are Aboriginal, the Applicant **must** also notify the OEH and the registered Aboriginal representatives. In the case of Aboriginal remains, no further work **must** be undertaken until Police and the OEH provide written authorisation.
- 56D. The Applicant must prepare and implement an Aboriginal Cultural Education Program in consultation with the registered Aboriginal representatives for the induction of all personnel and contractors involved in construction at the Wambo Mining Complex. The Applicant **must** keep a register of personnel and contractors that have been inducted according to the program.

⁸WAMBO HOMESTEAD COMPLEX

Section 60 Approval

57. An application under section 60 of the Heritage Act must be submitted to and approved by the Heritage Council prior to the commencement of any development on land within the State Heritage Register listing boundary for the Wambo Homestead Complex. In this regard a mine management plan shall be required to accompany the application which demonstrates that the proposed underground mining shall not have adverse heritage impacts on the WHC due to land subsidence.

Conservation Measures

58. Within 12 months of the commencement of this consent, the Applicant **must** prepare a conservation management plan for the Wambo Homestead Complex in accordance with Heritage Office guidelines for the consideration of the Heritage Council of NSW.
59. The conservation policies and an interpretation strategy contained in the conservation management plan are to be implemented in accordance with a timetable to be contained in the a conservation management plan.
60. A suitably qualified and experienced consultant is to be engaged by the applicant to record an oral history of the Wambo Homestead Complex having regard to the strong associations of members of the local community with the site.
61. In circumstances where safe access to the Wambo Homestead Complex is able to be provided, opportunities are to be offered to the local community to visit the site during and after its conservation.
62. Prior to the commencement of mining operations, and then at yearly intervals prior to the approved structural engineer's inspections, a photographic record is to be prepared of all elevations of all structures within the Wambo Homestead Complex. The photographs are to be of archival quality in accordance with the Heritage Office guidelines, *How to Prepare Archival Records of Heritage Items 1994*, and *Guidelines for Photographic Recording of Heritage Items, 1994*. **The photographic record is to be lodged with NSW Heritage Office, and a copy is to be submitted to the Department and the Council.**

Blasting

63. Ground vibration and air blast levels are to be monitored and recorded at a blast monitoring station to be established within the Wambo Homestead Complex for each blast within 2 km of the Wambo Homestead Complex.

⁸ Incorporates NSW Heritage Council GTA

64. A suitably qualified and experienced structural engineer, with expertise in vibration and blast monitoring is to be appointed to examine all monitoring records from the Wambo Homestead Complex blast monitoring station. The appointment of the structural engineer is to be approved in writing by the Director of the NSW Heritage Office.
65. Ground vibration and air blast levels experienced at the Wambo Homestead Complex blast monitoring station are not to exceed the structural damage assessment criteria prescribed by *Australian Standard AS 2187.2-1993 (or its latest version) "Explosives – Storage Transport and Use" for Sensitive and Heritage Structures* to prevent damage to the heritage items.
66. The approved structural engineer is to report to the Applicant on the monitoring results each month for blasting within 2 km of the Wambo Homestead Complex and 6 monthly for the remainder of the open cut mining operation and make recommendations to ensure the conservation and prevention of damage to the significant heritage structures. Copies of these reports are to be forwarded to the NSW Heritage Office.
67. The approved structural engineer is to inspect the Wambo Homestead Complex structures annually and as soon as practical, but no later than 3 days after blasting monitoring which exceeds the structural damage assessment criteria prescribed by AS 2187.2-1993 (or its latest version). During the period between blasting monitoring being recorded which exceeds the criteria in AS 2187.2-1993 (or its latest version) and the engineer's inspection, ground vibration from blasting is to be limited to a level which will prevent further blasting damage. The structural engineer is to advise the applicant and the NSW Heritage Office of any action required to repair the damage.
68. The approved structural engineer is to make an assessment of whether blasting within 2km of the Wambo Homestead Complex is to cease or be managed in order to stabilise or repair the damage, and so advise the applicant and the Director of the NSW Heritage Office. If blasting has been required to cease, it is not to resume until the damage has been stabilised or repaired, and the written approval for resumption has been issued by the Director of the NSW Heritage Office.

Rehabilitation

69. Following the cessation of the use of the coal haulage road which traverses the Wambo Homestead Complex property, the land is to be returned to its former condition (pre1999) and the half palisade fence on the southern alignment of the mounting yard, which was removed, is to be reinstated as required by the approval of the Heritage Council for the construction of the road on 12 February 1999.

Movable Heritage Items

70. The Applicant **must** liaise with the Power House Museum and Museums and Galleries Foundation regarding the significance of movable heritage which shall be displaced by the proposed open cut mining and suitable repositories for the conservation and storage of any significant items.

TRAFFIC & TRANSPORT

New Access Intersection

Note: The Applicant requires RMS approval under the Roads Act 1993 for the new intersection.

71. ⁹The Applicant **must** design and construct the proposed new access intersection with the Golden Highway to the satisfaction of the RMS.

¹⁰Road Closure

Note: The Applicant requires Council approval under the Roads Act 1993 prior to closing Pinegrove Road.

72. Prior to closing Pinegrove Road, the Applicant **must** prepare and implement a Road Closure Management Plan in consultation with the affected landowners, and to the satisfaction of Council. This plan must describe the alternate access arrangements for any affected landowners.

Parking

73. The Applicant **must** provide sufficient parking on-site for all mine-related traffic to the satisfaction of the [Secretary](#).

⁹ Incorporates RMS GTA

¹⁰ Incorporates Council GTA

Coal Haulage

74. Deleted

75. The Applicant must ensure that all product coal is transported from the site by rail except in an emergency, and as agreed by the Secretary in consultation with Council.

76. Deleted

77. Deleted

78. Deleted

Monitoring

79. The Applicant must:
- keep records of the
 - amount of coal transported from the site each year; and
 - number of coal haulage truck movements generated each day by the development; and
 - include these records in the Annual Review.

Traffic Management Plan

80. The Applicant must prepare and implement a Traffic Management Plan in consultation with Council, and to the satisfaction of the RMS for the proposed blasting activities that require the temporary periodic closure of the Golden Highway. This plan must ensure that adequate warning is given to road users prior to blasting, and that follow up inspections are made to ensure that public roads are safe and clear of debris.

VISUAL IMPACT

Visual Amenity

81. The Applicant must implement measures to mitigate visual impacts including:
- design and construction of development infrastructure in a manner that minimises visual contrasts; and
 - progressive rehabilitation of mine waste rock emplacements (particularly outer batters), including partial rehabilitation of temporarily inactive areas.
82. The Applicant must investigate and where feasible implement the following measures at locations assessed in the EIS as having a high potential visual impact:
- implement landscaping works in consultation with affected rural residents (see Condition 83); and/or
 - place and maintain visual screens between development infrastructure and the viewing location.
83. If a landowner of any dwelling assessed in the EIS as having a high potential visual impact requests the Applicant in writing to investigate ways to minimise the visual impact of the development on his/her dwelling, the Applicant must:
- within 28 days of receiving this request, commission a suitably qualified person whose appointment has been approved by the Secretary, to investigate ways to minimise the visual impacts of the development on the landowner's dwelling; and
 - give the landowner a copy of the visual impact mitigation report within 14 days of receiving this report.

If both parties agree on the measures that should be implemented to minimise the visual impact of the development, then the Applicant must implement these measures to the satisfaction of the Secretary.

If the Applicant and the landowner disagree on the measures that should be implemented to minimise the visual impact of the development, then either party may refer the matter to the Secretary for resolution.

If the matter cannot be resolved within 21 days, the Secretary shall refer the matter to an Independent Dispute Resolution Process (see Appendix 2).

Overburden Dumps

84. The Applicant must construct the overburden emplacements generally in accordance with the EIS, and to the satisfaction of DRE.

Lighting Emissions

85. The Applicant **must** take all practicable measures to mitigate off-site lighting impacts from the development.
86. Unless otherwise agreed to by the **Secretary**, all external lighting associated with the development **must** comply with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* (or its latest version).

GREENHOUSE GAS

87. For the life of the development, the Applicant **must**:
- (a) monitor the greenhouse gas emissions generated by the development;
 - (b) investigate ways to reduce greenhouse gas emissions generated by the development; and
 - (c) report on greenhouse gas monitoring and abatement measures in the **Annual Review**, to the satisfaction of the **Secretary**.

WASTE MINIMISATION

88. For the life of the development, the Applicant **must**:
- (a) monitor the amount of waste generated by the development;
 - (b) investigate ways to minimise waste generated by the development;
 - (c) implement reasonable and feasible measures to minimise waste generated by the development; and
 - (d) report on waste management and minimisation in the **Annual Review**, to the satisfaction of the **Secretary**.

HAZARDS MANAGEMENT

Spontaneous Combustion

89. The Applicant **must**:
- (a) take the necessary measures to prevent, as far as is practical, spontaneous combustion on the site; and
 - (b) manage any spontaneous combustion on-site to the satisfaction of **DRE**.

Dangerous Goods

90. The Applicant **must** ensure that the storage, handling, and transport of:
- (a) dangerous goods is done in accordance with the relevant *Australian Standards*, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*; and
 - (b) explosives are managed in accordance with the requirements of **DRE**.
91. Before carrying out any development, the Applicant **must** update the Safety Management System covering all operations on the site, including the safe storage of ammonium nitrate, to the satisfaction of the **Secretary**.

BUSHFIRE MANAGEMENT

92. The Applicant **must**:
- (a) ensure that the development is suitably equipped to respond to any fires on-site; and
 - (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire on-site during the development.
93. Before carrying out any development, the Applicant **must** prepare a Bushfire Management Plan for the site, to the satisfaction of Council and the Rural Fire Service.

REHABILITATION

Rehabilitation Objectives

94. The Applicant **must** rehabilitate the Wambo Mining Complex to the satisfaction of **DRE**. The rehabilitation must be generally in accordance with the proposed rehabilitation strategy described by the documents listed in Condition 2 of Schedule 3 and the objectives in Table 18.

Table 18: Rehabilitation Objectives

| Area/Domain | Rehabilitation Objectives |
|--|---|
| Mine site (as a whole), including the final void | Safe, stable & non-polluting |
| Surface infrastructure | To be decommissioned and removed, unless DRE agrees otherwise |
| Community | Ensure public safety Minimise the adverse socio-economic effects associated with mine closure |
| Landforms | Final landforms are consistent with and complement the topography of the surrounding region to minimise the visual prominence of the final landforms in the post mining landscape |
| All watercourses subject to subsidence impacts | Hydraulically and geomorphologically stable, with riparian vegetation established that is the same or better than prior to commencement of mining |

Operating Conditions

94A. The Applicant **must**:

- (a) develop a detailed soil management protocol that identifies procedures for:
 - comprehensive soil surveys prior to soil stripping;
 - assessment of top-soil and sub-soil suitability for mine rehabilitation; and
 - annual soil balances to manage soil handling including direct resspreading and stockpiling;
- (b) maximise the salvage of suitable top-soils and sub-soils and biodiversity habitat components such as bush rocks, tree hollows and fallen timber for rehabilitation of disturbed areas within Wambo Mining Complex and for enhancement of biodiversity offset areas;
- (c) ensure that coal reject or any potentially acid forming interburden materials must not be emplaced at elevations within the pit shell or out of pit emplacement areas where they may promote acid or sulphate species generation and migration beyond the pit shell or out of pit emplacement areas; and
- (d) ensure that no dirty water can drain from an out of pit emplacement area to any offsite watercourse or to any land beyond the lease boundary.

Progressive Rehabilitation

94B. The Applicant **must** rehabilitate the Wambo Mining Complex progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies **must** be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the project.

Rehabilitation Management Plan

94C. The Applicant **must** prepare and implement a Rehabilitation Management Plan for the Wambo Mining Complex to the satisfaction of DRE. This plan must:

- (a) be prepared in consultation with the Department, DPI-Water, OEH, Council and the CCC;
- (b) be submitted to DRE by the end of June 2013;
- (c) be prepared in accordance with any relevant DRE guideline;
- (d) describe how the rehabilitation of the site would be integrated with the implementation the biodiversity offset strategy;
- (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
- (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform, and final land use;
- (g) include a detailed tailings management strategy that includes timing for rehabilitation of all tailings storage facilities, in order that final land form and land use objectives can be achieved in a timely manner;
- (h) include a plan that describes proposed grazing carrying capacity across the post mining landscape;
- (i) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
- (j) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
- (k) build to the maximum extent practicable on the other management plans required under this consent.

MINE EXIT STRATEGY

95. The Applicant **must** work with the Council to investigate the minimisation of adverse socio-economic effects of a significant reduction in local employment levels and closure of the **Wambo Mining Complex** at the end of its life.

**SCHEDULE 5
ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT**

Notify Landowners

1. If the air dispersion and/or noise model predictions in the documents listed in condition 2 of schedule 3 identify that the air pollution and/or noise generated by the development are likely to be greater than the air quality and/or noise impact assessment criteria in conditions 2 and 6 of schedule 4, then the Applicant **must** notify the relevant landowners and/or existing or future tenants (including tenants of mine-owned properties) accordingly before it carries out any development.
2. If the results of the air quality and/or noise monitoring required in schedule 4 identify that the air pollution and/or noise generated by the development are greater than the air quality and/or noise impact assessment criteria in schedule 4, then the Applicant **must** notify the relevant landowners and/or existing or future tenants (including tenants of mine-owned properties) **as soon as practicable after identifying the exceedence**.
3. Before carrying out any development, the Applicant **must** develop a procedure in consultation with EPA and NSW Health and approved by the **Secretary**, for notifying landowners and tenants referred to in condition 1. This procedure must ensure that:
 - (a) all existing and future tenants are advised in writing about:
 - air quality impacts likely to occur at the residence during the operational life of the mine; and
 - likely health and amenity impacts associated with exposure to particulate matter;
 - (b) the written advice in (a) is based on current air quality monitoring data, dispersion modelling results, research and literature; and
 - (c) there is an ongoing process for providing current air quality monitoring data, dispersion modelling results, research and literature to the tenants.

Independent Review

4. If a landowner considers the development to be exceeding the air quality and/or noise impact assessment criteria listed in schedule 4 at his/her dwelling, or at any proposed dwelling on his/her vacant land, then he/she may ask the Applicant for an independent review of the air pollution and/or noise impacts of the development on his/her dwelling, or proposed dwelling.

If the **Secretary** is satisfied that an independent review is warranted, the Applicant **must**:

- (a) consult with the landowner to determine his/her concerns; and
- (b) commission a suitably qualified person – whose appointment has been approved by the **Secretary** – to conduct air quality and/or noise monitoring at the relevant dwelling to determine whether the development is complying with the relevant impact assessment criteria, and identify the source(s) and scale of any air quality and/or noise impact at the dwelling, and the development's contribution to this impact.

Within 14 days of receiving the results of this independent review, the Applicant **must** give a copy of these results to the **Secretary** and landowner.

5. If the independent review (referred to in condition 4) determines that the development is complying with the relevant impact assessment criteria listed in schedule 4 at the dwelling, then the Applicant may discontinue the independent review with the approval of the **Secretary**.
6. If the independent review (referred to in condition 4) determines that the development is not complying with the relevant impact assessment criteria listed in schedule 4 at the dwelling, and that the development is primarily responsible for this non-compliance, then the Applicant **must**:
 - (a) take all practicable measures, in consultation with the landowner, to ensure that the development complies with the relevant impact assessment criteria; and conduct further air quality and/or noise monitoring at the dwelling to determine whether these measures ensure compliance; or
 - (b) secure a written agreement with the landowner to allow exceedances of the air quality and/or noise impact assessment criteria listed in schedule 4.

If the additional monitoring referred to above subsequently determines that the development is complying with the relevant impact assessment criteria listed in schedule 4 at the dwelling, then the Applicant may discontinue the independent review with the approval of the **Secretary**.

If the measures referred to in (a) do not ensure compliance with the air quality and/or noise land acquisition criteria listed in schedule 4 at the dwelling, and the Applicant cannot secure a written agreement with the landowner to allow exceedances of the air quality and/or noise impact assessment criteria listed in schedule 4, then the Applicant **must**, upon receiving a written request from the landowner, acquire all or part of the landowner's land in accordance with the procedures in conditions 9-11 below.

7. If the independent review determines that the development is not complying with the air quality and/or noise impact assessment criteria listed in schedule 4 at the dwelling, but that several mines are responsible for this non-compliance, then the Applicant **must**, with the agreement of the landowner and other mine(s) prepare and implement a Cumulative Air Quality and/or Noise Impact Management Plan for the land to the satisfaction of the [Secretary](#). This plan must provide the joint approach to be adopted by the Applicant and other mine(s) to manage cumulative air quality and/or noise impacts at the landowner's dwelling, and the acquisition of any land.

If the Applicant is unable to finalise an agreement with the landowner and/or other mine(s), and/or prepare a Cumulative Air Quality and Noise Impact Management Plan, then the Applicant or landowner may refer the matter to the [Secretary](#) for resolution.

If the matter cannot be resolved within 21 days, the [Secretary](#) shall refer the matter to an Independent Dispute Resolution Process.

If, following the Independent Dispute Resolution Process, the [Secretary](#) decides that the Applicant **must** acquire all or part of the landowner's land, then the Applicant **must** acquire this land in accordance with the procedures in conditions 9-11 below.

8. If the landowner disputes the results of the independent review (referred to in condition 4), either the Applicant or the landowner may refer the matter to the [Secretary](#) for resolution.

If the matter cannot be resolved within 21 days, the [Secretary](#) shall refer the matter to an Independent Dispute Resolution Process.

Land Acquisition

9. Within 6 months of receiving a written request from the landowner, the Applicant **must** pay the landowner:
- (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development the subject of the DA, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date;
 - (b) the reasonable costs associated with:
 - relocating within the Singleton local government area, or to any other local government area determined by the [Secretary](#);
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and
 - (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if within 6 months of receiving this written request, the Applicant and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the [Secretary](#) for resolution.

Upon receiving such a request, the [Secretary](#) shall request the [President of the NSW Division of the Australian Property Institute](#) to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

If either party disputes the independent valuer's determination, then the independent valuer must refer the matter back to the [Secretary](#).

Upon receiving such a referral, the [Secretary](#) shall appoint a panel to determine a fair and reasonable acquisition price for the land, and/or the terms upon which the land is to be acquired, comprising the:

- (i) appointed independent valuer,
- (ii) [Secretary](#) or nominee, and
- (iii) President of the Law Society of NSW or nominee.

Within 14 days of receiving the panel's determination, the Applicant **must** make a written offer to purchase the land at a price not less than the panel's determination.

If the landowner refuses to accept this offer within 6 months of the date of the Applicant's offer, the Applicant's obligations to acquire the land shall cease, unless otherwise agreed by the [Secretary](#).

10. The Applicant **must** bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the [Secretary](#) and the costs of determination referred to in Condition 9.
11. If the Applicant and landowner agree that only part of the land should be acquired, then the Applicant **must** pay all reasonable costs associated with obtaining Council approval for any plan of subdivision, and registration of the plan at the Office of the Registrar-General.

SCHEDULE 6
ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. Before carrying out any development, the Applicant **must** prepare an Environmental Management Strategy for the development to the satisfaction of the **Secretary**. This strategy must:
 - (a) provide the strategic context for environmental management of the development;
 - (b) identify the statutory requirements that apply to the development;
 - (c) describe in general how the environmental performance of the development would be monitored and managed during the development;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance;
 - manage cumulative impacts; and
 - respond to emergencies; and
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development.

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

2. Within 14 days of the **Secretary**'s approval, the Applicant **must**:
 - (a) send copies of the approved strategy to the relevant agencies, Council, and the CCC; and
 - (b) ensure the approved strategy is publicly available during the development.

Adaptive Management

3. The Applicant must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the **Secretary**, to the satisfaction of the **Secretary**.

Management Plan Requirements

4. The Applicant **must** ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant consent, licence or lease conditions);
 - any relevant limits or performance measures/criteria;
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - impacts and environmental performance of the Wambo Mining Complex;
 - effectiveness of any management measures (see c above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (f) a program to investigate and implement ways to improve the environmental performance of the Wambo Mining Complex over time;
 - (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and

- (h) a protocol for periodic review of the plan.

ANNUAL REVIEW

5. By the end of March each year, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:
- describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
 - include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EIS;
 - identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance;
 - identify any trends in the monitoring data over the life of the development;
 - identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
 - describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

REVISION OF STRATEGIES, PLANS AND PROGRAMS

6. Within 3 months of:
- the submission of an annual review under Condition 5 above;
 - the submission of an audit report under Condition 7 below;
 - the submission of an incident report under Condition 10 below; or
 - any modification to the conditions of this consent, (unless the conditions require otherwise), the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

INDEPENDENT ENVIRONMENTAL AUDIT

7. Every 3 years, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
- be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - include consultation with the relevant agencies;
 - assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these consents/approvals);
 - review the adequacy of strategies, plans or programs required under the abovementioned consents/approvals;
 - recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned consents; and
 - be conducted and reported to the satisfaction of the Secretary.

Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.

Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

COMMUNITY CONSULTATIVE COMMITTEE

8. Before carrying out any development, the Applicant must establish a new Community Consultative Committee to oversee the environmental performance of the development. This committee must:
- be comprised of:
 - 2 representatives from the Applicant, including the person responsible for environmental management at the mine;
 - 1 representative from Council; and
 - at least 3 representatives from the local community,

- whose appointment has been approved by the **Secretary** in consultation with the Council;
 - (b) be chaired by the representative from Council or by a third party as approved by the **Secretary**;
 - (c) meet at least twice a year; and
 - (d) review and provide advice on the environmental performance of the development, including any construction or environmental management plans, monitoring results, audit reports, or complaints.
- 9. The Applicant **must**, at its own expense:
 - (a) ensure that 2 of its representatives attend the Committee's meetings;
 - (b) provide the Committee with regular information on the environmental performance and management of the development;
 - (c) provide meeting facilities for the Committee;
 - (d) arrange site inspections for the Committee, if necessary;
 - (e) take minutes of the Committee's meetings;
 - (f) make these minutes available to the public for inspection within 14 days of the Committee meeting, or as agreed to by the Committee;
 - (g) respond to any advice or recommendations the Committee may have in relation to the environmental management or performance of the development;
 - (h) forward a copy of the minutes of each Committee meeting, and any responses to the Committee's recommendations to the **Secretary** within a month of the Committee meeting.

REPORTING

Incident Reporting

- 10. The Applicant **must** notify at the earliest opportunity, the **Secretary** and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Applicant **must** notify the **Secretary** and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant **must** provide the **Secretary** and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

- 11. The Applicant **must** provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

ACCESS TO INFORMATION

- 12. From the end of June 2011, the Applicant **must**:
 - (a) make copies of the following publicly available on its website:
 - the documents referred to in Condition 2 of Schedule 3;
 - all current statutory consents for the development;
 - all approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, updated on a monthly basis;
 - minutes of CCC meetings;
 - the annual reviews of the development;
 - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the **Secretary**; and
 - (b) keep this information up-to-date, to the satisfaction of the **Secretary**.

Online Communication of Operational Responses and Noise and Air Quality Monitoring

- 13. The Applicant **must**, by the end of June 2013:
 - (a) make the following information for the Wambo Mining Complex publicly available on its website, on a daily basis and in a clearly understandable form:
 - daily weather forecasts for the coming week;
 - proposed operational responses to these weather forecasts;
 - real-time noise and air quality monitoring data (subject to any necessary caveats); and
 - any operational responses that were taken in response to the noise and air quality monitoring data, and

(b) make provision on its website for the provision of on-line and/or email comments by members of the community regarding this information, to the satisfaction of the [Secretary](#).

**APPENDIX 1
SCHEDULE OF LAND**

| Lot Number | Deposited Plan Number | Tenure Type |
|------------|-----------------------|----------------------------|
| 1 | DP110084 | Freehold |
| 1 | DP1089682 | Freehold |
| 1 | DP114970 | Freehold |
| 1 | DP709722 | Freehold |
| 1 | DP720705 | Freehold |
| 1 | DP241316 | Freehold |
| 1 | DP616303 | Freehold |
| 1 | DP1177768 | Freehold |
| 1 | DP1174490 | Local Government Authority |
| 100 | DP753792 | Freehold |
| 101 | DP753792 | Freehold |
| 103 | DP753792 | Freehold |
| 104 | DP753792 | Freehold |
| 109 | DP753792 | Freehold |
| 110 | DP753792 | Freehold |
| 111 | DP753792 | Freehold |
| 112 | DP753792 | Freehold |
| 113 | DP753817 | Freehold |
| 118 | DP753792 | Freehold |
| 129 | DP755267 | Freehold |
| 131 | DP1089157 | Freehold |
| 160 | DP753817 | Freehold |
| 161 | DP753817 | Freehold |
| 170 | DP823775 | Crown |
| 175 | DP823775 | Crown |
| 18 | DP753817 | Freehold |
| 2 | DP1085145 | Freehold |
| 2 | DP110084 | Freehold |
| 2 | DP709722 | Freehold |
| 2 | DP616303 | Freehold |
| 2 | DP617852 | Freehold |
| 2 | DP720705 | Freehold |
| 2 | DP1174490 | Freehold |
| 208 | DP753817 | Freehold |
| 22 | DP753817 | Freehold |
| 220 | DP1135537 | Freehold |
| 23 | DP3030 | Freehold |
| 3 | DP720705 | Freehold |
| 3 | DP1177768 | Freehold |
| 3 | DP1085145 | Freehold |
| 38 | DP753792 | Freehold |
| 39 | DP753792 | Freehold |

| Lot Number | Deposited Plan Number | Tenure Type |
|------------|-----------------------|-------------|
| 4 | DP1085145 | Freehold |
| 4 | DP542226 | Freehold |
| 4 | DP720705 | Freehold |

| Lot Number | Deposited Plan Number | Tenure Type |
|------------|-----------------------|-------------|
| 45 | DP753792 | Freehold |
| 46 | DP753792 | Freehold |
| 49 | DP753792 | Freehold |
| 5 | DP542226 | Freehold |
| 5 | DP1085145 | Freehold |
| 50 | DP753792 | Freehold |
| 51 | DP753792 | Freehold |
| 52 | DP753792 | Freehold |
| 55 | DP753792 | Freehold |
| 57 | DP1074788 | Freehold |
| 58 | DP753792 | Freehold |
| 60 | DP753792 | Freehold |
| 61 | DP753792 | Freehold |
| 62 | DP753792 | Freehold |
| 63 | DP753792 | Freehold |
| 64 | DP753792 | Freehold |
| 66 | DP753817 | Freehold |
| 67 | DP753817 | Freehold |
| 7 | DP3030 | Freehold |
| 71 | DP753817 | Freehold |
| 79 | DP1074787 | Freehold |
| 79 | DP753821 | Freehold |
| 82 | DP548749 | Freehold |
| 83 | DP548749 | Freehold |
| 92 | DP755267 | Freehold |
| 95 | DP753792 | Freehold |
| A | DP33149 | Freehold |
| B | DP33149 | Freehold |
| C | DP33149 | Freehold |

| Lot Number | Deposited Plan Number | Tenure Type |
|------------|-----------------------|-------------|
| 1 | DP732501 | Freehold |
| 2 | DP732501 | Freehold |
| 3 | DP732501 | Freehold |
| 4 | DP732501 | Freehold |
| 5 | DP732501 | Freehold |
| 6 | DP732501 | Freehold |

Roads

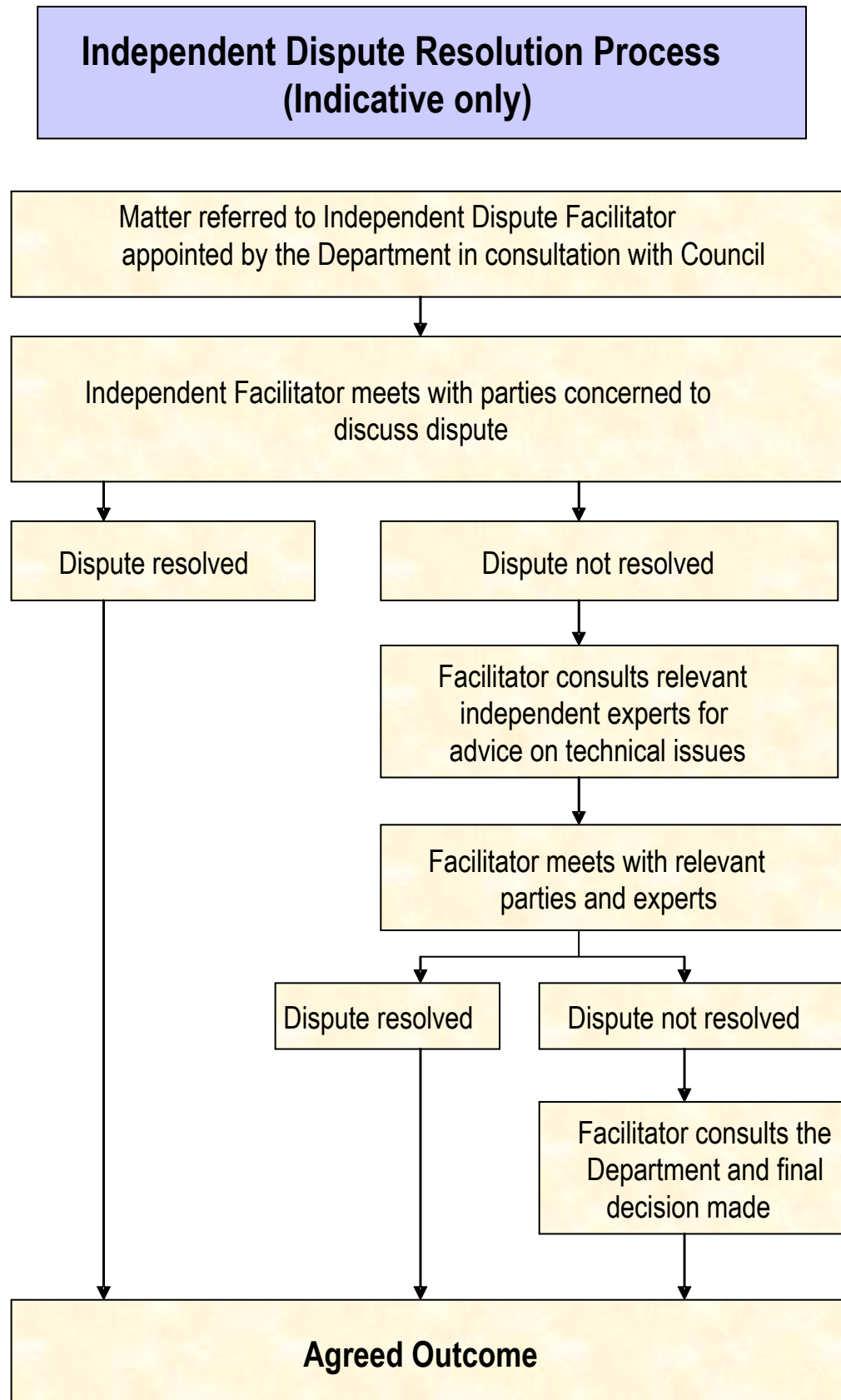
1. Wambo Mine Road.
2. Road within Lot 1 DP 616303.
3. Road bounded by Lot 220 DP1135537, Lot 83 DP548749, Lot 23 DP3030, Lot 129 DP 755267, Lot 1 DP110084, Lot 1089682 and Lot 1 DP114970.
4. Bounded by Lots 92 & 129 DP 755267.
5. Bounded by Lots 4 & 5 DP542226, Lot 2 DP616303, Lots 2 & 3 DP720705 and Lot 3 1177768.
6. Bounded by Lot 2 DP616303, Lot 5 DP542226, Lot 4 DP720705 and Lots 45 & 46 DP753792.
7. Bounded by Lot 1 DP1174490, Lots 2, 3 & 4 DP1085145 and Lot 175 DP823775.
8. Bounded by Lots 62, 63, 64, 95 & 118 DP753792, Lot 1 DP 1177768 and Lot 2 DP1174490.

9. Bounded by Lot 79 DP1074487, Lot 170 DP823775, Lots 49-51, 58, 118 DP753792, Lot 2 DP1085145 and Lot 2 DP1174490.
10. Bounded by Lot 79 DP1074487, Lots 18, 160 & 161 DP753817 and Lots 49, 50 & 52 DP753792.
11. Bounded by Lot A DP33149, Lots 22, 66 & 71 DP753817 and Lot 2 DP 1174490.
12. Adjoining to the East and North of Lot 79 DP753821.
13. Wambo Road.

Wollombi Brook

1. Bounded by Lot 220 DP1135537, Lot 83 DP548749, Lot1 DP110084, Lot 1 DP241316 and Lot 7 DP3030.
2. Bounded by Lot 1 DP1089682 and Lots 1, 2, 3, 4, 5 & 6 DP732501.

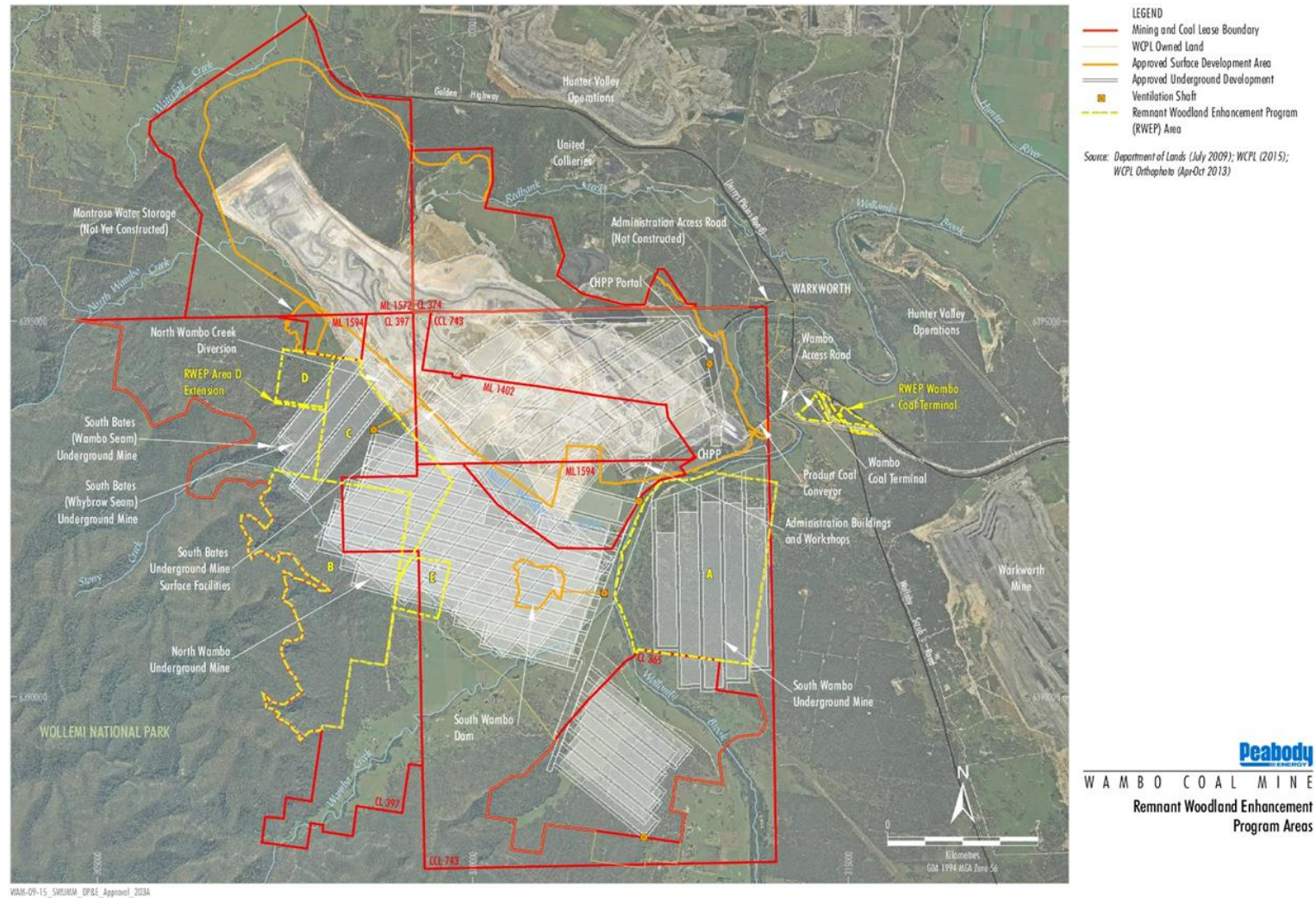
**APPENDIX 2
INDEPENDENT DISPUTE RESOLUTION PROCESS**



APPENDIX 3
L CULTURAL HERIT
(See Condition 55)

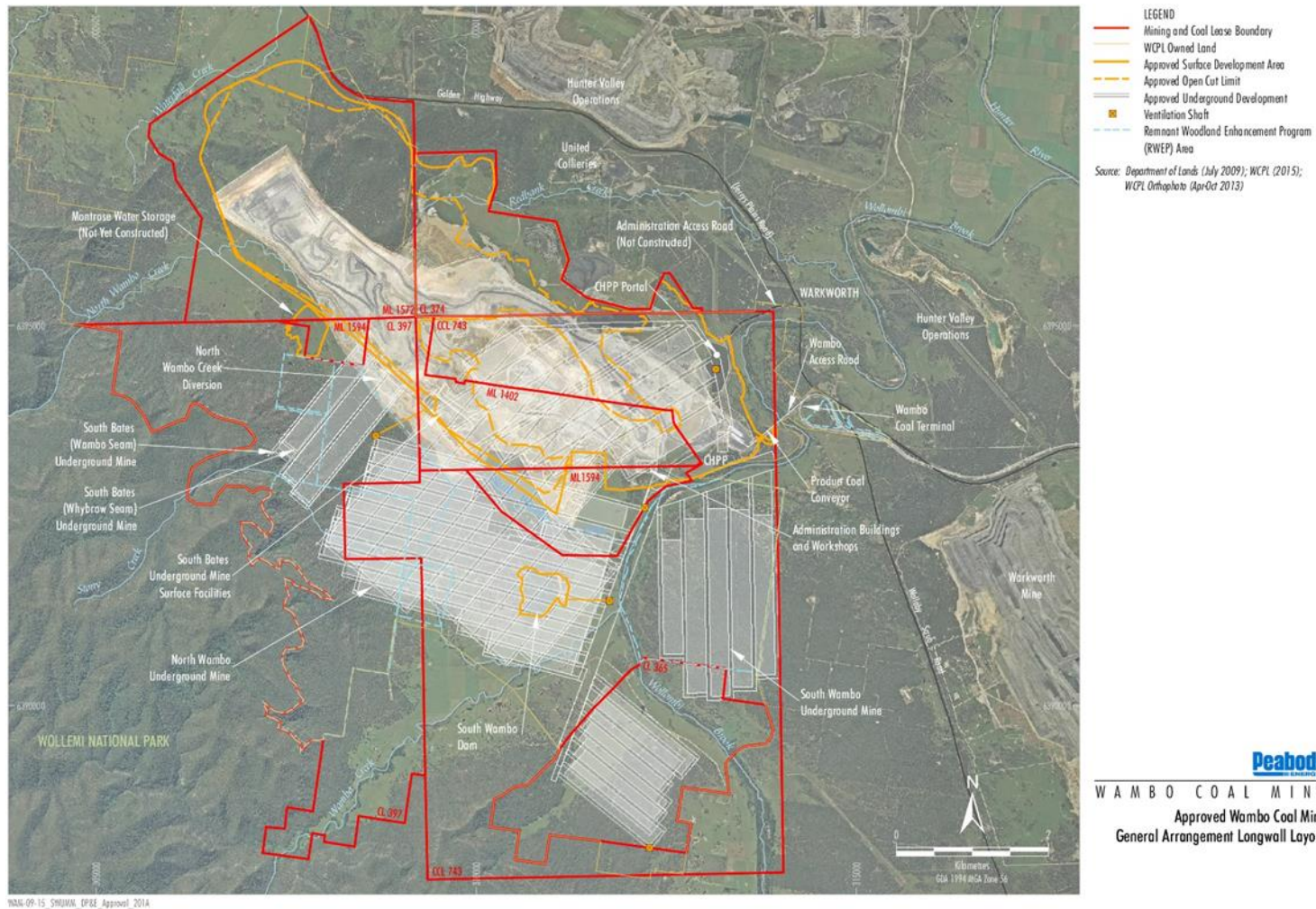


APPENDIX 4 **BIODIVERSITY OFFSET AREAS** **(See Condition 40)**





APPENDIX 5 APPROVED LAYOUT



WAMBO COAL PTY LIMITED



SOUTH BATES EXTENSION MODIFICATION ENVIRONMENTAL ASSESSMENT

ATTACHMENT 2

Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements

Section 75W of the *Environmental Planning and Assessment Act 1979*

| | |
|------------------------------------|---|
| Application Number | DA 305-7-2003 MOD 17 |
| Description of Modification | <p>The modification proposes:</p> <ul style="list-style-type: none"> • extending the South Bates Underground Mine; • extending the life of underground mining until the end of 2039; • mining an additional 18 million tonnes of ROM coal; • constructing new ventilation shafts, gas drainage infrastructure and other ancillary infrastructure; and • producing of an additional 3.7 million tonnes of coarse rejects and 2.1 million tonnes on tailings. |
| Location | Jerrys Plains Road, Warkworth |
| Applicant | Wambo Coal Pty Ltd |
| Date of Issue | 20 December 2016 |
| General Requirements | <p>The Environmental Assessment (EA) for the proposed modification must include:</p> <ul style="list-style-type: none"> • a full description of the proposed modification, including: <ul style="list-style-type: none"> – the need for the modification; – details of the resource to be extracted, demonstrating efficient resource recovery within environmental constraints; – the mine layout and scheduling; – minerals processing; – surface infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); – a waste (rejects, tailings, etc.) management strategy; – a water management strategy; – a rehabilitation strategy to apply during, and after completion of, mining operations and the proposed final use of the site; and – the likely interactions between the proposed modified development and any other existing, approved or proposed mining development in the vicinity of the site; • justification why the proposed development is preferred over other alternatives (such as alternatives locations for the surface infrastructure or different layouts of the longwall panels); • a list of any approvals that must be obtained before the development may commence; • a risk assessment of the potential environmental impacts of the project, identifying the key issues; • an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including: <ul style="list-style-type: none"> – a description of the existing environment likely to be affected by the development, using sufficient baseline data; – an assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant laws, environmental planning instruments, guidelines, policies, plans and industry codes of practice; – a description of the measures that would be implemented to mitigate and/or offset the likely impacts of the development, and an assessment of: <ul style="list-style-type: none"> ○ whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented; ○ the likely effectiveness of these measures; and |

| | |
|------------|---|
| | <ul style="list-style-type: none"> ○ whether contingency plans would be necessary to manage any residual risks; – a description of the measures that would be implemented to monitor and report on the environmental performance of the development if it is approved; • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EA; • consideration of the development against all relevant environmental planning instruments (including Part 3 of the <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>); and • a conclusion justifying why the development should be approved, taking into consideration: <ul style="list-style-type: none"> ○ alternatives; ○ the suitability of the site; ○ the economic, social, biophysical and environmental impacts of the project as a whole; and ○ whether the project is consistent with the objects of the Environmental Planning and Assessment Act 1979. <p>While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p> <p>The modification application must be accompanied by a signed report from a suitably qualified and experienced person that includes an accurate estimate of the:</p> <ul style="list-style-type: none"> • capital investment value (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the development, including details of all the assumptions and components from which the capital investment value calculation is derived; and • jobs that would be created during each stage of the development. |
| Key Issues | <p>The EA must address the following specific issues:</p> <ul style="list-style-type: none"> • Subsidence – including an assessment of the likely conventional and non-conventional subsidence effects and impacts of the development, and the potential consequences of these effects and impacts on the natural and built environment, paying particular attention to those features that are considered to have significant economic, social, cultural or environmental value; • Land Resources – including: <ul style="list-style-type: none"> - An Agriculture Impact Statement to assess the potential impacts on soils and land capability of the site and surrounds, paying particular attention to any Biophysical Strategic Agricultural Land (BSAL) - an assessment of the likely agricultural impacts of the development; - an assessment of the likely impact of the development on landforms (topography), including the potential subsidence impacts on cliffs, rock formations and steep slopes; - an assessment of the compatibility of the development with other land uses in the vicinity of the development in accordance with the requirements of Clause 12 of <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>. • Water – including: <ul style="list-style-type: none"> - an assessment of the potential impacts of the development on the quantity and quality of the region's surface and groundwater resources; - an assessment of the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, and other water users; - a detailed site water balance and an assessment of any volumetric water licensing requirements, including a description of site water demands, water disposal methods (inclusive of volume and |

| | |
|---------------------|--|
| | <p>frequency of any water discharges), water supply infrastructure and water storage structures;</p> <ul style="list-style-type: none"> - an assessment of the likely flooding impacts of the development; - identification of any licensing requirements or other approvals under the <i>Water Act 1912</i> and/or <i>Water Management Act 2000</i>; - demonstration that water for the construction and operation of the proposed modification can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP); - a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo; - a framework for the avoidance, mitigation, management and monitoring of water quality impacts during construction and operation; and - a detailed description of the proposed water management system (including sewerage), water monitoring program and measures to mitigate surface and groundwater impacts; <ul style="list-style-type: none"> • Biodiversity – including: <ul style="list-style-type: none"> - an assessment of the likely biodiversity impacts of the development, in accordance with applicable NSW Government Policy; - an offset strategy to ensure the development maintains or improves the biodiversity values of the region in the medium to long term; • Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development; • Noise – including: <ul style="list-style-type: none"> - an assessment of the likely operational noise impacts of the development (including construction noise) in accordance with the <i>NSW Industrial Noise Policy</i>, paying particular attention to the obligations in chapters 8 and 9 of the policy; - if a claim is made for specific construction noise criteria for certain activities, then this claim must be justified and accompanied by an assessment of the likely construction noise impacts of these activities under the <i>Interim Construction Noise Guideline</i>; - an assessment of the likely road noise impacts of the development under the <i>NSW Road Noise Policy</i>; and - an assessment of the likely rail noise impacts of the development under the <i>Rail Infrastructure Noise Guideline</i>; • Air – including: <ul style="list-style-type: none"> - an assessment of the likely air quality impacts of the development in accordance with the <i>Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW</i>; and - an assessment of the likely greenhouse gas impacts of the development; • Visual – including an assessment of the likely visual impacts of the development; • Public Safety – including an assessment of the likely risks to public safety, paying particular attention to potential subsidence risks, bushfire risks, and the handling and use of any dangerous goods; • Social & Economic – including: <ul style="list-style-type: none"> - an assessment of the likely social impacts of the development; and - an assessment of the likely economic impacts of the development, paying particular attention to: <ul style="list-style-type: none"> ○ the significance of the resource; ○ the costs and benefits of the project for the State, the region and local communities; and ○ the demand for the provision of local infrastructure and services. |
| Consultation | <p>During the preparation of the EA, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups, landowners and Aboriginal groups.</p> <p>In particular, you must consult with the:</p> |

| | |
|--|--|
| | <ul style="list-style-type: none"> • Wambo Community Consultative Committee; • Commonwealth Department of the Environment; • NSW Office of Environment and Heritage (including the Heritage Branch); • NSW Environment Protection Authority; • NSW Division of Resources and Energy within the Department of Industry; • NSW Department of Primary Industries (including DPI Water, Agriculture, and Land and Natural Resources); • NSW Health; • Mine Subsidence Board; and • Singleton Shire Council. <p>The EA must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed.</p> |
|--|--|

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

| Land | |
|--------------------|---|
| | Guideline for Agricultural Impact Statements (DP&E) |
| | Agricultural Impact Statement: Technical Notes (DPI) |
| | Agfact AC25: Agricultural Land Classification (NSW Agriculture) |
| | Interim Protocol for Site Verification & Mapping of Biophysical Strategic Land (OEH) |
| | Soil and Landscape Issues in Environmental Impact Assessment (NOW) |
| | State Environmental Planning Policy No. 55 – Remediation of Land |
| | Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC) |
| Water | |
| Water Sharing Plan | Hunter Unregulated and Alluvial Water Sources 2009 |
| | Hunter Regulated River Water Source 2003 |
| Groundwater | NSW State Groundwater Policy Framework Document (NOW) |
| | NSW State Groundwater Quality Protection Policy (NOW) |
| | NSW State Groundwater Quantity Management Policy (NOW) |
| | NSW Aquifer Interference Policy 2012 (NOW) |
| | Australian Groundwater Modelling Guidelines 2012 (Commonwealth) |
| | National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC) |
| | Guidelines for the Assessment & Management of Groundwater Contamination (EPA) |
| Surface Water | Hunter River Salinity Trading Scheme (EPA) |
| | NSW State Rivers and Estuary Policy (NOW) |
| | NSW Government Water Quality and River Flow Objectives (EPA) |
| | Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA) |
| | National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ) |
| | National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ) |
| | National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC) |
| | National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC) |
| | Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA) |
| | Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries (DECC) |
| | Managing Urban Stormwater: Treatment Techniques (EPA) |
| | Managing Urban Stormwater: Source Control (EPA) |
| | Technical Guidelines: Bunding & Spill Management (EPA) |
| | Environmental Guidelines: Use of Effluent by Irrigation (EPA) |
| | A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH) |
| | NSW Guidelines for Controlled Activities (NOW) |
| Flooding | Floodplain Development Manual (OEH) |
| | Floodplain Risk Management Guideline (OEH) |
| Biodiversity | |
| | Framework for Biodiversity Assessment (OEH) |
| | NSW Biodiversity Offset Policy for Major Projects (OEH) |
| | Threatened Species Assessment Guidelines (OEH) |
| | NSW State Groundwater Dependent Ecosystem Policy (NOW) |

| | |
|---|--|
| | Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW) |
| | State Environmental Planning Policy No. 44 – Koala Habitat Protection |
| Heritage | |
| | The Burra Charter (The Australia ICOMOS charter for places of cultural significance) |
| | Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E) |
| | Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH) |
| | Code of Practice for Archaeological Investigations of Objects in NSW (OEH) |
| | Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (OEH) |
| | NSW Heritage Manual (OEH) |
| | Statements of Heritage Impact (OEH) |
| Noise | |
| | NSW Industrial Noise Policy (EPA) |
| | Interim Construction Noise Guideline (EPA) |
| | NSW Road Noise Policy (EPA) |
| | Rail Infrastructure Noise Guideline (EPA) |
| | Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E) |
| Air | |
| | Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW (EPA) |
| | Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA) |
| | Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline (EPA) |
| | Generic Guidance and Optimum Model Settings for the CALPUFF Modelling System for Inclusion in the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA) |
| | National Greenhouse Accounts Factors (Commonwealth) |
| | Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E) |
| Transport | |
| | Guide to Traffic Generating Development (RTA) |
| | Road Design Guide (RMS) & relevant Austroads Standards |
| Public Safety | |
| | State Environmental Planning Policy No. 33 – Hazardous and Offensive Development |
| | Hazardous and Offensive Development Application Guidelines – Applying SEPP 33 |
| | Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis |
| Resource | |
| | Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC) |
| Waste | |
| | Waste Classification Guidelines (DECC) |
| Rehabilitation | |
| | Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth) |
| | Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth) |
| | Strategic Framework for Mine Closure (ANZMEC-MCA) |
| Environmental Planning Instruments - General | |
| | State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 |

State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (Infrastructure) 2007

Singleton Local Environmental Plan 2013

ATTACHMENT 1

Assessment Requirements relevant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

Wambo South Bates Extension Underground Project (EPBC 2016/7816)

1. On 22 December 2016 it was determined that the Wambo South Bates Extension Underground Project (2016/7816) will impact upon the following matters of national environmental significance (MNES) protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act):
 - threatened species and communities
 - A water resource in relation to coal seam gas development and large coal mining development
2. The project will be assessed in accordance with the NSW Assessment Bilateral Agreement (2015) and as such is required to be assessed in the manner specified in Schedule 1 to that Agreement including, addressing the matters outlined in Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth). These requirements do not stand alone but are a supplement to the Secretary's Environmental Assessment Requirements issued on 20 December 2016 and must be addressed in conjunction with those requirements. The requirements are intended such that there is sufficient information in the assessment report relevant to MNES such that the Commonwealth decision-maker may make a determination on whether or not to approve the action.
3. The proponent must undertake an assessment of all the protected matters that may be impacted by the development under the controlling provisions identified in paragraph 1. A list of protected matters that are considered likely to be significantly impacted is provided at Attachment A to these Guidelines. Note that this may not be a complete list and it is the responsibility of the proponent to ensure any protected matters under this controlling provision, likely to be significantly impacted, are assessed for the Commonwealth decision-maker's consideration.

General Requirements

Project Description

4. The title of the action, background to the development and current status.
5. The precise location and description of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on matters of national environmental significance (MNES).
6. How the action relates to any other actions that have been, or are being taken, in the region affected by the action.
7. How the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts on MNES.

Impacts

8. The EIS must include an assessment of the relevant impacts of the action on threatened species and communities and water resources; including
 - a description and detailed assessment of the nature and extent of the likely direct, indirect and consequential impacts, including short term and long term relevant impacts;
 - a statement whether any relevant impacts are likely to be known, unpredictable or irreversible; analysis of the significance of the relevant impacts;
 - any technical data and other information used or needed to make a detailed assessment of the relevant impacts; and
 - a comparative description of the impacts of alternatives, if any, on the threatened species and communities.

Avoidance, mitigation and offsetting

9. For each of the relevant matters protected that are likely to be significantly impacted by the development, the EIS must provide information on proposed avoidance and mitigation measures to deal with the relevant impacts of the action, including:
 - a description and an assessment of the expected or predicted effectiveness of the mitigation measures;
 - any statutory policy basis for the mitigation measures;
 - the cost of the mitigation measures;
 - a description of the outcomes that the avoidance and mitigation measures will achieve;
 - an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action; and
 - a description of the offsets proposed to address the residual adverse significant impacts and how these offsets will be established.
10. Where a significant residual adverse impact to a relevant protected threatened species or community is considered likely, the EIS must provide information on the proposed offset strategy, including discussion of the conservation benefit associated with the proposed offset strategy.

Key Issues

Biodiversity

11. The EIS must address the following issues in relation to biodiversity including separate:
 - identification of each EPBC Act listed threatened species and community likely to be impacted by the development. Provide evidence why other EPBC Act listed threatened species and communities likely to be located in the project area or in the vicinity will not be impacted.
12. For each of the relevant EPBC Act listed threatened species and communities likely to be impacted by the development the EIS must provide a separate:
 - description of the habitat and habits (including identification and mapping of suitable breeding habitat, suitable foraging habitat, important populations and habitat critical for survival), with consideration of, and reference to, any relevant Commonwealth guidelines and policy statements including listing advice, conservation advice and recovery plans, threat abatement plans and wildlife conservation plans;
 - details of the scope, timing and methodology for studies or surveys used and how they are consistent with (or justification for divergence from) published Australian Government guidelines and policy statements; and
 - description of the impacts of the action having regard to the full national extent of the species or community's range.

[Note: the relevant guidelines and policy statements for each species and community are available from the Department of the Environment Species Profiles and Threats Database.<http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>]

13. For each of the relevant EPBC Act listed threatened species and communities likely to be significantly impacted by the development the EIS must provide:
 - identification of significant residual adverse impacts likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account;
 - details of how the current published NSW Framework for Biodiversity Assessment (FBA) has been applied in accordance with the objects of the EPBC Act to offset significant residual adverse impacts; and
 - details of the offset package to compensate for significant residual impacts including details of the credit profiles required to offset the development in accordance with the FBA and/or mapping

and descriptions of the extent and condition of the relevant habitat and/or threatened communities occurring on proposed offset sites.

[Note: For the purposes of approval under the EPBC Act, it is a requirement that offsets directly contribute to the ongoing viability of the specific protected matter impacted by a proposed action i.e. 'like for like'. In applying the FBA, residual impacts on EPBC Act listed threatened ecological communities must be offset with Plant Community Type(s) (PCT) that are ascribed to the specific EPBC listed ecological community. PCTs from a different vegetation class will not generally be acceptable as offsets for EPBC listed communities.]

14. Any significant residual impacts not addressed by the FBA may need to be addressed in accordance with the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offset Policy. <http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy>. [Note if the EPBC Act Environmental Offset Policy is used to calculate proposed offsets for a threatened species or community you may wish to seek further advice from the Department of Planning and Environment.]
15. For each threatened species and community likely to be significantly impacted by the development, the EIS must provide reference to, and consideration of, relevant approved conservation advice or recovery plan for the species or community.

[Note: the relevant guidelines and policy statements for each species and community are available from the Department of the Environment Species Profiles and Threats Database. <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>]

Water resource, in relation to coal seam gas development and large coal mining development

16. The EIS should provide a description of the location, extent and ecological characteristics and values of the identified water resource potentially affected by the project.
17. The assessment of impacts should include information on:
 - any substantial and measurable changes to the hydrological regime of the water resource, for example a substantial change to the volume, timing, duration or frequency of ground and surface water flows;
 - the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependent upon the water resource being seriously affected; and
 - substantial and measurable change in the water quality and quantity of the water resource—for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland; or water temperature that may adversely impact on biodiversity, ecological integrity, social amenity or human health.
18. The EIS must provide adequate information to allow the project to be reviewed by the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, as outlined in the *Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals* (IESC, October 2015).

Environmental Record of person proposing to take the action

19. Information in relation to the environmental record of a person proposing to take action must include details as prescribed in Schedule 4 Clause 6 of the EPBC Regulations 2000.

Information Sources

For information given in the EIS, the EIS must state the source of the information, how recent the information is, how the reliability of the information was tested; and what uncertainties (if any) are in the information.

REFERENCES

1. *Environment Protect and Biodiversity Conservation Act 1999* - section 51-55, section 96A(3)(a)(b), 101A(3)(a)(b), section 136, section 527E
2. NSW Assessment Bilateral Agreement (2015) - Item 18.1, Item 18.5, Schedule 1
3. *Matters of National Environmental Significance - Significant impact guidelines 1.1* (2013) EPBC Act
4. *Environment Protect and Biodiversity Conservation Act 1999* Environmental Offsets Policy October 2012

Attachment A

The Department of the Environment's Environment Reporting Tool (ERT) identifies that 30 threatened species and 3 communities may occur within 2 km of the proposed action. Based on the information in the referral documentation, the location of the action, species records and likely habitat present in the area, there are likely to be significant impacts to:

- Central Hunter Valley Eucalypt Forest and Woodland Ecological Community - Critically Endangered;
- Swift Parrot (*Lathamus discolor*) - Critically Endangered; and
- Regent Honeyeater (*Anthochaera phrygia*) - Critically Endangered.

There is some risk that there may be significant impacts on the following matters and the levels of impact should be further investigated:

- Spotted-tailed quoll (*Oasyurus maculatus maculatus* (SE mainland population) –Endangered

The impacts to water resources are likely to include:

- Impacts to the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community as a result of subsidence, ponding and fracturing on the surface;
- Impacts to the North Wambo Creek bed and catchment area;
- Drawdown within the alluvium of the Hunter River;
- Water quality impacts as a result of an altered water balance and potential increase in erosion from North Wambo Creek reporting to Wollombi Brook; and
- Cumulative impacts with other mines in the area.

WAMBO COAL PTY LIMITED



SOUTH BATES EXTENSION MODIFICATION ENVIRONMENTAL ASSESSMENT

ATTACHMENT 3 Real Property Descriptions

DA 305-7-2003 DEVELOPMENT APPLICATION AREA

| Lot Number | Deposited Plan Number | Tenure Type |
|------------|-----------------------|----------------------------|
| 1 | DP110084 | Freehold |
| 1 | DP1089682 | Freehold |
| 1 | DP114970 | Freehold |
| 1 | DP709722 | Freehold |
| 1 | DP720705 | Freehold |
| 1 | DP241316 | Freehold |
| 1 | DP616303 | Freehold |
| 1 | DP1177768 | Freehold |
| 1 | DP1174490 | Local Government Authority |
| 100 | DP753792 | Freehold |
| 101 | DP753792 | Freehold |
| 103 | DP753792 | Freehold |
| 104 | DP753792 | Freehold |
| 109 | DP753792 | Freehold |
| 110 | DP753792 | Freehold |
| 111 | DP753792 | Freehold |
| 112 | DP753792 | Freehold |
| 113 | DP753817 | Freehold |
| 118 | DP753792 | Freehold |
| 129 | DP755267 | Freehold |
| 131 | DP1089157 | Freehold |
| 160 | DP753817 | Freehold |
| 161 | DP753817 | Freehold |
| 170 | DP823775 | Crown |
| 175 | DP823775 | Crown |
| 18 | DP753817 | Freehold |
| 2 | DP1085145 | Freehold |
| 2 | DP110084 | Freehold |
| 2 | DP709722 | Freehold |
| 2 | DP616303 | Freehold |
| 2 | DP617852 | Freehold |
| 2 | DP720705 | Freehold |
| 2 | DP1174490 | Freehold |
| 208 | DP753817 | Freehold |
| 22 | DP753817 | Freehold |
| 220 | DP1135537 | Freehold |
| 23 | DP3030 | Freehold |
| 3 | DP720705 | Freehold |
| 3 | DP1177768 | Freehold |
| 3 | DP1085145 | Freehold |
| 38 | DP753792 | Freehold |
| 39 | DP753792 | Freehold |

| Lot Number | Deposited Plan Number | Tenure Type |
|------------|-----------------------|-------------|
| 4 | DP1085145 | Freehold |
| 4 | DP542226 | Freehold |
| 4 | DP720705 | Freehold |
| 45 | DP753792 | Freehold |
| 46 | DP753792 | Freehold |
| 49 | DP753792 | Freehold |
| 5 | DP542226 | Freehold |
| 5 | DP1085145 | Freehold |
| 50 | DP753792 | Freehold |
| 51 | DP753792 | Freehold |
| 52 | DP753792 | Freehold |
| 55 | DP753792 | Freehold |
| 57 | DP1074788 | Freehold |
| 58 | DP753792 | Freehold |
| 60 | DP753792 | Freehold |
| 61 | DP753792 | Freehold |
| 62 | DP753792 | Freehold |
| 63 | DP753792 | Freehold |
| 64 | DP753792 | Freehold |
| 66 | DP753817 | Freehold |
| 67 | DP753817 | Freehold |
| 7 | DP3030 | Freehold |
| 71 | DP753817 | Freehold |
| 79 | DP1074787 | Freehold |
| 79 | DP753821 | Freehold |
| 82 | DP548749 | Freehold |
| 83 | DP548749 | Freehold |
| 92 | DP755267 | Freehold |
| 95 | DP753792 | Freehold |
| A | DP33149 | Freehold |
| B | DP33149 | Freehold |
| C | DP33149 | Freehold |
| 1 | DP732501 | Freehold |
| 2 | DP732501 | Freehold |
| 3 | DP732501 | Freehold |
| 4 | DP732501 | Freehold |
| 5 | DP732501 | Freehold |
| 6 | DP732501 | Freehold |

Roads

1. Wambo Mine Road.
2. Road within Lot 1 DP 616303.
3. Road bounded by Lot 220 DP1135537, Lot 83 DP548749, Lot 23 DP3030, Lot 129 DP 755267, Lot 1 DP110084, Lot 1089682 and Lot 1 DP114970.
4. Bounded by Lots 92 & 129 DP 755267.

5. Bounded by Lots 4 & 5 DP542226, Lot 2 DP616303, Lots 2 & 3 DP720705 and Lot 3 1177768.
6. Bounded by Lot 2 DP616303, Lot 5 DP542226, Lot 4 DP720705 and Lots 45 & 46 DP753792.
7. Bounded by Lot 1 DP1174490, Lots 2, 3 & 4 DP1085145 and Lot 175 DP823775.
8. Bounded by Lots 62, 63, 64, 95 & 118 DP753792, Lot 1 DP 1177768 and Lot 2 DP1174490.
9. Bounded by Lot 79 DP1074487, Lot 170 DP823775, Lots 49-51, 58, 118 DP753792, Lot 2 DP1085145 and Lot 2 DP1174490.
10. Bounded by Lot 79 DP1074487, Lots 18, 160 & 161 DP753817 and Lots 49, 50 & 52 DP753792.
11. Bounded by Lot A DP33149, Lots 22, 66 & 71 DP753817 and Lot 2 DP 1174490.
12. Adjoining to the East and North of Lot 79 DP753821.
13. Wambo Road.

Wollombi Brook

1. Bounded by Lot 220 DP1135537, Lot 83 DP548749, Lot1 DP110084, Lot 1 DP241316 and Lot 7 DP3030.
2. Bounded by Lot 1 DP1089682 and Lots 1, 2, 3, 4, 5 & 6 DP732501.

PROPOSED EXTENSION TO THE DEVELOPMENT APPLICATION AREA

| Lot Number | Deposited Plan Number | Tenure Type |
|------------|-----------------------|-------------|
| 3 | 753817 | Freehold |
| 4 | 753817 | Freehold |
| 5 | 753817 | Freehold |
| 6 | 753817 | Freehold |
| 10 | 753817 | Freehold |
| 73 | 753817 | Freehold |

Roads

1. Road within Lot 208 DP753817.
2. Bounded by Lot A DP33149 and Lots 3, 4, 5, 6 & 113 DP753817.
3. Adjoining to the West and South of Lot 22 DP753817.

WAMBO COAL PTY LIMITED



SOUTH BATES EXTENSION MODIFICATION ENVIRONMENTAL ASSESSMENT

ATTACHMENT 4

Relevant Environmental Planning Instruments
and Government Policies

A4 RELEVANT ENVIRONMENTAL PLANNING INSTRUMENTS AND GOVERNMENT POLICIES

This Attachment provides further discussion on the requirements and application of environmental planning instruments and relevant New South Wales (NSW) government policy to the South Bates Extension Modification (the Modification).

References to Sections 1 to 6 in this Attachment are references to the sections of the Main Report of the Environmental Assessment. Internal references within this Attachment are prefixed with “A4”.

A4.1 SINGLETON LOCAL ENVIRONMENTAL PLAN 2013

The Wambo Coal Mine (Wambo) is wholly within the Singleton Local Government Area (LGA) (Figure 1). The following sub-sections identify the provisions in the *Singleton Local Environmental Plan 2013* (Singleton LEP) which have relevance to the Modification.

Wambo lies within land zoned RU1 “Primary Production” under the Singleton LEP.

Under the Singleton LEP, “open cut mining” is permissible on lands in the RU1 Zone with development consent. Underground mining is not listed as a permissible use in the RU1 Zone under the Singleton LEP.

Part 2 of the Singleton LEP states:

Note. A type of development referred to in the Land Use Table is a reference to that type of development only to the extent it is not regulated by an applicable State environmental planning policy. The following State environmental planning policies in particular may be relevant to development on land to which this Plan applies:

...

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

...

Clause 4 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (Mining SEPP) relevantly provides:

4 Land to which Policy applies

This Policy applies to the State.

Clause 5(3) gives the Mining SEPP primacy where there is any inconsistency between the provisions in the Mining SEPP and the provisions in any other environmental planning instrument such as the Singleton LEP (subject to limited exceptions).

Clause 5(3) relevantly provides:

5 Relationship with other environmental planning policies

- (3) ... if this Policy is inconsistent with any other environmental planning instrument, whether made before or after this Policy, this Policy prevails to the extent of the inconsistency.

The practical effect of clause 5(3) for Wambo is that if there is any inconsistency between the provisions of the Mining SEPP and those contained in the Singleton LEP, the provisions of the Mining SEPP will prevail.

Clauses 6 and 7 of the Mining SEPP set out what types of mining development are permissible without development consent and what types are permissible only with development consent. In this regard, clause 7(1) states:

7 Development permissible with consent

(1) Mining

Development for any of the following purposes may be carried out only with development consent:

- (a) *underground mining carried out on any land,*

...

The term ‘underground mining’ in the Mining SEPP is given an extended definition in clause 3(2) as follows:

underground mining means:

- (a) *mining carried out beneath the earth’s surface, including bord and pillar mining, longwall mining, top-level caving, sub-level caving and auger mining, and*
- (b) *shafts, drill holes, gas and water drainage works, surface rehabilitation works and access pits associated with that mining (whether carried out on or beneath the earth’s surface),*

but does not include open cut mining.

The effect of clause 7(1), in conjunction with the operation of clause 5(3) of the Mining SEPP, is that notwithstanding any prohibition contained in the Land Use Table of the Singleton LEP, Wambo and the Modification are permissible with development consent.

Clause 2.3(2) of the Singleton LEP relevantly provides:

- (2) *The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.*

The consent authority for the Modification is the Minister for Planning (Section 5.1).

Under the Singleton LEP the objectives of the RU1 Zone are:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*

The Modification is consistent with the general objectives of the RU1 Zone as mining is a primary industry and the Modification would enhance the productivity of the existing mining operations at Wambo. The Modification is not expected to have any discernible direct or indirect impact on existing viticultural enterprises in the surrounding areas (Appendix H).

The Modification would not significantly alter the compatibility of Wambo with adjoining land uses or land uses overlying the Modification area.

A4.2 STATE ENVIRONMENTAL PLANNING POLICIES

The *State Environmental Planning Policy (State and Regional Development) 2011* is not relevant to this Modification under section 75W of the NSW *Environmental Planning and Assessment Act, 1979* (EP&A Act), as the Modification does not constitute State significant development, State significant infrastructure, critical State significant infrastructure or a development application that would be determined by a joint regional planning panel.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

The Mining SEPP consolidates the various environmental planning instruments that previously controlled mining activities.

Clause 5(3) of the Mining SEPP gives it primacy where there is an inconsistency between the provisions of the Mining SEPP and the provisions of any other environmental planning instrument (except the *State Environmental Planning Policy [Major Development] 2005*, *State Environmental Planning Policy No. 14 [Coastal Wetlands]* and *State Environmental Planning Policy No. 26 [Littoral Rainforest]*).

Clause 2

Clause 2 sets out the aims of the Mining SEPP as follows:

- (a) *to provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State, and*
- (b) *to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources, and*
- (b1) *to promote the development of significant mineral resources, and*
- (c) *to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of mineral, petroleum and extractive material resources.*
- (d) *to establish a gateway assessment process for certain mining and petroleum (oil and gas) development:*

...

Clause 7

Clause 7(1) of the Mining SEPP states that development for any of the following purposes may be carried out only with development consent:

- (a) *underground mining carried out on any land,*
- (b) *mining carried out:*
 - (i) *on land where development for the purposes of agriculture or industry may be carried out (with or without development consent), or*

- (ii) *on land that is, immediately before the commencement of this clause, the subject of a mining lease under the Mining Act 1992 or a mining licence under the Offshore Minerals Act 1999,*

The Modification is on land where agriculture is permissible under the Singleton LEP.

Clause 12

Clause 12 of the Mining SEPP requires that, before determining an application for consent for development for the purposes of mining, the consent authority must:

- (a) *consider:*
 - (i) *the existing uses and approved uses of land in the vicinity of the development, and*
 - (ii) *whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and*
 - (iii) *any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and*
- (b) *evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a) (i) and (ii), and*
- (c) *evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a) (iii).*

Land use in the vicinity of Wambo is characterised by a combination of coal mining operations, agricultural land uses and the village of Warkworth. Land use in the Modification area includes areas of vegetation (including land within the Remnant Woodland Enhancement Program and proposed biodiversity offset areas) and cleared grazing land. The majority of the Modification area is located on Wambo Coal Pty Limited (WCPL)-owned land.

The potential impacts of the Modification on surrounding land uses including vegetation, mining-related infrastructure and existing agricultural improvements as a result of mine subsidence are described in Appendices A and H and summarised in Section 4. The potential amenity impacts are assessed in Appendices I and J and summarised in Section 4.10 and 4.11.

The Modification would allow for the extraction of additional coal reserves that can be economically mined with underground mining methods.

WCPL would, where practicable, implement a range of measures to avoid or minimise any potential incompatibility of the Modification with existing and future land uses in the Modification area. This would be achieved through the implementation of the existing Wambo environmental management system.

Clause 14

Clause 14(1) of the Mining SEPP requires that, before granting consent for development for the purposes of mining, the consent authority must consider whether or not the approval should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following:

- (a) *that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable,*
- (b) *that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,*
- (c) *that greenhouse gas emissions are minimised to the greatest extent practicable.*

In addition, clause 14(2) requires that, without limiting clause 14(1), in determining a development application for development for the purposes of mining, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programmes or guidelines concerning greenhouse gas emissions.

The potential impacts of the Modification on groundwater and surface water resources are discussed in Sections 4.4 and 4.5, including measures to minimise potential impacts which are described in Sections 4.4.3 and 4.5.3. The potential impacts of the Modification on threatened species and biodiversity are described in Sections 4.8 and 4.9, including measures to minimise potential impacts which are described in Sections 4.8.3 and 4.9.3.

Existing Wambo greenhouse gas abatement measures and the Modification greenhouse gas emissions estimate are described in Section 4.12. The Air Quality and Greenhouse Gas Review (Appendix J) provides a quantitative assessment of potential Scope 1, 2 and 3 greenhouse gas emissions of the Modification.

Clause 15

Clause 15 of the Mining SEPP requires that:

- (1) *Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider the efficiency or otherwise of the development in terms of resource recovery.*
- (2) *Before granting consent for the development, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at optimising the efficiency of resource recovery and the reuse or recycling of material.*
- (3) *The consent authority may refuse to grant consent to development if it is not satisfied that the development will be carried out in such a way as to optimise the efficiency of recovery of minerals, petroleum or extractive materials and to minimise the creation of waste in association with the extraction, recovery or processing of minerals, petroleum or extractive materials.*

The Modification would allow for the extraction of additional coal reserves that can be economically mined with underground mining methods. It is in WCPL's financial interest to maximise the efficiency of coal recovery and minimise the generation of coal reject which requires disposal. As such, the Modification aims to achieve efficient resource recovery.

Clause 16

Clause 16(1) of the Mining SEPP requires that, before granting consent for development for the purposes of mining that involves the transport of materials, the consent authority must consider whether or not the consent should be issued subject to conditions that do any one or more of the following:

- (a) *require that some or all of the transport of materials in connection with the development is not to be by public road,*
- (b) *limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools,*
- (c) *require the preparation and implementation, in relation to the development, of a code of conduct relating to the transport of materials on public roads.*

Wambo product coal would continue to be transported from site by rail.

The primary public road network transport routes to and from Wambo include routes that are adjacent to rural areas, industrial/commercial areas, residential areas and schools.

As the maximum production rate at Wambo would not change as a result of the Modification and the Modification would not result in any additional demand for employees/contractors, there would be no change in the vehicle movements associated with consumable deliveries or employee and contractor vehicle movements to Wambo.

Given the above, it is considered the Modification would not result in any significant changes to the potential road transport impacts of Wambo.

Clause 17

Clause 17 of the Mining SEPP requires that before granting consent for development for the purposes of mining, the consent authority must consider whether or not the approval should be issued subject to conditions aimed at ensuring the rehabilitation of land that will be affected by the development.

In particular, the consent authority must consider whether conditions of the consent should:

- (a) *require the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated, or*
- (b) *require waste generated by the development or the rehabilitation to be dealt with appropriately, or*
- (c) *require any soil contaminated as a result of the development to be remediated in accordance with relevant guidelines (including guidelines under section 145C of the Act and the Contaminated Land Management Act 1997), or*
- (d) *require steps to be taken to ensure that the state of the land, while being rehabilitated and at the completion of the rehabilitation, does not jeopardize public safety.*

At the cessation of mining at Wambo, a rehabilitation programme would be implemented for the Modification area (Section 3.9). The proposed management of coal reject material is discussed in Section 3.5 and the management of waste rock material is described in Section 2.9. One of the key Wambo rehabilitation objectives is the creation of safe, stable, adequately drained post-mining land that is consistent with the surrounding landscape (Section 2.14).

WCPL's Mining Operations Plan complies with the Rehabilitation Management Plan requirement in Condition 94C, Schedule 4 of the Development Consent (DA 305-7-2003).

State Environmental Planning Policy No. 33 (Hazardous and Offensive Development)

Clause 13 of the *State Environmental Planning Policy No. 33 (Hazardous and Offensive Development)* requires the consent authority, in considering a development application for a potentially hazardous or a potentially offensive industry, to consider:

- (c) *in the case of development for the purpose of a potentially hazardous industry—a preliminary hazard analysis prepared by or on behalf of the applicant, and*

- (d) *any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application)*

...

As described in Section 4.14, the Modification would not significantly alter the consequences or likelihood of a hazardous event occurring at Wambo as the operational activities on-site would be generally unchanged. Operations at Wambo would be carried out in accordance with established safety and environmental management systems to mitigate the risk of hazardous events.

Notwithstanding, environmental management plans and monitoring programs would be reviewed, and if necessary, revised by WCPL to include the Modification and manage any associated environmental risks.

State Environmental Planning Policy No. 44 (Koala Habitat Protection)

The *State Environmental Planning Policy No. 44 (Koala Habitat Protection)* requires the consent authority for any development application in certain LGAs (including Singleton) to consider whether land subject to a development application is "potential koala habitat" or "core koala habitat".

FloraSearch (Appendix D) and Eco Logical (Appendix E) consider that the Modification area comprises potential Koala habitat, but does not comprise core Koala habitat.

State Environmental Planning Policy No. 55 (Remediation of Land)

The *State Environmental Planning Policy No. 55 (Remediation of Land)* (SEPP 55) aims to provide a State-wide planning approach to the remediation of contaminated land. Under SEPP 55, planning authorities are required to consider the potential for contamination to adversely affect the suitability of the site for its proposed use.

A consent authority must consider the following under clause 7(1) of SEPP 55:

- (a) *it has considered whether the land is contaminated, and*

- (b) *if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

Clause 7(2) provides that before a consent authority determines an application for development consent, a 'preliminary investigation' is required where:

- the application for consent is to carry out development that would involve a 'change of use'; and
- that 'change of use' applies to certain land specified in clause 7(4).

The certain land specified in clause 7(4) on which the 'change of use' must relate is either:

- land that is an 'investigation area' – defined in SEPP 55 as land declared to be an investigation area by a declaration in force under Division 2 of Part 3 of the *Contaminated Land Management Act, 1997*; or
- land on which development for a purpose referred to in Table A5-1 to the contaminated land planning guidelines (being *Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land* [NSW Department of Urban Affairs and Planning {DUAP} and NSW Environment Protection Authority {EPA}, 1998]) is being, or is known to have been carried out.

The majority of the Modification does not involve a 'change of use' because the Modification would involve the continued underground mining and associated activities within the existing mining tenements held by WCPL.

Where these activities are to be undertaken within the existing mining tenements, these Modification activities would not result in any change in the use of land, as mining related activities are already occurring.

GHD (Appendix K) completed a Land Contamination Assessment of the Modification area outside the existing mining tenements, including a preliminary investigation in accordance with the *Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land* (DUAP and EPA, 1998).

The preliminary investigation included a desktop review, site inspection and identification of potential contamination sources, migration and exposure pathways. The findings of the preliminary investigation are provided in Appendix K.

On the basis of the preliminary investigation, GHD (Appendix K) concluded that the Modification area outside existing mining tenements is suitable for the Modification.

Land contamination management measures, including post-mining investigation and remediation measures would continue to be implemented in accordance with the Mining Operations Plan.

Accordingly the Minister can be satisfied as to these matters.

A4.3 STRATEGIC REGIONAL LAND USE POLICY

As part of the Strategic Regional Land Use Policy, the NSW Government introduced a 'Gateway Process' for the upfront assessment of the impacts of State significant mining and coal seam gas proposals on Strategic Agricultural Land (NSW Government, 2012c).

The Strategic Regional Land Use Policy and the 'Gateway Process' apply to new State Significant Development applications or modifications for mining projects located outside of existing mining lease areas (NSW Government, 2012c).

The Modification extends beyond WCPL's existing mining tenements and therefore a Gateway Certificate Site or Verification Certificate (that certifies that the land concerned is not biophysical strategic agricultural land) is required (clause 20 of Schedule 6A of the EP&A Act).

The Upper Hunter Strategic Regional Land Use Plan does not map any biophysical strategic agricultural land or critical industry cluster land in the Modification area.

Soil surveys of the Modification area outside existing mining tenements were undertaken in August 2016 to assess the land against the *Interim Protocol for site verification and mapping of biophysical strategic agricultural land* (NSW Government, 2013).

A site verification certificate issued on 23 November 2016 verified the Modification area outside existing mining tenements is not within biophysical strategic agricultural land.

Notwithstanding, an assessment of potential impacts on agricultural land and resources is presented in Section 4.3.2.

An assessment against the provisions of the NSW *Aquifer Interference Policy* (the AIP) (NSW Government, 2012a) is provided in Section A4.4.

A4.4 AQUIFER INTERFERENCE POLICY

The AIP has been developed by the NSW Government as a component of the NSW Government's Strategic Regional Land Use Policy. The AIP applies State-wide and details water licence and impact assessment requirements.

The AIP has been developed to ensure equitable water sharing between various water users and proper licensing of water taken by aquifer interference activities such that the take is accounted for in the water budget and water sharing arrangements. The AIP also aims to enhance existing regulation, contributing to a comprehensive framework to protect the rights of all water users and the environment in NSW.

The NSW *Water Management Act, 2000* defines an aquifer interference activity as that which involves any of the following:

- the penetration of an aquifer;
- the interference with water in an aquifer;
- the obstruction of the flow of water in an aquifer;
- the taking of water from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations; and
- the disposal of water taken from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations.

A Groundwater Assessment (HydroSimulations, 2017) has been prepared in consideration of the AIP and the key conclusions are summarised below.

Water Source

The AIP requires all water taken by aquifer interference activities to be accounted for within the extraction limits set by the relevant Water Sharing Plan.

The Water Sharing Plans currently in force and relevant to Wambo are:

- *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009*;
- *Water Sharing Plan for the Hunter Regulated River Water Source 2016*; and
- *Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016*.

Water taken from the coal seams and other hardrock units is part of the Sydney Basin - North Coast Groundwater Source under the *Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016*. These aquifers are classified as 'less productive' groundwater sources by Department of Primary Industries – Water (DPI Water).

Alluvial aquifers in the vicinity of Wambo are managed as part of the Lower Wollombi Brook Alluvial Water Source, within the *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009*. The alluvium along Wollombi Brook and a small portion of alluvium on Wambo Creek are classified as a 'highly productive' groundwater source by DPI Water, while the remaining alluvial aquifers are classified as 'less productive'.

With regard to surface water, Wambo is located within the Lower Wollombi Brook and Jerrys Water Sources under the *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009*. The Hunter River in the vicinity of Wambo is managed under the *Water Sharing Plan for the Hunter Regulated River Water Source 2016*.

Baseline Groundwater Conditions

Baseline groundwater conditions and the existing observed impacts of the approved Wambo operations on alluvial and porous rock aquifers are presented in Section 2 of HydroSimulations (2017).

Modelling of Potential Impacts

The Groundwater Assessment included predictive modelling of the cumulative groundwater impacts using a three-dimensional numerical model. Detail on the development and calibration of the numerical model is provided in HydroSimulations (2017).

The potential impacts of the Modification have been assessed by making comparisons between the approved and the modified mining layouts.

Licensing Requirements

Details of the current groundwater licences with extraction entitlements held by WCPL are summarised in Table A4-1. The predicted annual groundwater volumes required to be licensed for the already approved South Wambo Underground Mine operations and incorporating the Modification are summarised in Table A4-2.

Comparison of WCPL's licence entitlements against the predicted maximum annual licensing requirements shows that adequate licences are available to account for the potential take of water associated with all approved underground mining operations and the Modification (HydroSimulations, 2017).

WCPL would assign these licences to water supply works in accordance with the rules under Part 9 in the relevant Water Sharing Plan.

Post-closure annual licensing requirements are expected to be less than the licensing requirements during operation. Sufficient licence allocations could be retired at the completion of Wambo to account for the potential post-closure take of water.

Table A4-1
Groundwater Licence Summary

| Licence Number | Description | Valid To | Extraction Limit | Conversion Status |
|--|-------------------------|------------|-----------------------------|-----------------------------|
| Hunter Unregulated and Alluvial Water Sources (Lower Wollombi Brook Water Source) | | | | |
| WAL 23897 | Well No. 2 | Perpetuity | 70 shares | Converted |
| North Coast Fractured and Porous Rock Groundwater Sources (Sydney Basin - North Coast Groundwater Source) | | | | |
| WAL 39738 (20BL132753) | Old Well No. 1 | 29/07/2018 | 243 shares | Converted |
| 20BL167738 [#] | Dewatering Bore | 11/09/2015 | 57 ML/year | DPI Water to confirm status |
| WAL 39735 (20BL168643) | Dewatering Bore | 7/08/2018 | 40 shares | Converted |
| 20BL168017 | Dewatering (Bore No. 2) | 21/05/2017 | 750 ML/year (20PT910929) | DPI Water to confirm status |
| 20BL172061 [#] | Dewatering (Bore No.2a) | 22/03/2014 | | |
| 20BL173040 | Dewatering Bore | 21/05/2017 | | |
| 20BL172156 | Dewatering | 3/05/2019 | 98 ML/year | DPI Water to confirm status |
| WAL 39803 (20BL166910) | Dewatering (Bore No. 1) | 21/05/2017 | 450 shares | Converted |
| 20BL173032 | Dewatering Bore | 30/11/2016 | | |
| 20BL173033 | Dewatering Bore | 30/11/2016 | | |
| 20BL173034 | Dewatering Bore | 30/11/2016 | | |
| 20BL173035 | Dewatering Bore | 30/11/2016 | | |
| 20BL173844 | Dewatering Bore | 04/09/2019 | 9 ML/year | DPI Water to confirm status |

Note: Only licences with an extraction entitlement have been included in this table. This table does not include surface water entitlements.

WAL = water access licence

ML/year = million litres per year.

[#] Renewal lodged.

Table A4-2
Groundwater Licensing Requirement Summary

| Water Sharing Plan | Management Zone/ Groundwater Source | Predicted Annual Inflow Volumes Requiring Licensing | |
|--|---|--|--|
| | | Currently Approved | Modification |
| <i>Hunter Unregulated and Alluvial Water Sources Water Sharing Plan 2009</i> | Lower Wollombi Brook | Cumulative Average 57 ML/year Cumulative Maximum 69 ML/year | Cumulative Average 57 ML/year Cumulative Maximum 69 ML/year |
| <i>Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016</i> | Sydney Basin - North Coast Groundwater Source | South Bates Underground Average 181 ML/year Maximum 316 ML/year South Wambo Underground Average 753 ML/year Maximum 1,125 ML/year | South Bates Underground Average 212 ML/year Maximum 376 ML/year South Wambo Underground Average 707 ML/year Maximum 1,072 ML/year |

Source: After HydroSimulations (2017).

Note: Licensing volumes for alluvial water sources including approved underground mining operations and approved and proposed open cut mining operations.

The numerical groundwater model would be refined over the progression of the mine life in order to more accurately calculate the post-closure licensing requirements associated with Wambo.

Should any additional licences be required as a result of ongoing review of the numerical groundwater model, WCPL would comply with the access licence dealing rules in the relevant Water Sharing Plan.

Minimal Impact Considerations

The AIP establishes minimal impact considerations for highly productive and less productive groundwater. Figure 11 shows the DPI Water mapping of highly productive groundwater in the vicinity of Wambo, which indicates a highly productive alluvial aquifer exists adjacent to Wollombi Brook and a small portion adjacent to Wambo Creek.

In accordance with the definitions provided by the Strategic Regional Land Use Policy, North Wambo Creek downstream of the confluence of Chalkers Creek and Spring Creek meets the definition of a 'reliable water supply' as it is a fifth order stream according to the Strahler system.

It is noted that although the portion of North Wambo Creek within the Modification area meets the definition of a 'reliable water supply' under the Strategic Regional Land Use Policy:

- the creek is not associated with highly productive groundwater identified by DPI Water;

- flow in North Wambo Creek is ephemeral (flow in excess of 10 ML/day [0.1 cubic metres per second] can be expected on approximately only 50 days per year) (i.e. flow is not reliable);
- there is no privately-owned land on North Wambo Creek;
- there are no WALs or extraction points or bores that are used for domestic or stock use (i.e. surface water and the alluvial groundwater are not used for water supply); and
- immediately downstream of this natural creek section, North Wambo Creek has been diverted (i.e. redesigned) around the approved Wambo open cut operations including the removal of alluvium across the full width of the channel with consequent desaturation of the adjacent upstream and downstream alluvium.

An assessment of the Modification against the minimal impact considerations in the AIP was conducted as part of the Groundwater Assessment (HydroSimulations, 2017).

Tables A4-3, A4-4 and A4-5 provide an assessment of the watertable, water pressure and water quality minimal impact considerations for the following water sources associated with the Modification:

- highly productive alluvial water source;
- less productive alluvial water source; and
- less productive porous rock water source.

Table A4-3
Minimal Impact Considerations for Highly Productive Alluvial Aquifers

| Aquifer | Alluvial Aquifer (adjacent to Wollombi Brook and a small portion adjacent to Wambo Creek) | |
|---|---|--|
| Category | Highly Productive | |
| Minimal Impact Considerations | | Assessment |
| <p>Watertable</p> <ol style="list-style-type: none"> Less than or equal to a 10 percent (%) cumulative variation in the watertable, allowing for typical climatic “post-water sharing plan” variations, 40 metres (m) from any: <ol style="list-style-type: none"> high priority groundwater dependent ecosystem; or high priority culturally significant site; listed in the schedule of the relevant water sharing plan; or A maximum of a 2 m decline cumulatively at any water supply work. If more than 10% cumulative variation in the watertable, allowing for typical climatic “post-water sharing plan” variations, 40 m from any: <ol style="list-style-type: none"> high priority groundwater dependent ecosystem; or high priority culturally significant site; listed in the schedule of the relevant water sharing plan then appropriate studies will need to demonstrate to the Minister’s satisfaction that the variation will not prevent the long-term viability of the dependent ecosystem or significant site. If more than 2 m decline cumulatively at any water supply work then make good provisions should apply. | | <p>The only high priority groundwater dependent ecosystem near Wambo is Parnell Spring. Parnell Spring likely flows from the Triassic-age Narrabeen Formation and is located 9 kilometres (km) south-southwest of the Modification longwall panels. Mining at Wambo would result in negligible drawdown at Parnell Spring (HydroSimulations, 2017).</p> <p>There are no high priority culturally significant sites listed in the <i>Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009</i>.</p> <p>Mining at Wambo would not result in cumulative drawdown of more than 2 m at any privately owned water supply work in a ‘highly productive’ alluvial aquifer over the duration of mining at the South Bates Underground Mine (incorporating the Modification) (HydroSimulations, 2017).</p> |
| <p>Water pressure</p> <ol style="list-style-type: none"> A cumulative pressure head decline of not more than 40% of the “post-water sharing plan” pressure head above the base of the water source to a maximum of a 2 m decline, at any water supply work. If the predicted pressure head decline is greater than requirement 1. above, then appropriate studies are required to demonstrate to the Minister’s satisfaction that the decline will not prevent the long-term viability of the affected water supply works unless make good provisions apply. | | <p>Mining at Wambo would not result in cumulative drawdown of more than 40% of the pressure head at any privately owned water supply work in a ‘highly productive’ alluvial aquifer (HydroSimulations, 2017).</p> |

Table A4-3 (Continued)
Minimal Impact Considerations for Highly Productive Alluvial Aquifers

| Aquifer | Alluvial Aquifer (adjacent to Wollombi Brook and a small portion adjacent to Wambo Creek) | |
|--|---|---|
| Category | Highly Productive | |
| Minimal Impact Considerations | | Assessment |
| <p>Water quality</p> <ol style="list-style-type: none"> <ol style="list-style-type: none"> Any change in the groundwater quality should not lower the beneficial use category of the groundwater source beyond 40 m from the activity; and No increase of more than 1% per activity in long-term average salinity in a highly connected surface water source at the nearest point to the activity. Redesign of a highly connected surface water source that is defined as a “reliable water supply” is not an appropriate mitigation measure to meet considerations 1.(a) and 1.(b) above. No mining activity to be below the natural ground surface within 200 m laterally from the top of high bank or 100 m vertically beneath (or the three dimensional extent of the alluvial water source - whichever is the lesser distance) of a highly connected surface water source that is defined as a “reliable water supply”. Not more than 10% cumulatively of the three dimensional extent of the alluvial material in this water source to be excavated by mining activities beyond 200 m laterally from the top of high bank and 100 m vertically beneath a highly connected surface water source that is defined as a “reliable water supply”. If condition 1.(a) is not met then appropriate studies will need to demonstrate to the Minister’s satisfaction that the change in groundwater quality will not prevent the long-term viability of the dependent ecosystem, significant site or affected water supply works. If condition 1.(b) or 1.(d) are not met then appropriate studies are required to demonstrate to the Minister’s satisfaction that the River Condition Index category of the highly connected surface water source will not be reduced at the nearest point to the activity. If condition 1.(c) or (d) are not met, then appropriate studies are required to demonstrate to the Minister’s satisfaction that: <ul style="list-style-type: none"> there will be negligible river bank or high wall instability risks; during the activity’s operation and post-closure, levee banks and landform design should prevent the Probable Maximum Flood from entering the activity’s site; and low-permeability barriers between the site and the highly connected surface water source will be appropriately designed, installed and maintained to ensure their long-term effectiveness at minimising interaction between saline groundwater and the highly connected surface water supply; | | <p>There are no simulated risks of reduced beneficial uses of the highly productive alluvium as a result of the Modification (HydroSimulations, 2017), therefore the Modification meets condition 1.(a).</p> <p>The Modification would have no discernible effect on stream baseflow or natural river leakage for Wollombi Brook, beyond the effects of approved mining. Therefore the Modification would have negligible effect on the long-term salinity of Wollombi Brook and the Modification meets condition 1.(b).</p> <p>Wollombi Brook is classified under the Strategic Regional Land Use Policy as a “reliable water supply” associated with highly productive groundwater.</p> <p>The Modification would not be within 200 m laterally or 100 m vertically beneath Wollombi Brook and would not extract alluvial material associated with the highly productive alluvial groundwater system. Therefore, the Modification meets conditions 1.(c) and 1.(d).</p> |

Table A4-4
Minimal Impact Considerations for Less Productive Alluvial Aquifers

| Aquifer | Alluvial Aquifer (adjacent to North Wambo Creek) | |
|---|--|---|
| Category | Less Productive | |
| Minimal Impact Considerations | | Assessment |
| <p>Watertable</p> <ol style="list-style-type: none"> Less than or equal to a 10% cumulative variation in the watertable, allowing for typical climatic “post-water sharing plan” variations, 40 m from any: <ol style="list-style-type: none"> high priority groundwater dependent ecosystem; or high priority culturally significant site; listed in the schedule of the relevant water sharing plan; or A maximum of a 2 m decline cumulatively at any water supply work. If more than 10% cumulative variation in the watertable, allowing for typical climatic “post-water sharing plan” variations, 40 m from any: <ol style="list-style-type: none"> high priority groundwater dependent ecosystem; or high priority culturally significant site; listed in the schedule of the relevant water sharing plan then appropriate studies will need to demonstrate to the Minister’s satisfaction that the variation will not prevent the long-term viability of the dependent ecosystem or significant site. If more than 2 m decline cumulatively at any water supply work then make good provisions should apply. | | <p>The only high priority groundwater dependent ecosystem near Wambo is Parnell Spring. Parnell Spring likely flows from the Triassic-age Narrabeen Formation and is located 9 km south-southwest of the Modification longwall panels. Mining at Wambo would result in negligible drawdown at Parnell Spring (HydroSimulations, 2017).</p> <p>There are no high priority culturally significant sites listed in the <i>Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009</i>.</p> <p>Mining at Wambo would not result in cumulative drawdown of more than 2 m at any privately owned water supply work in a ‘less productive’ alluvial aquifer over the duration of mining at the South Bates Underground Mine (incorporating the Modification) (HydroSimulations, 2017).</p> |
| <p>Water pressure</p> <ol style="list-style-type: none"> A cumulative pressure head decline of not more than 40% of the “post-water sharing plan” pressure head above the base of the water source to a maximum of a 2 m decline, at any water supply work. If the predicted pressure head decline is greater than requirement 1. above, then appropriate studies are required to demonstrate to the Minister’s satisfaction that the decline will not prevent the long-term viability of the affected water supply works unless make good provisions apply. | | <p>Mining at Wambo would not result in cumulative drawdown of more than 40% of the pressure head at any privately owned water supply work in a ‘less productive’ alluvial aquifer (HydroSimulations, 2017).</p> |

Table A4-4 (Continued)
Minimal Impact Considerations for Less Productive Alluvial Aquifers

| Aquifer | Alluvial Aquifer (adjacent to North Wambo Creek) | |
|---|--|---|
| Category | Less Productive | |
| Minimal Impact Considerations | | Assessment |
| <p>Water quality</p> <p>1. (a) Any change in the groundwater quality should not lower the beneficial use category of the groundwater source beyond 40 m from the activity; and</p> <p>(b) No increase of more than 1% per activity in long-term average salinity in a highly connected surface water source at the nearest point to the activity.</p> <p>Redesign of a highly connected surface water source that is defined as a “reliable water supply” is not an appropriate mitigation measure to meet considerations 1.(a) and 1.(b) above.</p> <p>(c) No mining activity to be below the natural ground surface within 200 m laterally from the top of high bank or 100 m vertically beneath (or the three dimensional extent of the alluvial water source - whichever is the lesser distance) of a highly connected surface water source that is defined as a “reliable water supply”.</p> <p>2. If condition 1.(a) is not met then appropriate studies will need to demonstrate to the Minister’s satisfaction that the change in groundwater quality will not prevent the long-term viability of the dependent ecosystem, significant site or affected water supply works.</p> <p>If condition 1.(b) is not met then appropriate studies are required to demonstrate to the Minister’s satisfaction that the River Condition Index category of the highly connected surface water source will not be reduced at the nearest point to the activity.</p> <p>If condition 1.(c) is not met, then appropriate studies are required to demonstrate to the Minister’s satisfaction that:</p> <ul style="list-style-type: none"> - there will be negligible river bank or high wall instability risks; - during the activity’s operation and post-closure, levee banks and landform design should prevent the Probable Maximum Flood from entering the activity’s site; and - low-permeability barriers between the site and the highly connected surface water source will be appropriately designed, installed and maintained to ensure their long-term effectiveness at minimising interaction between saline groundwater and the highly connected surface water supply; | | <p>There are no simulated risks of reduced beneficial uses of the alluvium as a result of the Modification (HydroSimulations, 2017), therefore the Modification meets condition 1.(a).</p> <p>The Modification would have no discernible or negligible effect on stream baseflow or natural river leakage for Wambo Creek, North Wambo Creek, or Stony Creek stream systems, beyond the effects of approved mining. It is anticipated that the Modification would not increase the long-term salinity of North Wambo Creek, Stony Creek or Wambo Creek and the Modification would meet condition 1.(b).</p> <p>North Wambo Creek is classified as a “reliable water supply” associated with less productive groundwater under the Strategic Regional Land Use Policy. However, as described further above, North Wambo Creek is not used for water supply.</p> <p>Immediately downstream of this natural creek section, North Wambo Creek has been diverted (i.e. redesigned) around the approved Wambo open cut operations (i.e. the approved Wambo does not meet condition 1.[c]).</p> <p>The Modification would involve the extraction of the Whybrow Seam using underground mining methods at depths of cover between approximately 60 and 190 m depth of cover beneath North Wambo Creek. The Modification extraction would be outside of the three dimensional extent of the alluvial water source. Previous investigations in the upper reaches of North Wambo Creek (immediately downstream of the remaining natural creek line) found the thickness of alluvium ranges up to 19 m (HydroSimulations, 2017).</p> <p>As the three dimensional extent of the alluvial water source is the lesser distance, the Modification meets condition 1.(c). Notwithstanding, it is noted that:</p> <ul style="list-style-type: none"> - Mitigation and remediation works would be implemented during and after subsidence such that there is negligible additional river bank instability risk in the long-term (noting that the natural creek line includes braided and ancestral channels [Appendix C]). - The portals to the underground workings would be located outside the extent of the Probable Maximum Flood and would be sealed at the completion of mining. - The installation of low-permeability barriers is more relevant to open cut mining operations rather than underground extraction. Modelling by HydroSimulations showed no potential for increased flux of more saline water from the Permian strata to the alluvium for a period of at least 100 years (HydroSimulations, 2017). |

Table A4-5
Minimal Impact Considerations for Less Productive Porous Rock Aquifers

| Aquifer | Porous Rock | |
|---|-----------------|---|
| Category | Less Productive | |
| Minimal Impact Considerations | | Assessment |
| <p>Watertable</p> <ol style="list-style-type: none"> Less than or equal to a 10% cumulative variation in the watertable, allowing for typical climatic “post-water sharing plan” variations, 40 m from any: <ol style="list-style-type: none"> high priority groundwater dependent ecosystem; or high priority culturally significant site; listed in the schedule of the relevant water sharing plan. A maximum of a 2 m decline cumulatively at any water supply work. If more than 10% cumulative variation in the watertable, allowing for typical climatic “post-water sharing plan” variations, 40 m from any: <ol style="list-style-type: none"> high priority groundwater dependent ecosystem; or high priority culturally significant site; listed in the schedule of the relevant water sharing plan then appropriate studies will need to demonstrate to the Minister’s satisfaction that the variation will not prevent the long-term viability of the dependent ecosystem or significant site. If more than 2 m decline cumulatively at any water supply work then make good provisions should apply. | | <p>Limited information is available on three privately owned bores in the vicinity of Wambo. Depending on the depth from which these bores pump, these bores may experience more than 2 m cumulative drawdown (not attributable to the Modification).</p> <p>WCPL would continue to implement the Surface and Groundwater Response Plan in the event a complaint is received in relation to loss of groundwater supply.</p> |
| <p>Water pressure</p> <ol style="list-style-type: none"> A cumulative pressure head decline of not more than a 2m decline, at any water supply work. If the predicted pressure head decline is greater than requirement 1. above, then appropriate studies are required to demonstrate to the Minister’s satisfaction that the decline will not prevent the long-term viability of the affected water supply works unless make good provisions apply. | | <p>Limited information is available on three privately owned bores in the vicinity of Wambo. Depending on the depth from which these bores pump, these bores may experience more than 2 m cumulative drawdown (not attributable to the Modification).</p> <p>WCPL would continue to implement the Surface and Groundwater Response Plan in the event a complaint is received in relation to loss of groundwater supply.</p> |

Table A4-5 (Continued)
Minimal Impact Considerations for Less Productive Porous Rock Aquifers

| Aquifer | Porous Rock | |
|---|------------------------|--|
| Category | Less Productive | |
| Minimal Impact Considerations | | Assessment |
| Water quality 1. Any change in the groundwater quality should not lower the beneficial use category of the groundwater source beyond 40m from the activity. 2. If condition 1 is not met then appropriate studies will need to demonstrate to the Minister's satisfaction that the change in groundwater quality will not prevent the long-term viability of the dependent ecosystem, significant site or affected water supply works. | | There is not expected to be a migration of groundwater away from the Wambo areas in the Permian system either during mining or following completion of mining activities (HydroSimulations, 2017). On this basis, Wambo would not lower the beneficial use category of the groundwater within the Permian system (HydroSimulations, 2017). |

WAMBO COAL PTY LIMITED



SOUTH BATES EXTENSION MODIFICATION ENVIRONMENTAL ASSESSMENT

ATTACHMENT 5

Cross Reference to Assessment Requirements
Relevant to the EPBC Act

A5 CROSS REFERENCE TO ASSESSMENT REQUIREMENTS RELEVANT TO THE EPBC ACT

References to Sections 1 to 6 in this Attachment are references to the sections of the Main Report of the Environmental Assessment. Internal references within this Attachment are prefixed with “A5”.

A5.1 BACKGROUND

Components of the Modification were referred to the Federal Minister for the Environment under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act) on 15 November 2016 as the Action (EPBC 2016/7816). The Action includes:

- longwall mining from the Whybrow Seam within the underground mining area shown on Figure A5-1; and
- development of surface infrastructure associated with gas management to support underground mining activities within the underground mining area excluding any surface disturbance works within the surface development area approved under EPBC 2003/1138.

A delegate of the Federal Minister determined on 23 December 2016 that the Action is a ‘controlled action’ for the purposes of the EPBC Act due to potential impacts on the following controlling provisions under Part 3 of Chapter 2 of the EPBC Act:

- listed threatened species and communities (sections 18 and 18A); and
- a water resource, in relation to coal seam gas development and large coal mining developments (sections 24D and 24E).

The delegate of the Federal Minister also determined on 23 December 2016 that the proposed action is to be assessed under the assessment bilateral agreement with the New South Wales (NSW) Government.

The Commonwealth Government has accredited NSW's environmental assessment processes under Schedule 6A and former section 75W of the NSW *Environmental Planning and Assessment Act, 1979* (EP&A Act) in a bilateral agreement between the governments.

The potential impacts on the Commonwealth's controlling provisions will be assessed under section 75W of the EP&A Act and the NSW Department of Planning and Environment will make a recommendation to the Commonwealth Minister for the Environment on whether the proposal should be approved or not approved under the EPBC Act.

A5.2 ASSESSMENT REQUIREMENTS

The NSW Department of Planning and Environment issued assessment requirements on 16 February 2017 relevant to the EPBC Act. The assessment requirements noted the following.

...there are likely to be significant impacts to:

- *Central Hunter Valley Eucalypt Forest and Woodland Ecological Community – Critically Endangered;*
- *Swift Parrot (Lathamus discolor) – Critically Endangered; and*
- *Regent Honeyeater (Anthochaera phrygia) – Critically Endangered.*

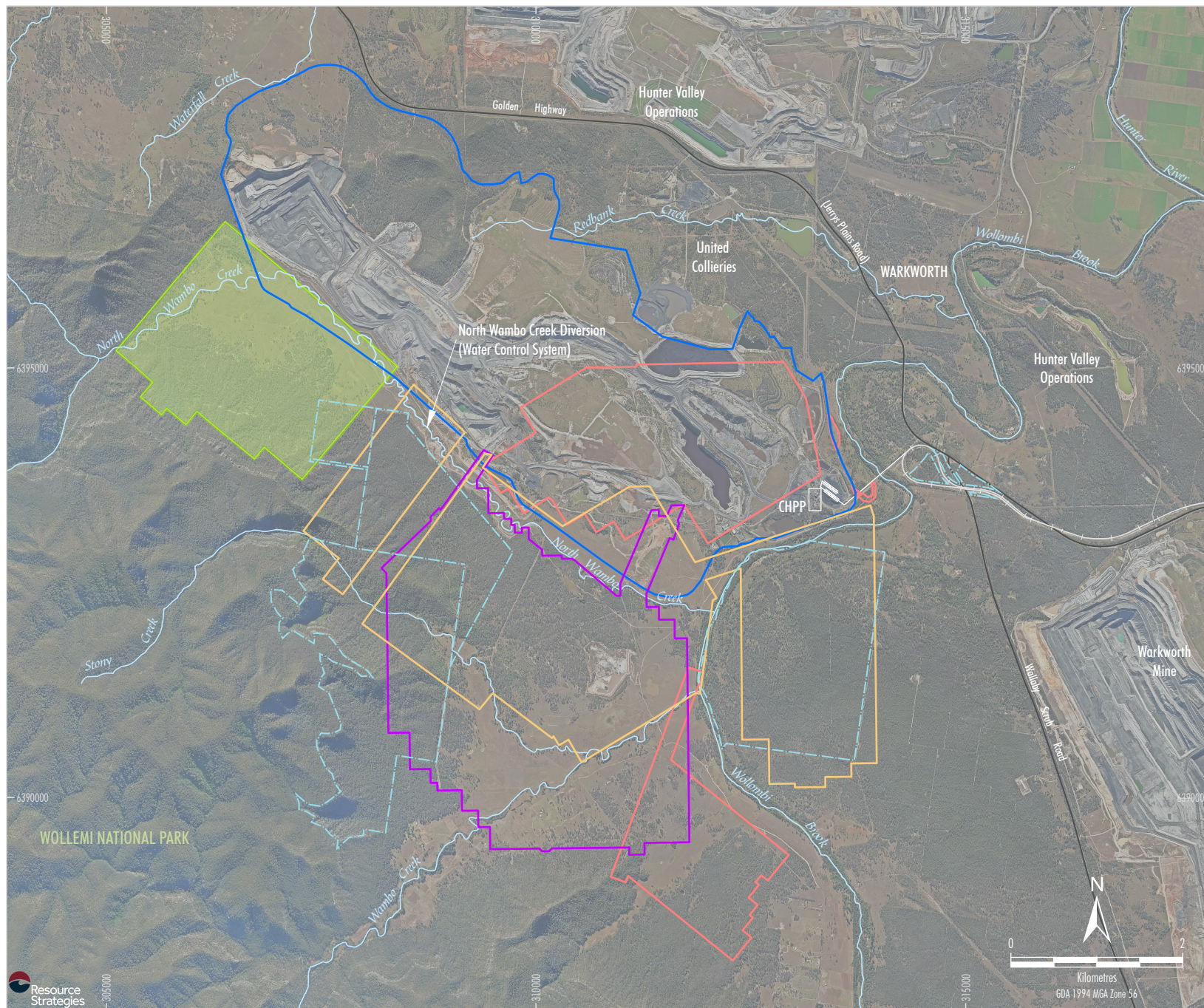
There is some risk that there may be significant impacts on the following matters and the levels of impact should be further investigated:

- *Spotted-tailed quoll (Dasyurus maculatus maculatus (SE mainland population) – Endangered.*

The impacts to water resources are likely to include:

- *Impacts to the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community as a result of subsidence, ponding and fracturing on the surface;*
- *Impacts to the North Wambo Creek bed and catchment area;*
- *Drawdown within the alluvium of the Hunter River;*
- *Water quality impacts as a result of an altered water balance and potential increase in erosion from North Wambo Creek reporting to Wollombi Brook; and*
- *Cumulative impacts with other mines in the area.*

A summary of the assessment requirements relevant to the EPBC Act is provided in Table A5-1, as well as the relevant section of the Environmental Assessment where the requirements are addressed.



- LEGEND**
- Outline of Approved Surface Development (EPBC 2003/1138)
 - Outline of Approved Underground Development (EPBC 2003/1138)
 - Outline of Previous Underground Development (Prior to 2003)
 - Outline of Proposed Development (EPBC 2016/7636)
 - Remnant Woodland Enhancement Program (RWEF) Area
 - Proposed Action (EPBC 2016/7816)
- Source: Department of Lands (July 2009); WCPL (2016); WCPL Orthophoto (July 2016)



W A M B O C O A L M I N E
Proposed Action (EPBC 2016/7816)

Figure A5-1

Table A5-1
Reference Summary of Assessment Requirements Relevant to the EPBC Act

| Assessment Requirement | Environmental Assessment Reference |
|--|---|
| General Requirements | |
| The title of the action, background to the development and current status. | Section A5.1 and Sections 1 and 2. |
| The precise location and description of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on matters of national environmental significance (MNES). | Section A5.1 and Section 3. |
| How the action relates to any other actions that have been, or are being taken, in the region affected by the action. | Section A5.3. |
| How the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts on MNES. | Sections 3, 4.8 and 4.9. |
| The EIS must include an assessment of the relevant impacts of the action on threatened species and communities and water resources; including: | |
| - a description and detailed assessment of the nature and extent of the likely direct, indirect and consequential impacts, including short term and long term relevant impacts; | Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E. |
| - a statement whether any relevant impacts are likely to be known, unpredictable or irreversible; | Appendices B to E. |
| - any technical data and other information used or needed to make a detailed assessment of the relevant impacts; and | Appendices B to E. |
| - a comparative description of the impacts of alternatives, if any, on the threatened species and communities. | As described in Section 6.2.1, ventilation infrastructure would be located within the existing approved surface development area. WCPL would implement the gas management infrastructure siting process outlined in Section 3.1 for any surface drainage. Surface disturbance for gas management infrastructure would be restricted to grassland areas that are not threatened ecological communities and limited to a maximum of 2 hectares in total over the life of the Action. Additional ecology surveys of potential gas management infrastructure locations would be conducted. If present, any threatened flora species or populations and/or hollow bearing trees would be avoided. |
| For each of the relevant matters protected that are likely to be significantly impacted by the development, the EIS must provide information on proposed avoidance and mitigation measures to deal with the relevant impacts of the action including: | |
| - a description and an assessment of the expected or predicted effectiveness of the mitigation measures; | Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E. |
| - any statutory policy basis for the mitigation measures; | |
| - the cost of the mitigation measures; | The costs of the mitigation measures would be borne by WCPL and have been included as a component of the operating costs for the Action. |
| - a description of the outcomes that the avoidance and mitigation measures will achieve; | Sections 4.4, 4.5, 4.8 and 4.9. |

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

| Assessment Requirement | Environmental Assessment Reference |
|--|--|
| <ul style="list-style-type: none"> - an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action; and | Sections 4.4.3, 4.5.3, 4.8.3, 4.9.3 and 6.1. |
| <ul style="list-style-type: none"> - a description of the offsets proposed to address the residual adverse significant impacts and how these offsets will be established. | <p>No significant residual impacts are considered likely. Therefore, an offset not warranted.</p> <p>WCPL would implement the gas management infrastructure siting process outlined in Section 3.1 for any surface drainage.</p> <p>Surface disturbance for gas management infrastructure would be restricted to grassland areas that are not threatened ecological communities and limited to a maximum of 2 hectares in total over the life of the Action.</p> <p>Additional ecology surveys of potential gas management infrastructure locations would be conducted. If present, any threatened flora species or populations and/or hollow bearing trees would be avoided.</p> |
| Key Issues - Biodiversity | |
| <p>The EIS must address the following issues in relation to Biodiversity including separate:</p> <ul style="list-style-type: none"> - identification of <u>each</u> EPBC Act listed threatened species and community likely to be impacted by the development. Provide evidence why other EPBC Act listed threatened species and communities likely to be located in the project area or in the vicinity will not be impacted. | <p>Threatened flora species and ecological communities are considered in accordance with the Significant Impact Guidelines in Section 7.5 of the Flora Assessment (Appendix D).</p> <p>Threatened fauna species are considered in accordance with the Significant Impact Guidelines in Appendix D of the Fauna Assessment (Appendix E).</p> |
| <p>For <u>each</u> of the relevant EPBC Act listed threatened species and communities likely to be impacted by the development the EIS must provide a separate:</p> <ul style="list-style-type: none"> - description of the habitat and habits (including identification and mapping of suitable breeding habitat, suitable foraging habitat, important populations and habitat critical for survival), with consideration of, and reference to, any relevant Commonwealth guidelines and policy statements including listing advice, conservation advice and recovery plans, threat abatement plans and wildlife conservation plans; | <p>A description of the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community extent and habitat is provided in Section 7.5.2 of the Flora Assessment (Appendix D).</p> <p>A description of Swift Parrot and Regent Honeyeater habitat is provided in Appendices C and D of the Fauna Assessment (Appendix E). Only potential foraging habitat of both species is present in the Wambo Coal Mine area.</p> <p>A description of Spotted-tailed Quoll habitat is provided in Appendices C and D of the Fauna Assessment (Appendix E). Potential roosting (tree hollows), nesting and foraging (woodland) habitat is present in the Wambo Coal Mine area, although none would be removed as part of the Action.</p> <p>Assessments have considered relevant listing and conservation advice.</p> <p>No Recovery Plans or recovery actions exist specifically for the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community or the Spotted-tailed Quoll in the Wambo Coal Mine area.</p> <p>Consideration of the Swift Parrot and Regent Honeyeater Recovery Plans is provided in Appendix D of the Fauna Assessment (Appendix E).</p> |

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

| Assessment Requirement | Environmental Assessment Reference |
|--|---|
| <ul style="list-style-type: none"> details of the scope, timing and methodology for studies or surveys used and how they are consistent with (or justification for divergence from) published Australian Government guidelines and policy statements; and | <p>The Action area has been surveyed extensively as part of previous flora and fauna surveys conducted for the Wambo Coal Mine. Details of the methodologies of the recent surveys are provided in Section 3 of the Flora Assessment (Appendix D) and Section 2 of the Fauna Assessment (Appendix E).</p> <p>The fauna field surveys were informed by relevant NSW and Commonwealth survey guidelines, including:</p> <ul style="list-style-type: none"> <i>NSW Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities (Working Draft)</i> (Department of Environment and Conservation, 2004). <i>NSW Threatened species survey and assessment guidelines: field survey methods for fauna – Amphibians</i> (Department of Environment and Climate Change, 2009). <i>Survey Guidelines for Australia's threatened birds</i> (Department of Environment, Water, Heritage and the Arts [DEWHA], 2010). <i>Survey Guidelines for Australia's threatened bats</i> (DEWHA, 2010b). <i>Survey Guidelines for Australia's threatened frogs</i> (DEWHA, 2010c). <i>Survey Guidelines for Australia's threatened mammals</i> (Department of Sustainability, Environment, Water, Populations and Communities [SEWPaC], 2011a). <i>Survey Guidelines for Australia's threatened reptiles</i> (SEWPaC, 2011b). <p>Neither the Swift Parrot, Regent Honeyeater nor Spotted-tailed Quoll were recorded during the fauna field surveys for the Modification or during previous assessments and/or ongoing monitoring at the Wambo Coal Mine. Notwithstanding, the assessments in the Fauna Assessment conservatively assumed the presence of each of these species.</p> |
| <ul style="list-style-type: none"> description of the impacts of the action having regard to the full national extent of the species or community's range. | <p>An assessment of impacts on the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community is provided in Section 7.5.2 of the Flora Assessment (Appendix D).</p> <p>An assessment of impacts on the Swift Parrot, Regent Honeyeater and Spotted-tailed Quoll is provided in Appendices C and D of the Fauna Assessment (Appendix E).</p> |

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

| Assessment Requirement | Environmental Assessment Reference |
|--|--|
| <p>For each of the relevant EPBC Act listed threatened species and communities likely to be significantly impacted by the development the EIS must provide:</p> <ul style="list-style-type: none"> - identification of significant residual adverse impacts likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account; | <p>Sections 4.8 and 4.9 and Appendices D and E.</p> |
| <ul style="list-style-type: none"> - details of how the current published NSW Framework for Biodiversity Assessment (FBA) has been applied in accordance with the objects of the EPBC Act to offset significant residual adverse impacts; and - details of the offset package to compensate for significant residual impacts including details of the credit profiles required to offset the development in accordance with the FBA and/or mapping and descriptions of the extent and condition of the relevant habitat and/or threatened communities occurring on proposed offset sites. <p>Any significant residual impacts not addressed by the FBA may need to be addressed in accordance with the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offset Policy.</p> <p>For each threatened species and community likely to be significantly impacted by the development, the EIS must provide reference to, and consideration of, relevant approved conservation advice or recovery plan for the species or community.</p> | <p>The NSW Framework for Biodiversity Assessment applies to State Significant Development and does not apply to the Modification under section 75W of the EP&A Act.</p> <p>Notwithstanding, no significant residual impacts are considered likely. Therefore, an offset not warranted.</p> |
| Key Issues - Water Resource, in relation to coal seam gas development and large coal mining development | |
| <p>The EIS should provide a description of the location, extent and ecological characteristics and values of the identified water resources potentially affected by the project.</p> | <p>Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E.</p> |
| <p>The assessment of impacts should include information on:</p> <ul style="list-style-type: none"> - any substantial and measurable changes to the hydrological regime of the water resource, for example a substantial change to the volume, timing, duration or frequency of ground and surface water flows; | <p>Sections 4.4 and 4.5 and Appendices B and C.</p> <p>No substantial changes to the hydrological regime of surface water flows or highly productive groundwater are predicted.</p> |
| <ul style="list-style-type: none"> - the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependent upon the water resource being seriously affected; and | <p>No substantial changes to the hydrological regime of surface water flows or highly productive groundwater are predicted.</p> <p>No native species are reliant on less productive groundwater associated with the Permian coal measures.</p> |
| <ul style="list-style-type: none"> - substantial and measurable change in the water quality and quantity of the water resource – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland; or water temperature that may adversely impact on biodiversity, ecological integrity, social amenity or human health. | <p>Sections 4.4 and 4.5 and Appendices B and C.</p> <p>No substantial or measurable changes are predicted that may adversely impact on biodiversity, ecological integrity, social amenity or human health.</p> |

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

| Assessment Requirement | Environmental Assessment Reference |
|--|--|
| The EIS must provide adequate information to allow the project to be reviewed by the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, as outlined in the Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals (IESC, October 2015). | <p>WCPL considers the Groundwater Assessment (Appendix B) and the Surface Water Assessment (Appendix C) provide an adequate evidence-based determination of potential impacts to water resources and water dependent assets. These conclusions are supported by modelling, including conceptual and numerical modelling.</p> <p>The proposed mitigation measures to manage risks to water resources are outlined in Sections 4.4 and 4.5 and Appendices B and C.</p> |
| Environmental Record of Person Proposing to Take the Action | |
| Information in relation to the environmental record of a person proposing to take further action must include details as prescribed in Schedule 4 Clause 6 of the EPBC Regulations 2000. | <p>WCPL has a strong record of compliance with its environmental obligations for its underground mining operations under Development Consent DA 305-7-2003 (as modified). WCPL has established and is committed to continuing open and constructive dialogue with the local community and stakeholders regarding environmental management as part of their operations.</p> <p>The Annual Environmental Management Reports are available on the Wambo Coal Mine website (http://www.peabodyenergy.com/content/422/australia-mining/new-south-wales/wambo-mine/approvals-plans-and-reports-wambo-mine).</p> <p>The environmental monitoring program results over recent years have shown that WCPL's management of underground operations at the Wambo Coal Mine provides effective management of potential impacts from the mine's operations and achieves compliance with the subsidence impact performance measures in the Development Consent (DA 305-7-2003).</p> <p>On 1 August 2014, WCPL was convicted in the Singleton Local Court for an offensive odour offence under section 129(1) of the NSW <i>Protection of the Environment Operations Act, 1997</i> for a blast fume incident associated with the open cut mining operations which occurred on 24 July 2012. WCPL was ordered to pay a fine of \$13,000 and the NSW Environment Protection Authority's costs in the amount of \$24,000.</p> <p>WCPL also pleaded guilty to an offensive odour offence under section 129(1) of the NSW <i>Protection of the Environment Operations Act, 1997</i> for a blast fume incident associated with the open cut mining operations which occurred on 14 May 2014. The proceedings in respect of this offence were brought by the NSW Environment Protection Authority in the Land and Environment Court of NSW. A sentencing hearing was held on 17 December 2015, and the Court delivered its judgement on 26 September 2016. WCPL was ordered to pay a fine of \$60,000.</p> <p>No approval under environmental protection legislation has been revoked or suspended in the 5 years immediately prior to this application being made.</p> |
| Information Sources | |
| For information given in the EIS, the EIS must state the source of the information, how recent the information is, how the reliability of the information was tested; and what uncertainties (if any) are in the information. | Section 4 and Appendices B to E. |

A5.3 RELATED ACTIONS

The Action is an extension to underground coal mining operations at the approved Wambo Coal Mine. Other approved and proposed actions in the vicinity of the Action are discussed below.

Wambo Development Project (EPBC 2003/1138)

The Wambo Coal Mine incorporating development and operation of an open cut and underground mine, associated activities including construction and operation of a coal handling and preparation plant, raw and product coal handling facilities and rail and train loading infrastructure over a mine life of some 21 years was determined to be a Controlled Action in 2003 (EPBC 2003/1138) and was subsequently approved in November 2004.

For each of the subsequent Modifications that have been approved through the NSW planning system and form part of the approved Wambo Coal Mine (with the exception of "Modification 12), WCPL determined that no referral under the EPBC Act was required (i.e. no significant impacts on matters of national environmental significance were expected to occur as a result of each Modification and/or the Modification was consistent with the approved Controlled Action).

The Action that is the subject of this referral under the EPBC Act relates to an extension of underground coal mining operations in the Whybrow Seam at the Wambo Coal Mine and related minor surface infrastructure and activities that have not previously been approved under the NSW planning system.

South Wambo Underground Mine Extension (EPBC 2016/7636)

The South Wambo Underground Mine Extension was determined to be a Controlled Action in January 2016 (EPBC 2016/7636). Approval of this Action is pending completion of the bilateral assessment process with the NSW Government.

The South Wambo Underground Mine Extension is a proposed extension of underground coal mining operations specifically associated with the South Wambo Underground Mine at the Wambo Coal Mine and related surface infrastructure and activities.

The Action is located in a different area and coal seam to South Wambo Underground Mine Extension and does not form a component of this Action. The two proposed Actions would operate independently.

United Wambo Open Cut Coal Mine Project (EPBC 2015/7600)

The United Wambo Open Cut Coal Mine Project is proposed adjacent to the Action area, and has been determined a Controlled Action under the EPBC Act (EPBC 2015/7600). Approval of this Action is pending completion of the bilateral assessment process with the NSW Government.

The Action for the United Wambo Open Cut Coal Mine Project includes open cut mining operations in two areas (the proposed United Open Cut and modified operations generally within the approved Wambo open cut mining area) and associated activities. The designated proponent for this Action (EPBC 2015/7600) is United Collieries Pty Ltd.

The Action is located in a different area, uses different mining methods and would be undertaken by a different designated proponent. The Action does not form a component of the United Wambo Open Cut Coal Mine Project and the two proposed Actions would operate independently.