

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

INTEGRATED STATE SIGNIFICANT DEVELOPMENT

**DETERMINATION OF DEVELOPMENT APPLICATION
PURSUANT TO SECTIONS 76(A)9 & 80**

I, the Minister for Planning, pursuant to Sections 76(A)9 & 80 of the Environmental Planning and Assessment Act, 1979 ("the Act") determine the development application ("the application") referred to in Schedule 1 by granting consent to the application subject to the conditions set out in Schedule 2.

The reasons for the imposition of the conditions are to:

- (i) minimise the adverse impact the development may cause through water and air pollution, noise, and visual disturbance;
- (ii) provide for environmental monitoring and reporting; and
- (iii) set requirements for mine infrastructure provision.

Andrew Refshauge MP
Minister for Planning

Sydney,

2002

File No. S00/01703

Red type represents July 2007 modification.

Blue type represents the May 2008 modification

Green type represents the October 2009 modification

Orange type represents the December 2014 modification

Purple type represents the February 2016 modification

Light Blue type represents the January 2019 modification

Dark Green type represents the May 2023 modification

Schedule 1

Application made by:

Liddell Coal Operations Pty Limited
("the Applicant").

To:

The Minister for Planning
(DA 305-11-01)

In respect of:

Land described in Appendix "1".

For the following:

Continued open cut coal mining at the Liddell Colliery and associated surface facilities and infrastructure ("the development").

BCA Classification:

Structure	BCA Classification
Office	Class 5
Amenities	Class 8

NOTE:

- 1) To ascertain the date upon which the consent becomes effective, refer to section 83 of the Act.
- 2) To ascertain the date upon which the consent is liable to lapse, refer to section 95 of the Act.
- 3) Section 97 of the Act confers on an Applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within 12 months after receipt of notice.

The Department has prepared a consolidated version of the consent which is intended to include all modifications to the original determination instrument.

The consolidated version of the consent has been prepared by the Department with all due care. This consolidated version is intended to aid the consent holder by combining all consents relating to the original determination instrument but it does not relieve a consent holder of its obligation to be aware of and fully comply with all consent obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.

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DEFINITIONS

Annual review	The review required by condition 3 of schedule 5
Applicant	Liddell Coal Operations Pty Limited, or its successor
BCA	Building Code of Australia
BCD	Biodiversity and Conservation Division within the Department
Biodiversity offset strategy	The conservation and enhancement strategy described in the EA, and depicted conceptually in the figures in Appendix 7
Blast misfire	The failure of one or more holes in a blast pattern to initiate
CCC	Community Consultative Committee
Chain of Ponds Inn	Refers to the State-heritage listed Chain of Ponds Inn Complex
CHPP	Coal Handling & Preparation Plant
Councils	Muswellbrook Shire Council & Singleton Council
DA	Development Application
Day	The period from 7 am to 6 pm on Monday to Saturday, and from 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning & Environment
DPE Water	Water Group within the Department
EIS	Development application 305-11-2001 and accompanying documents titled <i>Liddell Colliery Continued Operations Environmental Impact Statement</i> , dated October 2001; <i>Response to NPWS Request for Further Information in Relation to the Archaeological Assessment, Liddell EIS</i> , dated February 2002; correspondence submitted to the Departments and SC, dated 20 December 2001; <i>Response to Submissions Liddell Colliery Environmental Impact Statement</i> , dated March 2002; <i>Continued Operations of Liddell Colliery – Revised Development Application Area</i> , dated 13 March 2002; and additional air quality contours provided to the Department, dated 7 May 2002
EEC	Endangered ecological community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6 pm to 10 pm
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
GRAWTS	Greater Ravensworth Area Water and Tailings Scheme, as described in documents referenced in Condition 2(a) of Schedule 2, in particular, MOD 6 EA and Modification Report (MOD 8)
Ha	Hectare
Heritage Council	Heritage Council of NSW
Heritage item	An item as defined under the Heritage Act 1977 and/or an Aboriginal object or place as defined under the National Parks and Wildlife Act 1974
Heritage NSW	Heritage NSW within the Department
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
Land	Has the same meaning as the definition of the term in section 4 the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material Harm	Is harm that: <ul style="list-style-type: none"> involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment) This definition excludes “harm” that is authorised under either this consent or any other statutory approval
Mining operations	Includes the removal and emplacement of overburden and extraction, processing, handling, storage and transport of coal on site
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Minister	Minister for Planning, or delegate

Minor Mitigation	Not very large, important or serious Activities associated with reducing the impacts of the development
MOD 1 EA	Modification application 305-11-01 MOD 1 and accompanying Schedule of Lands
MOD 2 EA	Modification application 305-11-01 MOD 2 and accompanying documents titled <i>Liddell Colliery Modification to Development Consent Environmental Assessment</i> , dated December 2006; <i>Response to Submissions Environmental Assessment for Liddell Colliery Modification to Development Consent</i> , dated March 2007; <i>Response to Submissions from the Roads and Traffic Authority and the Hunter Regional Development Committee Environmental Assessment for Liddell Colliery Modification to Development Consent</i> , dated April 2007; and <i>Revised Statement of Commitments for the Liddell Development Consent Modification</i> , dated July 2007
MOD 3 EA	Modification application 305-11-01 MOD 3 and accompanying documents titled <i>Liddell Coal Operations Pty Limited Statement of Environmental Effects for Liddell Colliery Modification to Development Consent</i> , dated February 2008
MOD 4 EA	Modification application 305-11-01 MOD 4 and accompanying document and site plans, dated 7 October 2009 and prepared by Umwelt Australia Pty Limited
MOD 5 EA	Modification application 305-11-01 MOD 5 and accompanying document and site plans, dated September 2013 and prepared by SLR
MOD 6 EA	Modification application 305-11-01 MOD 6 and accompanying documents titled <i>Greater Ravensworth Area Tailing Pipeline Modification Environmental Assessment</i> dated November 2015, including the response to submissions dated December 2015
MOD 7 EA	Modification application 305- 11- 01 MOD 7 and accompanying documents titled <i>Liddell Coal Operations Environmental Assessment Modification 7 to DA 305-11-01</i> dated August 2018 and prepared by Hansen Bailey, including the response to submissions dated November 2018
Modification Report (Mod 8)	Modification application 305-11-01 MOD 8 and accompanying documents titled <i>Greater Ravensworth Area Water and Tailings Scheme Modification</i> dated 10 June 2022, including the response to submissions dated 13 March 2023.
MSC	Muswellbrook Shire Council
Negligible	Small and unimportant, such as to be not worth considering
Night	The periods from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
POEO Act	Protection of the Environment Operations Act 1997
Privately owned land	Land that is not owned by a public agency, or a mining company or its subsidiary, and which is not subject to a negotiated agreement between the Applicant and the applicable landowner
Public infrastructure	Infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Reasonable	Means applying 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
Receiver	As defined in the <i>NSW Industrial Noise Policy</i> (EPA 2000)
Rehabilitation	The restoration of land disturbed by the development to a good condition to ensure it is safe, stable and non-polluting
Resources Regulator	NSW Resources Regulator
ROM	Run of Mine
SA NSW	Subsidence Advisory NSW
Secretary	Planning Secretary under the EP&A Act, or nominee
Site	Land to which the Consent applies (see Appendix 1 and Appendix 2)
SC	Singleton Council
TfNSW	Transport for NSW

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. In addition to meeting the specific performance criteria established under this consent, the Applicant **must** implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

Terms of Consent

2. The Applicant **must**:
 - (a) carry out the development generally in accordance with the EIS, MOD 1 EA, MOD 2 EA, MOD 3 EA, MOD 4 EA, MOD 5 EA, MOD 6 EA, MOD 7 EA, Modification Report (Mod 8) and the Development Layout Plans; and
 - (b) comply with the conditions of this consent.

Notes: The Development Layout Plans are shown in Appendix 2.

3. If there is any inconsistency between the documents in condition 2(a), the most recent documents **must** prevail to the extent of the inconsistency. The conditions of this consent **must** prevail over documents in condition 2(a) 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:
 - (c) any strategies, programs, reviews, audits, reports, plans or correspondence that are submitted in accordance with this consent;
 - (d) any reports, reviews or audits commissioned by the Department regarding compliance with this consent; and
 - (e) the implementation of any actions or measures contained in these reports, plans or correspondence.

Mining, Processing and Transport Limits of Consent

5. Mining operations may take place on the site until 31 December 2028, except for the continuation of water and tailings management undertaken generally in accordance with Modification Report (Mod 8) which may take place until 31 December 2050.

Note: Under this consent, the Applicant is required to rehabilitate the site. Consequently this consent will continue to apply in all other respects other than the right to conduct mining operations until the site has been rehabilitated to a satisfactory standard.

6. The Applicant **must not**:
 - (a) extract more than 8 million tonnes of ROM coal per annum from the site; or
 - (b) process more than 8 million tonnes of ROM coal per annum at the Liddell CHPP, including up to 2 million tonnes per year of ROM coal from Mt Owen; or
 - (c) transport more than 1.5 million tonnes of ROM coal per annum to Ravensworth Central Coal Processing Facility for processing; or
 - (d) extract more than 0.5 million tonnes of coal tailings per annum with residual energy content from the site for transport to Liddell and Bayswater Power Stations.
7. The Applicant **must** ensure that all product coal from the site is transported by rail.

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:
 - (a) the relevant requirements of the BCA;
 - (b) the relevant requirements of AS3959-2009 *Construction of buildings in bushfire-prone areas*; and
 - (c) any additional requirements of the SA NSW.

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.

Demolition

9. The Applicant **must** ensure that all demolition work is carried out in accordance with *Australian Standard 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, and equipment used off-site to monitor the performance of the project is:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

Protection of Public Infrastructure

11. Unless the Applicant and the applicable authority agree otherwise, the Applicant **must**:
 - (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development,however this condition does not apply where the Applicant has entered into an agreement with the owner of such public infrastructure that covers the repair and/or maintenance of the infrastructure.

Updating and Staging of Strategies, Plans or Programs

12. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.

Notes:

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

Planning Agreements

13. By the end of May 2015, or as otherwise agreed by the Secretary, the Applicant **must** enter into a planning agreement with Singleton Council (SC) in accordance with the general terms in Appendix 8.
14. By the end of May 2015, or as otherwise agreed by the Secretary, the Applicant **must** enter into a planning agreement with Muswellbrook Shire Council (MSC) in accordance with the general terms in Appendix 9.

Evidence of Consultation

15. Where conditions of this consent require consultation with an identified party, the Applicant **must**:
 - (a) consult with the relevant party prior to submitting the subject document; and
 - (b) provide details of the consultation undertaken including:
 - (i) the outcome of that consultation, matters resolved and unresolved; and
 - (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

Compliance

16. The Applicant **must** ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.

Applicability of Guidelines

17. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.
18. However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

Greater Ravensworth Area Water and Tailings Scheme

19. The Applicant must ensure that transfer of water and tailings to and from surrounding mines via the GRAWTS occurs generally in accordance with the documents referenced in Condition 2(a) of Schedule 2, in particular, MOD 6 EA and Modification Report (MOD 8).
-

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Impact Assessment Criteria

1. The Applicant **must** ensure that the noise generated by the development does not exceed the noise impact assessment criteria in Table 1 at any residence.

Table 1: Noise impact assessment criteria dB(A)

Assigned residential location number	Day ($L_{Aeq}(15min)$)	Evening ($L_{Aeq}(15min)$)	Night ($L_{Aeq}(15min)$)	Night ($L_A(1min)$)
1,5,6,7,8,9,10,11,12,14	35	35	35	45
2	35	35	36	45
3	36	35	37	45
4	36	35	36	45
All other privately-owned land	35	35	35	45

Note: To interpret the locations referred to in Table 1, see Appendix 5

Noise generated at the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 6 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has an agreement with the owner(s) of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Operating Conditions

2. The Applicant **must**:
 - (a) implement all reasonable and feasible measures to minimise the construction, operational, road and rail noise of the development;
 - (b) operate a noise management system on site that uses attended noise monitoring data to ensure compliance with the relevant conditions of consent;
 - (c) evaluate the effectiveness of the noise management system;
 - (d) minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent does not apply (see Appendix 6); and
 - (e) monitor and report on compliance with the relevant noise conditions of this consent, to the satisfaction of the Secretary.

Monitoring Program

3. The Applicant **must** update and subsequently implement the Noise Monitoring Program for the development to the satisfaction of the Secretary. This program must be submitted to the Secretary by the end of May 2015, and must include regular attended monitoring in accordance with Appendix 6, and a noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this consent.

BLASTING AND VIBRATION

Impact Assessment Criteria

4. The Applicant **must** ensure that blasts on site do not exceed the criteria in Table 2.

Table 2: Blasting impact assessment criteria

Location	Airblast overpressure level (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on privately-owned land	115	5	5% of the total number of blasts over a period of 12 months
	120	10	0%
Newdell zone substation	-	20 (interim)	10% of the total number of blasts over a period of 12 months
	-	25 (interim)	0%
Other public infrastructure	-	50	0%

However these criteria do not apply if the Applicant has:

- (a) a written agreement with the relevant owner to exceed these criteria, and has advised the Department in writing of the terms of this agreement; or
- (b) in the event that the Applicant is unable to secure a written agreement with an infrastructure owner, demonstrated to the satisfaction of the Secretary that blasting can be carried out at levels in excess of the criteria without causing any damage to the infrastructure.

Notes:

- The interim criteria for the Newdell zone substation are based on consultation with the substation owner (Ausgrid). It is acknowledged that alternative criteria may be agreed as part of the blast management strategy for the substation (see condition 15A).
- An alternate limit for public infrastructure may be agreed to by the Secretary if it can be justified in accordance with the structural design methodology in AS2187.2-2006, or another methodology agreed to by the Secretary.

Chain of Ponds Inn

5. The Applicant **must** ensure that blasting at the development does not cause any exceedances of the following performance measures at the Chain of Ponds Inn, to the satisfaction of the Secretary:
 - (a) negligible loss of heritage value; and
 - (b) negligible impact on structural integrity of the internal and external fabric of the Inn, having regard to the existing condition and structural integrity of the Inn at November 2014.

Notes:

- a) The Applicant will be required to define more detailed performance indicators (including impact assessment criteria) in the Blast Management Plan.
- b) Measurement and/or monitoring of compliance with performance measures and indicators is to be undertaken using generally accepted methods that are appropriate for the heritage item. These methods are to be fully described in the Blast Management Plan.
- c) The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date that consent is granted to DA 305-11-01 MOD 5.

6. DELETED.

7. DELETED.

8. DELETED.

Blasting Hours

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

Blasting Frequency

10. The Applicant may carry out a maximum of:
 - (a) 3 blasts a day; and
 - (b) 8 blasts a week, average over a calendar year on the site.

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

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.

Operating Conditions

11. During mining operations, the Applicant **must**:
- (a) implement all reasonable and feasible management measures to:
 - protect the safety of people and livestock in the area surrounding blasting operations;
 - protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and
 - minimise the dust and fume emissions from blasting at the mine;
 - (b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site; and
 - (c) monitor and report on compliance with the relevant blasting conditions in this consent, to the satisfaction of the Secretary.
- 11A. The Applicant **must** not undertake blasting on site within 500 metres of any public road or any land outside the site that is not owned by the Applicant unless the Applicant has:
- (a) demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without comprising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures; and
 - (b) updated the Blast Management Plan to include specific measures that would be implemented while blasting is being carried out within 500 metres of infrastructure or land; or
 - (c) a written agreement with the relevant landowner to allow blasting to be carried out closer to the infrastructure or land, and the Applicant has advised the Department in writing of the terms of this agreement.

Public Notice

12. By the end of February 2015, the Applicant **must**:
- (a) re-notify the landowner/occupier of any residence within 2 km of the development that they are entitled to register an interest in being notified of the blasting schedule of the mine; and
 - (b) re-notify the landowner/occupier of any residence within 2 km of the development of the blasting schedule at the mine, if that landowner/occupier registers an interest in being so notified;
- to the satisfaction of the Secretary.

Property Inspections

13. By the end of February 2015, the Applicant **must** advise all landowners of privately-owned land within 2 km of the development that they are entitled to a structural property inspection.
14. If the Applicant receives a written request for a structural property inspection from any landowner of privately-owned land within 2 km of the development, the Applicant **must** within 3 months of receiving this request:
- (a) commission a suitably qualified, experienced and independent 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 the property inspection report.

Property Investigations

15. If any landowner of privately-owned land within 2 km of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the development, the Applicant **must** within 3 months of receiving this request:
- (a) commission a suitably qualified, experienced and independent 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.

If this independent property 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.

Blast Management Plan

- 15A. The Applicant **must** prepare a Blast Management Plan for the development to the satisfaction of the Secretary, this plan must:
- be submitted to the Secretary for approval by the end of May 2015, unless otherwise agreed by the Secretary;
 - describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;
 - propose and justify any alternative ground vibration limits for any public infrastructure in the vicinity of the site (if required);
 - include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions;
 - include a specific *Blast Management Strategy for the Chain of Ponds Inn*. This Strategy must:
 - be prepared in consultation with the Heritage Council and Coal & Allied, and endorsed by the Heritage Council;
 - incorporate the recommendations of the *Former Chain of Ponds Inn Buildings – Investigation of Blast Vibration and Vulnerability Report* (Bill Jordan and Associates, 2013) and *Blast Management Strategy* (Enviro Strata, 2013);
 - provide details on the management of potential flyrock impacts on the Chain of Ponds Inn;
 - provide details on how the stabilisation measures will be implemented and a timetable for implementation;
 - provide details of the ongoing monitoring and maintenance procedures for the Chain of Ponds Inn;
 - repair any damage to the Chain of Ponds (should any damage occur) within 6 months of the damage occurring;
 - provide and submit an annual report on the condition of the Chain of Ponds Inn to the Heritage Council; and
 - include a specific *Blast Management Strategy for the Newdell Zone Substation*. This Strategy must:
 - be prepared in consultation with the owner of the substation;
 - if alternative criteria to those in Table 2 are proposed, include detailed justification for the criteria based on investigations by a suitably qualified expert(s) whose appointment has been endorsed by the Secretary in consultation with the owner of the substation;
 - provide details on the management of potential ground vibration and flyrock impacts to ensure that blasting does not affect the structural integrity or serviceability of the substation;
 - include a monitoring program for blast vibration and structural integrity at the substation; and
 - include a protocol for repairing any damage to the substation in the event that this occurs.

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

AIR QUALITY

Impact Assessment Criteria

16. The Applicant **must** ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate emissions generated by the development do not exceed the air quality impact assessment criteria listed in Tables 3, 4, and 5 at any residence on privately-owned land.

Table 3: 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 4: Short term impact assessment criterion for particulate matter

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

Table 5: Long term impact assessment criteria for deposited dust

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

Notes to Tables 3-5:

- 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/NZS3580.10:2003: 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, fire incidents or any other activity agreed by the Secretary.

17. DELETED.

Operating Conditions

18. The Applicant **must**:
- (a) implement all reasonable and feasible air quality management measures to minimise odour, fume and dust emissions from the development;
 - (b) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;
 - (c) minimise any visible air pollution generated by development;
 - (d) minimise surface disturbance on the site;
 - (e) operate an air quality management system that uses a combination of high volume samplers and dust deposition gauges to ensure compliance with the relevant conditions of consent; and
 - (f) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events
- to the satisfaction of the Secretary.

Air Quality Monitoring

19. The Applicant **must** update and subsequently implement the Air Quality Monitoring Program for the development to the satisfaction of the Secretary. This program must be submitted to the Secretary by the end of May 2015, and must include a combination of real-time air quality monitors and supplementary monitors to monitor the dust emissions of the development; and an air quality monitoring protocol for evaluating compliance with the air quality impact assessment criteria in this consent.

METEOROLOGICAL MONITORING

20. The Applicant **must** ensure that there is a suitable meteorological station operating in the vicinity of the development in accordance with the requirements in *Approved Methods for Sampling of Air Pollutants in New South Wales*; and to the satisfaction of the EPA and Secretary.

SURFACE AND GROUND WATER

Water Supply

21. The Applicant **must** ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Secretary.

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

Water Pollution

- 21A. Unless an EPL or the EPA authorises otherwise, the Applicant **must** comply with Section 120 of the POEO Act and the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*.
- 21B. The Applicant **must** ensure that treated effluent from the wastewater treatment plant does not exceed the discharge limits in Table 6, unless otherwise agreed by the EPA.
- 21C. The Applicant **must** monitor the quality of treated effluent to be discharged from the wastewater treatment plant (by sampling and obtaining results by analysis) as specified in Table 6, or as otherwise agreed by the EPA.

Table 6: Wastewater treatment plant discharge limits

Pollutant	Units of Measure	Frequency	Sampling Method	Concentration Limit (100 percentile)
E.coli	Colony forming units per 100 millilitres	Monthly	Representative sample	100

- 21D. The Applicant **must** ensure that the upper emplacement level of tailing material (excluding capping material) within the South Cut Void does not exceed 77 mAHD. Prior to emplacement of tailings material (excluding capping material) above 60 mAHD, the applicant **must** undertake further investigations in consultation with DPE Water to demonstrate, to the satisfaction of the Planning Secretary, that there would be no movement of tailings leachate/seepage from the South Cut Void to the adjacent alluvial aquifers.

Desalination Unit

22. Prior to the construction of the desalination unit, the Applicant **must** conduct investigations and identify options concerning the most appropriate method for the treatment and/or disposal of brine, to the satisfaction of the Secretary, DPE Water and EPA.

Water Management Plan

23. The Applicant **must** prepare a Water Management Plan for the development to the satisfaction of the Secretary. This Plan must:
- be prepared in consultation with DPE Water and EPA by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
 - be submitted to the Secretary for approval by the end of May 2015, unless the Secretary agrees otherwise;
 - this plan must include a:
 - Site Water Balance that:
 - includes details of:
 - sources and security of water supply, including contingency planning for future reporting periods;
 - water use and management on site;
 - reporting procedures, including the preparation of a site water balance for each calendar year;
 - describes the measures that would be implemented to minimise clean water use on site;
 - Erosion and Sediment Control Plan that:
 - is consistent with the requirements of *Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004* (Landcom), or its latest version;
 - identifies activities that could cause soil erosion, generate sediment or effect flooding;
 - describes measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk; and
 - describe what measures would be implemented to maintain the structures over time;
 - Surface Water Management Plan, that includes:
 - reference to detailed baseline data on water flows and quality contained in the EA;
 - a detailed description of the water management system on site;
 - design objectives and performance criteria for the:

- design and management of final voids;
 - design and management for sodic and dispersible soils and acid or sulphate generating materials;
 - reinstatement of drainage lines on the rehabilitated areas of the site; and
 - control of any potential water pollution from the rehabilitated areas of the site;
 - surface water assessment criteria, including trigger levels for investigating any potentially adverse impacts for the following:
 - the water management system, including mine water storages and sediment dams;
 - downstream surface water quality; and
 - stream and riparian vegetation health;
 - a program to monitor and report on:
 - the effectiveness of the water management system;
 - surface water flows and quality, stream and riparian vegetation health in the watercourses that could be affected by the development; and
 - stream health and channel stability;
 - reporting procedures for the results of the monitoring program;
 - a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the development including:
 - a protocol for the investigation, notification and mitigation of any exceedances;
 - measures to mitigate and/or compensate potentially affected landowners for the loss of surface flows in Bowmans Creek downstream of the development resulting from the development; and
 - the procedures that would be followed if any unforeseen impacts are detected during the development.
- (iv) Groundwater Management Plan, that includes:
- reference to baseline data on groundwater levels, yield and quality contained in the EA;
 - a detailed description of the groundwater management system on site;
 - design objectives and performance criteria, for the:
 - emplacement areas for tailings, acid forming and potentially acid forming materials, and saline and sodic materials;
 - final voids;
 - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts beyond those predicted in the EA for Mod 5;
 - measures to minimise, prevent or offset groundwater leakage from the Bowmans Creek alluvial aquifer in excess of the drawdown predicted in the EA for Mod 5;
 - measures to mitigate any direct hydraulic connection between the backfilled open cuts and the Bowmans Creek alluvium if the potential for adverse impacts is detected;
 - a program to monitor and report on:
 - groundwater inflows to the mining operations;
 - the seepage/leachate from water storages, emplacements and final voids;
 - background changes in groundwater yield/quality against mine-induced changes;
 - impacts of the development on:
 - regional and local (including alluvial) aquifers;
 - groundwater dependent ecosystems and riparian vegetation;
 - the seepage/leachate from water storages, emplacements, backfilled voids and final voids;
 - impacts on the Bowmans Creek alluvial aquifer;
 - procedures for the verification of the groundwater model;
 - a review of existing network to identify additional monitoring locations for the alluvial system focusing on areas where additional drawdown is predicted;
 - reporting procedures for the results of the monitoring program and model verification;
 - a plan to respond to any exceedances of the predicted groundwater impacts, and mitigation of any unpredicted adverse groundwater impacts of the development;
- (v) a program to validate the water balance and groundwater model for the development every 3 years, and compare monitoring results with modelled predictions; and

- (vi) a protocol that has been prepared in consultation with the owners of any nearby mines to:
 - minimise cumulative water quantity and quality impacts;
 - review opportunities of water sharing between the mines;
 - share water monitoring data where practicable;
 - undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and
 - where practicable, co-ordinate modelling programs for validation, re-calibration and re-running of water models.

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

BIODIVERSITY

Biodiversity Offset Strategy

24. The Applicant **must** implement the biodiversity offset strategy described in the EA, summarised in Table 7 and conceptually shown in Appendix 7.

Table 7: Summary of the Biodiversity Offset Strategy

Area	Offset Type	Minimum Size (ha)
Mountain Block Offset	Existing vegetation and vegetation to be established	168
Bowmans Creek Riparian Corridor	Existing vegetation and vegetation to be established	185
Total		353

Note: To identify the areas referred to in Table 7 refer to the applicable figures in Appendix 7.

25. The Applicant **must** ensure that the offset strategy and/or rehabilitation strategy is focused on the re-establishment of:
- (a) significant and/or threatened plant communities, including:
 - Central Hunter Box – Ironbark Woodland EEC;
 - Narrow-Leaved Ironbark – Spotted Gum Woodland EEC;
 - Narrow-Leaved Ironbark – Bullock Open Forest EEC;
 - (b) significant and/or threatened plant species; and
 - (c) habitat for significant and/or threatened animal species including the Spotted-tailed Quoll.

Spotted-Tailed Quoll Contribution

26. The Applicant **must** contribute \$200,000 over 5 years towards the implementation of recovery actions under OEH's *Saving Our Species Action Statement* and/or *Final Draft National Recovery Plan for the Spotted-tailed Quoll 2008* for the Spotted-tailed Quoll. The initial payment of at least \$50,000 must be made by the end of June 2015, unless otherwise agreed by the Secretary. The timing and quantum of the subsequent payments is to be determined in consultation with BCD.

Long Term Security of Offsets

27. By the end of December 2015, unless the Secretary agrees otherwise, the Applicant **must** make suitable arrangements to provide appropriate long term security for the land within the biodiversity offset strategy identified in Table 7, to the satisfaction of the Secretary.

Waterbird Habitat

28. Prior to the construction of Dam 13B, the Applicant **must** undertake habitat enhancement measures to Dam 3 to increase habitat for water birds to the satisfaction of BCD and the Secretary. The Applicant **must** in addition establish a dam in the Mountain Block area to provide habitat for waterbird species to the satisfaction of BCD and the Secretary. Where achievable, the habitat enhancement measures for each dam **must** include:
- (a) a maximum water depth of 5 metres over at least half the surface area;
 - (b) gently sloping banks (apart from the dam wall) of less than 10 degrees;
 - (c) areas of shallow back waters around the dams;
 - (d) appropriate levels of vegetation; and
 - (e) appropriate fencing and signposting.

Compensatory Planting

- 28A. The Applicant **must** plant and maintain, until established, 10 River Oak trees for every established River Oak tree removed during construction of the tailings pipeline under MOD 6.

Note: An established River Oak tree is considered to be two metres or greater in height.

Biodiversity Management Plan

29. The Applicant **must** prepare a detailed Biodiversity Management Plan for the site to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with BCD and be submitted to the Secretary for approval by the end of May 2015, unless otherwise agreed by the Secretary;
 - describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site (see below);
 - include:
 - a description of the short, medium and long term measures that would be implemented to:
 - implement the offset strategy; and
 - manage the remnant vegetation and habitat on the site in the offset areas;
 - detailed performance and completion criteria for the implementation of the offset strategy;
 - a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - implementing revegetation and regeneration with the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata;
 - protecting vegetation and soil outside the disturbance areas;
 - rehabilitating creeks and drainage lines that occur on the site;
 - managing salinity;
 - conserving and reusing topsoil;
 - undertaking pre-clearance surveys;
 - managing impacts on fauna;
 - collecting and propagating seed;
 - salvaging and reusing material from the site for habitat enhancement;
 - salvaging, transplanting and/or propagating threatened flora in accordance with the Guidelines for the Translocation of Threatened Plants in Australia (Vallee et al., 2004);
 - controlling weeds and feral pests including investigating alternate technologies to reduce poisoning of non-target species;
 - managing grazing and agriculture;
 - controlling access;
 - bushfire management;
 - habitat enhancement works;
 - seasonal monitoring of in-stream and riparian ecological condition;
 - survey of stygofauna in Bowmans Creek alluvial aquifer (prior to predicted drawdown); and
 - monitoring of stygofauna populations every 6 months following the occurrence of the predicted drawdown;
 - a seasonally-based program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
 - a description of the potential risks to successful revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
 - details of who would be responsible for monitoring, reviewing and implementing the plan.

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

Conservation Bond

30. Within 6 months of the approval of the Biodiversity Management Plan, the Applicant **must** lodge a conservation and biodiversity bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond **must** be determined by:
- calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
 - employing a suitably qualified consultant to verify the calculated costs, to the satisfaction of the Secretary.

The calculation of the Conservation Bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by BCD as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability if the conservation bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or completion of major milestones within the approved plan.*

ABORIGINAL CULTURAL HERITAGE

Heritage Management Measures

31. By the end of May 2015, the Applicant must revise and subsequently implement its Aboriginal Cultural Heritage Management Plan to include management measures as identified in Table 7.16 of the EIS, in consultation with relevant Aboriginal stakeholders and Heritage NSW and to the satisfaction of the Secretary.

TRAFFIC AND TRANSPORT

Road Transport

32. The Applicant must:
- ensure that transport of:
 - coal tailings by truck along the New England Highway is restricted to old tailings with residual energy content and at a rate of no more than 114 truck movements per day (i.e. 57 loaded trucks), 5 days per week; and
 - transport of ROM coal to and from Ravensworth Central Coal Processing Facility is restricted to internal mine haul roads, Pikes Gully Road and Liddell Station Road.
 - use its reasonable endeavours to close Liddell Station Road as a public road to the satisfaction of SC, by the end of December 2015 unless otherwise agreed by the Secretary.

Monitoring of Coal Transport

33. The Applicant must:
- keep records of the:
 - amount of coal transported from the site each year; and
 - number of coal haulage train movements generated by the development (on a daily basis); and
 - include these records in the Annual Review.

VISUAL IMPACT

Visual Amenity and Lighting

34. The Applicant must:
- implement all reasonable and feasible measures to mitigate visual and off-site lighting impacts from the development;
 - ensure no outdoor lights shine above the horizontal;
 - undertake screen plantings along the western boundary of the proposed office and workshop area to further minimise potential visual impacts on the New England Highway; and
 - ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Secretary.

WASTE MINIMISATION

35. The Applicant **must**:
- monitor the amount of waste generated by the development;
 - investigate ways to minimise waste generated by the development;
 - implement reasonable and feasible measures to minimise waste generated by the development;
 - ensure irrigation of treated wastewater is undertaken in accordance with EPA's *Environmental Guideline for the Utilisation of Treated Effluent*; and
 - report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

BUSHFIRE MANAGEMENT

36. The Applicant **must**:
- ensure that the development is suitably equipped to respond to any fires on site; and
 - assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.

REHABILITATION

37. The Applicant **must** rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. The rehabilitation must comply with the objectives in Table 8, and be generally consistent with the proposed rehabilitation strategy in the EIS, Modification Report (Mod 8) and as shown conceptually in Appendix 3.

Table 8: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	<ul style="list-style-type: none"> Safe, stable and non-polluting Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms Constructed landforms drain to the natural environment (excluding the final voids) Minimise visual impact of final landforms as far as reasonable and feasible Ensure there are no adverse flood impacts to privately owned properties
Final voids	<ul style="list-style-type: none"> Minimise to the greatest extent practicable: <ul style="list-style-type: none"> the size and depth of final voids the drainage catchment of final voids
Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed, unless the Secretary agrees otherwise
Revegetation	<ul style="list-style-type: none"> Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising: <ul style="list-style-type: none"> at least 731 hectares of Central Hunter Box-Ironbark Woodland habitat for threatened flora and fauna species including habitat connectivity for the Spotted-tailed Quoll Maintain, establish and/or restore grassland areas with pockets of native vegetation to support sustainable agricultural activities, as shown conceptually in Appendix 3
Community	<ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects associated with mine closure
Final land use	<ul style="list-style-type: none"> Restore or maintain land capability generally as described in the EA and as shown conceptually in Appendix 3.

Progressive Rehabilitation

38. The Applicant **must** carry out rehabilitation 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 parts of the site that are progressively rehabilitated may be subject to further disturbance in the future.

Rehabilitation Management Plan

39. The Applicant must prepare a Rehabilitation Management Plan for the development in accordance with the conditions imposed on the mining lease(s) associated with the development under the provisions of the *Mining Act 1992*.
-

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. By 31 October 2007, the Applicant **must** notify the landowners of the land listed in Table 1 that they have the right to an independent review in accordance with Condition 4 of **Schedule 4** if they consider that the development is exceeding the relevant impact assessment criteria at any stage during the life of the development.
2. If the results of monitoring required in **Schedule 3** identify that impacts generated by the development are greater than the impact assessment criteria, except where this is predicted in the EA, and except where a negotiated agreement has been entered into in relation to that impact, then the Applicant **must** notify the Secretary and the affected landowners and/or existing or future tenants (including tenants of mine owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the criteria in **Schedule 3**.
3. The Applicant **must** send a copy of the NSW Health fact sheet entitled 'Mine Dust and You' (as may be updated from time to time) to advise landowners and/or existing or future tenants (including tenants of mine owned properties) of the possible health and amenity impacts associated with exposure to particulate matter, to the satisfaction of the Secretary where the predictions in the EA identify that the dust emissions generated by the development are likely to be greater than the air quality criteria in **Schedule 3**.

INDEPENDENT REVIEW

4. If a landowner of privately-owned land considers the development to be exceeding the impact assessment criteria in **Schedule 3**, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.

If the Secretary is satisfied that an independent review is warranted, the Applicant **must** within 2 months of the Secretary decision:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring on the land, to determine whether the development is complying with the relevant impact assessment criteria in **Schedule 3**; and
 - if the development is not complying with these criteria then:
 - determine if more than one mine is responsible for the exceedances; and if so the relevant share of each mine regarding the impact of the land;
 - identify measures that could be implemented to ensure compliance with the relevant criteria;
 - (b) give the Secretary and landowner a copy of the independent review.
5. If the independent review determines that the development is complying with the relevant impact assessment criteria in **Schedule 3**, then the Applicant may discontinue the independent review with the approval of the Secretary.
 6. If the independent review determines that the development is not complying with the relevant impact assessment criteria in **Schedule 3**, and that the development is primarily responsible for this non-compliance, then the Applicant **must**:
 - (a) take all reasonable and feasible measures, in consultation with the landowner and appointed independent expert to ensure that the development complies with the relevant criteria; or
 - (b) secure a written agreement with the landowner to allow exceedances of the criteria in **Schedule 3**,
to the satisfaction of the Secretary.

If the additional monitoring referred to above subsequently determines that the development is complying with the relevant criteria in **Schedule 3**, then the Applicant may discontinue the independent review with the approval of the Secretary.

If measures referred to in (a) do not achieve compliance with the criteria in **Schedule 3**, and the Applicant cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then upon receiving a written request from the landowner, then the Applicant or landowner may refer the matter to the Secretary for resolution.

SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. 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;
 - (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;
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development; and
 - (f) include:
 - copies of various strategies, plans and programs that are required under the conditions of this consent once they have been approved; and
 - a clear plan depicting all the monitoring to be carried out in relation to the development.

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

2. DELETED.

ANNUAL REVIEW

3. Each year, the Applicant **must** prepare an Annual Review to the satisfaction of the Secretary. This review must:
 - (a) identify the standards and performance measures that apply to the development;
 - (b) describe the works carried out in the last 12 months;
 - (c) describe the works that will be carried out in the next 12 months;
 - (d) include a comprehensive review of monitoring results and complaints received during the past year, and compare the results against:
 - limits/criteria in this consent, statutory requirements and performance measures/criteria;
 - monitoring results from previous years; and
 - (e) predictions in the latest EA;
 - (f) identify any trends in the monitoring over the life of the development;
 - (g) identify and discuss any non-compliance during the previous year and describe what actions were (or are being) taken to ensure compliance;
 - (h) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
 - (i) describe what measures will be implemented over the next year to improve the environmental performance of the development.

INDEPENDENT ENVIRONMENTAL AUDIT

4. Within a year of the approval of modification application DA 305-11-01 MOD 5, and every 3 years thereafter, 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:
 - (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with relevant agencies;
 - (c) assess the environmental performance of the development, and its effects on the surrounding environment;
 - (d) assess whether the development is complying with the relevant standards, performance measures, and statutory requirements;
 - (e) review the adequacy of any strategy/plan/program required under this consent; and, if necessary,
 - (f) recommend measures or actions to improve the environmental performance of the development, and/or any strategy/plan/program required under this consent.

Note: This audit team must be led by a suitably qualified auditor and include experts in the field of mine rehabilitation and mine closure.

5. Within 6 weeks of completing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report.

6. DELETED.

COMMUNITY CONSULTATIVE COMMITTEE

7. The Applicant must maintain a Community Consultative Committee for the development to the satisfaction of the Secretary. The CCC must be operated in accordance with the *Department's Community Consultative Committee Guidelines: State Significant Projects (2016)*.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*
- *In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Applicant, Councils and the community.*

8. DELETED.

ACCESS TO INFORMATION

9. By the end of February 2015, and for the remainder of the life of the development, the Applicant must:
 - (a) make the following information publicly available on its website:
 - a copy of all current statutory approvals for the development;
 - a copy of the current environmental management strategy and associated plans and programs;
 - a summary of monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
 - a complaints register, which is to be updated in a monthly basis;
 - a copy of the CCC minutes;
 - a copy of any Annual Reviews (over the last 5 years);
 - a copy of any Independent Environmental Audit, 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.

REVISION OF STRATEGIES, PLANS AND PROGRAMS

10. Within 3 months of:
 - (a) the submission of an Annual Review under condition 3 above;
 - (b) the submission of an incident report under condition 11 below;
 - (c) the submission of an audit under condition 4 above; or
 - (d) any modification to the conditions of this consent,the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 2 months of the review the revised document must be submitted to the Secretary for approval, unless the conditions in Schedule 3 provide for an alternative timing and/or the Secretary agrees otherwise.

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.

INCIDENT NOTIFICATION

11. The Applicant must immediately notify the Department and any other relevant agencies after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

NON-COMPLIANCE NOTIFICATION

12. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply

and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance

13. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.

Note: For the purposes of this condition, as set out in the EP&A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.

**APPENDIX 1
SCHEDULE OF LAND**

LOCAL GOVERNMENT AREA: MUSWELLBROOK

LOT	DP	COUNTY	PARISH
Part C.R 197 MS 8378		Durham	Liddell
13	Sec C 6841	Durham	Liddell
40	Sec B 6842	Durham	Liddell
1	48556	Durham	Liddell
2	48556	Durham	Liddell
3	48556	Durham	Liddell
<i>1</i>	<i>211043</i>	<i>Durham</i>	<i>Liddell</i>
<i>2</i>	<i>231880</i>	<i>Durham</i>	<i>Liddell</i>
3	231880	Durham	Liddell
1	237654	Durham	Liddell
2	237654	Durham	Liddell
3	237654	Durham	Liddell
4	237654	Durham	Liddell
5	237654	<i>Durham</i>	<i>Liddell</i>
6	237654	Durham	Liddell
7	237654	<i>Durham</i>	<i>Liddell</i>
8	237654	<i>Durham</i>	<i>Liddell</i>
2	574166	Durham	Liddell
12	579783	Durham	Liddell
1	583527	Durham	Liddell
135	752470	Durham	Liddell
31	837350	Durham	Liddell
Pt Lot 33	862516	Durham	Liddell
34	862516	Durham	Liddell
37	862517	Durham	Liddell
Pt Lot 380	869839	Durham	Liddell
1	1012624	Durham	Liddell
101	1053098	Durham	Liddell
<i>102</i>	<i>1103268</i>	<i>Durham</i>	<i>Liddell</i>
1	1103323	Durham	Liddell
1	1193227	Durham	Liddell
3	1193227	Durham	Liddell
4	1193227	Durham	Liddell
Various unformed Crown road reserves		Durham	Liddell

*Note: Lots shown in **bold** font are part of the Cumnock CHPP site.
 Lots shown in **italic** font are part of the Main Northern Railway easement.*

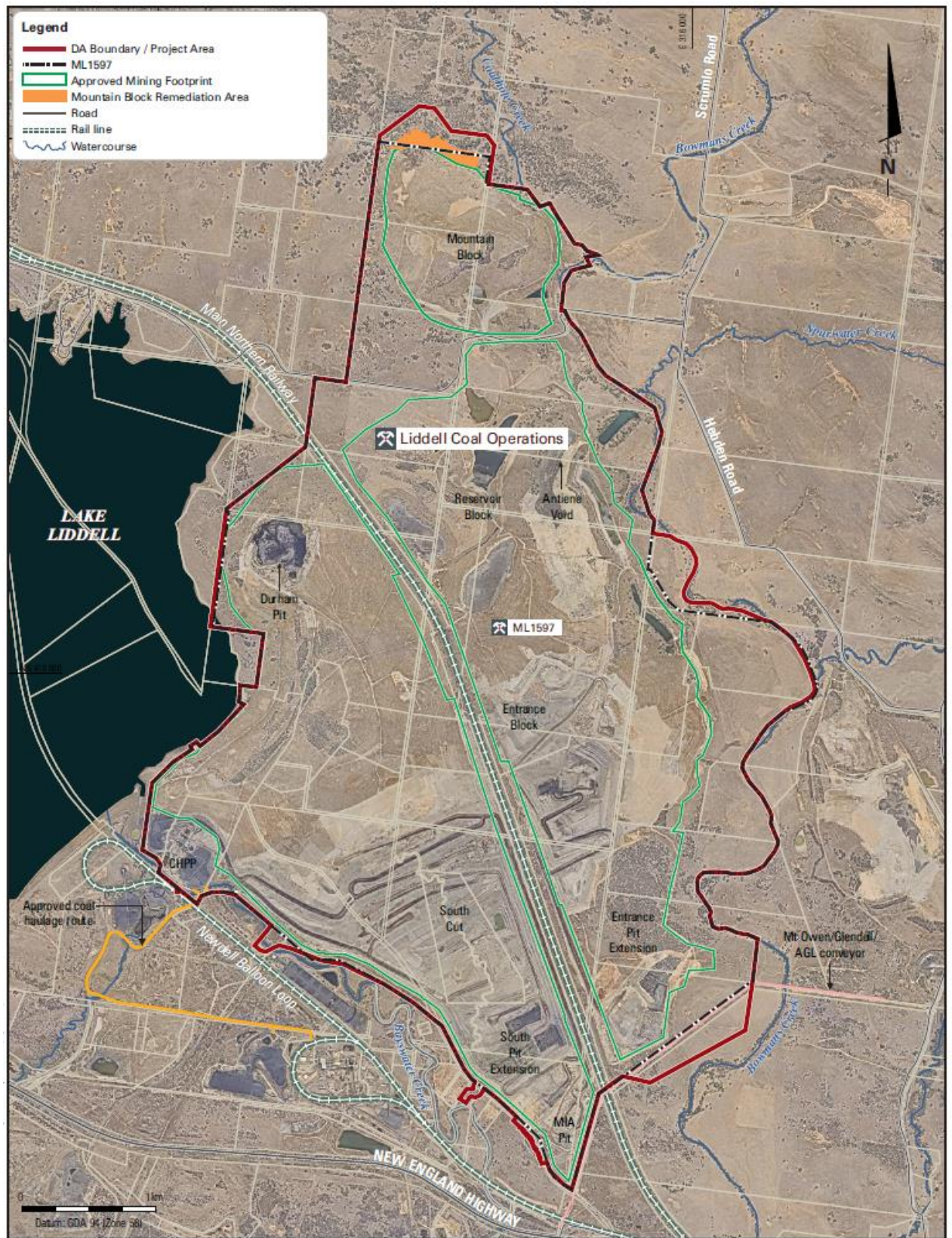
LOCAL GOVERNMENT AREA: SINGLETON

1	48556	Durham	Liddell
1	135026	Durham	Liddell
1	213065	Durham	Liddell
3	213065	Durham	Liddell
2	233019	Durham	Liddell
1	237655	Durham	Liddell
2	237655	Durham	Liddell
3	237655	Durham	Liddell
1	237766	Durham	Liddell
2	237766	Durham	Liddell
4	237766	Durham	Liddell
5	237766	Durham	Liddell
4	255403	Durham	Liddell
Pt Lot 6	255403	Durham	Liddell
1	403032	Durham	Liddell
2	534888	Durham	Liddell
32	535087	Durham	Liddell
Pt Lot 32	545601	Durham	Liddell
1	565031	Durham	Liddell
80	607296	Durham	Liddell
Pt Lot 81	607296	Durham	Liddell
2	619383	Durham	Liddell
43	654013	Durham	Liddell
Pt Lot 101	700429	Durham	Liddell
225	752470	Durham	Liddell
232	752470	Durham	Liddell
101	825292	Durham	Liddell
25	841160	Durham	Liddell
22	841165	Durham	Liddell
23	841165	Durham	Liddell
24	841165	Durham	Liddell
Pt Lot 201	848078	Durham	Liddell
100	858173	Durham	Liddell
2	859544	Durham	Liddell
Pt Lot 33	862516	Durham	Liddell
35	862516	Durham	Liddell
Pt Lot 36	862516	Durham	Liddell
2	865784	Durham	Liddell/Vane
352	867083	Durham	Liddell
Pt Lot 353	867083	Durham	Liddell
354	867083	Durham	Liddell
22*	869399	Durham	Liddell
31	870789	Durham	Liddell
32	870789	Durham	Liddell

Pt Lot 211	975271	Durham	Liddell
219	975271	Durham	Liddell
601	1019325	Durham	Liddell
102	1103268	Durham	Liddell
1	1103323	Durham	Liddell
181	1126510	Durham	Liddell
602	1019325	Durham	Liddell
11	6842	Durham	Liddell
24	6830	Durham	Goorangoola
1	48490	Durham	Goorangoola
Various unformed Crown road reserves		Durham	Liddell

Note: Lots shown in **bold** font are part of the Cumnock CHPP site.
 Lots shown in *italic* font are part of the Main Northern Railway easement.
 Lots identified with * are the RUM site, incorporating the RCCP facility.

APPENDIX 2 DEVELOPMENT LAYOUT PLANS



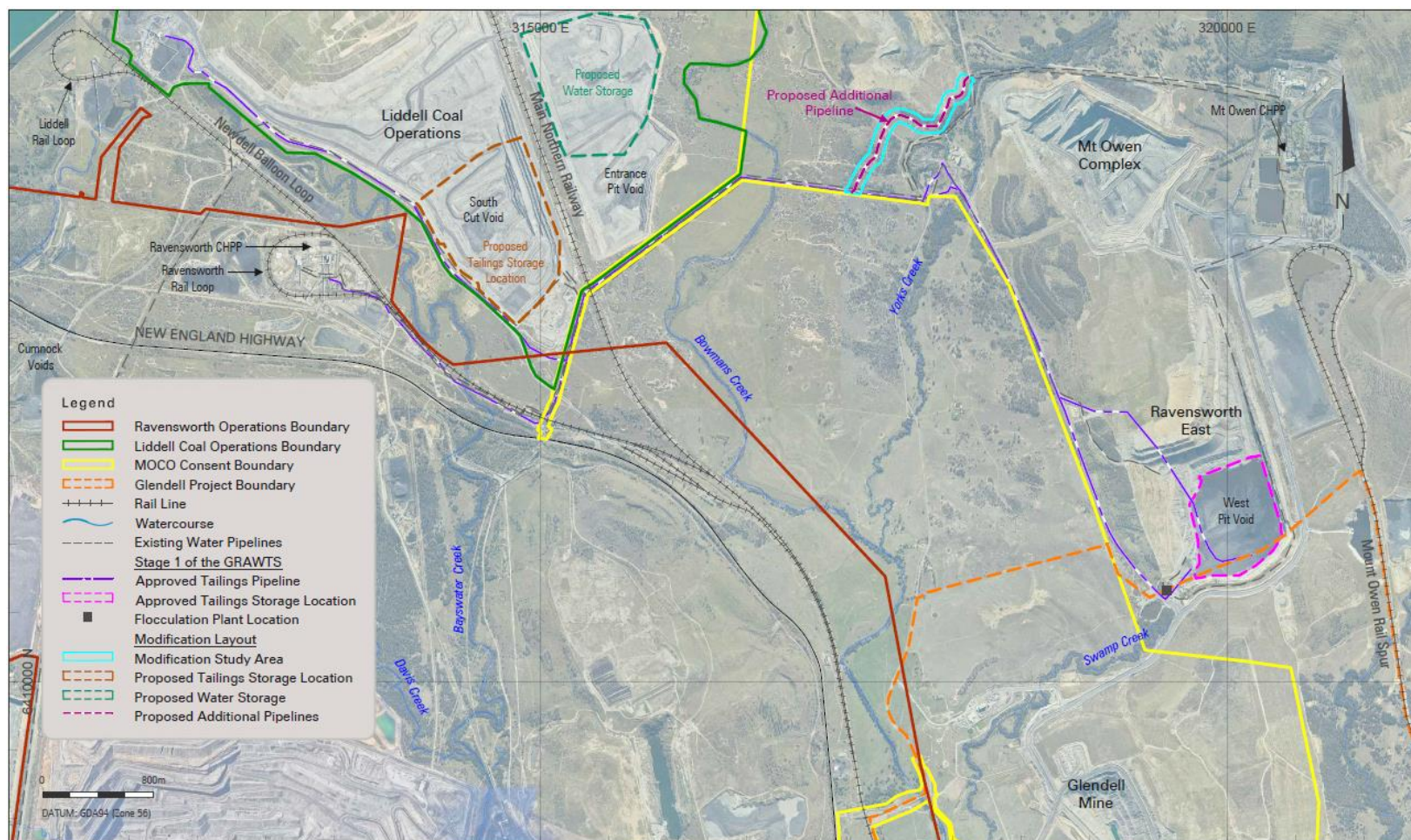
LIDDELL COAL OPERATIONS

GLENCORE

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ENVIRONMENTAL CONSULTANTS

Development Layout Plan

Figure 1: Development layout plan



GREATER RAVENSWORTH AREA OPERATIONS

Conceptual Modification Layout

FIGURE 3

Figure 2: Greater Ravensworth tailings management infrastructure

APPENDIX 3 CONCEPTUAL FINAL LANDFORM

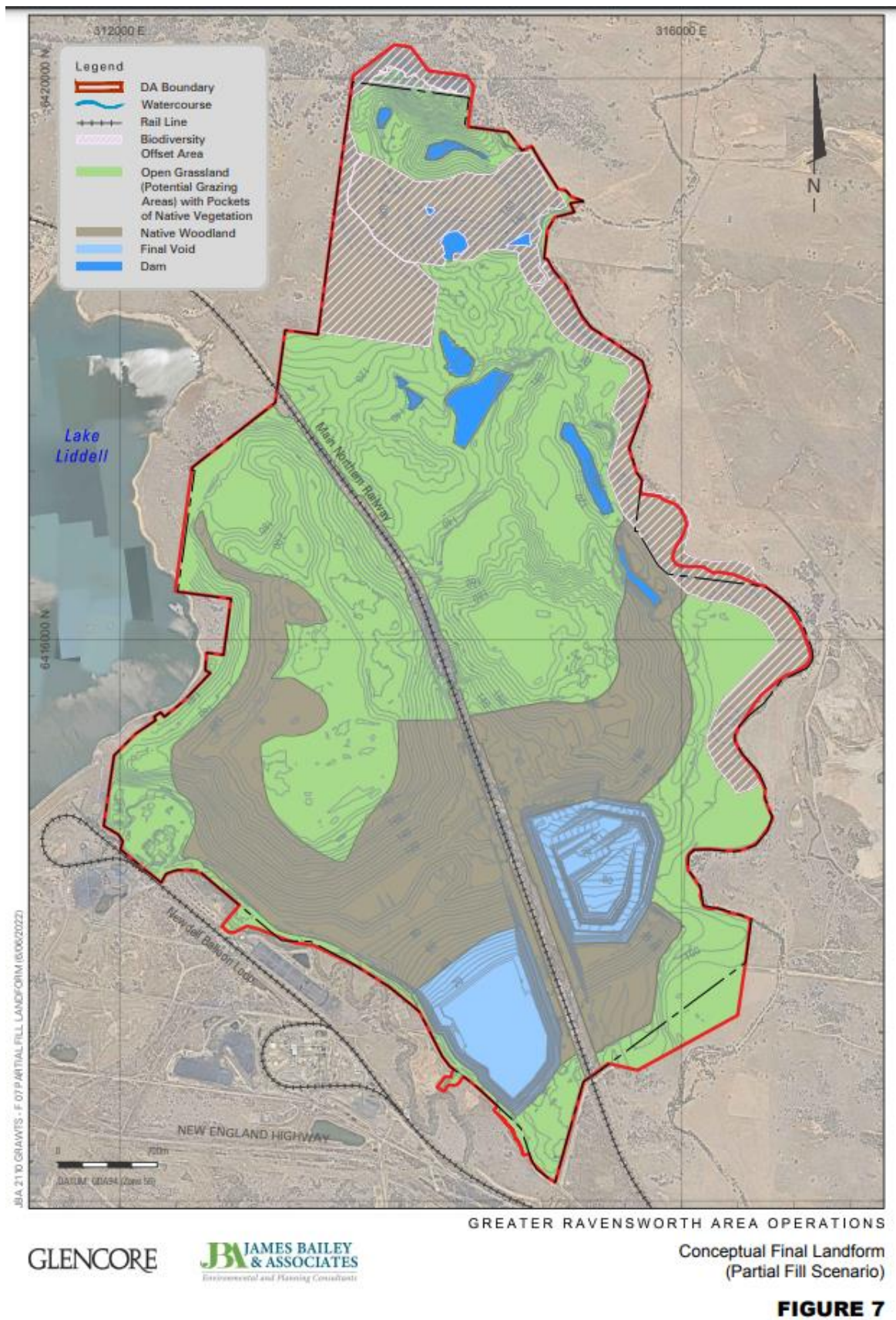


Figure 3: Conceptual Final Landform – Partial Fill Scenario

APPENDIX 4
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FOR INFORMATION

APPENDIX 5 RECEIVER LOCATIONS



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Sensitive Receptors

Figure 5: Sensitive Receptors

APPENDIX 6 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 1 of Schedule 3 are to apply under all meteorological conditions except the following:
 - (a) during periods of rain or hail;
 - (b) average wind speed at microphone height exceeds 5 m/s;
 - (c) wind speeds greater than 3 m/s measured at 10 m above ground level; or
 - (d) temperature inversion conditions greater than 3°C/100 m, or alternatively stability class F and G.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions **must** be that recorded by the meteorological station on or in the vicinity of the site.

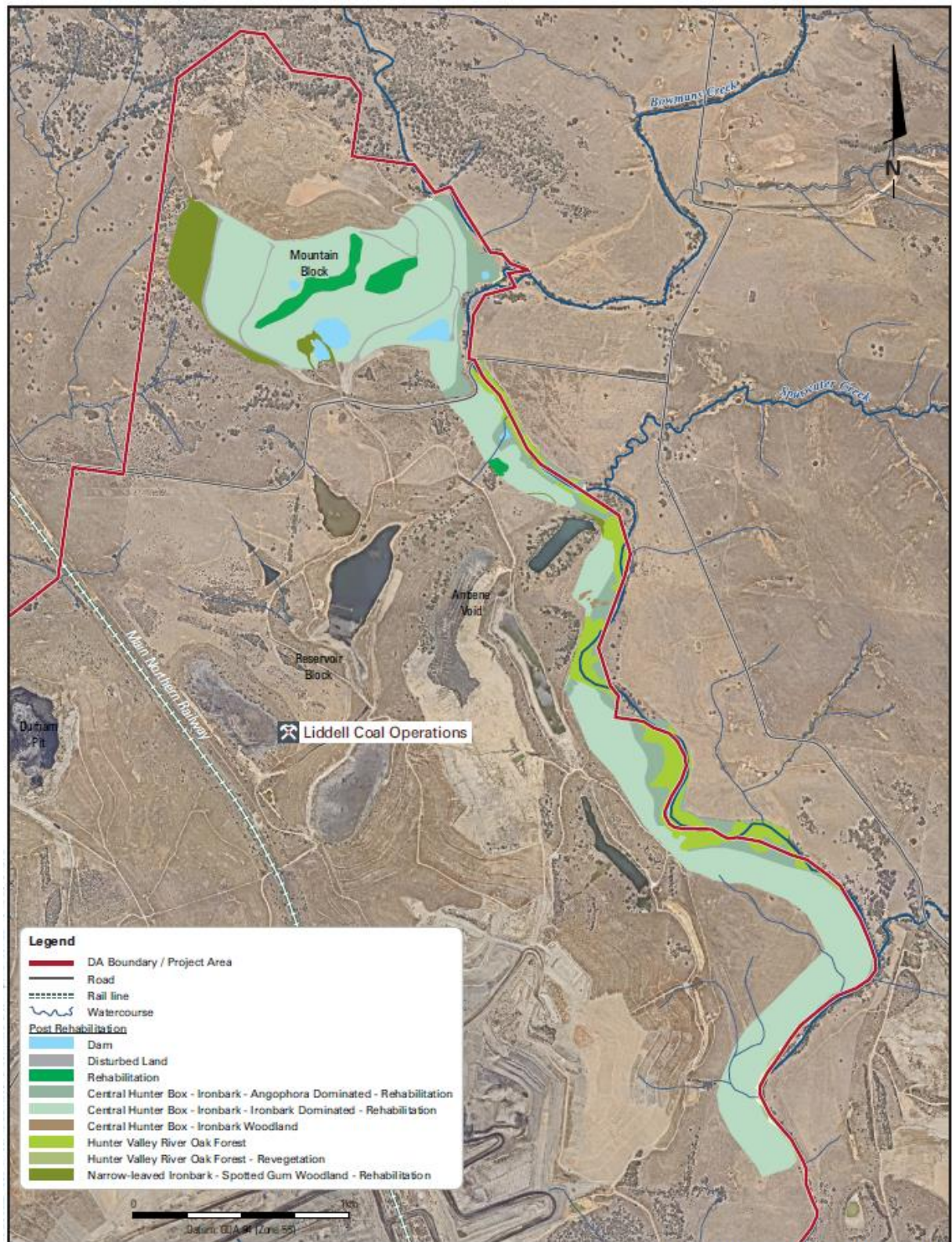
Compliance Monitoring

3. Attended monitoring is to be used to determine compliance with the relevant conditions of this consent.
4. This monitoring must be carried out at least once a month (but at least two weeks apart), unless the Secretary directs otherwise.

Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.

5. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration, **with the exception of applying appropriate modifying factors for low frequency noise during compliance testing. This should be undertaken in accordance with Fact Sheet C of the NSW Noise Policy for Industry (EPA, 2017).**

APPENDIX 7 BIODIVERSITY OFFSET STRATEGY

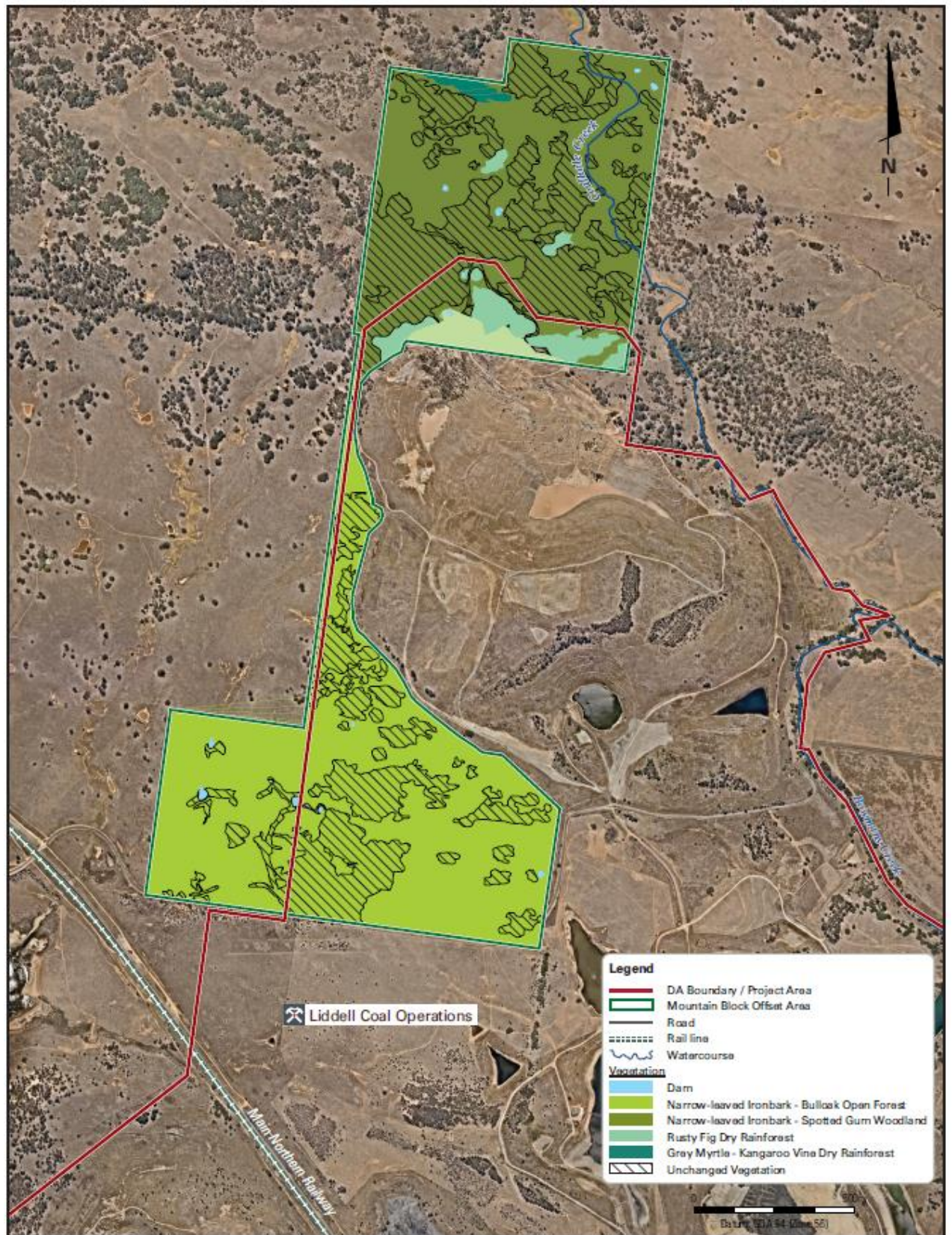


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Post Rehabilitation of Bowmans Creek
Riparian Corridor

Figure 6: Post Rehabilitation of Bowmans Creek Riparian Corridor



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Post Rehabilitation of Mountain Block Offset Area

Figure 7: Post Rehabilitation of Mountain Block Offset Area

APPENDIX 8
GENERAL TERMS FOR THE PLANNING AGREEMENT WITH SINGLETON COUNCIL

Project	Description	Applicant Contribution	Funding Time Frame
Hebden Hall/Rural Halls	Relocate and upgrade the existing Hebden Hall onto a parcel of land adjacent to the community	\$200,000	Initiated following approvals. Capital project funded and completed by Applicant. Any remain funds to be allocated to SC Rural Halls
Lake St Clair Recreational Park	Contribution to SC for the construction of a tourism centre at Lake St Clair	\$300,000 over a 5 year term \$75,000 per annum over the first 2 years with \$50,000 per annum thereafter for 3 years	End of quarter following DA approval
Rose Point Netball Amenities Upgrade	Contribution towards funding of upgrade	\$80,000	End of quarter following DA approval Contribution to be paid upon request from SC.

APPENDIX 9
GENERAL TERMS FOR THE PLANNING AGREEMENT WITH MUSWELLBROOK SHIRE COUNCIL

Description	Applicant Contribution	Funding Time Frame
Liddell Coal Project including all prior modifications	\$320,000	The payment will be paid in two annual instalments within two years of the date of approval of Modification 5.

APPENDIX 10 ENVIRONMENTAL IMPACT ASSESSMENTS

- EIS - Development application 305-11-2001 and supporting information including:
 - *Liddell Colliery Continued Operations Environmental Impact Statement*, dated October 2001 and prepared by Umwelt (Australia) Pty Limited;
 - *Response to NPWS Request for Further Information in Relation to the Archaeological Assessment, Liddell EIS* prepared by Umwelt (Australia) Pty Limited and dated December 2001, as supplemented by the additional information dated 20 February 2002;
 - correspondence submitted to the Department and SC in response to the request for addition information from SC and dated 20 December 2001;
 - *Response to Submissions Liddell Colliery Environmental Impact Statement*, prepared by Umwelt (Australia) Pty Limited and dated March 2002;
 - *Response to EPA request for further information Liddell Colliery Continued Operations Environmental Impact Statement* prepared by Umwelt (Australia) Pty Limited and dated March 2002;
 - *Continued Operations of Liddell Colliery – Revised Development Application Area* prepared by Umwelt (Australia) Pty Limited and dated 13 March 2002; and
 - additional air quality contours provided to the Department by Umwelt (Australia) Pty Limited relating to PM₁₀ concentrations on 7 May 2002;
- MOD 2 – (approved 8 July 2007) modification application and supporting information including:
 - *Liddell Colliery Modification to Development Consent Environmental Assessment*, prepared by Umwelt (Australia) Pty Limited and dated December 2006;
 - *Response to Submissions Environmental Assessment for Liddell Colliery Modification to Development Consent*, prepared by Umwelt (Australia) Pty Limited and dated March 2007;
 - *Response to Submissions from the Roads and Traffic Authority and the Hunter Regional Development Committee Environmental Assessment for Liddell Colliery Modification to Development Consent*, prepared by Umwelt (Australia) Pty Limited and dated April 2007; and
 - *Revised Statement of Commitments for the Liddell Development Consent Modification*, prepared by Umwelt (Australia) Pty Limited and dated July 2007 ;
- MOD 3 – (approved 7 May 2008) modification application DA305-11-01 and accompanying Statement of Environmental Effects, titled *Liddell Coal Operations Pty Limited Statement of Environmental Effects for Liddell Colliery Modification to Development Consent*, prepared by Umwelt Australia Pty Limited, and dated February 2008;
- MOD 4 – (approved 27 October 2009) modification application and accompanying document and site plans prepared by Umwelt Australia Pty Limited, and dated 7 October 2009; and
- MOD 5 – (approved 1 December 2014) modification application and accompanying document and site plans prepared by SLR, and dated September 2013;
- MOD 6 – modification application DA 305-11-01 – MOD 6 and accompanying documents and site plans prepared by Hansen Bailey and dated November 2015.