

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

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.

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DEFINITIONS

AEMR	Annual Environmental Management Report
Applicant	Liddell Coal Operations Pty Limited, or its successor
BCA	Building Code of Australia
CCC	Community Consultative Committee
CHPP	Coal Handling & Preparation Plant
Councils	Muswellbrook Shire Council & Singleton Shire 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
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of Department of Planning, or delegate
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	Environmental Assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
Evening	The period from 6 pm to 10 pm
Land	Land means 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
Minister	Minister for Planning, or delegate
MSC	Muswellbrook Shire Council
Night	The periods from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
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
Receiver	As defined in the <i>NSW Industrial Noise Policy</i> (EPA 2000)
ROM	Run of Mine
RTA	Roads and Traffic Authority
Site	Land to which the Consent applies (see Appendix 1 and Appendix 2)
SSC	Singleton Shire Council

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Applicant shall 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 Consent

2. The Applicant shall carry out the development generally in accordance with the:
 - (a) Development application 305-11-2001;
 - (b) *Liddell Colliery Continued Operations Environmental Impact Statement*, dated October 2001 and prepared by Umwelt (Australia) Pty Limited;
 - (c) *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;
 - (d) correspondence submitted to the Department and SSC in response to the request for addition information from SSC and dated 20 December 2001;
 - (e) *Response to Submissions Liddell Colliery Environmental Impact Statement*, prepared by Umwelt (Australia) Pty Limited and dated March 2002;
 - (f) *Response to EPA request for further information Liddell Colliery Continued Operations Environmental Impact Statement* prepared by Umwelt (Australia) Pty Limited and dated March 2002;
 - (g) *Continued Operations of Liddell Colliery – Revised Development Application Area* prepared by Umwelt (Australia) Pty Limited and dated 13 March 2002
 - (h) additional air quality contours provided to the Department by Umwelt (Australia) Pty Limited relating to PM₁₀ concentrations on 7 May 2002;
 - (i) *Liddell Colliery Modification to Development Consent Environmental Assessment*, prepared by Umwelt (Australia) Pty Limited and dated December 2006;
 - (j) *Response to Submissions Environmental Assessment for Liddell Colliery Modification to Development Consent*, prepared by Umwelt (Australia) Pty Limited and dated March 2007; and
 - (k) *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;
 - (l) *Revised Statement of Commitments for the Liddell Development Consent Modification*, prepared by Umwelt (Australia) Pty Limited and dated July 2007 (see Appendix 5);
 - (m) modification application DA305-11-01 - Mod 3 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;
 - (n) modification application DA305-11-01 – Mod 4 and accompanying document and site plans prepared by Umwelt Australia Pty Limited, and dated 7 October 2009; and
 - (o) conditions of this consent.
3. If there is any inconsistency between the above documents, the latter document shall prevail over the former to the extent of the inconsistency. However, the conditions of this consent shall prevail over all other documents to the extent of any inconsistency.
4. The Applicant shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
 - (a) any reports, plans or correspondence that are submitted in accordance with this consent; and
 - (b) the implementation of any actions or measures contained in these reports, plans or correspondence.

Mining, Processing and Transport Limits on Consent

5. Mining operations may take place on the site until 31 December 2023.

Note: Under this consent, the Applicant is required to rehabilitate the site to the satisfaction of the Director-General and DPI. 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 shall 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 1.5 million tonnes per year of ROM coal from Cumnock No.1 Colliery; or

- (c) transport more than 1.5 million tonnes of ROM coal per annum to Cumnock No.1 Colliery for processing at the Cumnock CHPP; 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 shall ensure that all product coal from the Liddell CHPP is transported by rail.

Structural Adequacy

8. The Applicant shall 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.*

Demolition

9. The Applicant shall 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 shall ensure that all plant and equipment used at the site is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

Community Enhancement Program

11. By 31 October 2007, or as otherwise agreed by the Director-General, the Applicant shall pay financial contributions to MSC and to SSC that are commensurate with the additional 90 permanent workers and 150 temporary workers expected to be employed by the development as a result of the modifications outlined in the Environmental Assessment noted in condition 2(i) above, and to the satisfaction of the Director-General. Each contribution must be at least equivalent to that arising pursuant to section 94 of the EP&A Act in accordance with the requirements of the relevant Council's Section 94 Contributions Plan.

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Project Specific Noise Impact Assessment Criteria

1. The Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria in Table 1 at any residence on, or on more than 25 percent of, any privately owned land.

Table 1: Noise impact assessment criteria dB(A)

Assigned residential location number	Noise criteria $L_{Aeq}(15 \text{ minute})$	Sleep disturbance Noise Criteria $LA_{(1 \text{ min})}$
1,2,4,5,6,7,8,9,10,11,12,13,14	35dB(A) Day	
	35dB(A) Evening	
	35dB(A) Night	45dB(A) Night

Notes:

- To determine compliance with the $L_{Aeq}(15 \text{ minute})$ noise limits, noise from the development is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the $LA_{(1 \text{ minute})}$ noise limits, noise from the development is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
 - wind speeds of up to 3 m/s at 10 metres above ground level; or
 - temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level.

Land Acquisition Criteria

2. If the noise generated by the development exceeds the criteria in Table 2, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 10-12 of Schedule 4.

Table 2: Land acquisition criteria dB(A)

Day/Evening/Night $L_{Aeq}(15 \text{ minute})$	Land
40	Any residence on, or on more than 25 percent of, any privately owned land.

Note: Noise generated by the development is to be measured in accordance with the notes to Table 1.

Cumulative Noise Criteria

3. The Applicant shall take all reasonable and feasible measures to ensure that the noise generated by the development combined with the noise generated by other mines does not exceed the following amenity criteria at any residence on, or on more than 25 percent of, any privately owned land:
 - $L_{Aeq}(11 \text{ hour})$ 50 dB(A) – Day;
 - $L_{Aeq}(4 \text{ hour})$ 45 dB(A) – Evening; and
 - $L_{Aeq}(9 \text{ hour})$ 40 dB(A) – Night.
4. If the noise generated by the development when combined with the noise generated by other mines exceeds the following amenity criteria at any residence on, or on more than 25 percent of, any privately owned land, then upon receiving a written request from the landowner, the Applicant shall acquire the land on as equitable basis as possible with the relevant mines, based on each mine's relative noise contribution to the cumulative noise, in accordance with the procedures in conditions 10-12 of Schedule 4:
 - $L_{Aeq}(11 \text{ hour})$ 53 dB(A) – Day;
 - $L_{Aeq}(4 \text{ hour})$ 48 dB(A) – Evening; and
 - $L_{Aeq}(9 \text{ hour})$ 43 dB(A) – Night.

Monitoring

5. The Applicant shall prepare and implement a Noise Monitoring Program for the development to the satisfaction of the Director-General. This Program must be submitted to the Director-General by 31 January 2008, and must include regular attended monitoring, and a noise monitoring protocol for evaluating compliance with the noise impact assessment and land acquisition criteria in this consent.

BLASTING AND VIBRATION

Airblast Overpressure Criteria

6. The Applicant shall ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 3 at any residence on privately owned land.

Table 3: 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

7. The Applicant shall ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 4 at any residence on privately owned land.

Table 4: 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%

Chain of Ponds Hotel

8. By 31 January 2008, the Applicant shall establish appropriate blast impact assessment criteria for the Chain of Ponds Hotel to the satisfaction of the Director-General. Once these criteria have been established, the Applicant shall ensure that all blasting at the development does not exceed the criteria.

Blasting Hours

9. The Applicant shall 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 DECC.

Blasting Frequency

10. The Applicant shall not carry out more than 2 blasts a day at the site without the written approval of the Director-General.

Operating Conditions

11. During mining operations, the Applicant shall implement best blasting practice to:
 - (a) ensure the safety of people, property and livestock;
 - (b) protect items of cultural heritage significance, including the Chain of Ponds Hotel; and
 - (c) minimise the dust and fume emissions from blasting, particularly during adverse meteorological conditionsto the satisfaction of the Director-General.

Public Notice

12. During mining operations, the Applicant shall:
 - (a) 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;
 - (b) 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;
 - (c) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the mine; and
 to the satisfaction of the Director-General.

Property Inspections

13. By 31 October 2007, the Applicant shall 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 shall within 3 months of receiving this request:
 - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, 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 shall within 3 months of receiving this request:
 - (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, 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 shall repair the damages to the satisfaction of the Director-General.

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

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 4).

AIR QUALITY

Impact Assessment Criteria

16. The Applicant shall ensure that the dust emissions generated by the development do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 5, 6, and 7 at any residence on, or on more than 25 percent of, any privately owned land.

Table 5: Long term impact assessment criteria for particulate matter

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

Table 6: Short term impact assessment criterion for particulate matter

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

Table 7: Long term impact assessment criteria for deposited dust

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

Note: Deposited dust is 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.

Land Acquisition Criteria

17. If the dust emissions generated by the development exceed the criteria in Tables 8, 9 and 10 at any residence on, or on more than 25 percent of, any privately owned land, the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 10-12 of Schedule 4.

Table 8: Long term land acquisition criteria for particulate matter

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

Table 9: Short term land acquisition criteria for particulate matter

Pollutant	Averaging period	Criterion	Percentile ¹	Basis
Particulate matter < 10 µm (PM ₁₀)	24 hour	150 µg/m ³	99 ²	Total ³
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³	98.6	Increment ⁴

¹Based on the number of block 24 hour averages in an annual period.

²Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with the DECC.

³Background PM₁₀ concentrations due to all other sources plus the incremental increase in PM₁₀ concentrations due to the mine alone.

⁴Incremental increase in PM₁₀ concentrations due to the mine alone.

Table 10: Long term land acquisition criteria for deposited dust

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

Note: Deposited dust is 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.

Operating Conditions

18. The Applicant shall:
- ensure any visible air pollution generated by the development is assessed regularly, and that mining operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately owned land;
 - ensure air quality monitoring for 24-hour average PM₁₀ and the meteorological monitoring data are assessed regularly, and that mining operations are relocated, modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and
 - implement all practicable measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion at the development, to the satisfaction of the Director-General.

Monitoring

19. The Applicant shall prepare and implement a Air Quality Monitoring Program for the development to the satisfaction of the Director-General. This Program must be submitted to the Director-General by 31 January 2008, and must include a combination of high volume samplers and dust deposition gauges to monitor the dust emissions of the development; and an air quality monitoring protocol for evaluating compliance with the air quality impact assessment and land acquisition criteria in this approval.

METEOROLOGICAL MONITORING

20. By 31 January 2008, the Applicant shall 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 DECC and the Director-General.

SURFACE AND GROUND WATER

Discharge Limits

21. The Applicant shall only discharge water from the development in accordance with the provisions of a DECC Environment Protection Licence or the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002*.
- 21a. The Applicant shall ensure that treated effluent from the wastewater treatment plant does not exceed the discharge limits in Table 11, unless otherwise agreed by the DECC.
- 21b. The Applicant shall 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 11, or as otherwise agreed by the DECC.

Table 11: Wastewater treatment plant discharge limits

Pollutant	Units of Measure	Frequency	Sampling Method	Concentration Limit (100 percentile)
Faecal coliforms	Colony forming units per 100 millilitres	Monthly	Representative sample	1

Desalination Unit

22. Prior to the construction of the desalination unit, the Applicant shall conduct investigations and identify options concerning the most appropriate method for the treatment and/or disposal of brine, to the satisfaction of the Director-General, DWE and DECC.

Water Management Plan

23. The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Director-General. This Plan must be submitted to the Director-General by 31 January 2008, and must include:
- a site water balance;
 - an Erosion and Sediment Control Plan;
 - a Surface Water Monitoring Program;
 - a Ground Water Monitoring Program; and

- (e) a Surface and Ground Water Response Plan, to address any potential adverse impacts associated with the development.

Site Water Balance

24. The Site Water Balance must:
- (a) include details of;
 - sources of water;
 - reliability of water supply;
 - water management on site;
 - water use on site;
 - water transfers between the site and surrounding mines;
 - reporting procedures; and
 - (b) investigate and describe measures to minimise water use by the development.

Erosion and Sediment Control

25. The Applicant shall implement a range of standard erosion and sediment controls at the development, in general accordance with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual.

Surface Water Monitoring

26. The Surface Water Management and Monitoring Plan must include:
- (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the development;
 - (b) surface water impact assessment criteria;
 - (c) a program to monitor the impact of the development on surface water flows and quality;
 - (d) procedures for reporting the results of this monitoring.

Groundwater Monitoring

27. The Applicant shall regularly monitor:
- (a) the volume of groundwater seeping into the open cut mine workings;
 - (b) regional groundwater levels and quality in the surrounding aquifers;
 - (c) the groundwater pressure response in the surrounding coal measures; and
 - (d) report the results of this monitoring in the AEMR, to the satisfaction of the Director-General.

LANDSCAPE MANAGEMENT

Waterbird Habitat

28. Prior to the construction of Dam 13B, the Applicant shall undertake habitat enhancement measures to Dam 3 to increase habitat for water birds to the satisfaction of DECC and the Director-General. The applicant shall in addition establish a dam in the Mountain Block area to provide habitat for waterbird species. Where achievable, the habitat enhancement measures for each dam shall 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.

Rehabilitation

29. The Applicant shall rehabilitate the site to the satisfaction of the Director-General and DPI.

Landscape Management Plan

30. The Applicant shall prepare and implement a detailed Landscape Management Plan for the site to the satisfaction of the Director-General and DPI. This plan must:
- (a) be submitted by 31 January 2008 to the Director-General and DPI for approval;
 - (b) be prepared by suitably qualified expert/s whose appointment/s have been endorsed by the Director-General;
 - (c) be prepared in consultation with DWE, DECC, MSC, SSC and the Rural Fire Service; and
 - (d) include a:
 - Rehabilitation Management Plan;
 - Final Void Management Plan; and

- Mine Closure Plan.

Rehabilitation Management Plan

31. The Rehabilitation Management Plan must include:
- the rehabilitation objectives for the site;
 - a strategic description of how the rehabilitation of the site would be integrated with land surrounding the site, with a view to improving or enhancing the regional landscape and flora and fauna habitat values;
 - a general description of the short, medium and long term measures that would be implemented to rehabilitate the site;
 - a detailed description of the measures that would be implemented over the next three years to rehabilitate the site, including the measures to be implemented for:
 - progressively rehabilitating areas disturbed by mining operations on the site;
 - managing the remnant vegetation and habitat on site;
 - revegetating, monitoring and maintaining the offset area;
 - undertaking additional pre-subsidence fauna surveys;
 - minimising impacts on threatened fauna;
 - minimising visual impacts;
 - conserving and reusing topsoil;
 - collecting and propagating seeds for rehabilitation works;
 - salvaging and reusing material from the site for habitat enhancement;
 - controlling weeds, feral pests, and access;
 - managing bushfires; and
 - managing any potential conflicts between the rehabilitation works and Aboriginal cultural heritage.
 - detailed performance and completion criteria for the rehabilitation of the site;
 - a detailed description of how the performance of the rehabilitation works would be monitored over time to achieve the stated objectives and against the relevant performance and completion criteria; and
 - details of who is responsible for monitoring, reviewing and implementing the plan.

Final Void Management

32. The Final Void Management Plan must describe what actions and measures would be implemented to:
- minimise any potential adverse impacts associated with final voids on the site; and
 - manage and monitor the potential impacts of final voids over time.

Mine Closure Plan

33. The Mine Closure Plan must:
- define the objectives and criteria for mine closure;
 - investigate options for the future use of the site, including the final voids;
 - investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local and regional employment levels;
 - describe the measures that would be implemented to minimise or manage the on-going environmental effects of the development; and
 - describe how the performance of these measures would be monitored over time.

Note: A conceptual final landform design for the site is shown in Appendix 3.

ABORIGINAL CULTURAL HERITAGE

Section 90 Consents

34. The Applicant shall obtain consents from DECC, under section 90 of the *National Parks and Wildlife Act 1974*, prior to disturbing any of the following Aboriginal sites and artefacts: LID2, LID3, LID4, LID5, LID23, LID24, LID25, LID27, LID33, SP1, SP2, SP3, and Brayshaw B.

Note: These sites are described in Table 6.18 and Figure 6.9 of the EA.

Management and Monitoring

35. By 31 January 2008, the Applicant shall revise its Aboriginal Cultural Heritage Management Plan in consultation with relevant Aboriginal stakeholders and to the satisfaction of the Director-General.

HERITAGE

Conservation Measures

36. By 31 January 2008, the Applicant shall prepare a photographic record of the condition and integrity of the accessible sections of the Chain of Ponds Hotel site, and to update this record every 5 years until the cessation of mining, to the satisfaction of the Director-General.

Archival Record

37. The Applicant shall prepare an archival record of the former Police Lock Up precinct, prior to any activity associated with the development that may disturb this site, in accordance with the requirements of the NSW Heritage Office, and to the satisfaction of the Director-General.

TRAFFIC AND TRANSPORT

Road Transport

38. The Applicant shall ensure that:
- (a) 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 (ie 57 loaded trucks), 5 days per week; and
 - (b) transport of ROM coal to and from Cumnock No.1 Colliery is restricted to internal mine haul roads, Pikes Gully Road and Liddell Station Road.

Traffic Management

39. The Applicant shall prepare and implement a Construction Traffic Management Plan for the development to the satisfaction of the RTA and the Councils. This Plan must be submitted to the RTA and the Councils prior to carrying out any construction which relates to modification application 06_0327.

Studies of Shared Rail and Road Infrastructure

40. The Applicant shall ensure that the Hunter Valley Rail Loop is not used for increased transport of product coal (ie above the limits prevailing under the consent prior to the approval of application 06_0327) until:
- (a) studies have been completed by independent consultants on access to, capacity of, maintenance of and safety of the shared rail infrastructure impacted by the Applicant's proposed increased transport (as outlined in the *Liddell Colliery Modification to Development Consent Environmental Assessment*), to the satisfaction of the Director General; and
 - (b) the outcomes of those studies have been implemented, to the satisfaction of the Director General.
41. The Applicant shall ensure that the privately-owned sections of Pikes Gully Road are not used for increased transport of either product coal or ROM coal (ie above the limits prevailing under the consent prior to the approval of application 06_0327) until:
- (a) studies have been completed by independent consultants on access to, capacity of, maintenance of and safety of the shared road infrastructure impacted by the Applicant's proposed increased transport (as outlined in the *Liddell Colliery Modification to Development Consent Environmental Assessment*), to the satisfaction of the Director General; and
 - (b) the outcomes of those studies have been implemented, to the satisfaction of the Director General.

Old New England Highway/Access Road Intersection

- 41a. The Applicant shall construct the realignment of the Old New England Highway and the Old New England Highway/Access Road intersection to the satisfaction of Singleton Shire Council.

Monitoring of Coal Transport

42. The Applicant shall:
- (a) 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
 - (b) include these records in the AEMR.

VISUAL IMPACT

Visual Amenity

43. The Applicant shall implement measures to mitigate the visual impacts, including the design and construction of development infrastructure in a manner that minimises visual contrasts, to the satisfaction of the Director-General.

Lighting Emissions

44. The Applicant shall:
- (a) take all practicable measures to mitigate off-site lighting impacts from the development; and
 - (b) 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 Director-General.

GREENHOUSE GAS

Energy Savings Action Plan

45. The Applicant shall prepare and implement an Energy Savings Action Plan for the development, in accordance with the requirements and guidelines of DWE, and to the satisfaction of the Director-General. The plan shall be submitted to the Director-General by 31 January 2008.

Monitoring and Reporting

46. The Applicant shall:
- (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 AEMR, to the satisfaction of the Director-General.

WASTE MINIMISATION

47. The Applicant shall:
- (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;
 - (d) ensure irrigation of treated wastewater is undertaken in accordance with DECC's *Environmental Guideline for the Utilisation of Treated Effluent*; and
 - (e) report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.
-

SCHEDULE 4 ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT

NOTIFICATION OF LANDOWNERS

1. By 31 October 2007, the Applicant shall 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 in [Schedule 3](#), 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 shall notify the Director-General 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 shall develop a brochure 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 Director-General. The brochure shall be prepared in consultation with NSW Health, and be submitted to the Director-General by 31 January 2008.

The Applicant shall review relevant human health studies and update this brochure every 3 years, to the satisfaction of the Director-General.

The Applicant shall provide this brochure (and associated updates) to all landowners and/or existing or future tenants (including tenants of mine owned properties) of properties where:

- (a) the predictions in the EA identify that the dust emissions generated by the development are likely to be greater than the air quality land acquisition criteria in [Schedule 3](#); and
- (b) monitoring results identify that the mine is exceeding the air quality land acquisition criteria in [Schedule 3](#).

INDEPENDENT REVIEW

4. If a landowner considers the development to be exceeding the impact assessment criteria in [Schedule 3](#), except where this is predicted in the EA, then he/she may ask the Director-General in writing for an independent review of the impacts of the development on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Applicant shall within 3 months of the Director-General advising that an independent review is warranted:

- (a) consult with the landowner to determine his/her concerns;
 - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to determine whether the development is complying with the relevant impact assessment criteria in [Schedule 3](#), and identify the source(s) and scale of any impact on the land, and the development's contribution to this impact; and
 - (c) give the Director-General 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 Director-General.
 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 shall:
 - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the development complies with the relevant criteria; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance; or
 - (c) secure a written agreement with the landowner to allow exceedances of the criteria in [Schedule 3](#),
to the satisfaction of the Director-General.

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 Director-General.

If the Applicant is unable to finalise an agreement with the landowner, then the Applicant or landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 4).

If the measures referred to in (a) do not achieve compliance with the air quality and/or noise land acquisition criteria in [Schedule 3](#), and the Applicant cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then the Applicant shall, upon receiving a written request from the landowner, acquire all or part of the landowner's land in accordance with the procedures in conditions 10-12 below.

7. If the independent review determines that the relevant criteria in [Schedule 3](#) are being exceeded, but that more than one mine is responsible for this non-compliance, then the Applicant shall, together with the relevant mine/s:
- (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance; or
 - (c) secure a written agreement with the landowner and other relevant mines to allow exceedances of the criteria in [Schedule 3](#),
- to the satisfaction of the Director-General.

If the additional monitoring referred to above subsequently determines that the developments are complying with the relevant criteria in [Schedule 3](#), then the Applicant may discontinue the independent review with the approval of the Director-General.

If the Applicant is unable to finalise an agreement with the landowner and/or other mine/s, then the Applicant or landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 4).

If the measures referred to in (a) do not achieve compliance with the air quality and/or noise land acquisition criteria in [Schedule 3](#), and the Applicant together with the relevant mine/s cannot secure a written agreement with the landowner to allow these exceedances within 3 months, then upon receiving a written request from the landowner, the Applicant shall acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s, in accordance with the procedures in conditions 10-12 below.

8. If the landowner disputes the results of the independent review, either the Applicant or the landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process.

9. If, following the Independent Dispute Resolution Process, the Director-General decides that the Applicant shall acquire all or part of the landowner's land, then the Applicant shall acquire this land in accordance with the procedures in conditions 10-12 below.

LAND ACQUISITION

10. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:
- (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the development the subject of the development application, 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 property 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 or Muswellbrook local government area, or to any other local government area determined by the Director-General;
 - 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 at the end of this period, 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 Director-General for resolution.

Upon receiving such a request, the Director-General 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.

Within 14 days of receiving the independent valuer's determination, the Applicant shall make a written offer to purchase the land at a price not less than the independent valuer'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 Director-General.

11. The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, or the Director-General and the costs of determination referred above.
 12. If the Applicant and landowner agree that only part of the land shall be acquired, then the Applicant shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.
-

SCHEDULE 5

ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Director-General. This strategy must be submitted to the Director-General by 31 January 2008, and:
 - (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; and
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development.

ENVIRONMENTAL MONITORING PROGRAM

2. The Applicant shall prepare and implement an Environmental Monitoring Program for the development to the satisfaction of the Director-General. This program must be submitted to the Director-General by 31 January 2008, and consolidate the various monitoring requirements in [Schedule 3](#) of this consent into a single document.

ANNUAL REPORTING

3. Each year, the Applicant shall prepare an AEMR to the satisfaction of the Director-General. This report 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 summary of the complaints received during the past year, and compare this to the complaints received in the previous 5 years;
 - (e) include a summary of the monitoring results on the development during the past year;
 - (f) include an analysis of these monitoring results against the relevant:
 - limits/criteria in this consent;
 - monitoring results from previous years; and
 - predictions in the EA noted in condition 2(i) of Schedule 3;
 - (g) identify any trends in the monitoring over the life of the development;
 - (h) identify and discuss any non-compliance during the previous year; and
 - (i) describe what actions were, or are being, taken to ensure compliance.

INDEPENDENT ENVIRONMENTAL AUDIT

4. Within 2 years of the approval of modification application 06_0327, and every 3 years thereafter, unless the Director-General directs otherwise, the Applicant shall 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 Director-General;
 - (b) assess the environmental performance of the development, and its effects on the surrounding environment;
 - (c) assess whether the development is complying with the relevant standards, performance measures, and statutory requirements;
 - (d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,
 - (e) recommend measures or actions to improve the environmental performance of the development, and/or any strategy/plan/program required under this approval.

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 Director-General, the Applicant shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.
6. Within 3 months of submitting the audit report to the Director-General, the Applicant shall review and if necessary revise the strategies/plans/programs required under this approval, to the satisfaction of the Director-General.

COMMUNITY CONSULTATIVE COMMITTEE

7. The Applicant shall maintain a Community Consultative Committee for the development. This committee shall:
 - (a) be comprised of:
 - 2 representatives from the Applicant, including the person responsible for environmental management at the mine;
 - at least 1 representative from each of MSC and SSC (if available); and
 - at least 3 (or as otherwise agreed with the Director-General) representatives from the local community whose appointment has been approved by the Director-General;
 - (b) be chaired by an independent chairperson, whose appointment has been approved by the Director-General;
 - (c) meet at least twice during the construction phase for the new Liddell CHPP, and thereafter at least twice per year;
 - (d) review the Applicant's performance with respect to environmental management and community relations;
 - (e) undertake regular inspections of the mining operations;
 - (f) review community concerns or complaints about the mine operations, and the Applicant's complaints handling procedures;
 - (g) provide advice to:
 - the Applicant on improved environmental management and community relations, including the provision of information to the community and the identification of community initiatives to which the Applicant could contribute;
 - the Department regarding the conditions of this consent; and
 - the general community on the performance of the mine with respect to environmental management and community relations; and
 - (h) be operated generally in accordance with any guidelines the Department may publish in regard to the operation of Community Consultative Committees for mining projects.

Note: The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.

8. The Applicant shall, at its own expense:
 - (a) ensure that 2 of its representatives attend CCC meetings;
 - (b) provide the CCC with regular information on the environmental performance of the development;
 - (c) provide meeting facilities for the CCC;
 - (d) arrange site inspections for the CCC, if necessary;
 - (e) respond to any advice or recommendations the CCC may have in relation to environmental management or community relations;
 - (f) take minutes of the CCC meetings;
 - (g) forward a copy of these minutes to the Director-General; and
 - (h) put a copy these minutes on its website.

ACCESS TO INFORMATION

9. By 31 January 2008, the Applicant shall establish a website to provide access to information as outlined in [Schedule 5](#) throughout the life of the mine.
10. Within 3 months of the approval of any plan/strategy/program required under this consent (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMRs required under this consent, the Applicant shall:
 - (a) provide a copy of the relevant document/s to the relevant agencies;
 - (b) ensure that a copy of the relevant document/s is made publicly available at the mine; and
 - (c) put a copy of the relevant document/s on its website.
11. During the life of the development, the Applicant shall:
 - (a) make a summary of monitoring results required under this consent publicly available at the mine and on its website; and
 - (b) update these results on a regular basis (at least every three months).

APPENDIX 1 SCHEDULE OF LAND

Local Government Area: Muswellbrook Shire

Lot	DP	County	Parish
Part C.R. 197 MS 8378		Durham	Liddell
4	201211	Durham	Liddell
2	231880	<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>
12	579783	Durham	Liddell
1	583527	Durham	Liddell
125	752470	Durham	Liddell
135	752470	Durham	Liddell
101	825292	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
381	869839	Durham	Liddell
13	979456	Durham	Liddell
40	Sec B 6842	Durham	Liddell
1	1012624	Durham	Liddell
101	1053098	Durham	Liddell
1	1103323	Durham	Liddell
Various unformed Crown road reserves	Durham	Liddell	

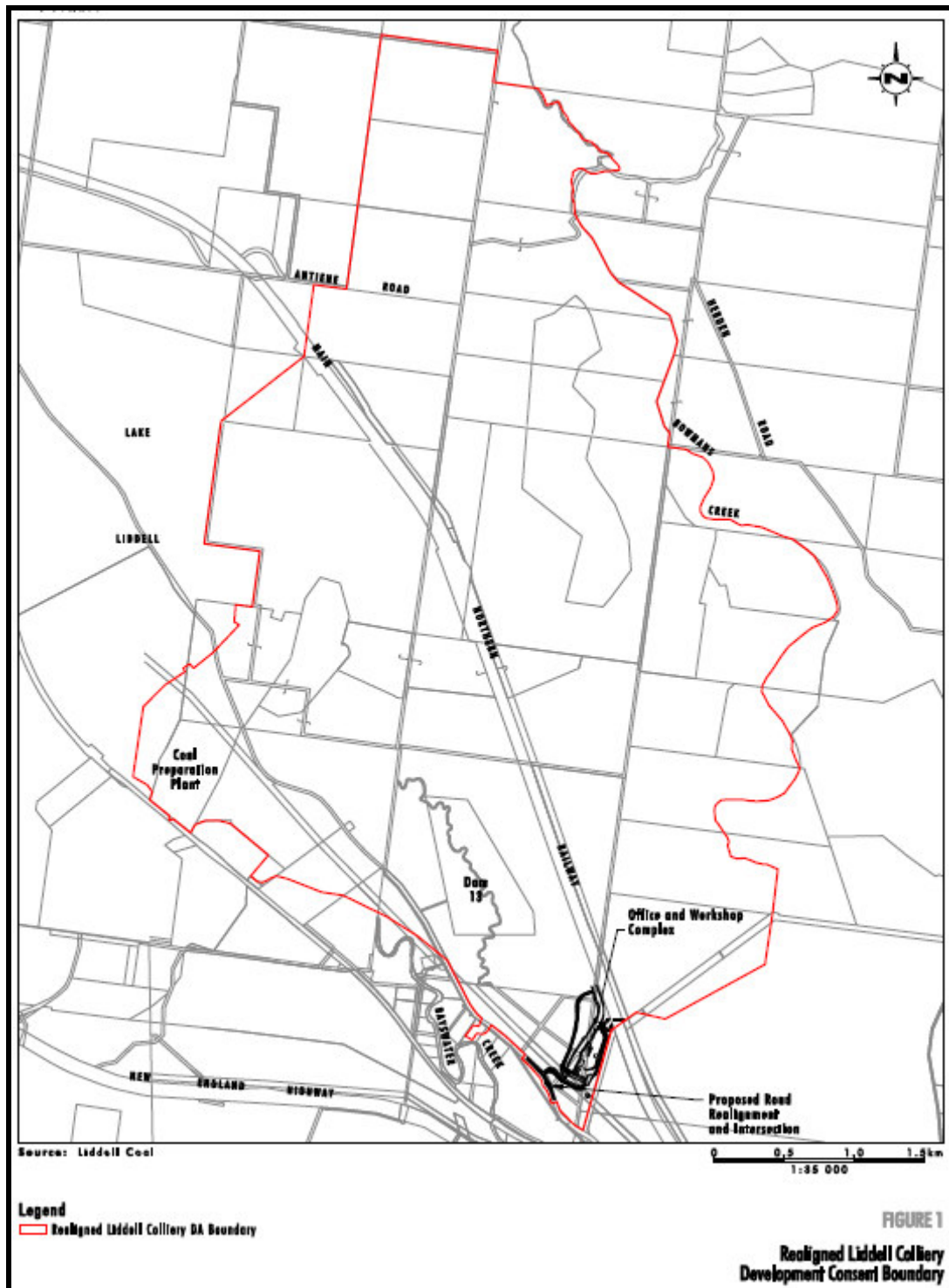
Note: Lots shown in **bold** font are part of the Cumnock CHPP site.
 Lots shown in *italic* font are part of the Main Northern Railway easement.

Local Government Area: Singleton Shire

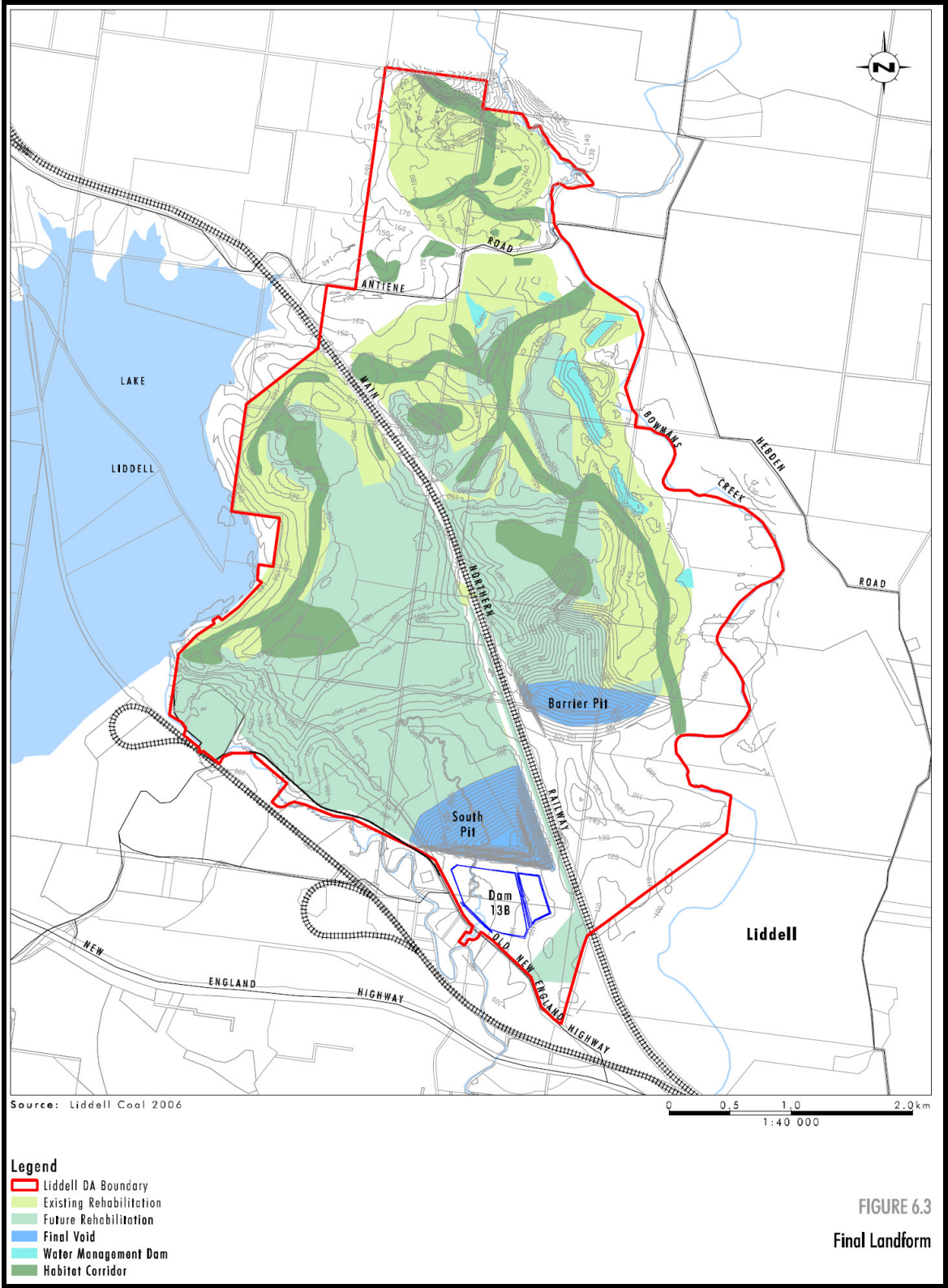
Lot	DP	County	Parish
40	6842	Durham	Liddell
42	6842	Durham	Liddell
Pt Lot 1	201214	Durham	Liddell
1	213065	Durham	Liddell
3	213065	Durham	Liddell
2	233019	Durham	Liddell
1	237655	Durham	Liddell
2	237655	Durham	Liddell
3	237655	Durham	Liddell
1	237766	Durham	Liddell
2	237766	Durham	Liddell
4	255403	Durham	Liddell
Pt Lot 6	255403	Durham	Liddell
1	403032	Durham	Liddell
Pt Lot 32	545601	Durham	Liddell
<i>2</i>	<i>534888</i>	<i>Durham</i>	<i>Liddell</i>
<i>1</i>	<i>565031</i>	<i>Durham</i>	<i>Liddell</i>
80	607296	Durham	Liddell
Pt Lot 81	607296	Durham	Liddell
43	654013	Durham	Liddell
Pt Lot 101	700429	Durham	Liddell
225	752470	Durham	Liddell
2	776382	Durham	Liddell
101	825292	Durham	Liddell
25	841160	Durham	Liddell
23	841165	Durham	Liddell
24	841165	Durham	Liddell
Pt Lot 201	848078	Durham	Liddell
100	858173	Durham	Liddell
181	858299	Durham	Liddell
Pt Lot 33		862516	Durham
35	862516	Durham	Liddell
36	862516	Durham	Liddell
Pt Lot 353	867083	Durham	Liddell
Pt Lot 354	867083	Durham	Liddell
31	870789	Durham	Liddell
32	870789	Durham	Liddell
Pt Lot 211	975271	Durham	Liddell
1	1095202	Durham	Liddell
1	1103323	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.

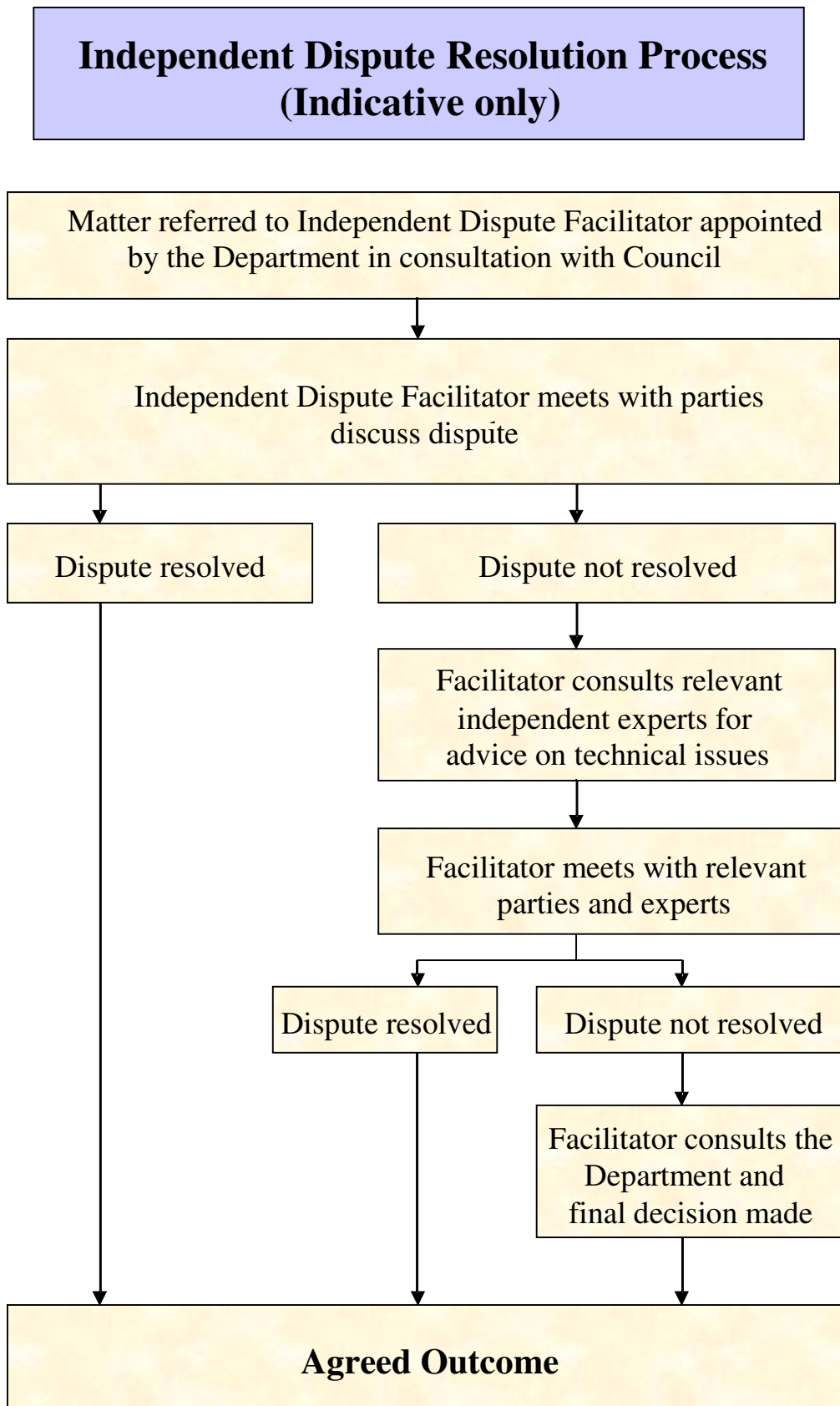
APPENDIX 2 MAP OF THE SITE



APPENDIX 3:
CONCEPTUAL FINAL LANDFORM DESIGN



**APPENDIX 4
INDEPENDENT DISPUTE RESOLUTION PROCESS**



APPENDIX 5 STATEMENT OF COMMITMENTS

The Director-General's requirements for the Liddell Development Consent Modification project require that the Part 3A environmental assessment for the project include a Statement of Commitments which details the measures proposed by the Applicant for environmental mitigation, management and monitoring of the proposed project.

If approval is granted under Part 3A of the Environmental Planning and Assessment Act 1979 for the proposed Liddell Development Consent Modification project the Applicant will commit to the following:

- 1.1 The Applicant will carry out the existing operations and the Liddell Development Consent Modification project application generally in accordance with the:
- existing development consent (DA 305-11-01) as modified by the Part 3A project application and supporting EA, including the following commitments, for the Liddell Development Consent Modification project; and
 - the Part 3A project application and supporting EA.

If there is any inconsistency between the conditions of this Statement of Commitments or the EA the conditions of this Statement of Commitments shall prevail to the extent of the inconsistency.

Period of Approval

- 1.2 The project approval life will continue to be 21 years from the date of the current development consent (DA 305-11-01).

Closure and rehabilitation activities may continue beyond the project approval period if undertaken in accordance with an approved Mining Operations Plan.

Limits on Production

- 1.3 ROM coal production from the Project shall not exceed 8 Mtpa. Up to 1.5Mtpa of ROM coal produced from the Project can be delivered to the Cumnock No.1 Colliery for processing.
- 1.4 Processing of ROM coal at the Liddell Coal Preparation Plant and Rail Loading Facility shall not exceed 8Mtpa of ROM coal. This may include the processing of up to 1.5 Mtpa of coal from Cumnock No.1 Colliery.
- 1.5 The proposed increased use of the Hunter Valley Rail Loop from the approved 127 loading days to a maximum of 220 loading days will not be undertaken until:
- a jointly commissioned study is completed by an independent consultant on the adequacy of, capacity of and access to, and safety of rail infrastructure impacted by Liddell Coal's increased use from its proposed extension, is completed to the satisfaction of the Director General; and
 - the outcomes of this joint study are implemented to the satisfaction of the Director General.
- 1.6 The proposed increased use of Pikes Gully Road for the transportation of ROM coal from the approved 0.3 Mtpa to 1.5 Mtpa will not be undertaken until:
- a jointly commissioned study is completed by an independent consultant on the adequacy of, capacity of and access to, and safety of, the shared road infrastructure impacted by Liddell Coal's increased use from its proposed extension, is completed to the satisfaction of the Director General; and
 - the outcomes of this completed joint study are implemented to the satisfaction of the Director General.

Traffic and Transport

- 1.7 The Applicant shall ensure that all product coal from the Liddell CHPP is transported by rail.
- 1.8 Liddell ROM coal processed at Cumnock No.1 Colliery will be despatched by Cumnock No.1 Colliery's approved method or be returned to Liddell for despatch via rail.
- 1.9 Up to 0.5 Mtpa of tailings material will be transported via road to Macquarie Generation power stations in the local area.
- 1.10 Liddell will facilitate the installation of appropriate street lighting at the intersection of the Old New England Highway and New England Highway in consultation with the RTA as part of the Construction Traffic Management Plan. Liddell's financial contribution to the installation of street lighting at the

intersection of the Old New England Highway and New England Highway will be proportional to the traffic contribution of other road users and will be determined in consultation with the RTA and Singleton Council and to the satisfaction of the Director General.

Environmental Management Plans and Strategies

- 1.11 Key commitments from the following existing management plans will be integrated into the Liddell Environmental Management System as operational procedures:
- Spontaneous Combustion Management Plan
 - Lighting Management Plan
 - Public Road Management Plan
- 1.12 The Flora and Fauna Management Plan, Bushfire Management Plan, Landscape and Revegetation Management Plan and Land Management Plan will be integrated into a single Biodiversity and Land Management Plan.

Heritage Assessment, Management and Monitoring

Liddell will update the Aboriginal Cultural Heritage Management Plan to include the outcomes provided in **Section 6.6** of the EA.

- 1.13 The Aboriginal Cultural Heritage Management Plan will be revised in consultation with the relevant Aboriginal stakeholders and the DECC to formulate a strategy to mitigate and manage the impacts of the proposal on Aboriginal cultural heritage. The plan will include procedures for ongoing Aboriginal consultation and involvement, management of recorded sites within the investigation area, further archaeological investigation prior to mining, management of previously unrecorded sites (including skeletal remains) and the management of artefacts collected/salvaged from the sites to be impacted by works for this project. The plan will be regularly reviewed to establish that it is functioning as proposed and to the standard required by DECC.
- 1.14 Liddell will seek Section 90 Consent under the National Parks and Wildlife Act 1974 for LID2, LID3, LID4, LID5, LID33, LID23, LID24, LID25, LID27, SP1, SP2, SP3, and Brayshaw B. The section 90 consent Application process will be undertaken in consultation with the Aboriginal stakeholder groups and the DECC.
- 1.15 Unless the relevant permit is in place, if, during the course of excavation, Liddell discovers, or disturbs archaeological relics, all work likely to affect the material must cease immediately and the Heritage Office consulted about the appropriate course of action prior to recommencement of work to the satisfaction of the Director General.

Site Rehabilitation

- 1.16 Liddell will develop a Final Void Management Plan as part of the Landscape Management Plan and review and update the Final Void Management Plan at least five years prior to the cessation of mining.

Ecological Management

- 1.17 Liddell will undertake habitat enhancement actions at Dam 3 (where achievable) and the Mountain Block Dam as described in **Section 6.5.3.3** of this EA to provide potential habitat for the blue-billed duck. This will include dam design to enable a maximum water depth of five (5) metres to be maintained over at least half of the maximum surface area of the dams.
- 1.18 Liddell will engage a suitably qualified ecologist to advise on the wetland habitat of the blue-billed duck and develop a strategy (for implementation by Liddell) that will provide an acceptable intensity and extent of coverage of appropriate vegetation species. The success of emergent vegetation establishment and the need for additional plantings of emergent plant species will be assessed as part of the monitoring program listed in Section 6.5.3.3 of the EA.
- 1.19 Liddell will incorporate the management outcomes provided in Section 6.5 of this EA into the Biodiversity and Land Management Plan.
- 1.20 The appointed ecologist will select the appropriate nature and species of tree, the height and aspect of nest box installation sites (which may vary across the target species) and the spacing between nest boxes. The number and design of the nest boxes required will be determined by the appointed ecologist during clearing activities following assessment of the number and type of tree hollows removed during clearing.

Relocation of Services

- 1.21 Liddell will consult with Energy Australia as to the final alignment of the proposed electrical transmission lines.
- 1.22 Liddell will to the satisfaction of Energy Australia and at its own cost undertake the relocation and/or construction of any electrical transmission lines which are required as a result of the modifications outlined in the EA.
- 1.23 Liddell will revise the existing protocol with Telstra to incorporate any changes as a result of the modifications outlined in the EA.

Waste Management

- 1.24 Liddell will continue with implementation of the current waste management system.

Air Quality

- 1.25 Ongoing air quality controls will include:
- Disturbance of only the minimum area necessary for construction. Landscape/ rehabilitate completed areas as soon as practicable after the completion of construction works.
 - Maintain coal-handling areas / stockpiles in a moist condition to minimise wind-blown and traffic-generated dust.
 - Provide water sprays on ROM coal stockpiles and use sprays to reduce airborne dust, as required.
 - All active roads and trafficked areas will be watered using water carts to minimise the generation of dust as required and/or where practicable agglomeration agents will be utilised to minimise dust emissions.
 - All unsealed roads will be surfaced with selected hard, non-friable material as required to reduce dust generation.
 - All roads will have edges clearly defined with marker posts or equivalent to control their locations and prevent vehicle deviations.
 - Obsolete roads will be ripped and revegetated.
 - Development of construction roads will be limited and the locations of these will be clearly defined as required.
 - Tracks used by topsoil stripping equipment during their loading and unloading cycle will be watered.
 - Long term topsoil stockpiles, not planned to be used for a period exceeding twelve months, will be revegetated.
 - Spoil excavation or tipping activities will be relocated or temporarily halted, where necessary, during periods of high wind.
 - Overburden emplacement areas will be progressively rehabilitated, where practicable, and seeded to minimise dust emissions.
 - During hot, dry or windy conditions drill patterns will be watered as required.
 - Dust aprons will be lowered during drilling.
 - Drills will be equipped with dust extraction cyclones and water injection/spray systems.
 - Water injection or dust suppression sprays will be used on drills when high levels of dust are being generated.
 - Adequate stemming will be used at all times.
 - All equipment will be maintained in a good working order to limit exhaust fumes.
 - Controls used to manage spontaneous combustion will be integrated with operational procedures.
 - The existing Liddell Colliery Spontaneous Combustion Management Plan will be integrated into the Liddell environmental management system as a procedure and implemented and updated, as required.
 - All construction vehicle operators will be made aware by signage (where practicable) and the induction process of speed limits that apply at Liddell Colliery.
 - Dust screens and stabilising agents will be used on construction material stockpiles containing fine material as required.
 - Excess mud will be removed from vehicles before entering public roads from the site.
- 1.26 Liddell will continue to monitor dust concentration and dust deposition through the existing air quality monitoring system comprising four (4) High Volume Air Samplers and ten (10) dust depositional gauges.

- 1.27 All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises will be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.

Noise

Noise Impact Assessment Criteria

- 1.28 Where it can be demonstrated that direct measurement of noise from the premises is impractical, alternative means of determining compliance outlined in Chapter 11 of the NSW Industrial Noise Policy may be utilised.

Noise Management

- 1.29 Liddell Coal will develop a Noise Monitoring Program to replace the existing Noise Management Plan in relation to the noise assessment contained in **Section 6.3** and **Appendix 5** of the EA.
- 1.30 Liddell will continue to undertake bi-annual noise monitoring in accordance with the approved Noise Management Program at five locations including residences 2, 3, 6, 17 and 23.

Blasting

- 1.31 Liddell will develop a Blast and Vibration Monitoring Program in place of the existing Blast and Vibration Management Plan. This program includes a regular monitoring program to assess potential blast impacts at critical structures. These management measures will be maintained and regularly reviewed throughout the proposed mining operation.

If Liddell Coal has negotiated a written blast overpressure and ground vibration agreement with any landowner and a copy of this agreement has been forwarded to DOP and DECC, the relevant blast overpressure and ground vibration criteria levels from the project may exceed the relevant criteria, in accordance with the agreement.

- 1.32 Liddell will continue to monitor ground vibration levels at the Chain of Ponds Hotel and continue to undertake further assessment to determine appropriate vibration criteria.

Water Management

- 1.33 Where required during construction phase for development relating to application No. 06-0327 sediment and erosion controls will be designed and implemented in accordance with Managing Stormwater: Soils and Construction (Landcom, 2004).
- 1.34 Liddell will develop a revised Water Management Plan to incorporate existing mining operations with development relating to application No. 06-0327.
- 1.35 Soil and water management controls will minimise soil erosion and discharge of sediment and other pollutants to lands and/or waters during construction activities relating to application No. 06-0327 in accordance with the requirements outlined in Managing Urban Stormwater: Soils and Construction (available from the Department of Housing).
- 1.36 Following the construction phase of development relating to application No. 06-0327, stormwater management measures will be implemented to mitigate the impacts of stormwater run-off from and within the facilities area in a manner that is consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the measures will be consistent with the guidance contained in Managing Urban Stormwater: Council Handbook (available from the DECC).

Pollution of Waters

- 1.37 Except as may be expressly provided by a licence issued under the Protection of Environment Operations Act 1997 in relation to the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.
- 1.38 Modifications to dam 13B will prevent external catchment runoff draining into the dam

Management of Effluent Utilisation Area

- 1.39 The on-site effluent irrigation/disposal area(s) will be designed, constructed and operated in accordance with the document "Environmental Guidelines: Use of Effluent by Irrigation" (DEC, 2004).
- 1.40 The perimeter of the utilisation area will be contoured to prevent stormwater running onto the utilisation area from all storm events less than or equal to a 1 in 10 year 24 hour duration storm event.
- 1.41 Effluent application will not occur in a manner which causes surface runoff from the utilisation area into adjacent waterways.

Fuel and chemical storage

- 1.42 All liquid chemicals, fuels and oils will be stored in containers inside suitable bund(s). Bund(s) are to be designed, constructed and maintained in accordance with the DECC Technical Guideline "Bunding and Spill Management".

Desalination Plant

- 1.43 Before the commencement of construction of the desalination plant, details of the preferred option for the treatment and/or disposal of brine, including a comprehensive assessment of the environmental impacts/benefits arising from the implementation of the preferred options will be provided to DECC, DNR and DoP.

Visual Management

- 1.44 In addition to existing visual management commitments the Applicant will undertake screen plantings along the western boundary of the proposed office and workshop area to further minimise potential visual impacts to the New England Highway.

Annual Reporting

- 1.45 Details of the Liddell operations including compliance with the Conditions of Consent will continue to be reported annually in an Annual Environmental Management Report (AEMR)

Independent Environmental Audit

- 1.46 The Applicant will continue to commission an independent environmental audit of operations.

Community Consultative Committee

- 1.47 Liddell will maintain the Community Consultative Committee (CCC).
- 1.48 The members and chair of the CCC shall be determined in consultation with the DoP. Representatives may include persons from MSC, SSC, persons from the MSC local government area and persons from the SSC local government area. .