

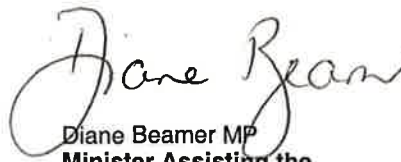
Development Consent

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

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

These conditions are required to:

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



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

4 FEB 2004

Sydney,

File No: S02/02197

SCHEDULE 1

Development Application:	DA 305-7-2003;
Applicant:	Wambo Coal Pty Limited;
Consent Authority:	Minister for Infrastructure and Planning;
Land:	See Appendix 1;
Proposed Development:	The development of open cut and underground mining operations at the Wambo coal mine in general accordance with the Environmental Impact Statement for <i>the Wambo Development Project</i>, which includes: • continued development of open cut and underground mining operations within existing Wambo Coal Pty Limited (WCPL) mining and coal leases and into new mining lease application area; • selective auger mining of the Whybrow, Redbank Creek, Wambo and Whynot seams up to 200 m beyond the open cut limits within WCPL owned land; • continued placement of waste rock and coarse rejects within mine waste rock emplacements; • continued placement of tailings within open cut voids and capping with waste rock and coarse rejects; • an extension to the existing Wollemi Underground Mine Box Cut (within the limits of the development open cut mining area) to provide direct access for three underground longwall panels in the Whybrow Seam; • an extension to the drifts from the Wollemi Underground Mine to facilitate longwall mining of the Wambo Seam; • construction of a portal and drift access to facilitate longwall mining of the Arrowfield and Bowfield Seams; • an upgrade of the existing Coal Handling and Preparation Plant (CHPP) to facilitate increased coal production;

- development of a water control structure across North Wambo Creek at the north-western limit of the open cut operation, and a channel to allow the passage of flows to the lower reaches of North Wambo Creek around the open cut development;
- degazettal and physical closure of Pinegrove Road;
- development of new access roads and internal haul roads;
- relocation of the existing explosives magazine and construction of additional hydrocarbon storage facilities;
- relocation of the administration area and site offices;
- extraction of up to 14.7 million tonnes of run-of-mine (ROM) coal a year;
- operation of the mine 24 hours a day, 7 days a week;
- continued haulage of coal by road from Wambo Coal Mine to Mt Thorley Coal Loader prior to the commissioning of the Wambo "Rail and Train Loading Infrastructure" (which is the subject of a separate development application: DA 306-7-2003); and
- haulage of coal by the Wambo "Rail and Train Loading Infrastructure".

State Significant Development:

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

Integrated Development:

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

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

Designated Development:

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

BCA Classification:

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

Note:

- 1) To find out when this consent becomes effective, see section 83 of the *Environmental Planning & Assessment Act 1979* (EP&A Act);
- 2) To find out when this consent is liable to lapse, see section 95 of the EP&A Act; and
- 3) To find out about appeal rights, see section 97 of the EP&A Act.

SCHEDULE 2 DEFINITIONS

AEMR	Annual Environmental Management Report
Applicant	Wambo Coal Pty Limited
BCA	Building Code of Australia
Bore	Any bore or well or excavation or other work connected or proposed to be connected with sources of sub-surface water, and used or proposed to be used or capable of being used to obtain supplies of such water whether the water flows naturally at all times or has to be raised whether wholly or at times by pumping or other artificial means
CCC	Community Consultative Committee
Council	Singleton Shire Council
DA	Development Application
Day	Day is defined as the period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
DEC	Department of Environment and Conservation
Department	Department of Infrastructure, Planning and Natural Resources
Director-General	Director-General of Department of Infrastructure, Planning and Natural Resources, or delegate
DMR	Department of Mineral Resources
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
Evening	Evening is defined as the period from 6pm to 10pm
First Workings	Underground workings which establish access to the coal resource area
GTA	General Term of Approval
Land	Land means the whole of a lot in a current plan registered at the Land Titles Office at the date of this consent
Minister	Minister for Infrastructure and Planning, or delegate
MOP	Mining Operations Plan
MSB	Mine Subsidence Board
Night	Night is defined as the period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Offset Strategy	The revegetation and enhancement program described in the EIS for the Wambo Development Project, dated July 2003
PCA	Principal Certifying Authority appointed under Section 109E of the Act
Privately-owned land	Land excluding land owned by a mining company, where: • A private agreement does not exist between the Applicant and the land owner; and • There are no land acquisition provisions requiring the Applicant to purchase the land upon request from the land owner.
ROM Coal	Run-of-mine coal
RTA	Roads and Traffic Authority
Southern Area	See Figure HA-5 in Appendix HA of Volume 4 of the EIS for the Wambo Development Project
Site	Land to which the DA applies
Vacant land	Vacant land is defined as the whole of the lot in a current plan registered at the Land Titles Office that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot at the date of this consent.

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SCHEDULE 3 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 Approval

2. The Applicant shall carry out the development generally in accordance with the:
 - (a) DA 305-7-2003;
 - (b) EIS titled *Wambo Development Project*, volumes 1-5, dated July 2003, and prepared by Resource Strategies Pty. Ltd.;
 - (c) letter from Holmes Air Sciences to the Department, dated 3 September 2003, and titled *Wambo Development Project - Response Air Quality Assessment*;
 - (d) letter from Wambo Coal Pty. Ltd. to the Department, dated 24 October 2003, and titled *Wambo Development Project – Development Application Amendment (DA 305-7-2003-i)*; and
 - (e) conditions of this consent.
3. If there is any inconsistency between the above, the conditions of this consent shall prevail to the extent of the 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.

Deferred Commencement

5. This consent shall only commence when the Applicant has surrendered all previous development consents for the Wambo coal mine to the satisfaction of the Director-General.

Limits on Approval

6. This consent lapses 21 years after the date it commences.
7. The Applicant shall not extract more than 14.7 million tonnes of ROM coal a year from the development.

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.
- The development is located in the Patrick Plains Mine Subsidence District. Under section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the Mine Subsidence Board's approval before constructing or relocating any improvements on the site.

Demolition

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

Operation of Plant and Equipment

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

Section 94 Contribution

11. Before carrying out any development, or as agreed otherwise by Council, the Applicant shall pay Council \$60,000 in accordance with Council's Section 94 Contribution Plan.

Community Enhancement Contribution

12. Before carrying out any development, or as agreed otherwise by Council, the Applicant shall pay Council \$15,000 for the enhancement of community infrastructure or services in the Warkworth/Jerrys Plains area.

SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS

ACQUISITION UPON REQUEST

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

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

Table 1: Land subject to acquisition upon request

Note: For more information on the numbering and identification of properties used in this consent, see Attachment 1 of the EIS for the Wambo Development Project.

AIR QUALITY

Impact Assessment Criteria

2. The Applicant shall ensure that the air pollution generated by the development does not exceed the criteria listed in Tables 2, 3, and 4 at any privately-owned land.

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 $\mu\text{g}/\text{m}^3$
Particulate matter < 10 μm (PM ₁₀)	Annual	30 $\mu\text{g}/\text{m}^3$

Table 2: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 μm (PM ₁₀)	24 hour	50 $\mu\text{g}/\text{m}^3$

Table 3: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 $\text{g}/\text{m}^2/\text{month}$	4 $\text{g}/\text{m}^2/\text{month}$

Table 4: Long term impact assessment criteria for deposited dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

Land Acquisition Criteria

3. If the air pollution generated by the development exceeds the criteria in Tables 5, 6, and 7 at 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 9-11 of schedule 5.

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 $\mu\text{g}/\text{m}^3$
Particulate matter < 10 μm (PM_{10})	Annual	30 $\mu\text{g}/\text{m}^3$

Table 5: Long term land acquisition criteria for particulate matter

Pollutant	Averaging period	Criterion	Percentile ¹	Basis
Particulate matter < 10 μm (PM_{10})	24 hour	150 $\mu\text{g}/\text{m}^3$	99 ²	Total ³
Particulate matter < 10 μm (PM_{10})	24 hour	50 $\mu\text{g}/\text{m}^3$	98.6	Increment ⁴

Table 6: Short term land acquisition criteria for particulate matter

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 DEC.

³Background PM_{10} concentrations due to all other sources plus the incremental increase in PM_{10} concentrations due to the mine alone.

⁴Incremental increase in PM_{10} concentrations due to the mine alone.

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 $\text{g}/\text{m}^2/\text{month}$	4 $\text{g}/\text{m}^2/\text{month}$

Table 7: Long term land acquisition criteria for deposited dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

¹Monitoring

4. The Applicant shall establish air quality monitoring stations at a minimum of 4 locations around the site, including the residences on properties 40 (Muller) and 125 (Barry) whilst privately-owned, to monitor (by sampling and obtaining results by analysis) the concentration of each pollutant in Table 8 to the satisfaction of DEC and the Director-General, using the specified averaging period, frequency, and sampling method:

Pollutant	Units of Measure	Averaging Period	Frequency	Sampling method ¹
PM_{10}	$\mu\text{g}/\text{m}^3$	24 hour, annual	Continuous	AS3580.9.8 – 2001 ²
TSP	$\mu\text{g}/\text{m}^3$	24 hour, annual	1 day in 6	AM-15
Dust Deposition	$\text{g}/\text{m}^2/\text{month}$	Month, annual	Continuous	AM-19
Siting	-	-	-	AM-1

Table 8: Air quality monitoring

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

¹ Incorporates DEC GTA

²Standards Australia, 2001, AS3580.9.8-2002, Method for Sampling and Analysis of Ambient Air - Determination of Suspended Particulate Matter - PM₁₀ Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser, or any other method that is approved by the DEC and the Director-General.

5. Before carrying out any development, the Applicant shall prepare an Air Quality Monitoring Program, in consultation with DEC, and to the satisfaction of the Director-General.

²NOISE

Noise Impact Assessment Criteria

6. The Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria presented in Table 9.

Day <i>L_{Aeq}(15 minute)</i>	Evening/Night <i>L_{Aeq}(15 minute)</i>	Night <i>L_{A1}(1 minute)</i>	Land Number
35	41	50	94 – Curlewis
			3 – Birrell
			4B – Circosta
			15B – McGowen/Caslick
			16 – Cooper
			23C – Kannar
35	40	50	25 – Fenwick
			28A & B – Garland
			33 – Thelander/O'Neill
			39 – Northcote
			40 – Muller
			254A – Algie
35	39	50	5 – Strachan
			6 – Merrick
			7 – Maizey
			37 – Lawry
			48 – Ponder
35	38	50	1 – Brosi
			17 – Carter
			18 – Denney
			38 – Williams
			49 – Oliver
			63 – Abrocuff
			75 – Barnes
			91 – Bailey
35	37	50	27 – Birralee
			43 – Carmody
			137 – Woodruff
			163 – Rodger/Williams
			246 – Bailey
35	36	50	13B – Skinner
			178 – Smith
			188 – Fuller
			262A, B & C – Moses
35	35	50	All other residential or sensitive receptors, excluding the receptors listed in condition 1 above

Table 9: Noise impact assessment criteria dB(A))

Notes:

- a) Noise from the development is to be measured at the most affected point or 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, to determine compliance with the *L_{Aeq}(15 minute)* noise limits in the above table. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DEC 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.

² Incorporates DEC GTAs

- b) Noise from the development is to be measured at 1 metre from the dwelling façade to determine compliance with the $L_{A1(1 \text{ minute})}$ noise limits in the above table.
- c) 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

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

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

Table 10: Land acquisition criteria dB(A)

Note: Noise generated by the development is to be measured in accordance with the notes presented below Table 9 above.

Monitoring

8. The Applicant shall conduct real-time monitoring of the noise generated by the development at a minimum of four properties to the south and north-west of the site, in general accordance with the *NSW Industrial Noise Policy* and *AS1055-1997: Acoustics – Description and Measurement of Environmental*.
9. Before carrying out any development, the Applicant shall prepare a Noise Monitoring Program to the satisfaction of the Director-General, which includes a noise monitoring protocol for evaluating compliance with the criteria in Tables 9 & 10.

³METEOROLOGICAL MONITORING

10. The Applicant shall establish a permanent meteorological station at a location approved by the DEC, and to the satisfaction of the Director-General, to monitor the parameters specified in Table 11, using the specified units of measure, averaging period, frequency, and sampling method in the table.

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

Table 11: Meteorological monitoring

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

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

³ Incorporates DEC GTA

⁴BLASTING & VIBRATION

Airblast Overpressure Limits

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

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

Table 12: Airblast overpressure impact assessment criteria

Ground Vibration Impact Assessment Criteria

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

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

Table 13: Ground vibration impact assessment criteria

Blasting Hours

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

Public Notice

14. During the life of the development, the Applicant shall:
- operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on blasting operations at the development; and
 - notify the occupants of any land within 2 km of the site about this hotline or system on an annual basis.

Property Inspection

15. Before carrying out any blasting, the Applicant shall advise all landowners within 2 km of the site that they are entitled to a property inspection.
16. If the Applicant receives a written request for a property inspection from any landowner within 2 km of the site, the Applicant shall:
- within 14 days of receiving the request, commission a suitably qualified 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
 - give the landowner a copy of this property inspection report within 14 days of receiving the report.

⁴ Incorporates DEC GTA

Cumulative Impacts

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

Monitoring

18. The Applicant shall monitor the airblast overpressure and ground vibration impacts of the development at a minimum of four locations around the site, using the specified units of measure, frequency, sampling method, and location in Table 14.

Parameter	Units of Measure	Frequency	Sampling Method	Measurement Location
Airblast overpressure	dB(Lin Peak)	During every blast	AS2187.2-1993 ¹	Not less than 3.5 m from a building or structure
Peak particle velocity	mm/s	During every blast	AS2187.2-1993	Not more than 30 m from a building or structure

Table 14: Airblast overpressure and ground vibration monitoring

¹Standards Australia, 1993, AS2187.2-1993: Explosives - Storage, Transport and Use - Use of Explosives.

19. Before carrying out any development, the Applicant shall prepare a detailed Blast Monitoring Program for the development, in consultation with DEC, and to the satisfaction of the Director-General.

Blast Management

20. Before carrying out any development, the Applicant shall prepare a Blast Management Plan for property 13C (Skinner) in consultation with the landowner, and to the satisfaction of the Director-General. This plan must include measures to minimise, mitigate, and if necessary remediate the blasting impacts on the property. The Applicant shall implement this plan whilst the property is privately-owned.

Property Investigations

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

If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant 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 2).

SUBSIDENCE

Note: This development will be regulated under the new approval process for managing the impacts of coal mining subsidence under the Mining Act 1992.

Subsidence Management Plan

22. Before carrying out any underground mining operations that will potentially lead to subsidence of the land surface, the Applicant shall prepare a Subsidence Management Plan for those operations in accordance with the DMR documents:
- New Approval Process for Management of Coal Mining Subsidence - Policy; and
 - Guideline for Applications for Subsidence Management Approvals
- to the satisfaction of the Director-General of DMR.

⁵SURFACE & GROUND WATER

Note: The Applicant is required to obtain licences for the development under the Water Act 1912 and the Protection of the Environment Operations Act 1997.

Pollution of Waters

23. Except as may be expressly provided by a DEC licence, the Applicant shall comply with section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the development.

Discharge Limits

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

Pollutant	Units of measure	100 percentile concentration limit
pH	pH	$6.5 \leq \text{pH} \leq 9$
Non-filterable residue	mg/litre	$\text{NFR} \leq 120$

Table 15: Discharge Limits

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

Site Water Balance

25. ⁶Each year, the Applicant shall:
- (a) review the site water balance for the development against the predictions in the EIS;
 - (b) re-calculate the site water balance for the development; and
 - (c) report the results of this review in the AEMR.

North Wambo Creek Diversion

26. The Applicant shall design, construct, maintain, and rehabilitate the North Wambo Creek Diversion in consultation with NSW Fisheries, and to the satisfaction of the Director-General.
27. Within one month of completing the construction of the North Wambo Creek Diversion, the Applicant shall submit an as-executed report, certified by a practising registered engineer, to the Director-General.
28. ⁷Prior to destroying the original creek line, the Applicant shall demonstrate that the North Wambo Creek Diversion is operating successfully from a hydrological and biological point of view to the satisfaction of NSW Fisheries and the Director-General.

Monitoring

29. The Applicant shall:
- (a) measure:
 - the volume of water discharged from the site;
 - water use on the site;
 - dam and water structure storage levels;
 - water transfers across the site; and
 - water transfers between the site and surrounding mines;
 - (b) monitor the quality of the surface water:
 - discharged from the licenced discharge point/s at the development; and
 - upstream and downstream of the development;
 - (c) monitor flows in the Wollombi Brook; and North Wambo, South Wambo, and Stony Creeks;

⁵ Incorporates DEC GTA

⁶ These calculations must exclude the clean water system, including any sediment control structures, and any dams in the mine lease area which fall under the Maximum Harvestable Right Dam Capacity; include any dams that are licensable under Section 205 of the Water Act 1912, and water harvested from any non-harvestable rights dam on the mine lease area; address balances of inflows, licenced water extractions, and transfers of water from the site to other sites; include an accounting system for water budgets; and include a salt budget.

⁷ Incorporates NSW Fisheries conditions.

- (d) monitor the volume and quality of water inflows from each separate source to the underground and open cut workings; and
- (e) monitor regional ground water levels and quality in the alluvial, coal seam, and interburden aquifers during the development and at least 10 years after mining, and
- (f) periodically assess groundwater pressure response in the coal measures; to the satisfaction of DEC and the Director-General.

Site Water Management Plan

30. Before carrying out any development, the Applicant shall prepare a Site Water Management Plan for the development in consultation with DEC and NSW Fisheries, and to the satisfaction of the Director-General. This plan must include:
- (a) the predicted site water balance;
 - (b) the North Wambo Creek Diversion Plan;
 - (c) an Erosion and Sediment Control Plan;
 - (d) a Surface Water Monitoring Program;
 - (e) a Ground Water Monitoring Program;
 - (f) a Surface and Ground Water Response Plan; and
 - (g) a strategy for the decommissioning water management structures on the site.
31. The North Wambo Creek Diversion Plan shall include:
- (a) the detailed design and specifications of the creek diversion, including the flow control bund, cut off wall, and channel;
 - (b) a revegetation program for the channel using a range of suitable native riparian and floodplain species;
 - (c) the detailed design of the system that would return intercepted ground water to the alluvial aquifer downstream of the open cut;
 - (d) a construction program for the creek diversion, describing how the work would be staged, and progressively integrated with the mining operations and the mine waste emplacement drainage system;
 - (e) water quality, ecological and geomorphic performance criteria for the creek diversion;
 - (f) a program to monitor water quality, ecological, and geomorphic integrity of the creek diversion; and
 - (g) a program to inspect and maintain the creek diversion and revegetation works during the development.
32. The Erosion and Sediment Control Plan shall:
- (a) be consistent with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual;
 - (b) identify activities that could cause soil erosion and generate sediment;
 - (c) describe the location, function, and capacity of erosion and sediment control structures; and
 - (d) describe measures to minimise soil erosion and the potential for the migration of sediments to downstream waters.
33. ⁸The Surface Water Monitoring Program shall include:
- (a) detailed baseline data on surface water flows and quality in the Wollombi Brook, and North Wambo, South Wambo, and Stony Creeks;
 - (b) surface water impact assessment criteria;
 - (c) a program to monitor surface water flows and quality in the Wollombi Brook; and North Wambo, South Wambo, and Stony Creeks;
 - (d) a program to monitor bank and bed stability in North Wambo, South Wambo, and Stony Creeks;
 - (e) a program to monitor the quantity and quality of the vegetation in the riparian zones adjacent to North Wambo, South Wambo, and Stony Creeks; and
 - (f) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.
34. The Ground Water Monitoring Program shall include:
- (a) detailed baseline data on ground water levels and quality, based on statistical analysis, to benchmark the pre-mining natural variation in groundwater levels and quality;
 - (b) ground water impact assessment criteria;
 - (c) a program to monitor the volume and quality of ground water seeping into the open cut and underground mining workings; and
 - (d) a program to monitor regional ground water levels and quality in the alluvial, coal seam, and interburden aquifers.

⁸ Incorporates DEC GTA

35. The Surface and Ground Water Response Plan shall include:
- (a) measures to mitigate any adverse impacts on existing water supply bores or wells;
 - (b) measures to mitigate the loss of surface water flows in the surface water streams or channel on the site;
 - (c) measures to remediate any connective cracking between the underground mine workings and the surface water streams, channel or alluvials;
 - (d) measures to mitigate the long term direct hydraulic connection between the backfilled open cut and the North Wambo Creek alluvium if the potential for an downstream adverse impact is detected;
 - (e) measures to address the decrease in throughflow rates caused by the development within the Wollombi Brook alluvium downstream of the open cut;
 - (f) measures to address any reduction in the stability or ecological quality of the North Wambo Creek Diversion below the established performance criteria; and
 - (g) the procedures that would be followed if any unforeseen impacts are detected during the development.

Surface & Sub-surface Investigation Program

36. Prior to the commencement of underground mining, the Applicant shall develop and implement a surface and subsurface investigation program to assess the likely fracturing of geological strata and hydraulic property changes above each longwall panel, to the satisfaction of the Director-General. This program shall:
- (a) provide an interpreted comparison of the results from all longwall panels against pre-mining baseline geological conditions, in order to assess the level of variability of fracture and changes in hydraulic properties between panels;
 - (b) assess the impact on groundwater resources and surface expression resulting from underground mining at varying depths; and
 - (c) be repeated for each coal seam as it is mined.

Independent Audit

37. Prior to seeking approval from the DMR for each set of longwall panels (excluding the first set of longwall panels), unless the Director-General directs otherwise, the Applicant shall commission a suitably qualified person, whose appointment has been approved by the Director-General, to conduct an independent audit of the subsidence, surface water, and ground water impacts of the development. This audit shall:
- (a) review the monitoring data for the development;
 - (b) identify any trends in the monitoring data;
 - (c) examine the subsidence, surface water, and ground water impacts of the development;
 - (d) compare these impacts against the relevant impact assessment criteria and predictions in the EIS; and, if necessary;
 - (e) recommend measures to reduce, mitigate, or remediate these impacts.
38. If the independent audit determines that the subsidence, surface water, and/or ground water impacts resulting from the underground mining operations are greater than those predicted in the EIS, the Applicant shall:
- (a) assess the significance of these impacts;
 - (b) investigate measures to minimise these impacts, including modifying subsequent mine plans; and
 - (c) describe what measures would be implemented to reduce, minimise, mitigate or remediate these impacts in the future;
- to the satisfaction of the Director-General.

Final Void Strategy

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

FAUNA & FLORA

Offset Strategy

40. Within the limits of current technology and best practice flora and fauna management, as determined by the Director-General in consultation with the Hunter Coalfield Flora & Fauna Advisory Committee, the Applicant shall implement:
- (a) the offset strategy summarised in Table 16; and
 - (b) any subsequent revisions to the offset strategy, prepared in consultation with the Hunter Coalfield Flora & Fauna Advisory Committee, and approved in writing by the Director-General; to the satisfaction of the Director-General.

Note:

The Director-General shall form the Hunter Coalfield Flora & Fauna Advisory Committee to:

- *provide on-going advice on the Flora and Fauna Management Plan; and*
- *monitor and review the performance of the implementation of the Remnant Woodland Enhancement Program.*

Area	Size
Remnant Woodland Enhancement Area A	424 ha
Remnant Woodland Enhancement Area B	454 ha
Remnant Woodland Enhancement Area C	202 ha
Open Cut Woodland Revegetation	1,570ha
Other Areas (e.g. Community 15 and the Southern Area)	Where practicable

Table 16: Broad Targets for Offset Strategy

Deed of Agreement

41. Before carrying out any development, the Applicant shall enter into a Deed of Agreement with the Minister. In this agreement, the Applicant shall agree to:
- (a) conserve and manage the land in the offset strategy in accordance with the Remnant Woodland Enhancement Program (see Condition 47) in the Flora & Fauna Management Plan (see Condition 44),
 - (b) apply to rezone the land in Remnant Woodland Enhancement Area A for the purpose of:
 - protecting the land for conservation; and
 - excluding open cut mining;
 - (c) conserve and manage the land in Remnant Woodland Enhancement Area A in accordance with any Aboriginal cultural heritage conservation agreement (see Condition 51);
 - (d) exclude open cut mining in Remnant Woodland Enhancement Areas B and C, unless, in the opinion of the Minister, the Applicant has demonstrated that there is a clear justification for this on social, economic, and/or environmental grounds. To assist the Minister in his decision-making, the Applicant shall:
 - establish the coal reserve in Remnant Woodland Enhancement Area Areas B and C;
 - investigate the options for mining this reserve;
 - assess the implications of any open cut coal mining proposal on the offset strategy and broad conservation outcomes; and
 - assess the environmental, economic and social aspects of any open cut mining proposal in the area; and
 - (e) apply to rezone Remnant Woodland Enhancement Areas B and C, in whole or in part, excluding any lands approved for open-cut mining by the Minister.

Hunter Coalfield Flora & Fauna Advisory Committee Contribution

42. The Applicant shall contribute a reasonable amount, up to \$20,000, each year towards the operation of the Hunter Coalfield Flora & Fauna Advisory Committee.

Strategic Study Contribution

43. If, during the development, the Department commissions a strategic study into the regional vegetation corridor stretching from the Wolllemi National park to the Barrington Tops National Park, then the Applicant shall contribute a reasonable amount, up to \$20,000, towards the completion of this study.

Flora & Fauna Management Plan

44. Before carrying out any development, the Applicant shall prepare a Flora and Fauna Management Plan for the development, in consultation with the Hunter Coalfield Flora and Fauna Advisory Committee, and to the satisfaction of the Director-General. This plan must include:
 - (a) a Vegetation Clearance Protocol;
 - (b) a Threatened Species Management Protocol;
 - (c) a Remnant Woodland Enhancement Program;
 - (d) a Flora and Fauna Monitoring Program;
 - (e) strategies to manage any subsidence impacts in the Remnant Woodland Enhancement Areas; and
 - (f) a description of who would be responsible for monitoring, reviewing, and implementing the plan.
45. The Vegetation Clearance Protocol shall include:
 - (a) the delineation of areas of remnant vegetation to be cleared;
 - (b) progressive clearing;
 - (c) pre-clearance surveys;
 - (d) identification of fauna management strategies;
 - (e) collection of seed from the local area;
 - (f) salvage and reuse of material from the site; and
 - (g) control of weeds during clearing activities.
46. The key components of the Threatened Species Management Protocol shall include:
 - (a) observations/surveys for threatened species (facilitated by the vegetation clearance surveys and Flora and Fauna Monitoring Program);
 - (b) consultation with regulatory authorities; and
 - (c) threatened species management strategies and reporting.
47. The Remnant Woodland Enhancement Program shall include:
 - (a) a habitat assessment of Remnant Woodland Enhancement Areas A, B and C to obtain additional information on existing habitat resources and characteristics of each area;
 - (b) investigation of other areas to be included in the Program, including the *Acacia anuera* Community (Community 15) and the Southern Area;
 - (c) appropriate enhancement strategies to be implemented based on the habitat assessment including:
 - the fencing of remnants to exclude livestock;
 - control measures to minimise the occurrence of weeds;
 - control measures to minimise the occurrence of feral pests;
 - limiting vehicular traffic;
 - selective planting of native vegetation; and
 - the provision of roosting/nesting resources for fauna.
48. The Flora and Fauna Monitoring Program shall include:
 - (a) a program to monitor revegetation of disturbance areas including:
 - visual monitoring to determine the need for maintenance and/or contingency measures; and
 - monitoring of the quality of rehabilitation using Ecosystem Function Analysis (or a similar systems based approach) through the assessment of landscape function, vegetation dynamics and habitat complexity; and
 - (b) a program to monitor the effectiveness of offset strategy in accordance with the description in Table 17.

Monitoring Component	Monitoring Description
<i>Flora</i>	<i>A number of permanent flora survey quadrats (of varying sizes to survey tree, shrubs and ground cover) should be established in woodland enhancement areas to obtain quantitative data on plant species diversity and abundance.</i>
<i>Habitat Complexity</i>	<i>Habitat complexity should be monitored using a number of permanent transects established within woodland enhancement areas. Habitat complexity parameters such as canopy cover, shrub cover, ground vegetation cover, the amount of litter, fallen logs and rocks should be surveyed.</i>

<i>Terrestrial Fauna</i>	<i>Terrestrial fauna surveys should be conducted to monitor the usage of enhancement areas by vertebrate fauna. Monitoring may include fauna species diversity and abundance or, alternatively, the use of indicator species to measure the effectiveness of enhancement measures.</i>
<i>Aquatic Fauna</i>	<i>Freshwater macro-invertebrate monitoring, including an assessment of SIGNAL A values and water quality (e.g. temperature, pH, and salinity).</i>
<i>Specific Enhancement Initiatives</i>	<i>Monitoring of specific enhancement initiatives (e.g. the provision of nesting/roosting boxes, weed control or feral animal control).</i>

Table 17: Flora & Fauna Monitoring Program

Annual Review

49. The Applicant shall:
- review the performance of the Flora and Fauna Management Plan annually, in consultation with the Hunter Coalfield Flora & Fauna Advisory Committee; and
 - revise the document as necessary to take into account any recommendations from the annual review.

Independent Audit

50. Within 5 years of the date of this consent, and every 5 years thereafter, unless the Director-General directs otherwise, the Applicant shall commission, and pay the full cost of, an Independent Audit of the offset strategy. This audit must:
- be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the Director-General;
 - assess the performance of the offset strategy;
 - review the adequacy of the Flora & Fauna Management Plan; and, if necessary,
 - recommend actions or measures to improve the performance of the offset strategy, and the adequacy of the Flora & Fauna Management Plan.

⁹ABORIGINAL CULTURAL HERITAGE

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

Conservation Agreement

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

Salvage

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

⁹ Incorporates DEC GTAs

Further Investigations

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

Trust Fund Contribution

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

¹⁰WAMBO HOMESTEAD COMPLEX

Section 60 Approval

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

Conservation Measures

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

Blasting

63. Ground vibration and air blast levels are to be monitored and recorded at a blast monitoring station to be established within the Wambo Homestead Complex for each blast within 2 km of the Wambo Homestead Complex.
64. A suitably qualified and experienced structural engineer, with expertise in vibration and blast monitoring is to be appointed to examine all monitoring records from the Wambo Homestead Complex blast monitoring station. The appointment of the structural engineer is to be approved in writing by the Director of the NSW Heritage Office.
65. Ground vibration and air blast levels experienced at the Wambo Homestead Complex blast monitoring station are not to exceed the structural damage assessment criteria prescribed by *Australian Standard AS 2187.2-1993 "Explosives – Storage Transport and Use" for Sensitive and Heritage Structures* to prevent damage to the heritage items.

¹⁰ Incorporates NSW Heritage Council GTA

66. The approved structural engineer is to report to the Applicant on the monitoring results each month for blasting within 2 km of the Wambo Homestead Complex and 6 monthly for the remainder of the open cut mining operation and make recommendations to ensure the conservation and prevention of damage to the significant heritage structures. Copies of these reports are to be forwarded to the NSW Heritage Office.
67. The approved structural engineer is to inspect the Wambo Homestead Complex structures annually and as soon as practical, but no later than 3 days after blasting monitoring which exceeds the structural damage assessment criteria prescribed by AS 2187.2-1993. During the period between blasting monitoring being recorded which exceeds the criteria in AS 2187.2-1993 and the engineer's inspection, ground vibration from blasting is to be limited to a level which will prevent further blasting damage. The structural engineer is to advise the applicant and the NSW Heritage Office of any action required to repair the damage.
68. The approved structural engineer is to make an assessment of whether blasting within 2km of the Wambo Homestead Complex is to cease or be managed in order to stabilise or repair the damage, and so advise the applicant and the Director of the NSW Heritage Office. If blasting has been required to cease, it is not to resume until the damage has been stabilised or repaired, and the written approval for resumption has been issued by the Director of the NSW Heritage Office.

Rehabilitation

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

Movable Heritage Items

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

TRAFFIC & TRANSPORT

New Access Intersection

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

71. ¹¹The Applicant shall design and construct the proposed new access intersection with the Golden Highway to the satisfaction of the RTA.

¹²Road Closure

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

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

Parking

73. The Applicant shall provide sufficient parking on-site for all mine-related traffic to the satisfaction of the Director-General.

Coal Haulage

74. The Applicant shall not transport more than 3 million tonnes of product coal a year from the site until a rail coal loader is commissioned in the vicinity of the site.

Note: The Applicant has submitted a separate development application to the Minister for the Wambo "Rail and Train Loading Infrastructure" (DA 306-7-2003).

75. The Applicant shall cease all coal haulage on public roads as soon as a rail coal loader is commissioned in the vicinity of the site, except in an emergency, and as agreed by the Director-General in consultation with Council.

¹¹ Incorporates RTA GTA

¹² Incorporates Council GTA

76. If no rail loader is commissioned in the vicinity of the site within 2 years of the commencement of this consent, the Applicant shall submit a report to the Director-General outlining the alternatives to road haulage, and describing the proposed arrangements for transporting coal from the site.
77. The Applicant shall ensure that all loaded coal haulage vehicles entering or leaving the site are covered.
78. The Applicant shall pay Council 0.5 cents for each tonne of product coal hauled along Council roads to the Mount Thorley Coal Loader, in accordance with Council's Section 94 Contribution Plan.

Note: This contribution is subject to indexation by the Implicit Price Deflator, as published by the Australian Bureau of Statistics.

Monitoring

79. The Applicant shall:
 - (a) keep records of the
 - amount of coal transported from the site each year; and
 - number of coal haulage truck movements generated each day by the development; and
 - (b) include these records in the AEMR.

Traffic Management Plan

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

VISUAL IMPACT

Visual Amenity

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

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

If the Applicant and the landowner disagree on the measures that should be implemented to minimise the visual impact of the development, then either party may refer the matter to the 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 2).

Overburden Dumps

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

Lighting Emissions

85. The Applicant shall take all practicable measures to mitigate off-site lighting impacts from the development.
86. All external lighting associated with the development shall comply with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.

GREENHOUSE GAS

87. Before carrying out any underground mining operations, the Applicant shall identify and assess options for reducing the greenhouse gas emissions of the development to the satisfaction of the Director-General.

WASTE MINIMISATION

88. The Applicant shall minimise the amount of waste generated by the development to the satisfaction of the Director-General.

HAZARDS MANAGEMENT

Spontaneous Combustion

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

Dangerous Goods

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

BUSHFIRE MANAGEMENT

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

REHABILITATION

94. The Applicant shall:
- (a) rehabilitate all mining areas in accordance with the requirements of any mining lease granted by the Minister for Mineral Resources, having regard to the *Synoptic Plan – Integrated Landscapes for Mine Site Rehabilitation*; and
 - (b) ensure that the progressive rehabilitation is carried out to the satisfaction of the DMR.

MINE EXIT STRATEGY

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

SCHEDULE 5
ADDITIONAL PROCEDURES FOR AIR QUALITY & NOISE MANAGEMENT

Notify Landowners

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

Independent Review

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

If the Director-General is satisfied that an independent review is warranted, the Applicant shall:

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

Within 14 days of receiving the results of this independent review, the Applicant shall give a copy of these results to the Director-General and landowner.

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

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

If the measures referred to in (a) do not ensure compliance with the air quality and/or noise land acquisition criteria listed in schedule 4 at the dwelling, and the Applicant cannot secure a written agreement with the landowner to allow exceedances of the air quality and/or noise impact assessment criteria listed in schedule 4, then the Applicant 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 9-11 below.

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

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

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 9-11 below.

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

Land Acquisition

9. Within 6 months of receiving a written request from the landowner, the Applicant shall pay the landowner:
- (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development the subject of the DA, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date;
 - (b) the reasonable costs associated with:
 - relocating within the Singleton local government area, or to any other local government area determined by the 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 within 6 months of receiving this written request, the Applicant and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General shall request the President of the Australian Institute of Valuers and Land Economists to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

If either party disputes the independent valuer's determination, then the independent valuer must refer the matter back to the Director-General.

Upon receiving such a referral, the Director-General shall appoint a panel to determine a fair and reasonable acquisition price for the land, and/or the terms upon which the land is to be acquired, comprising the:

- (i) appointed independent valuer,
- (ii) Director-General or nominee, and
- (iii) President of the Law Society of NSW or nominee.

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

If the landowner refuses to accept this offer within 6 months of the date of the Applicant's offer, the Applicant's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.

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

SCHEDULE 6
ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. Before carrying out any development, the Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Director-General. This strategy must:
 - (a) provide the strategic context for environmental management of the development;
 - (b) identify the statutory requirements that apply to the development;
 - (c) describe in general how the environmental performance of the development would be monitored and managed during the development;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance;
 - manage cumulative impacts; and
 - respond to emergencies; and
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development.
2. Within 14 days of the Director-General's approval, the Applicant shall:
 - (a) send copies of the approved strategy to the relevant agencies, Council, and the CCC; and
 - (b) ensure the approved strategy is publicly available during the development.

ENVIRONMENTAL MONITORING PROGRAM

3. Before carrying out any development, the Applicant shall prepare an Environmental Monitoring Program for the development in consultation with the relevant agencies, and to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in schedule 4 of this consent into a single document.
4. The Applicant shall regularly review, and if necessary update, this program in consultation with the Director-General.

ANNUAL REPORTING

5. The Applicant shall submit an AEMR to the Director-General and the relevant agencies. This report must:
 - (a) identify the standards and performance measures that apply to the development;
 - (b) include a summary of the complaints received during the past year, and compare this to the complaints received in the previous 5 years;
 - (c) include a summary of the monitoring results on the development during the past year,
 - (d) include an analysis of these monitoring results against the relevant:
 - impact assessment criteria;
 - monitoring results from previous years; and
 - predictions in the EIS;
 - (e) identify any trends in the monitoring over the life of the development;
 - (f) identify any non-compliance during the previous year; and
 - (g) describe what actions were, or are being, taken to ensure compliance.

INDEPENDENT ENVIRONMENTAL AUDIT

6. At the end of Year 1 of the development, and every 5 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 person whose appointment has been endorsed by the Director-General;
 - (b) be consistent with *ISO 19011:2002 – Guidelines for Quality and/or Environmental Systems Auditing*, or updated versions of these guideline;
 - (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 the Applicant's Environmental Management Strategy and Environmental Monitoring Program; and, if necessary,

- (f) recommend measures or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.
7. Within 3 months of commissioning this audit, the Applicant shall submit a copy of the audit report to the Director-General, with a response to any of the recommendations contained in the audit report.

COMMUNITY CONSULTATIVE COMMITTEE

8. Before carrying out any development, the Applicant shall establish a new Community Consultative Committee to oversee the environmental performance of the development. This committee shall:
- (a) be comprised of:
 - 2 representatives from the Applicant, including the person responsible for environmental management at the mine;
 - 1 representative from Council; and
 - at least 3 representatives from the local community, whose appointment has been approved by the Director-General in consultation with the Council;
 - (b) be chaired by the representative from Council or by a third party as approved by the Director-General;
 - (c) meet at least twice a year; and
 - (d) review and provide advice on the environmental performance of the development, including any construction or environmental management plans, monitoring results, audit reports, or complaints.
9. The Applicant shall, at its own expense:
- (a) ensure that 2 of its representatives attend the Committee's meetings;
 - (b) provide the Committee with regular information on the environmental performance and management of the development;
 - (c) provide meeting facilities for the Committee;
 - (d) arrange site inspections for the Committee, if necessary;
 - (e) take minutes of the Committee's meetings;
 - (f) make these minutes available to the public for inspection within 14 days of the Committee meeting, or as agreed to by the Committee;
 - (g) respond to any advice or recommendations the Committee may have in relation to the environmental management or performance of the development;
 - (h) forward a copy of the minutes of each Committee meeting, and any responses to the Committee's recommendations to the Director-General within a month of the Committee meeting.

**APPENDIX 1
SCHEDULE OF LAND**

Freehold Land

DESCRIPTION	
Lot 79 DP753792	Lot 181 DP823775
Lot 57 DP753817	Lot 177 DP823775
Lot 160 DP753817	Lot 118 DP753792
Lot 18 DP753817	Lot 95 DP753792
Lot 71 DP753817	Lot 2 DP709722
Lot 161 DP753817	Por 131 DP753792
Lot 49 DP753792	Lot 2 DP616303
Lot 50 DP753792	Lot 1 DP720705
Lot 51 DP753792	Lot 2 DP720705
Lot 52 DP753792	Lot 3 DP720705
Lot 58 DP753792	Lot 4 DP720705
Lot 66 DP753792	Lot 45 DP753792
Lot 67 DP753792	Lot 46 DP753792
Lot 62 DP753792	Lot 4 DP542226
Lot 63 DP753792	Lot 5 DP542226
Lot 64 DP753792	Lot 1 DP241316
Lot C DP33149	Lot 7 DP3030
Lot 22 DP753817	Lot 23 DP3030
Lot A DP33149	Lot 92 DP755267
Lot 79 DP753821	Lot 109 DP753792
Lot 19 DP3030	Lot 110 DP753792
Lot 129 DP755267	Lot 111 DP753792
Lot 22 DP755267	Lot 112 DP753792
Lot 1 DP616303	Lot 103 DP753792
Lot 100 DP753792	Lot 104 DP753792
Lot 101 DP753792	Lot 82 DP548749
Lot 38 DP753792	Lot 83 DP548749
Lot 39 DP753792	Lot 1 DP110084
Lot 60 DP753792	Lot 2 DP110084
Lot 61 DP753792	Lot B DP33149
Lot 1 DP709722	Lot 113 DP753817
Lot 55 DP753792	Lot 2 DP617852

Crown Land Descriptions

Crown lands have been identified and numbered on the attached plan (PD003). Council controlled roads have been identified using geographical names where possible. Council and Crown roads and sections of Wollombi Brook with no real property identifier have their location described relative to adjoining lots.

Crown Land

1. Lot 170 DP 823775
2. Lot 208 DP 753817

Travelling Stock and Camping Reserve No. 5294

3. Lot 175 DP 823775

Council Roads

4. Wambo Mine Road
5. Road within Lot 1 DP 616303

6. Pine Grove Road
7. Road bounded by Lots 7,19 & 23 DP 3030, Lots 22 & 129 DP755267, Lot 83 DP548749 and Lot 1 DP 110084

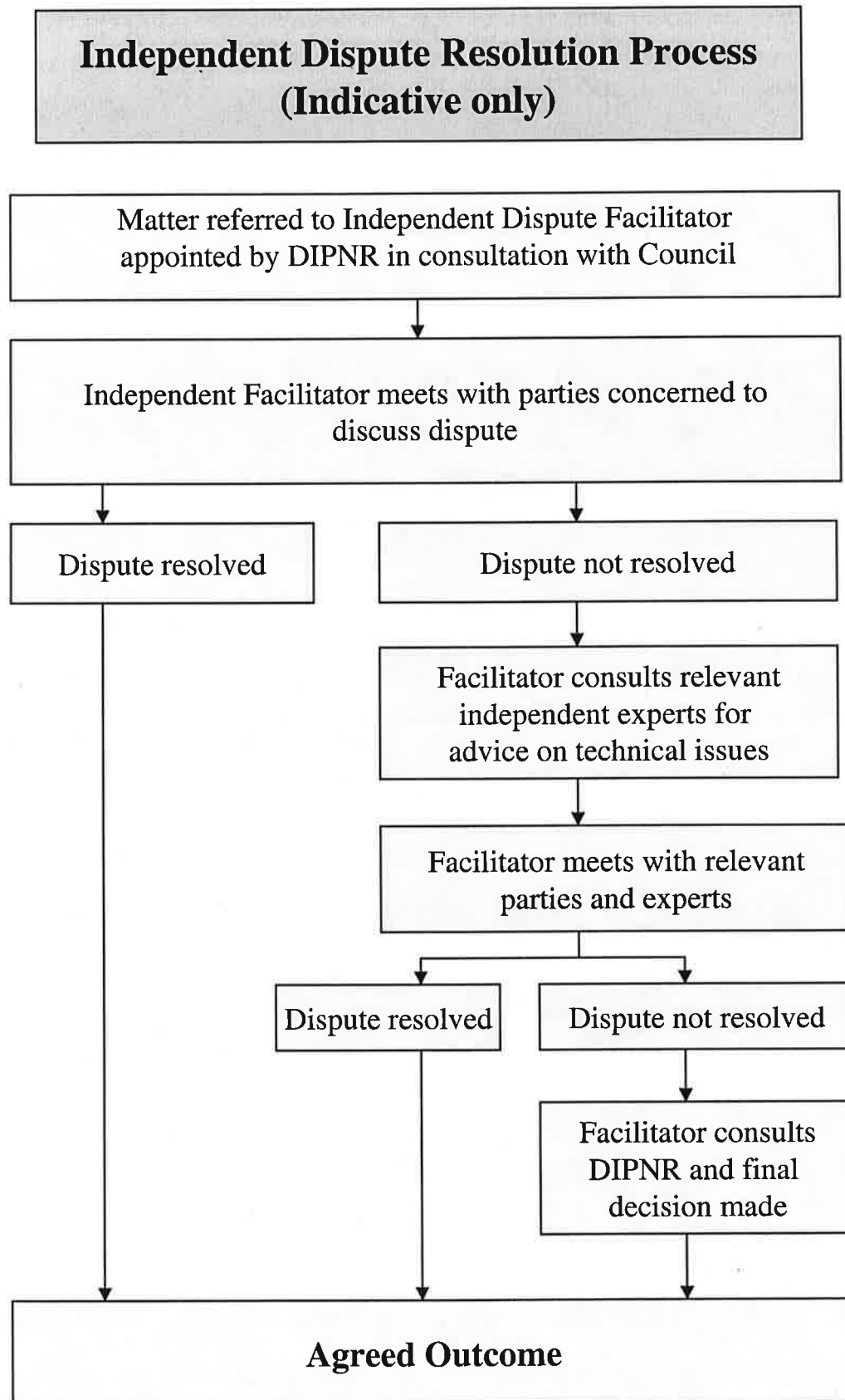
Crown Roads

8. Bounded by Lots 92 & 129 DP 755267
9. Bounded by Lots 4 & 5 DP 542226, Lots 2 &3 DP720705 and Lot 2 DP 616303
10. Bounded by Lots 38, 55, 61, 100, 101, 149 DP 753792, Lot 2 DP617852 and Lot 1 DP 616303
11. Within Lot 2 DP617852
12. Bounded by Lots 175, 177, 181 DP 823775
13. Bounded by Lot 177 DP 823775, 60, 62-64, 95, 118 DP 753792, Lot 2 DP617852
14. Bounded by Lots 170, 177 DP 823775, 49-51, 58, 118 DP 753792
15. Bounded by Lots 170 DP 823775, 49, 50, 52, 79 DP 753792, 18, 160, 161 DP753817
16. Bounded by Lots A & B DP 33149, 22, 66, 67, 71 DP 753817
17. Adjoining to the East and North Lot 79 DP753821

Wollombi Brook

18. Bounded by Lots 22 DP 755267, Lot 83 DP 548749, Lot 1 DP 110084, Lot 1 DP 241316, Lot 7 DP 3030

**APPENDIX 2
INDEPENDENT DISPUTE RESOLUTION PROCESS**



APPENDIX 3
MAP FOR ABORIGINAL CULTURAL HERITAGE INVESTIGATIONS
(See Condition 55)

ML1402

DP 3030

DP 548749

83

DP 548749

82

DP 548749

82

DP 548749

PROPOSED UNDERGROUND WORKINGS

83

DP 3030

23

DP 548749

83

PROPOSED UNDERGROUND WORKINGS

WAMBO COAL PTY.LTD

CCL 743

DP 110084

DP 110084

2

DP 110084

(9)

DP 3030

19

H. UPWARD

A.M FROST &

R.W FENWICK

DP 178812

DP 732501

6

DP 732501

5

DP 732501

4

DP 732501

3

(3)

DP 732501

(4)

DP 732501

Coal Lease 743

STAMP1
APPLE GUM

FENCE

DP 735566

2

WARKWORTH PTY LTD

DP 735566

LEGEND:

Boundary shown in this diagram
is based on the 1:10,000 scale map
by Department of Mines

Coal Lease shown in this diagram
is based on the 1:10,000 scale map
by Department of Mines



WAMBO COAL PTY. LTD

Wambo Coal Mine
Archaeological Sites
Wollumbi Brook Area

SCALE 1:15000

DATE 13-03-03

APPROVED TO

DWS No. 2001/03

FILE NO.