Development Consent

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

I, the Minister for Infrastructure and Planning, approve the Development Application referred to in Schedule 1, subject to the conditions in Schedules 2 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.

Craig Knowles MP
Minister for Infrastructure and Planning

Sydney 19. 8. 2004 File No. S04/00866

SCHEDULE 1

Development Application:	DA-200-5-2003.
Applicant:	Lithgow Coal Company Pty Limited.
Consent Authority:	Minister for Infrastructure and Planning.
Land:	See Appendix 1.
Proposed Development:	The proposal includes the: • continuation of approved mining operations; and • extension of open cut mining operations.
State Significant Development:	The proposal is classified as State significant development, under section 76A(7) of the *Environmental Planning and Assessment Act 1979*, because it satisfies the criteria in the Minister's declaration of 29 June 2001.
Integrated Development:	The proposal is classified as integrated development, under section 91 of the *Environmental Planning and Assessment Act 1979*, because it requires an approval under the *Protection of the Environment Operations Act 1997*.
Designated Development:	The proposal is classified as designated development, under section 77A of the *Environmental Planning and Assessment Act 1979*, because it meets the criteria for coal mines in schedule 3 of the *Environmental Planning and Assessment Regulation 2000*.

Notes:

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

SCHEDULE 2
DEFINITIONS

AEMR	Annual Environmental Management Report
Applicant	Lithgow Coal Company Pty Limited
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Lithgow City Council
DA	Development Application
Day	Day is defined as the period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
DEC	Department of Environment and Conservation
Department	Department of Infrastructure, Planning and Natural Resources
Director-General	Director-General of the Department of Infrastructure, Planning and Natural Resources, or her delegate
DPI	Department of Primary Industries
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
Evening	Evening is defined as the period from 6 pm to 10 pm
GTA	General Term of Approval
L_{Aeq}	The equivalent continuous noise level – the level equivalent to the energy average noise levels emitted by the premises over the stated measurement period
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 his delegate
Night	Night is defined as the period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
PCA	Principal Certifying Authority appointed under section 109E of the EP&A 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
RBL	Rating Background Level
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-200-5-2003;
   (b) EIS titled *Feldmast Coal Project Cullen Bullen*, dated February 1997, and prepared by International Environmental Consultants Pty Ltd;
   (c) EIS titled *Cullen Valley Mine Lease Extension Project*, dated April 2003, and prepared by International Environmental Consultants Pty Ltd, as modified by correspondence from the Applicant dated 20 May 2004 (see Appendix 2); and
   (d) 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.

Limits of Approval

5. This consent lapses 21 years after the date it commences.

6. The Applicant shall not produce more than 1 million tonnes of saleable coal a year from the development.

Surrender of Consent

7. Within 6 months of the date of this consent, the Applicant shall surrender its previous development consent for the Cullen Valley Mine to the satisfaction of the Director-General, in accordance with clause 97 of the *EP&A Regulation.*

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 detailed requirements for the certification of development.*

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. [1]The Applicant shall ensure that all plant and equipment at the site, or used in connection with the development, are:
    (a) maintained in a proper and efficient condition; and
    (b) operated in a proper and efficient manner.

[1] DEC GTA

SCHEDULE 4
SPECIFIC ENVIRONMENTAL CONDITIONS

IDENTIFICATION OF BOUNDARIES

1. Within 6 months of the date of this consent, the Applicant shall:
   (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction;
   (b) submit a survey plan of these boundaries to the Director-General; and
   (c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

NOISE

Noise Limits

2. [2]The Applicant shall ensure that the noise generated by the development does not exceed the noise limits in Table 1 at any privately owned land:

Day	Evening	Night	Night	Land Descriptor
	$L_{Aeq(15\ minute)}$		$L_{A1(1\ minute)}$	
43	38	35	45	• Ryan • Tesoriero • Fitzgerald • Tilley • Red Springs (during mining to the west of the railway line) • Hillcroft (during mining to the west of the railway line) • Dobson • Williams • Northey
40	40	38	45	Forest Lodge
37	35	35	45	Red Springs (during mining to the east of the railway)
35	35	35	45	Hillcroft (during mining east of the railway) and all other land (including vacant land)

Table 1: Noise limits dB(A)

However, if the Applicant has a written noise agreement with any landowner, and a copy of this agreement has been forwarded to the Department and DEC, then the Applicant may exceed the noise limits in Table 1 for the landowner's land in accordance with the terms of the noise agreement.

Note: For more information on the individually named properties in Table 1 see Appendix 3.

Additional Noise Mitigation - Forest Lodge

3. Upon receiving a written request from the landowner, the Applicant shall investigate (and subsequently implement) all reasonable and feasible measures to mitigate the noise impacts of the development on the residence identified as Forest Lodge in the map in Appendix 3, in consultation with the landowner, and to the satisfaction of the Director-General.

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[2] Incorporates DEC GTA

Continuous Improvement

4. The Applicant shall:
   (a) investigate ways to reduce the noise generated by the development;
   (b) implement best practice noise mitigation measures at the development; and
   (c) report on these investigations and the implementation of any new noise mitigation measures at the development in the AEMR.

Land Acquisition Criteria

5. 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 3-5 of Schedule 5.

Day	Evening	Night	Land Descriptor
	$L_{Aeq(15 minutes)}$		
43	40	40	• Ryan • Tesoriero • Fitzgerald • Tilley • Red Springs (during mining to the west of railway line) • Hillcroft (during mining to the west of the railway line) • Dobson • Williams • Northey
42	40	40	Red Springs (during mining to the east of the railway)
40	40	40	Hillcroft (during mining east of the railway) and all other land (including vacant land)

Table 2: Land acquisition criteria dB(A)

Notes:

- *For more information on the individually named properties in Table 2 see Appendix 3.*
- *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 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary to determine compliance with the $L_{Aeq(15 minute)}$ noise limits in Table 1 and 2.*
- *For the purpose of noise measures required for this condition, the $L_{Aeq (15 minute)}$ noise level must be measured or computed at the nearest or most affected residence over a period of 15 minutes using "FAST" response on the sound level meter. For the purpose of the noise criteria for this condition, 5dB(A) must be added to the measured level if the noise is substantially tonal or impulsive in character.*
- *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 presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.*
- *Noise from the development is to be measured at 1m from the dwelling façade to determine compliance with the $L_{A1(1minute)}$ noise limits in Tables 1 and 2.*
- *The noise emission limits identified in Condition 2 and 5 apply under meteorological conditions of:*
  - *Wind speed up to 3m/s at 10 metres above ground level; or*
  - *Temperature inversion conditions of up to $3^{\circ}C/100m$ and wind speed up to 2m/s at 10 metres above the ground in accordance with the definitions provided in the Industrial Noise Policy; and*
  - *Temperature inversion conditions do not apply in conditions 2 and 5 where the noise limits are assessed at 43 $L_{Aeq(15 minute)}$.*
- *Construction noise is considered to be operational noise for the purposes of this consent.*

Noise Monitoring

6. [3]Within 3 months of the date of this consent, unless otherwise approved by the DEC, the Applicant shall establish a continuous noise monitoring system adjacent to the meteorological weather station required under this consent. This system must be capable of recording L_{Amax}, L_{A1}, L_{A90} and L_{Aeq} noise levels in 15-minute statistical intervals. Unless otherwise agreed, the results of this monitoring must be reported to the DEC on a monthly basis, and included in the AEMR.

7. The Applicant shall undertake quarterly attended noise monitoring of the noise generated by the development at representative locations around the site to the satisfaction of the Director-General, and in general accordance with the *NSW Industrial Noise Policy* and *AS1055-1997: Acoustics – Description and Measurement of Environmental*, or its latest version.

8. Within 3 months of the date of this consent, the Applicant shall prepare (and then implement) a Noise Monitoring Program for the development in consultation with DEC, and to the satisfaction of the Director-General. This program must include a noise monitoring protocol for evaluating compliance with the criteria in Tables 1 and 2.

BLASTING & VIBRATION

Airblast Overpressure Limits

9. 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 or sensitive receiver on privately owned land.

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

Table 3: Airblast overpressure limits

Note: The airblast overpressure values stated above apply when the measurements are performed with equipment having a lower cut-off frequency of 2Hz or less. If the instrumentation has a higher cut off frequency then a correction of 5dB should be assessed to the measured value. Equipment with a lower cut-off frequency exceeding 10Hz should not be used for the purpose of measuring airblast overpressure.

Ground Vibration Criteria

10. [4]The Applicant shall ensure that the peak vector sum from the development does not exceed the criteria in Table 4 at any residence or sensitive receiver on privately owned land:

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

Table 4: Ground vibration limits

[3] DEC GTA
[4] DEC GTA

11. The Applicant shall ensure that the peak vector sum from blasting at the development does not exceed 2mm/s at the sandstone overhang/rock shelter site C-S-1 without the written approval of the Director-General.

Notes:
- *For more information on C-S-1 see Appendix 4.*
- *Prior to seeking approval from the Director-General to exceed the 2mm/s peak particle velocity limit at the sandstone overhang/rock shelter site C-S-1, the Applicant shall undertake a structural assessment of the site C-S-1, in consultation with DPI and DEC to determine alternate limits for future operations.*
- *If further archaeological studies confirm that C-S-1 does not have archaeological significance, this requirement shall cease to apply.*

Blasting Hours

12. [5]The Applicant shall only carry out blasting at the development between 9 am and 3 pm Monday to Friday inclusive. No blasting is allowed on public holidays or any other time without the written approval of DEC.

Public Notice

13. During the life of the development, the Applicant shall:
   (a) notify anyone who registers an interest in being notified about the blasting schedule at the development;
   (b) operate a blasting hotline, or alternative system agreed to by the Director-General, to enable the public to get up-to-date information on blasting operations at the development; and
   (c) publish a notice about this hotline or system in a local newspaper on at least a 6-monthly basis.

Blast Management Plan

14. Within 3 months of the date of this consent, the Applicant shall prepare (and then implement) a Blast Management Plan for the development, in consultation with Rail Corporation, Council, and the landowners of the Hillcroft and Forest Lodge properties (see Appendix 3), and to the satisfaction of the Director-General. This plan must:
   (a) describe what measures would be implemented to minimise the potential blasting impacts of the development on the Wallerawang-Gwabegar Railway Line, Red Springs Road, and the land on Hillcroft and Forest Lodge properties (see Appendix 3) that may be within 500 metres of any blasting carried out at the development;
   (b) monitor the performance of these measures; and
   (c) describe what procedures would be followed to address any blasting-related impacts.

Blast Monitoring

15. The Applicant shall monitor the blasting impacts of the development at representative locations around the site, using the specified units of measure, frequency, sampling method, and location in Table 5.

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 Vector Sum (PVS)	Mm/s	During every blast	AS2187.2-1993	Not more than 30m from a building or structure

Table 5: Airblast overpressure and ground vibration monitoring

[5] DEC GTA

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

16. The Applicant shall monitor the ground vibration impacts at the sandstone overhang/rock shelter site C-S-1 (see Appendix 4) to the satisfaction of the Director-General.

    Note: If further archaeological studies confirm that C-S-1 (see Appendix 4) does not have archaeological significance, this requirement shall cease to apply.

17. Within 3 months of the date of this consent, the Applicant shall prepare (and then implement) a Blast Monitoring Program for the development, in consultation with the DEC, and to the satisfaction of the Director-General.

    Note: This program must include provisions for reporting the date, time, PVS, dB(Lin Peak) and wave form trace for each blast.

Property Inspection

18. Prior to blasting within 2 km of any residence, the Applicant shall notify the landowner that they are entitled to a property inspection. If the Applicant receives a written request for a property inspection from any landowner within 2 km of the active mining area, the Applicant shall:
    (a) 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
    (b) give the landowner a copy of this property inspection report within 14 days of receiving the report.

Property Investigations

19. If any landowner within a 2 km radius of the active mining area claims that his/her property has been damaged as a result of blasting at the development, the Applicant shall:
    (a) 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
    (b) give the landowner a copy of the property investigation report within 14 days of receiving the report.

    If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant 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 5).

AIR QUALITY

Impact Assessment Criteria

20. The Applicant shall ensure that the air pollution generated by the development does not cause any additional exceedances of the criteria listed in Tables 6, 7, and 8 at any privately owned land.

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

Table 6: Long term impact assessment criteria for particulate matter

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

Table 7: 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 g/m^2/month	4 g/m^2/month

Table 8: 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.

Operating conditions

21. [6]Activities at the premises must be carried out in a manner that will minimise emissions of dust from the site.

22. The Applicant shall ensure that all loaded trucks leaving the site are covered at all times.

Minimisation of Visible Dust

23. The Applicant shall regularly monitor the development for visible dust; and if visible dust is being generated on-site, then the Applicant shall relocate, modify, and/or stop mining operations to minimise adverse dust impacts occuring on any privately-owned land.

Land Acquisition Criteria

24. The land acquisition criteria for air pollution generated by the development are listed in Tables 9, 10, and 11.

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

Table 9: Long term land acquisition criteria for particulate matter

[6] DEC GTA

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

Table 10: Short term land acquisition criteria for particulate matter

[1]Based on the number of block 24 hour averages in an annual period.
[2]Excludes 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.
[3]Background PM_{10} concentrations due to all other sources plus the incremental increase in PM_{10} concentrations due to the mine alone.
[4]Incremental 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 g/m^2/month	4 g/m^2/month

Table 11: 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.

Monitoring

25. The Applicant shall monitor the air quality impacts of the development at representative locations around the site, using the specified averaging period, frequency, and sampling method in Table 12 to the satisfaction of DEC and the Director-General.

Pollutant	Units of Measure	Averaging Period	Frequency	Sampling method[1]
PM_{10}	$\mu g/m^3$	24 hour, annual	Continuous and 1 day in 6	AS3580.9.8 – 2001[2] AM-18
TSP	$\mu g/m^3$	24 hour, annual	1 day in 6	AM-15
Dust Deposition	g/m^2/month	Month, annual	Continuous	AM-19
Siting	-	-	-	AM-1

Table 12: Air quality monitoring

26. Within 3 months of the date of this consent, the Applicant shall prepare, and then implement, an Air Quality Monitoring Program for the development, in consultation with DEC, and to the satisfaction of the Director-General.

[1] NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.
[2]Standards Australia, 2001, AS3580.9.8-2002, Method for Sampling and Analysis of Ambient Air - Determination of Suspended Particulate Matter - PM_{10} 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.

OFFENSIVE ODOUR

27. [7]The Applicant shall not cause or permit the emission of offensive odour beyond the boundary of the site in accordance with section 129 of the *Protection of the Environment Operations Act 1997.*

METEOROLOGICAL MONITORING

28. [8]Within 3 months of the date of this consent, or as otherwise agreed, 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 in Table 13, using the specified units of measure, averaging period, frequency, and sampling method.

Parameter	*Units of measure*	*Averaging period*	Frequency	*Sampling method*[1]
Lapse rate	*ºC/100m*	*1 hour*	Continuous	*Note*[2]
Rainfall	*mm/hr*	*1 hour*	Continuous	*AM-4*
Sigma Theta @ 10 m	*º*	*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/m²*	*1 hour*	*Continuous*	*AM-4*
Wind Direction @ 10 m	*º*	*1 hour*	*Continuous*	*AM-2*
Wind Speed @ 10 m	*m/s*	*1 hour*	Continuous	*AM-2*

Table 13: 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.

FLORA AND FAUNA

Compensatory Habitat

29. Within the limits of best practice flora and fauna management, the Applicant shall conserve, manage and maintain at least 50 hectares of land on or adjacent to the site to the satisfaction of the Director-General to compensate for the vegetation that would be removed by the development, in general accordance with the proposal contained in the Applicant's correspondence to the Department dated 20 May 2004 (see Appendix 2).

Flora and Fauna Management Plan

30. Within 12 months of the date of this consent, the Applicant shall prepare, and then implement, a Flora and Fauna Management Plan for the development, in consultation with DPI, and to the satisfaction of the Director-General. This plan must include a:
    (a) Compensatory Habitat Plan;
    (b) Vegetation Clearance Protocol;
    (c) Weed Management Strategy;
    (d) Ecological Monitoring Program; and
    (e) description of who would be responsible for monitoring, reviewing, and implementing the plan.

31. The Compensatory Habitat Plan shall:
    (a) describe the immediate and long-term compensatory habitat proposal, and demonstrate how this proposal would be integrated with the proposed rehabilitation of the site and surrounding areas of remnant vegetation;

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[7] DEC GTA
[8] DEC GTA

(b) identify strategies to protect areas excluded from open cut mining from disturbance during mining operations;
(c) identify options for the permanent protection of areas of compensatory habitat;
(d) provide baseline data on the existing flora and fauna in the proposed compensatory habitat areas;
(e) describe how the compensatory habitat proposal would be implemented; and
(f) set completion criteria for the compensatory habitat proposal.

32. The Vegetation Clearance Protocol shall include:
(a) plans[9] showing the vegetation communities in the area, highlighting important fauna habitat areas and threatened species locations; the areas to be cleared; and the proposed clearing program;
(b) procedures for progressive vegetation clearing and soil management;
(c) strategies for minimising vegetation clearance within the development area and protection of vegetated areas outside that area;
(d) identification of fauna management strategies;
(e) collection of seed from the local area;
(f) salvage and reuse of material from the site;
(g) a habitat tree management program, including fauna recovery procedures;
(h) potential for relocation of hollow bearing trees, compensatory management measures (such as replacement of lost hollows with nesting boxes); and
(i) where possible, strategies for re-using individuals or populations of any threatened plant species that would otherwise be destroyed by the development in rehabilitation works.

33. The Weed Management Strategy shall include:
(a) weed identification;
(b) weed eradication methods and protocols for the use of herbicides; and
(c) methods to treat and re-use weed infested topsoil.

34. The Ecological 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;
- monitoring of the quality of rehabilitation using a systems based approach through the assessment of landscape function, vegetation dynamics and habitat complexity; and

(b) a program to monitor the effectiveness of rehabilitation.

Annual Review

35. The Applicant shall:
(a) review the performance of the Flora and Fauna Management Plan annually; and
(b) revise the document as necessary to take into account any recommendations from the annual review,

to the satisfaction of the Director-General.

Independent Audit

36. Within 2 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 compensatory habitat proposal. This audit must:
(a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been approved by the Director-General;
(b) assess the performance of the compensatory habitat proposal;
(c) review the adequacy of the Flora and Fauna Management Plan; and, if necessary

[9] The plans must cover the development area and extend to vegetation in adjoining areas where this is both contiguous with the development and contains important fauna habitat areas and/or threatened species.

(d) recommend actions or measures to improve the performance of the compensatory habitat proposal, and the adequacy of the Fauna and Flora Management Plan.

37. Within 3 months of commissioning this audit, the Applicant shall submit a copy of the audit report to the Director-General with a detailed response to any recommendations in the audit report.

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.

38. 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 following documents, or their latest version:
- *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 DPI.

SURFACE WATER

[10]Pollution of Waters

39. 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.

[11]Discharge limits

40. Except as may be expressly provided by a DEC licence, the Applicant shall ensure that the discharges from any licenced discharge point comply with the limits in Table 14.

Pollutant	Units of measure	100% concentration limit
Total suspended solids	mg/L	50
Oil and grease	mg/L	10
pH	pH units	6.5-8.5

Table 14: Discharge limits

Note: To avoid any doubt, this condition does not authorise the discharge or emission of any other pollutants.

Monitoring

41. The Applicant shall:
    (a) measure:
    - the volume of water discharged from the site; and
    - water use on the site; and

    (b) monitor the quality of the surface water discharged from the license discharge point/s at the development.

42. [12]For each monitoring/discharge point, the Applicant shall monitor (by sampling and obtaining results by analysis) the concentration of each pollutant in Table 15, using the specified units of measure, frequency, and sampling method.

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[10] DEC GTA
[11] DEC GTA
[12] DEC GTA

Pollutant	Units of measure	Frequency	Sampling Method
Filtrable iron	mg/L	Weekly during any discharge	Representative sample
Filtrable manganese	mg/L	Weekly during any discharge	Representative sample
Oil and Grease	mg/L	Weekly during any discharge	Representative sample
Salinity	mg/L	Weekly during any discharge	Representative sample
Total suspended solids	mg/L	Weekly during any discharge	Representative sample
pH	pH	Weekly during any discharge	Representative sample

Table 15: Monitoring parameters for discharge points

Note: Monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with:

- *the Approved Methods Publication; or if there is no methodology required by the Approved Methods Publication or by the general terms of approval or in the licence under the Protection of the Environment Operations Act 1997 in relation to the development or the relevant load calculation protocol,*
- *a method approved by the DEC in writing before any tests are conducted, unless otherwise expressly provided in the licence.*

Site Water Management Plan

43. Within 6 months of the date of this consent, the Applicant shall prepare (and then implement) a Site Water Management Plan for the development, in consultation with DEC and DPI, and to the satisfaction of the Director-General. This plan must include:
    (a) the predicted site water usage;
    (b) a Surface Water Monitoring Program; and
    (c) an Erosion and Sediment Control Plan.

44. The Surface Water Monitoring Program shall include:
    (a) detailed baseline data on surface water flows and quality;
    (b) surface water impact assessment criteria;
    (c) a program to monitor surface water flows and quality; and
    (d) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.

45. The Erosion and Sediment Control Plan shall:
    (a) comply with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual;
    (b) identify activities that could cause soil erosion or discharge sediment or water pollutants from the site;
    (c) describe the location, function and capacity of all erosion and sediment control structures, and nominate which, if any, of these structures would be used as water sources for the development; and
    (d) describe the measures to minimise soil erosion and the potential migration of sediments to downstream waters.

Bunding

46. The Applicant shall ensure that impervious bunds are constructed around all fuel, oil and chemical storage areas in accordance with the requirements of DEC's Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.

VISUAL IMPACT

Visual Amenity

47. The Applicant shall implement measures to mitigate the visual impacts of the development, including:
    (a) designing and constructing development infrastructure in a manner that minimises visual contrasts;
    (b) placing and maintaining visual screens around the development;
    (c) revegetating the proposed noise bund along the western boundary of the development as soon as practicable following each stage of its progressive construction; and/or
    (d) progressively rehabilitating the site as soon as practicable after active mining is completed,

    to the satisfaction of the Director-General.

48. If the landowner of the Hillcroft, Red Springs, and/or Forest Lodge properties (see Appendix 3) requests the Applicant in writing to investigate ways to minimise the visual impact of the development on his/her property, 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 reasonable and feasible measures to minimise the visual impacts of the development on the landowner's property; 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.

Lighting Emissions

49. The Applicant shall ensure that all external lighting associated with the development complies with *Australian Standard AS4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting,* or its latest version.

TRANSPORT

Coal Haulage Limits

50. The Applicant shall ensure that all coal haulage from the development:
    (a) uses the dedicated coal haulage route from the development to the Castlereagh Highway;
    (b) is delivered to the Mount Piper Power Station;
    (c) occurs between 7.00 am and 5.30 pm Monday to Friday, between 7.00 am and 5.00 pm Saturdays, for no more than 30 days annually to the satisfaction of the DEC and Council, and at no time on Sundays and Public Holidays.

    Note: The hours of operation specified in this condition may be varied with the written consent of the DEC if it is satisfied that the amenity of the residents in the locality will not be adversely affected.

Coal Haul Road

51. The Applicant shall ensure that:
    (a) the use of the haul road does not restrict access to the Speedway and sports ground; and

(b) access to haul road is restricted when it is not in use, in accordance with the terms of the Cullen Bullen Recreational Trust agreement.

52. Within 6 months of the date of this consent, the Applicant shall prepare and implement a Coal Haulage Vehicle Management Plan to reduce the impacts of coal haulage traffic from the development on public roads to the satisfaction of the Director-General.

Road Closure

53. The Applicant shall not close any public roads without the approval of the relevant road authority.

Road Crossing

54. The Applicant shall ensure that the road crossing of the mine haul road and Red Springs Road is undertaken in consultation with Council and to the satisfaction of the Director-General.

ABORIGINAL ARCHAEOLOGY

55. The Applicant shall protect the open campsite-stone artifact scatter site C-OS-1 (see Appendix 4) and the associated Potential Archaeological Deposit during the development, in consultation with local Aboriginal groups, and to the satisfaction of the Director-General.

56. The Applicant shall
    (a) ensure that a protective buffer zone of at least 50 metres (radius) is maintained around the site C-S-1 (see Appendix 4), and that the site is not impacted by mining operations or surface activities;
    (b) the site C-S-1(see Appendix 4) is monitored in accordance with Condition 16,

    to the satisfaction of the Director-General.

    Note: Under section 90(1) of the National Parks and Wildlife Act 1974, a person who, without first obtaining the consent of the Director-General, knowingly destroys, defaces or damages, or knowingly causes or permits the destruction or defacement of or damage to, an Aboriginal object or Aboriginal place is guilty of an offence against this Act.

BUSHFIRE MANAGEMENT

57. The Applicant shall:
    (a) ensure that the development is suitably equipped to respond to any fires on site; and
    (b) prepare a Fire Management Plan;

    to the satisfaction of DPI and the Rural Fire Service.

WASTE MANAGEMENT

Waste Minimisation

58. 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 to minimise waste generated by the development; and
    (d) report on waste monitoring and minimisation in the AEMR,

    to the satisfaction of the Director-General.

Waste Disposal

59. [13]The Applicant shall not cause, permit or allow any waste generated outside the mine to be received at the mine for storage, treatment, processing, reprocessing or disposal, or any waste generated at the mine to be disposed of at the mine, except as expressly permitted by a DEC licence.

Note: This condition only applies to the storage, treatment, processing, reprocessing, or disposal of waste that requires a licence under the Protection of the Environment Operations Act 1997.

GREENHOUSE GAS

60. The Applicant shall:
    (a) monitor the greenhouse gas emissions generated by the development;
    (b) investigate ways to minimise greenhouse gas emissions generated by the development;
    (c) implement reasonable and feasible measures to minimise greenhouse gas emissions generated by the development; and
    (d) report on greenhouse gas monitoring and minimization in the AEMR,

    to the satisfaction of the Director-General.

[13] Incorporates DEC GTA

SCHEDULE 5
ADDITIONAL PROCEDURES FOR AIR QUALITY AND NOISE MANAGEMENT

Notify Landowners

1. If the results of the monitoring required in Schedule 4 identify exceedances of the air quality and/or noise limits/criteria in Schedule 4, then the Applicant shall notify the Director-General and relevant landowner/s in writing about these exceedances, and provide quarterly monitoring results to these parties until the monitoring results show that the development is complying with the relevant air quality and/or noise limits/criteria.

Independent Review

2. If a landowner considers the development to be exceeding the relevant air quality and/or noise limits/criteria listed in Schedule 4 on his/her land, then he/she may ask the Applicant for an independent review of the air quality and/or noise impacts of the development on his/her land. Within two weeks of receiving the request from a landowner, the Applicant shall advise the Director-General of the request.

   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 property 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 property, 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.

   - If the independent review determines that the development is complying with the relevant air quality and/or noise limits/criteria at the property, then the Applicant may discontinue the independent review with the approval of the Director-General.

   - If the independent review determines that the development is not complying with the relevant air quality and/or noise limits/criteria at the property, then the Applicant shall:
     (a) take all practicable measures, in consultation with the landowner, to ensure that the development complies with the relevant limits/criteria; and
     (b) conduct further air quality and/or noise monitoring at the property to determine whether these measures ensure compliance; or
     (c) secure a written agreement with the landowner to allow exceedances of the air quality and/or noise limits/criteria,
     to the satisfaction of the Director-General.

   - If the independent review determines that the development is not complying with the relevant air quality and/or noise land acquisition criteria at the property, and the Applicant cannot secure a written agreement with the landowner to allow these exceedances, then upon receiving a written request from the landowner, the Applicant shall acquire the landowner's property in accordance with the Department's land acquisition procedures.

Land Acquisition

3. 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 Lithgow 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:
- appointed independent valuer,
- Director-General or nominee, and
- 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.

4. 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 3.

5. 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. Within 6 months of the date of this consent, the Applicant shall prepare (and then 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 detailed 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;
   - report any environmental incidents;
   - 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. Within 6 months of the date of this consent, the Applicant shall prepare (and then implement) an Environmental Monitoring Program for the development in consultation with the relevant agencies, and 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 to the satisfaction of the Director-General.

ANNUAL REPORTING

5. The Applicant shall submit an AEMR to the Director-General and relevant agencies. This report must:
   (a) identify the standards and performance measures that apply to the development;
   (b) include a detailed summary of the complaints received during the past year, and compare this to the complaints received in the previous 5 years;
   (c) include a detailed summary of the monitoring results on the development during the past year;
   (d) include a detailed analysis of these monitoring results against the relevant:
   - impact assessment criteria/limits;
   - 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.

Note: The report may be developed in conjunction with the AEMR provided to other agencies to avoid duplication of reporting requirements.

INDEPENDENT ENVIRONMENTAL AUDIT

6. Within 2 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 Environmental Audit. 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 10011:2002 – Guidelines for Quality and/or Environmental Systems Auditing, or updated version of this 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, or as otherwise agreed by the Director-General, the Applicant shall submit a copy of the audit report to the Director-General, with a detailed response to any of the recommendations contained in the audit report.

COMMUNITY CONSULTATIVE COMMITTEE

8. The Applicant shall ensure that there is a 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
   - 4 representatives from the local community,

   whose appointment has been approved by the Director-General in consultation with the Council;
   (b) be chaired by an independent person whose appointment has been endorsed 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 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) arrange to 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; and
   (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

Lots 2, 3, 4, 5, 6 and 14 DP 249955 Parish of Cullen Bullen, County of Roxburgh

Lot 1 DP 171665 Parish of Cullen Bullen, County of Roxburgh

Lots 1, 3 and 125 DP 220269, Portions 3, 37, 41, 42, 49, 61, 62, 85 Parish of Cullen Bullen, County of Roxburgh

Crown Land Portions 36, 332, 331

Lot 1 DP 160808 Parish of Cullen Bullen, County of Roxburgh

Lot 333 DP 41170 Parish of Cullen Bullen, County of Roxburgh

Lot 345 DP 720602; Portions 3, 17, 57, 59, 63, 74 and 164 Parish of Cullen Bullen, County of Roxburgh

Part Ben Bullen State Forest No. 434

Cullen Bullen Cemetery

Vacant Crown land identified as Portion ML54

Lot 1 DP1025909, Parish of Cullen Bullen, County of Roxburgh

APPENDIX 2
COPY OF LETTER MODIFYING THE DA
FOR THE EXTENSION OF OPEN CUT MINING OPERATIONS

LCC

LITHGOW COAL COMPANY PTY.LIMITED
ABN 28 073 632 952

PO BOX 200
WALLERAWANG 2845
NSW AUSTRALIA
Telephone 6359 0700
Facsimile 6359 0788

20 May 2004

Development and Infrastructure Branch
Department of Infrastructure, Planning and Natural Resources
20 Lee Street
Sydney NSW 2000

Attention: Mr David Kitto

Dear David,

Cullen Valley Lease Extension Project – Development Application DA-200-6-2003-1
Noise Issues and Habitat Compensation Proposal

Thank you for our meeting today regarding our development application, we appreciate your time and effort in finalising our consent. The purpose of this letter is to confirm our understanding of the agreed outcomes concerning noise and habitat compensation issues.

1. Noise Issues

We confirm that we will accept an assessment criteria of 43 $dB(A)_{Leq}$ with adverse weather conditions not taken into account for existing residential receptors covered by our current consent during the daytime period. The night time criteria will be 35 $dB(A)_{Leq}$.

For the lease extension area we will of course accept the assessment criteria as outlined in the EIS with 40 $dB(A)_{Leq}$ at Forest Lodge and 35 $dB(A)_{Leq}$ at the 25 acre allotments to the north. In order to meet this criteria we have as agreed reduced the extent of extraction to the north. The attached figure represents a modification to our development consent area which takes into account the reduced area.

As requested, we have provided a summary of the noise mitigation measures undertaken at Cullen Valley Mine. The measures are all reasonable and feasible steps taken to date to mitigate noise. The benefits are that the Company has reduced the impact at the most affected residences. Although we are committed to a process of continuous improvement, we believe that at this stage we could not achieve any further meaningful reductions in the short term.

Noise mitigation measures are;

- Construction of a private bypass around Cullen Bullen
- construction of noise barriers at selected locations along the Cullen Bullen haul road bypass
- construction of an earth bund on the southern side of the surface facilities area;
- replacement of audible reversing alarms with appropriate safety procedures;
- Noise bunding has been provided around the entire open cut extraction area. This bund is significantly larger than originally proposed.
- Noise bunding has been provided around the crushing plant and coal loading area. This bund has been incorporated into the internal haul road bund so that there are no gaps.
- An additional and separate bund is provided around western facing wall of the workshop area. The workshop opening was designed to face away from residential receptors.
- Exhaust modifications to the CAT 785 haul trucks (increased muffler size and exhaust directed to ground)
- Additional return idler CAT D11 R Dozer track frame and regular tensioning to reduce slack tracks
- Modifed exhaust on the Leihberr 994 shovel (increased muffler size and exhaust directed to ground). Cooling fan speed was also reduced to decrease the noise from the fan blades. The use of the horn on the excavator has been discontinued following the introduction of a microphone dispatch system. The system was specifically designed and manufactured on behalf of Roche Mining for use at the Cullen Valley Mine. The system allows the excavator operator to communicate with the truck drivers efficiently by the use of a foot operated microphone system. This system also operates for the PC1000, CAT 375, CAT 300 Excavators units as well
- Service Truck - A new exhaust system was designed and fitted to the truck. As part of the redesign an additional muffler was installed.
- CAT 966 - The most efficient exhaust system available for this equipment was purchased and installed.
- CAT 988 Loaders - Two CAT 988 loaders are used in the crushing operation. Both have been fitted with revised exhaust systems to reduce noise impacts. The operation of the crushing plant and the loaders is fully bunded.
- Procedures implemented to limit the number of plant working together on exposed areas.

- Procedures implemented to limit equipment working in exposed areas under unfavourable weather conditions.

- The operation of the overburden drill has been modified to ensure that wherever practical the engine of the drill faces away from the nearest noise receptor. This simple measure has been demonstrated to reduce noise from the drill significantly.

- Similarly, the product coal loading operations on the coal pad have been changed to face the CAT 988 Loader away from the nearest noise receptor. This required the redesign of stockpiling procedures on the coal pad and the access haul road. The bund wall has been extended to provide shielding for the loading operation at the product coal pad.

- If the Leihberr 994 Excavator is required to work above the bund wall horizon then it over benches into the overburden so it remains behind a temporary bund wall on the side of the operation facing the nearest noise receptor. This temporary bund is only removed at the last possible time to provide maximum noise screening. The temporary bund also screens the trucks that are transporting the overburden from the excavator.

- If the D11R Dozer is required to work above the bund wall horizon in exposed areas the D11R is required to cut a slot and work from the slot to provide a noise screening effect.

- The significance of noise and its effect on the surrounding environment has been discussed with all mine personal at tool box talks given by senior mine management. We have also undertaken several noise audits and engaged acoustic consultants to advise on mitigation strategies. This work resulted in a number of equipment modifications and operational changes. Our noise monitoring work is comprehensive and has not only demonstrated compliance but also evidence of improvement.

2. Habitat Compensation

We have attached a map showing land which would be available for habitat compensation. Although the land is in several parcels, they are essentially bounded by the Ben Bullen State Forest and land which we are currently reafforestating and therefore contiguous. The total area of the land parcels is approximately 47 hectares.

We trust this information satisfies your requirements and look forward to reviewing the draft consent document. Should you require any further information or clarification, please do not hesitate to contact the undersigned.

Yours faithfully
Lithgow Coal Company Pty Limited

Jim Hudson
Director

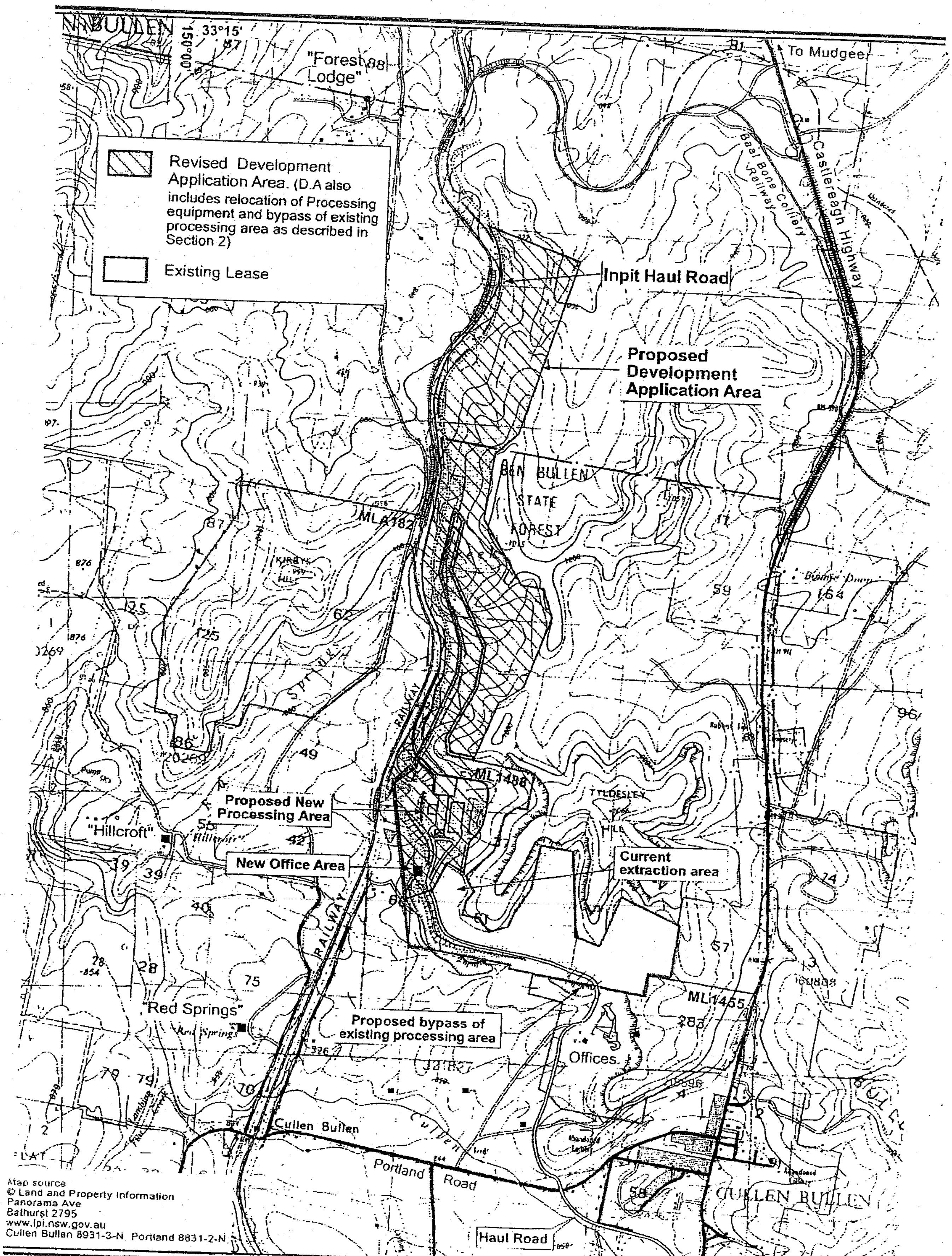
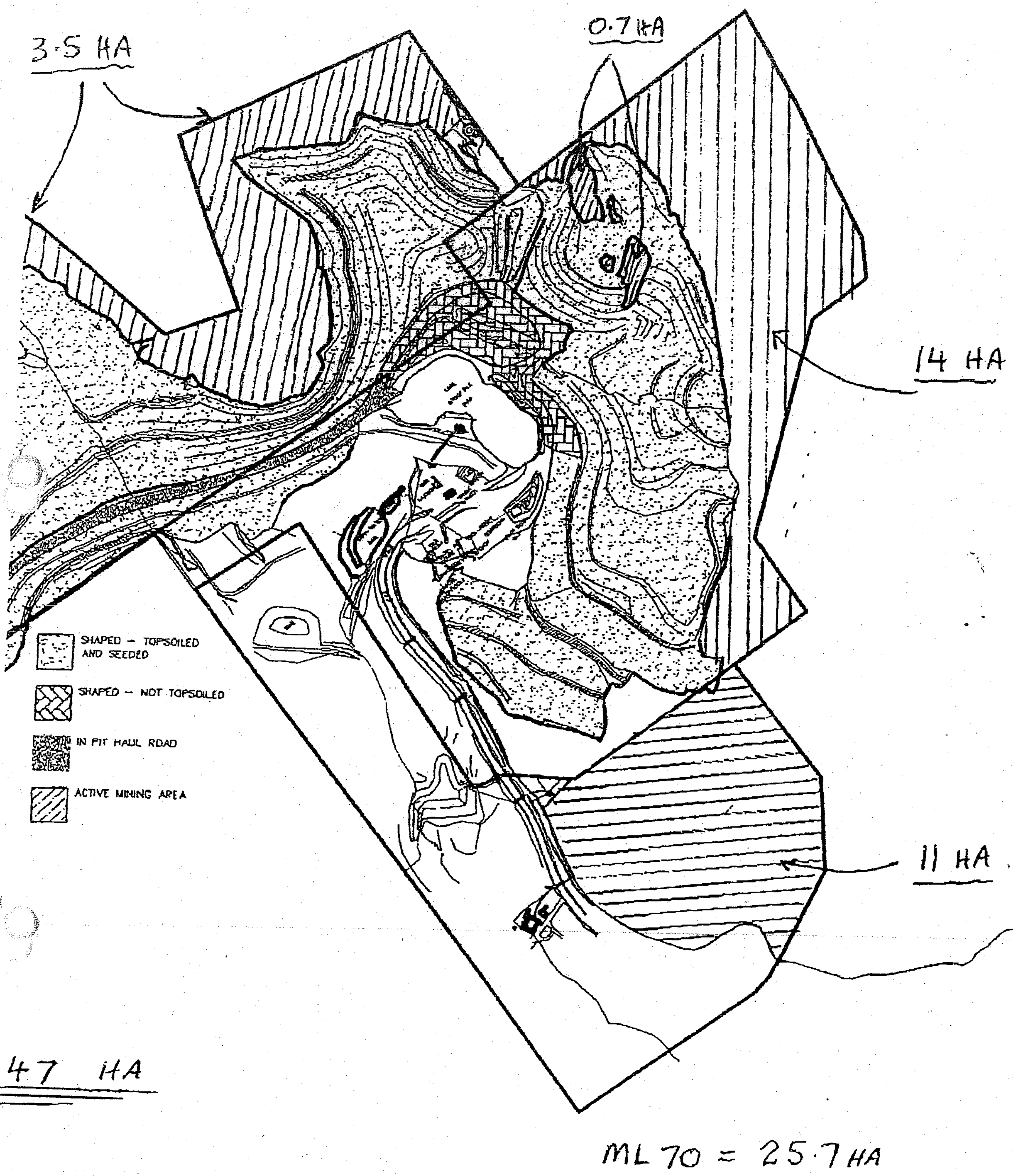


FIGURE 1.2
Revised Development Application Area
May 2004

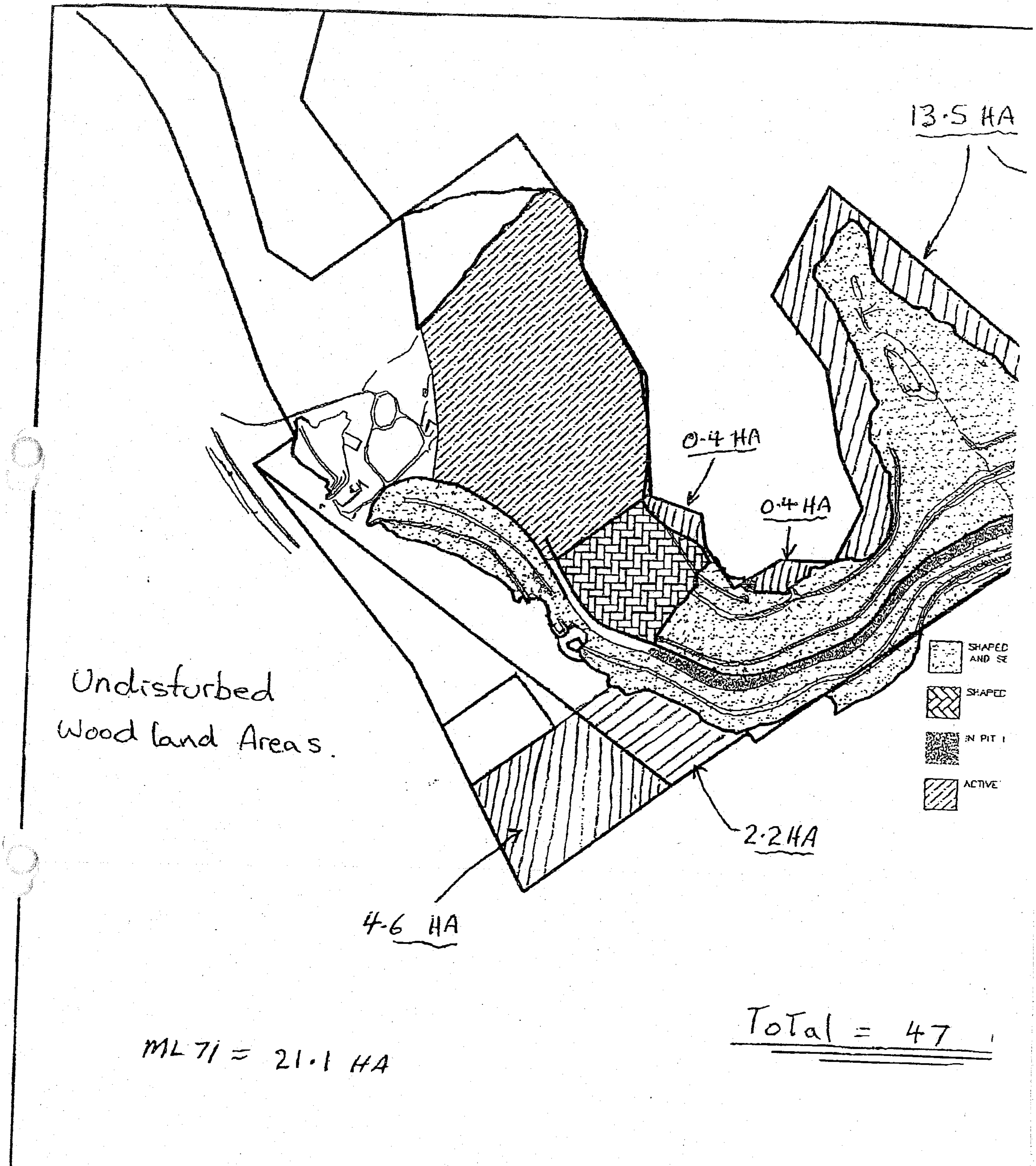


	21-05-04
ED	
YOR	P.W.
	K.L.F.
D	

LITHGOW COAL COMPANY
CULLEN VALLEY MINE
REHABILITATION

SCALE - 1 : 7500 (A3 SHEET)

DWG No
CVRH0504



NOTES:

DATE	21-05-
AMENDED	
SURVEYOR	P.W.
DRAWN	K.L.F.
CHECKED	

CEH LITHGOW
CRAVEN, ELLISTON & HAYES (LITHGOW) PTY.LTD.
CONSULTING LAND, ENGINEERING AND MINING SURVEYORS
ACN 056 544 551
"ASTROLABE" RUTHERFORD LANE, LITHGOW, 2790 PH: (02) 6351 2281, FAX: (02) 6352 1339
Email : ceh@lisp.com.au

APPENDIX 3
PROPERTY DESCRIPTORS

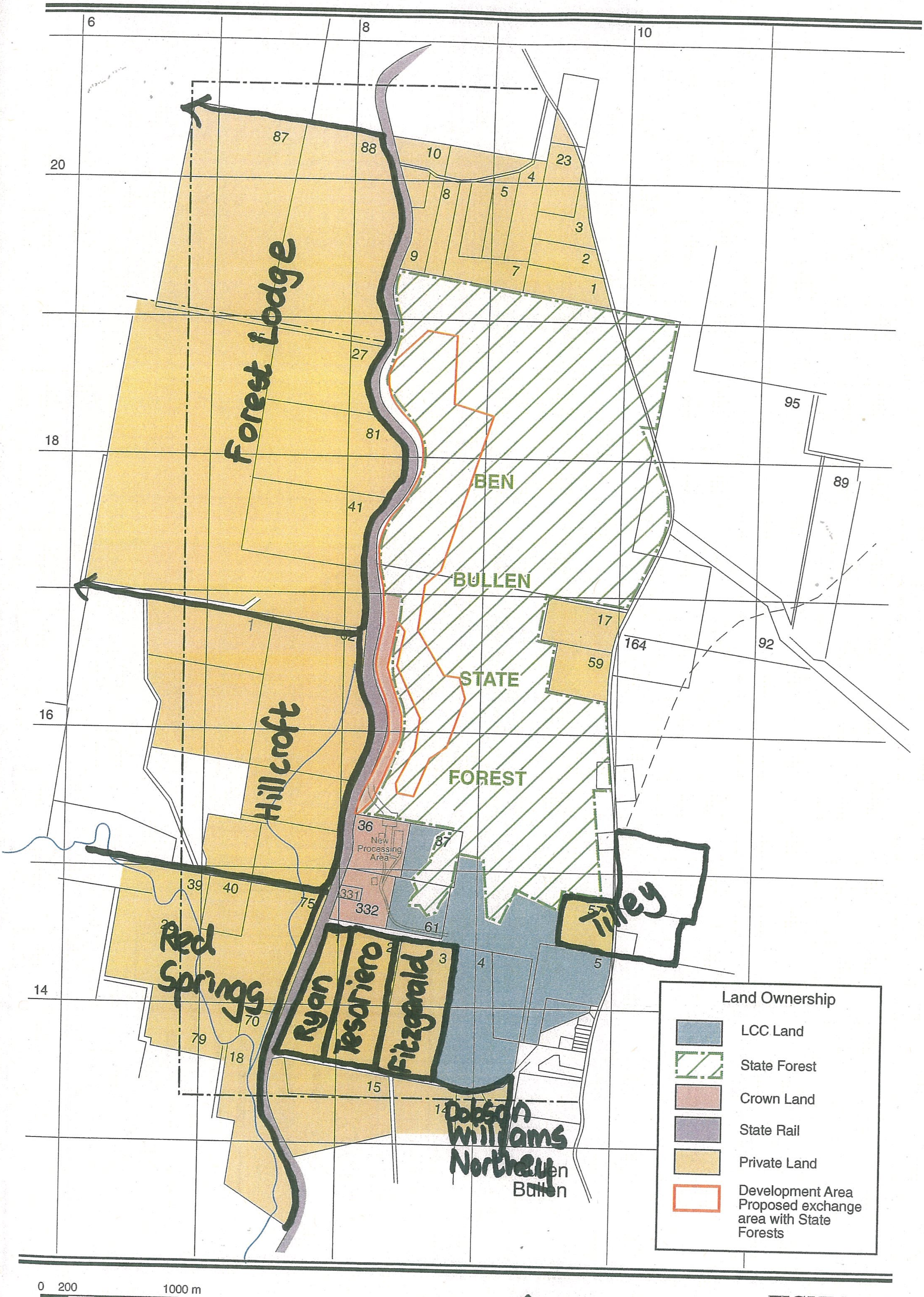


FIGURE 3.1
Cullen Valley - Land Tenure

APPENDIX 4
ARCHAEOLOGICAL HERITAGE SITES

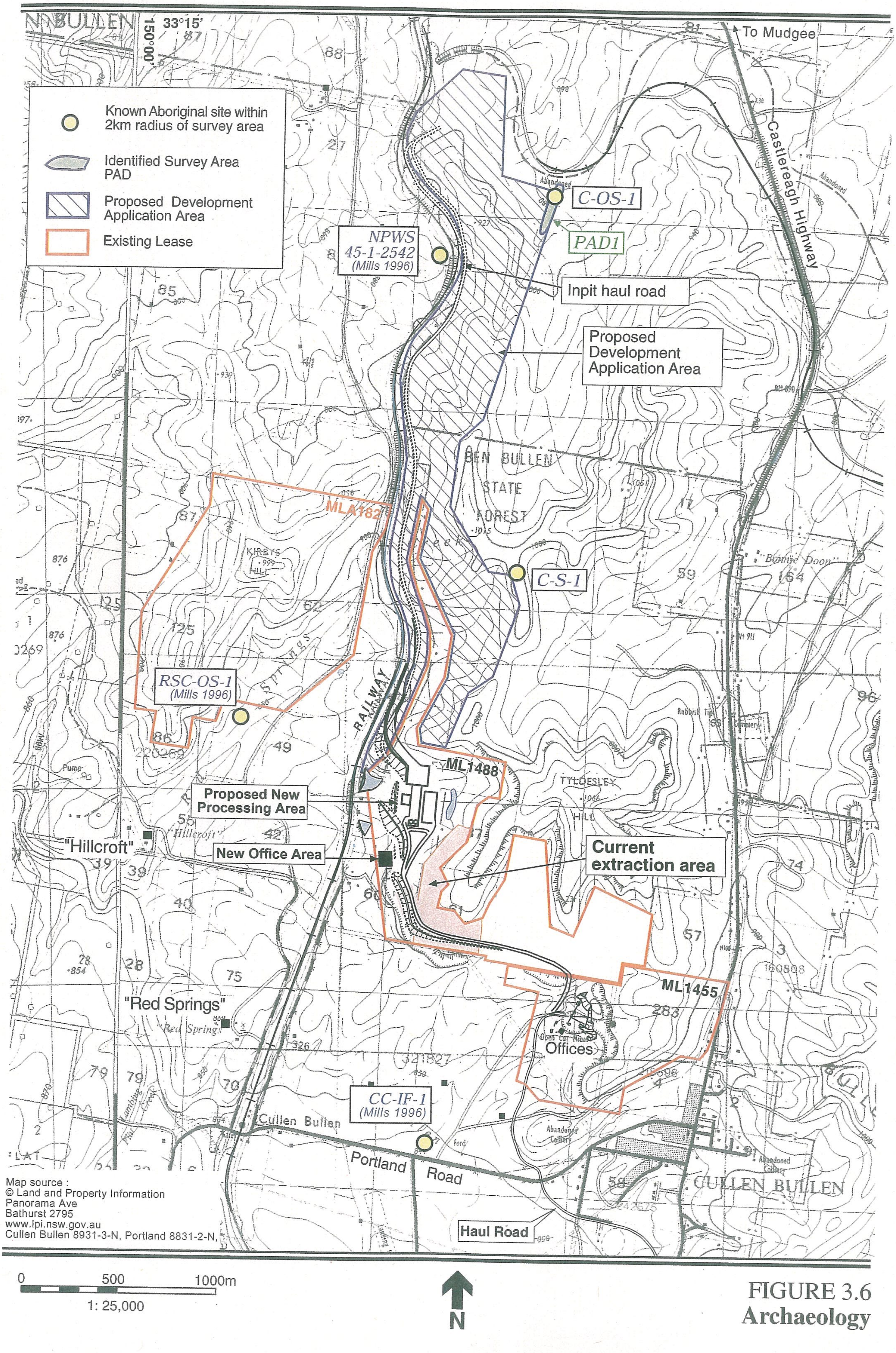


FIGURE 3.6
Archaeology

APPENDIX 5
INDEPENDENT DISPUTE RESOLUTION PROCESS