

Notice of Modification

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


Under the Minister for Planning and Infrastructure's delegation of 14 September 2011, and as members of the Planning Assessment Commission, we modify the project approval referred to in schedule 1, subject to the conditions in schedule 2.



Gabrielle Kibble
Member of the Commission



David Johnson
Member of the Commission



Paul Forward
Member of the Commission

Sydney

22 June 2012

SCHEDULE 1

The project approval (MP 06_0014) granted by the Minister for Planning for the Mangoola Coal Project (formerly the Anvil Hill Coal Project) on 7 June 2007.

SCHEDULE 2

1. Delete the title to Appendix 6 in the Table of Contents, and replace with:

APPENDIX 6: CONCEPTUAL OFFSET STRATEGY AND REHABILITATION PLANS

2. Delete the definitions for DECC, DPI, DWE and RTA in the Definitions, and replace with (in alphabetical order):

EPA	Environment Protection Authority
OEH	Office of Environment and Heritage
DRE	Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services
NOW	NSW Office of Water
RMS	Roads and Maritime Services

3. Delete all references to DPI, DWE and RTA throughout the instrument, and replace with DRE, NOW and RMS respectively.

4. Delete all references to DECC throughout the instrument, and replace with:

- EPA wherever it occurs in:
 - conditions 3, 7, 14, 15, 23, 25, 30, 31 and 60 of schedule 3;
 - commitment 6.4.9 in Appendix 3;
- OEH wherever it occurs in:
 - conditions 41 and 46 of schedule 3; and
 - commitment 6.8.2, 6.8.3, 6.8.4 and 6.8.5 in Appendix 3.

5. Delete the definition for EA in the Definitions, and replace with:

EA	Environmental assessment titled <i>Anvil Hill Project Environmental Assessment, Volumes 1-7</i> , dated August 2006, including the response to submissions, as modified by: <ol style="list-style-type: none">(a) modification application MP 06_0014 MOD 1, and accompanying Environmental Assessment dated April 2008, including the letter from Xstrata to the Department dated 4 July 2008;(b) modification application MP 06_0014 MOD 2, and accompanying Environmental Assessment prepared by Umwelt Environmental Consultants and dated December 2008, including the Response to Submissions dated April 2009;(c) modification application MP 06_0014 MOD 3, and accompanying Environmental Assessment titled <i>Environmental Assessment for Section 75W Modification to Approved Mining Operation, Mangoola Coal – Relocation of Mining Infrastructure Area</i>, dated September 2009;
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- (d) modification application MP 06_0014 MOD 5, and accompanying Environmental Assessment titled *Environmental Assessment for Night Time Rail Works*, dated February 2010; and
- (e) modification application MP 06_0014 MOD 4, and accompanying Environmental Assessment titled *Modifications to Mangoola Coal Mine Plans and Relocation of 500kV Electricity Transmission Line Environmental Assessment* (4 volumes), dated December 2010, including the Response to Submissions dated September 2011.

6. Delete conditions 2(b) to 2(g) of schedule 2, and replace with:

- (b) statement of commitments; and
- (c) conditions of this approval.

7. Delete condition 12 of schedule 2, and replace with:

12. By the end of October 2012, or as otherwise agreed by the Director-General, the Proponent shall revise and update the planning agreement for the project with Council in accordance with:
- (a) Division 6 of Part 4 of the EP&A Act; and
 - (b) the terms of the Proponent's offers for contributions dated 30 March 2012, which includes the matters set out in Appendix 4.

8. Delete Table 1 in condition 3 of schedule 3, and replace with:

Table 1: Noise impact assessment criteria dB(A)

Day <i>L_{Aeq}(15 minute)</i>	Evening <i>L_{Aeq}(15 minute)</i>	Night		Land Number
		<i>L_{Aeq}(15 minute)</i>	<i>L_{A1}(1minute)</i>	
40	40	40	45	66
40	40	39	45	162
39	39	39	45	110, 111, 148, 164
38	38	38	45	125D, 125E, 125F, 130, 174A, 174B, 175, 192, 193, 200
37	37	37	45	96A, 96B, 168, 184, 116A, 116B, 116C, 116D, 116E, 116F, 116G, 125A, 125C, 176
36	36	36	45	79, 103, 104, 114, 125B, 134A, 134B, 141, 178, 182, 183A, 183B, 183C, 185, 187, 189, 190, 191, 198, 199, 241A, 241B, 241C, 251, 269B
41	41	41	-	Anglican Church, Castlerock Road

9. Delete the word "exceeds" (or "exceed") from conditions 4, 6 and 25 of schedule 3, and replace with the words "causes sustained exceedances of".

10. Delete the 4th and 5th bullet points in condition 8 of schedule 3, and replace with:

- an owner of any of the 6 residences on Wybong Road or Bengalla Link Road where traffic noise levels are predicted to exceed the traffic noise criteria in Table 3 (ie. Residence numbers 96B, 168, 203F, 203G, 246 and 249); or
- an owner of any of the 2 residences adjacent the Ulan to Muswellbrook rail line where rail noise levels are predicted in the EA to cause additional exceedances of the applicable rail noise criteria (ie. Residence numbers 125E and 203E),

11. Insert "(or within 3 months of any subsequent modification to the approval which results in additional properties being affected)" after "Within 3 months of this approval" in the last paragraph of condition 8 of schedule 3.

12. Insert the following after condition 10(a) of schedule 3, and re-number subsequent sub-conditions of condition 10 accordingly:

- (b) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;

13. Delete condition 11 of schedule 3 (including the heading above the condition), and replace with:

Noise Management Plan

11. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with EPA, and be submitted to the Director-General for approval by the end of October 2012;
 - (b) describe the measures that would be implemented to ensure:
 - best practice management is being employed;
 - the noise impacts of the project are minimised during meteorological conditions when the noise limits in this approval do not apply; and
 - compliance with the relevant conditions of this approval;
 - (c) describe the project noise management system in detail;
 - (d) include a noise monitoring program that:
 - uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project;
 - adequately supports the proactive and reactive noise management system;
 - includes a protocol for determining exceedances of the relevant conditions of this approval; and
 - evaluates and reports on the effectiveness of the noise management system.

Note: The existing Noise Monitoring Program will continue to apply until this management plan is approved.

14. Delete the note to Table 4 in condition 13 of schedule 3, and replace with:

Notes:

- *The impact assessment criteria for Castle Hill applies until further monitoring is undertaken to identify either blast control measures or undertake detailed archival recording of the heritage slab hut where measures cannot achieve the criteria. The impact assessment criteria for the Aboriginal rock shelters, Anvil Rock and 'The Book' apply until site specific impact assessment criteria are developed, as required by condition 14.*
- *The impact assessment criteria for residences and the 500kV transmission line pylons apply unless otherwise agreed with the relevant owner/s of the residence or infrastructure, and the Proponent has advised the Department in writing of the terms of this agreement.*

15. Delete conditions 26(a) to (c) of schedule 3, and replace with:

- (a) implement best management practice to minimise the off-site odour, fume and dust emissions of the project;
- (b) operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;
- (c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events;
- (d) minimise any visible off-site air pollution; and
- (e) minimise the surface disturbance of the site generated by the project,

16. Delete condition 27 of schedule 3 (including the heading above the condition), and replace with:

Air Quality Management Plan

27. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with EPA, and be submitted to the Director-General for approval by the end of October 2012;
 - (b) describe the measures that would be implemented to ensure:
 - best practice management is being employed;
 - the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and
 - compliance with the relevant conditions of this approval;
 - (c) describe the project air quality management system;
 - (d) include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors, to evaluate the performance of the project;
 - adequately supports the proactive and reactive noise management system;
 - includes PM_{2.5} monitoring (although this obligation could be satisfied by the regional air quality monitoring network if sufficient justification is provided);
 - evaluates and reports on the effectiveness of the air quality management system; and
 - includes a protocol for determining exceedances of the relevant conditions of this approval.
 - (e) describe the management process and apply the necessary mitigation measures to minimise the effect of dust deposits on the performance of rainwater filtration for human consumption and electronic solar systems on private residential properties within a 4km radius

Note: The existing Air Quality Monitoring Program will continue to apply until this management plan is approved.

17. Insert the words ", or to any licensable water within the project disturbance area that is collected as an incidental result of approved mining activities." at the end of the note to condition 29 of schedule 3.
18. Insert the following condition after condition 29 of schedule 3:
- 29A. The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Director-General.
19. Delete condition 32A of schedule 3.
20. Delete condition 35(c) of schedule 3, and replace with:
- (c) a program for accurately delineating the boundary of the Big Flat Creek alluvial aquifer in any areas intersected by mining, including plans for isolation of the mining pit from the alluvium at least 6 months before mining within 150 metres of the alluvium;
21. Delete condition 38 of schedule 3, and replace with:
38. The Proponent shall implement the Offset Strategy and Corridor Strategy as outlined in Table 11, and as generally described in the EA (and shown conceptually in Appendix 6), to the satisfaction of the Director-General.

Table 11: Offset Strategy

Area	Minimum Size
Existing vegetated (treed) areas	1,540 ha
Treed areas to be established	1,150 ha
Grassland areas	330 ha
Total	3,020 ha

Notes:

- (a) The offset areas are in addition to, and outside, the rehabilitated areas of the project disturbance area.
- (b) The quantum of existing and revegetated treed areas may be varied within reason, subject to meeting the total minimum offset area.

22. Delete condition 39 of schedule 3, and replace with:
39. The Proponent shall ensure that the offset strategy and/or rehabilitation strategy is focused on the re-establishment of:
- (a) significant and/or threatened plant communities, including:
- Ironbark Woodland Complex;
 - Bulloak Woodland;
 - Paperbark Woodland;
 - Slaty Box Woodland;
 - Forest Red Gum Riparian Woodland;
 - Rough Barked Apple Woodland;
 - Swamp Oak Riparian Forest; and
 - Weeping Myall Woodland;
- (b) significant and/or threatened plant species, including:
- *Goodenia macbarronii*;
 - *Diuris tricolor*;
 - *Prasophyllum sp. aff. Petilum*;
 - *Oligochaetochilus sp. aff. Praetermissus*;
 - *Cymbidium canaliculatum*;
 - *Bothriochloa biloba*;
 - *Acacia pendula*;
 - *Prasophyllum sp. wybong*;
 - *Commersonia rosea*; and
 - *Pomaderris queenslandica*; and
- (c) significant and/or threatened animal species, including molluscan fauna.
23. Delete "Within 3 years of this approval" from condition 40 of schedule 3, and replace with "By the end of April 2013, unless otherwise agreed by the Director-General".

24. Insert the following after condition 40 of schedule 3:

Translocation Plan for Orchids and Other Threatened Flora

40A. The Proponent shall prepare and implement a Translocation Plan for the identified orchids and other threatened flora species within the project disturbance area, to the satisfaction of the Director-General. This plan must:

- (a) be prepared in consultation with the Department and OEHL, and be submitted to the Director-General for approval prior to the commencement of construction activities for the relocation of the Electricity Transmission Line;
- (b) identify and investigate the translocation potential (through transplanting, propagation or other methods) for threatened flora species, including:
 - orchid species, including:
 - *Diuris tricolor*;
 - *Cymbidium canaliculatum*;
 - *Prasophyllum sp. wybong*;
 - other flora species, including:
 - *Acacia pendula*;
 - *Bothriochloa biloba*;
 - *Commersonia rosea*;
 - *Pomaderris queenslandica*; and
- (c) describe the measures that would be implemented to:
 - maintain up-to-date records of the orchids and other species within the project disturbance area, based on additional survey where necessary;
 - translocate and manage the orchids and other species;
 - monitor and report on the success of the translocation; and
 - ensure suitable contingency measures are implemented if the monitoring suggests the translocation is not working as well as intended.

Note: The Translocation Plan may be prepared as part of the Rehabilitation and Offset Management Plan (see below).

25. Insert the following after the 2nd bullet point in condition 46(c) of schedule 3:

- detailed plan for the management of Aboriginal cultural heritage values of high significance in the offset areas (see condition 38 above), including managing Site SC10 for use by the Aboriginal community for teaching and educational purposes, and maintaining reasonable access to Aboriginal sites;

26. Insert the following after condition 50(e) of schedule 3:

- (f) the Wybong Road intersections with Wybong Post Office Road and Yarraman Road to the satisfaction of Council, by the end of April 2013, or as otherwise agreed by the Director-General.

With regard to the Wybong Road upgrade identified in (b) above, the Proponent shall:

- (i) reassess and rectify the identified defects in the road upgrade works to the satisfaction of Council, by the end of April 2013, unless otherwise agreed by the Director-General in consultation with Council;
- (ii) implement the additional recommendations identified in the 'Hyder Report', including improvements to curves, clear zones and intersection safety, and investigate and implement measures to improve safety at 'Bus Stop 2', to the satisfaction of Council by the end of April 2013, unless otherwise agreed by the Director-General in consultation with Council; and
- (iii) contribute to the maintenance of the upgraded road for the life of the mining operations in accordance with the terms of the planning agreement required in condition 12 of schedule 2.

If there are any disputes in relation to these upgrade and maintenance works, then either party may refer the matter to the Director-General for resolution.

Note: For the purposes of this condition:

- the Wybong Road upgrade refers to the section of Wybong Road from the mine access road to the intersection with Bengalla Link Road; and
- the 'Hyder Report' means the report titled Mangoola Coal Project: Road Design, Safety and Traffic review of Wybong Road West, prepared by Hyder Consulting, dated November 2011.

27. Insert the following after the 1st paragraph of condition 52 of schedule 3:

No project-related heavy vehicle traffic shall use Wybong Road west of the mine access road (to the intersection with the Golden Highway) to access the site, except in any emergency to avoid the loss of lives, property and/or prevent environmental harm.

28. Insert the following after condition 52 of schedule 3:

Train Movements and Refuelling

- 52A. The Proponent shall:
- (a) restrict train movements to/from site to a maximum of 20 train movements a day (ie. 10 trains in; 10 trains out);
 - (b) use its reasonable endeavours to ensure that its rail spur is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208); and
 - (c) only refuel trains on site that are directly associated with the coal transport operations of the project.

29. Insert the following after condition 1 in schedule 5:

Adaptive Management

- 1A. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

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

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

30. Delete condition 7 of schedule 5, and replace with:

Revision of Strategies, Plans and Programs

7. Within 3 months of the submission of an:
- (a) audit under condition 5 above;
 - (b) AEMR under condition 4 above;
 - (c) incident report under condition 3 above; and
 - (d) any modification to the conditions of this approval,
- the Proponent shall review, and if necessary revise, the strategies, plans, programs and reports required under this approval to the satisfaction of the Director-General.

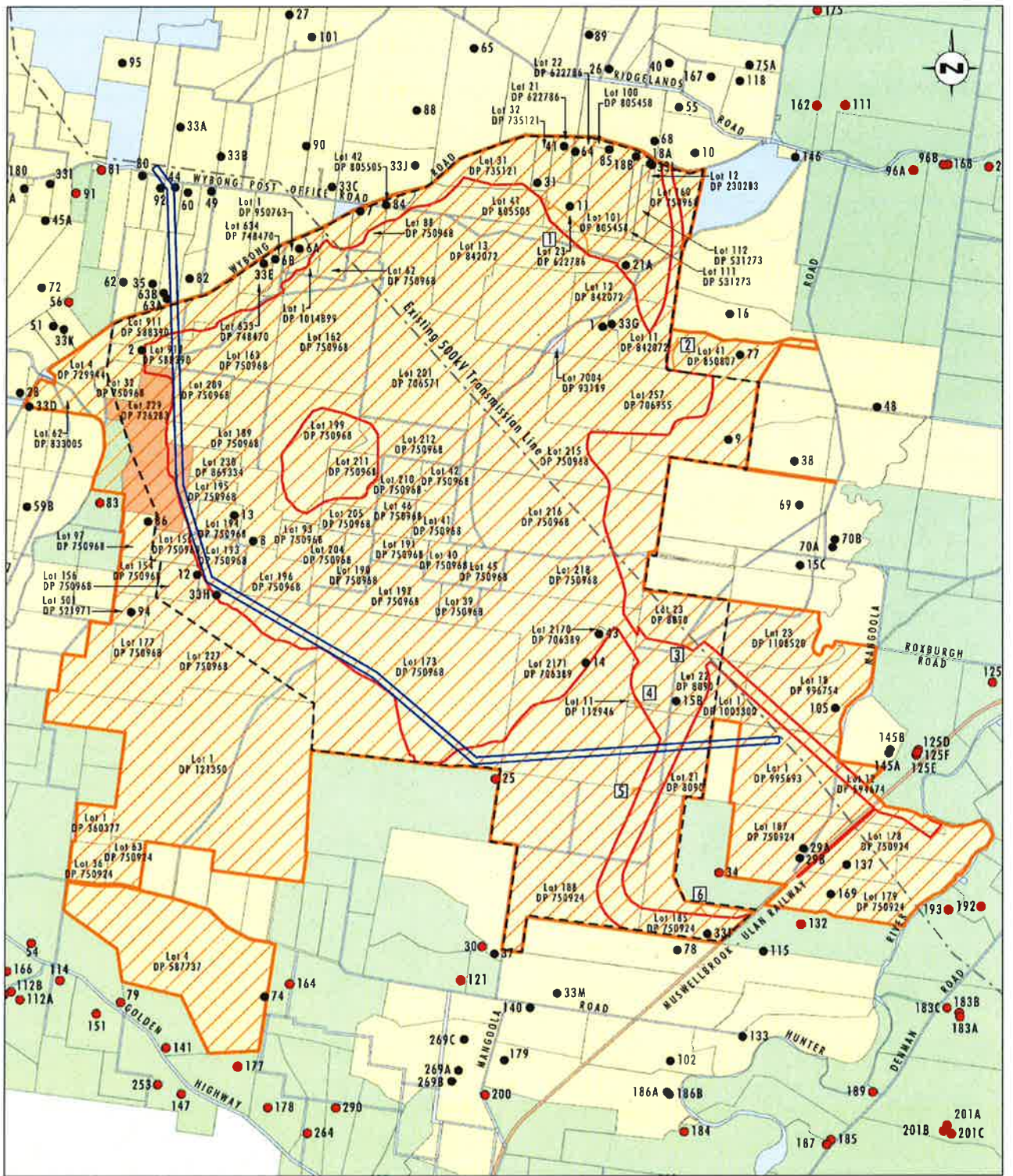
Note: This is to ensure the strategies, plans, programs and reports are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.

31. Delete the schedule of land in Appendix 1, and replace with:

Lot	DP	Owner	Lot	DP	Owner
12	842072	Xstrata Mangoola Pty Limited	101	805458	Xstrata Mangoola Pty Limited
160	750968	Xstrata Mangoola Pty Limited	41	805505	Xstrata Mangoola Pty Limited
11	842072	Xstrata Mangoola Pty Limited	13	842072	Xstrata Mangoola Pty Limited
227	750968	Xstrata Mangoola Pty Limited	229	726283	The State of New South Wales
199	750968	Xstrata Mangoola Pty Limited	173	750968	Xstrata Mangoola Pty Limited
193	750968	Xstrata Mangoola Pty Limited	41	850807	Xstrata Mangoola Pty Limited
185	750924	Xstrata Mangoola Pty Limited	12	230283	Xstrata Mangoola Pty Limited
31	735121	Xstrata Mangoola Pty Limited	112	531273	Xstrata Mangoola Pty Limited
7004	93189	The State of New South Wales	111	531273	Xstrata Mangoola Pty Limited
2170	706389	Xstrata Mangoola Pty Limited	100	805458	Xstrata Mangoola Pty Limited
188	750924	Xstrata Mangoola Pty Limited	22	622786	Xstrata Mangoola Pty Limited
912	588390	Xstrata Mangoola Pty Limited	21	622786	Xstrata Mangoola Pty Limited
911	588390	Xstrata Mangoola Pty Limited	32	735121	Xstrata Mangoola Pty Limited
218	750968	Xstrata Mangoola Pty Limited	42	805505	Xstrata Mangoola Pty Limited
201	706571	Xstrata Mangoola Pty Limited	1	950763	Xstrata Mangoola Pty Limited
163	750968	Xstrata Mangoola Pty Limited	634	748470	Xstrata Mangoola Pty Limited
162	750968	Xstrata Mangoola Pty Limited	633	748470	Xstrata Mangoola Pty Limited
93	750968	Xstrata Mangoola Pty Limited	32	750968	Xstrata Mangoola Pty Limited
1	1014899	Xstrata Mangoola Pty Limited	156	750968	Xstrata Mangoola Pty Limited
62	750968	Xstrata Mangoola Pty Limited	4	729944	Xstrata Mangoola Pty Limited
46	750968	Xstrata Mangoola Pty Limited	62	833005	Xstrata Mangoola Pty Limited
45	750968	Xstrata Mangoola Pty Limited	47	750968	Xstrata Mangoola Pty Limited
42	750968	Xstrata Mangoola Pty Limited	177	750968	Xstrata Mangoola Pty Limited
41	750968	Xstrata Mangoola Pty Limited	1	121350	Xstrata Mangoola Pty Limited
40	750968	Xstrata Mangoola Pty Limited	1	1003300	Xstrata Mangoola Pty Limited
39	750968	Xstrata Mangoola Pty Limited	23	1108520	Xstrata Mangoola Pty Limited
216	750968	Xstrata Mangoola Pty Limited	18	996754	Xstrata Mangoola Pty Limited
215	750968	Xstrata Mangoola Pty Limited	1	995693	Xstrata Mangoola Pty Limited
212	750968	Xstrata Mangoola Pty Limited	12	594674	Xstrata Mangoola Pty Limited
211	750968	Xstrata Mangoola Pty Limited	178	750924	Xstrata Mangoola Pty Limited
210	750968	Xstrata Mangoola Pty Limited	179	750924	Xstrata Mangoola Pty Limited
209	750968	Xstrata Mangoola Pty Limited	1	360377	Xstrata Mangoola Pty Limited
205	750968	Xstrata Mangoola Pty Limited	36	750924	Xstrata Mangoola Pty Limited
204	750968	Xstrata Mangoola Pty Limited	63	750924	Xstrata Mangoola Pty Limited
196	750968	Xstrata Mangoola Pty Limited	4	587737	Xstrata Mangoola Pty Limited
192	750968	Xstrata Mangoola Pty Limited			
191	750968	Xstrata Mangoola Pty Limited			
190	750968	Xstrata Mangoola Pty Limited			
189	750968	Xstrata Mangoola Pty Limited			
88	750968	Xstrata Mangoola Pty Limited			
230	869334	Xstrata Mangoola Pty Limited			
257	706955	Xstrata Mangoola Pty Limited			
23	622786	Xstrata Mangoola Pty Limited			
155	750968	Xstrata Mangoola Pty Limited			
195	750968	Xstrata Mangoola Pty Limited			
194	750968	Xstrata Mangoola Pty Limited			
2171	706389	Xstrata Mangoola Pty Limited			
11	112946	Xstrata Mangoola Pty Limited			
23	8090	Xstrata Mangoola Pty Limited			
22	8090	Xstrata Mangoola Pty Limited			
21	8090	Xstrata Mangoola Pty Limited			

Other Lands

Crown Roads, Council Roads, the bed and banks of the Hunter River and the Muswellbrook – Ulan railway, identified in the area shown on Figure 1 – Project Application Boundary



Source: Department of Lands (2003)

0 1.0 2.0 3.0 km

Legend

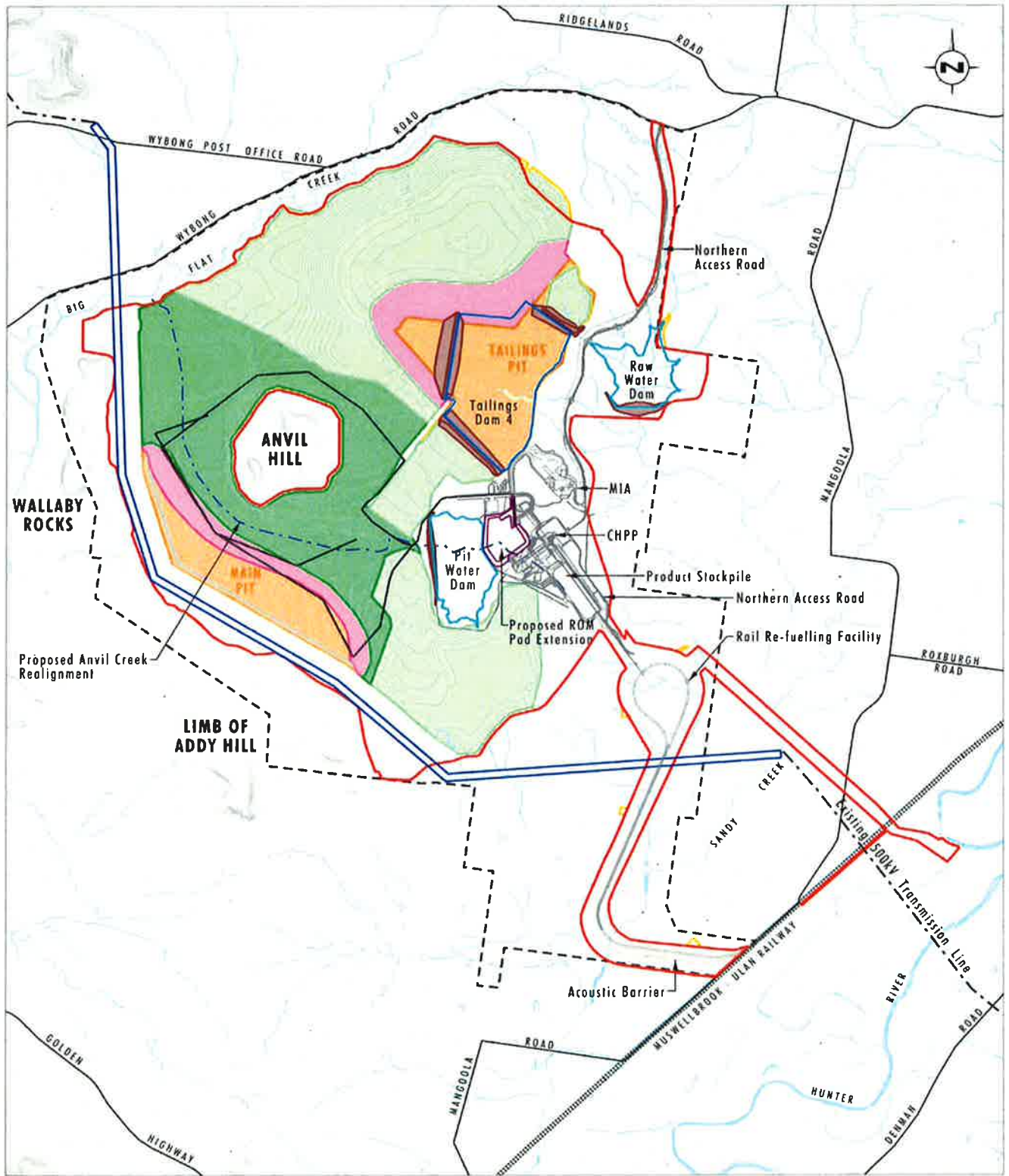
- Approved Project Disturbance Boundary
- Mining Lease 1626 Boundary
- Modified Project Disturbance Boundary
- Titles in s.75W Modification Area
- Proposed 500kV Transmission Line Easement
- Cadastral Boundary
- Private Residence
- Mine Owned Residence

- Land Ownership Status:**
- Xstrata Mangoola Ply Limited
 - Crown Land
 - The State of NSW
 - Private
 - Commonwealth of Australia

FIGURE A2.1

s.75W Modification Schedule of Lands

32. Delete the project layout plan in Appendix 2, and replace with:



Source: Xstrata Mangoola (2010)
 Base Map: Dept. of Lands (2003)
 Note: Contour Interval 5m



Legend

- | | |
|---|------------------------------|
| Approved Project Disturbance Boundary | Active Pit |
| Mining Lease 1626 Boundary | Rehabilitation - in progress |
| Modified Project Disturbance Boundary | Rehabilitation - completed |
| Proposed ROM Pad Extension | Haul Road |
| Proposed 500kV Transmission Line Easement | |
| Active Overburden Placement | |

FIGURE 11.8

Proposed Year 15 Mine Plan

33. Insert the following commitments (in numerical order) in Appendix 3:

- 6.4.10 Xstrata Mangoola confirms that those residences identified as having rights for noise mitigation and management in accordance with the original Project Approval No 06-0014, will still have those rights available to them, irrespective of whether the modification (Mod 4) results in their property no longer being predicted to receive the level of noise impacts above the relevant trigger level specified in the current Project Approval.
- 6.7.3a Xstrata Mangoola will submit to the NSW Office of Water, plans for isolation of the mining excavation from the Big Flat Creek at least 6 months prior to operations extending to within 150 metres of Big Flat Creek.
- 6.7.9 Xstrata Mangoola will install piezometers in accordance with the Xstrata Mangoola Groundwater Monitoring Program by the end of 2011. Monitoring of piezometers will become part of the site's monitoring schedule for the ongoing collection of data and reported in accordance with current Mangoola Coal Mine Project Approval. In addition, based on further groundwater advice, additional piezometers will be installed.
- 6.8.6 Where tree hollows are lost by felling hollow-bearing trees (including stags), hollow fallen timber will be replaced by nest boxes set in appropriate locations at appropriate heights for the target fauna species. This will be managed in accordance with procedures in Mangoola Coal's ROMP.
- 6.8.7 The ongoing health of *Diuris tricolor* will be monitored in the Habitat Enhancement Area adjacent to Modification Area 1, and at least 2 reference populations elsewhere in the Habitat Enhancement Area for at least five years. This will be included in the revised Mangoola Coal ROMP with baseline monitoring established prior to mining in the modifications areas and annual monitoring for at least 5 years following mining in the modifications areas.
- 6.8.8 If there is significant and sustained decline in vigour of the Pine Donkey Orchids immediately adjacent to the open pit in Modification Area 1 then Xstrata, over a three (3) year period, will engage a suitably qualified ecologist to recommend actions in relation to achieving the long-term survival of this population. This will be included in the revised ROMP.
- 6.8.9 Prior to any vegetation clearing in any of the modifications areas, a pre-clearance survey for *Acacia pendula* plants will be done. In the event that any plants are found they are to be marked and managed in accordance with Mangoola Coal's ROMP.
- 6.8.10 Translocation of *Diuris tricolor* from the approved disturbance area into suitable known habitats within the Biodiversity Offset Areas will continue to occur, as per the Project Approval for the Mangoola Coal Mine, and defined further in the ROMP. This will be extended to include any records of this species identified (during seasonal surveys) in the proposed modification areas.
- 6.9.6 The Proposed Offset Areas shown on **Figure 5.8** of the Anvil Hill Project EA provide for conservation of archaeological terrain units evaluated as having equal or greater overall significance than in the Proposed Disturbance Area. Xstrata Mangoola is committed to conserving all 98 identified sites and the landscapes in which they occur, within the Proposed Offset Areas. The Proposed Offset Areas will conserve all the rockshelter sites within Wallaby Rocks, Limb of Addy Hill, Western Rocks and Anvil Hill. Anvil Hill rockshelter sites (four sites), however, may be affected by the indirect impacts of blasting. This impact will be mitigated and management strategies for the rockshelters on Anvil Hill are discussed in **Appendix 13** of the Anvil Hill Project EA.
- 6.9.7 Xstrata Mangoola will continue to operate in accordance with the approved Mangoola Coal Aboriginal Cultural Heritage Management Plan (ACHMP) for the ongoing management of the Aboriginal heritage items within the approved project disturbance boundary. The ACHMP will continue to be implemented in consultation with the registered local Aboriginal stakeholders and will be revised within the next 12 months. The revision will include:
- additional information on all newly identified sites on land owned or managed by Xstrata Mangoola, including sites identified within the areas affected by the modifications;
 - a requirement to ensure that if Aboriginal objects are salvaged or uncovered due to development activities, any custodial arrangements will comply with the provision of Section 85 of the NPW Act and that every opportunity will be afforded to Registered Aboriginal Parties to provide input into decisions regarding short and long-term and/or final custodial arrangements for salvaged artefacts;
 - amendments to the NPW Act; and
 - details of further consultation with the Aboriginal community.
- 6.9.8 In the event that surface disturbance identifies a new Aboriginal site, the site will be managed in accordance with the procedures in the existing ACHMP for previously unrecorded sites. This procedure will be updated during the revision of the ACHMP, consistent with the requirements of OEH.

- 6.9.9 In the event that human remains are located following any surface disturbance, these will be managed in accordance with relevant procedures in the Mangoola Coal's ACHMP.
- 6.9.10 All reasonable efforts will be made to avoid impacts to Aboriginal cultural heritage at all stages of the development works. Where impacts are unavoidable possible management options for unavoidable impacts and detailed management recommendations and methodologies have been developed in consultation with the Registered Aboriginal Parties. The requirement for submission of Aboriginal Site Impact Recording (ASIR) cards following salvage will also be incorporated into these documents.
- 6.9.11 The Aboriginal Cultural Education Program developed for the Mangoola Coal Mine will continue to be implemented as part of the induction process for all employees and contractors.
- 6.9.12 An additional suitable culturally appropriate offset will be determined following additional consultation with the relevant Aboriginal stakeholders, in consultation with OEH and to the satisfaction of the Department.
- 6.9.13 Xstrata Mangoola will continue to consult with and involve all relevant registered local Aboriginal representatives for the project, in the ongoing management of the Aboriginal cultural heritage values. Evidence of this consultation will be collated and provided to the consent authority upon request.
- 6.10.6 In the unlikely event that significant historical archaeological remains not identified as part of this study are discovered at the site, all works in the immediate area will cease and the Heritage Branch, Department of Planning and Infrastructure will be notified, in accordance with Section 146 of the *Heritage Act 1977* (NSW).
- 6.10.7 The location of site/items 20 and 21 will be included in a revision of the Heritage Management Plan.
- 6.12.3 Xstrata Mangoola will continue to monitor and seek to improve its energy and greenhouse gas performance against performance targets.
- 6.12.4 Xstrata Mangoola will report its greenhouse gas and energy performance via legislative reporting requirements.

34. Delete the table in Appendix 4, and replace with:

Funding Area	Project	Proponent Contribution ²	Funding Time Frame	Contribution Origin
Roads	Wybong Road maintenance ¹ (as required under condition 50 of schedule 3)	\$55,000 a year during mining operations ³ , following upgrade of Wybong Road as required under condition 50 of schedule 3	Annually ⁴	MOD 4
	General road maintenance	\$220,000 a year during mining operations ³	Annually ⁴	MOD 4
Local Environmental Management	Wybong Uplands Land Management Strategy	\$500,000	\$100,000 x 5 years, from commencement of construction.	Original project approval
	Council environmental management and monitoring	\$20,000 a year during mining operations ³	Annually ⁴	MOD 4
Local Employment	Education and Training Strategy	\$600,000	3 – 6 annual contributions to be paid from commencement of construction.	Original project approval
	Local Apprenticeships	Proponent to use its best endeavours to engage 6 apprentices a year sourced from residents within the Muswellbrook Shire and Aberdeen	Annually ⁴	MOD 4

Funding Area	Project	Proponent Contribution ²	Funding Time Frame	Contribution Origin
Community Projects	Recreation Assets Renewal Fund	\$1,200,000	Contributions to start on commencement of production, with flexible instalments. and interest on the capital outstanding to be contributed annually.	Original project approval
Community Infrastructure	Denman recreation area enhancements	\$2,200,000	3-4 annual contributions to be paid from commencement of production, with a weighting towards the latter contributions in accordance with Council's schedule of works.	Original project approval
Additional environmental and community projects	Miscellaneous	\$235,000 a year during mining operations ³	Annually ⁴	MOD 4

1 Refers to the section of Wybong Road from the mine access road to the intersection with the Bengalla Link Road.

2 Subject to detailed timing, CPI indexation and termination as detailed in the Proponent's Letter of Offer dated 30 March 2012 (the Letter of Offer)

3 Including 12 months after the end of mining operations, as detailed in the Letter of Offer

4 From the date of approval of MOD 4, as detailed in the Letter of Offer

35. Delete the table of landowners with acquisition rights in Appendix 5, and replace with the following table and figure:

Residence ID*	Owner	Lot	DP	Significant Noise Impact	Significant Air Impact	Significant Blast Impact - Vibration	Significant Blast Impact - Overpressure
Residences							
30	Baywalis Management Pty Ltd	18	750969	Yes	-	Yes	-
56	Buddin KW & Bezzina S	23	240086	Yes	Yes	Yes	Yes
34	Cole G R	186	750924	Yes	-	-	-
121	Fairweather JA	2	593485	Yes	-	-	-
132	Horden RJ & AM	180	750924	Yes	-	-	-
81	Phelps JR & CM	12	240086	Yes	-	-	-
83	Ray MD & JT	9	750968	-	Yes	Yes	Yes
91	Shorter GM & O'Hara PJ	10	240086	Yes	-	-	-
25	Withers KL, LA, RIC & PJ RAY	168	750968	Yes	-	Yes	Yes
Additional Properties >25% Affected							
-	Googe FN & WL	1/1	75029/ 414239	Yes	-	-	-
-	Fairweather CR, ALJ, JMA & WS	71	9011088	Yes	-	-	-
66	LeBreton	122	585122	Yes	-	-	-
162	Thiecke, AH & JA	3	556410	Yes	-	-	-
164	Valantine, MG	88	818690	Yes	-	-	-

* As identified in the Environmental Assessment and figure below



Source: Dept. of Lands (2003)

Legend

- Approved Project Disturbance Boundary
- Mining Lease 1626 Boundary
- Modified Project Disturbance Boundary
- Proposed 500kV Transmission Line Easement
- Approved Worst Case 35dBA
- Proposed Worst Case 35dBA
- Approved Worst Case 40dBA
- Proposed Worst Case 40dBA

- Cadastral Boundary
- Private Residence
- Mine Owned Residence
- Commonwealth Residence
- Private Property with > 25% Land Affected by 40dBA

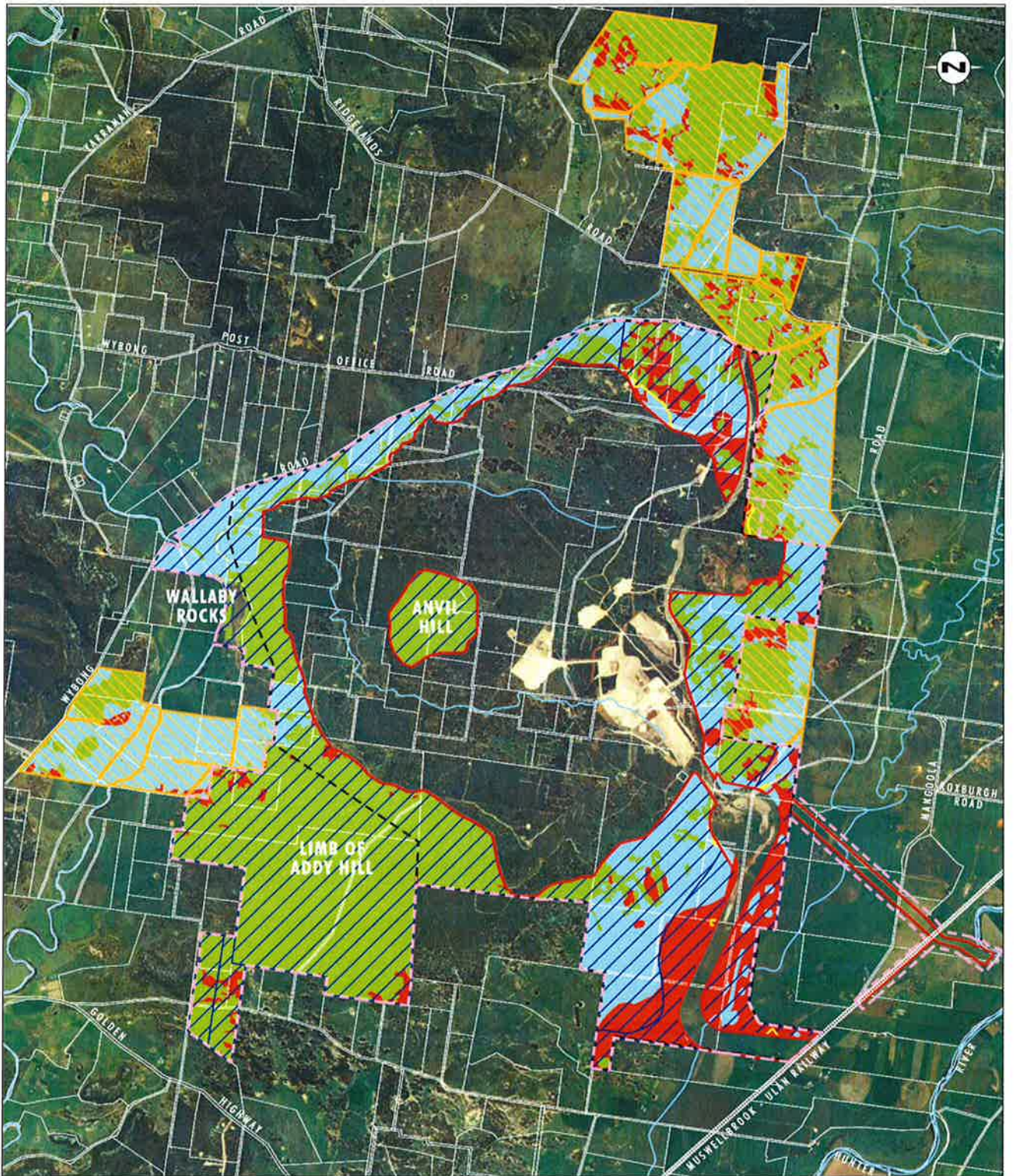
- Land Ownership Status:
- Xstrata Mangoola Pty Limited
 - Crown Land
 - The State of NSW
 - Private
 - Commonwealth of Australia
 - Other Mine Owned
 - Unknown

DRAFT FIGURE 1

Worst Case Noise Contours - Comparison Between Approved and Proposed Projects

36. Delete Appendix 6, and replace with:

**APPENDIX 6
CONCEPTUAL OFFSET STRATEGY AND REHABILITATION PLANS**



Source: Dept. of Lands (2003), Xstrata Mangoola (2010)

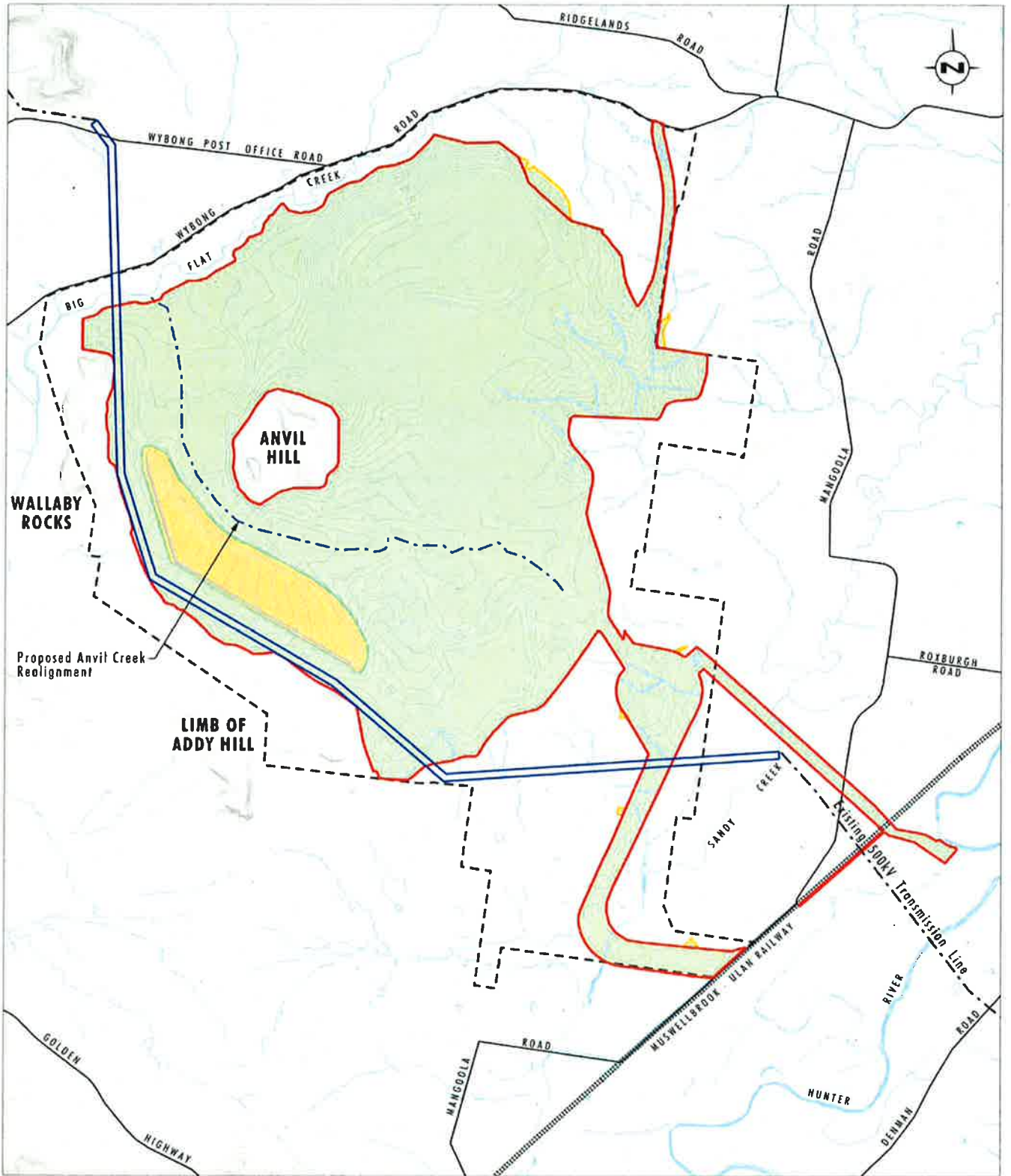
Note: Proposed Revegetation/Regeneration Areas are conceptual and subject to the outcomes of further ecological and archaeological surveys.

0 0.5 1.0 2.5 km
1:60 000

Legend

- | | |
|---------------------------------------|--|
| Approved Project Disturbance Boundary | Current Treed Vegetation |
| Mining Lease 1626 Boundary | Proposed Revegetation/Regeneration Areas |
| Modified Project Disturbance Boundary | Grassland |
| Project Boundary | |
| Corridors | |
| Offset Areas | |

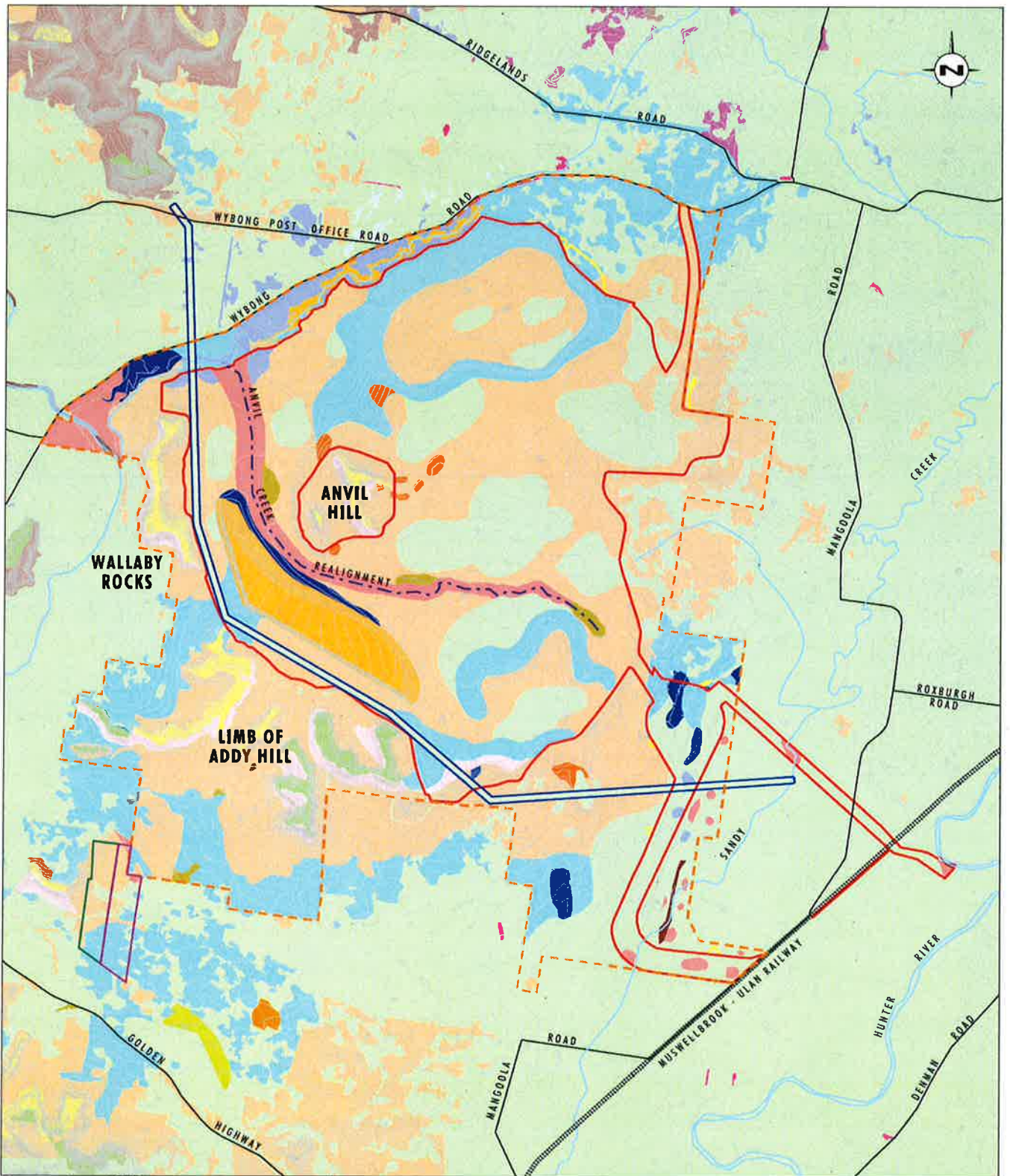
FIGURE 1
Offset and Corridor
Concept Plan



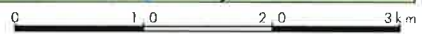
Source: Xstrata Mangoola
 Base Map: Dept. of Lands (2003)
 Note: Contour Interval 5m

- Legend**
- Approved Project Disturbance Boundary
 - Mining Lease 1626 Boundary
 - Modified Project Disturbance Boundary
 - Proposed 500kV Transmission Line Easement
 - Rehabilitation - completed
 - Final Void

FIGURE 11.10
 Conceptual Final Landform



Source: Peake (2006) Note: Contour Interval 5m AHD



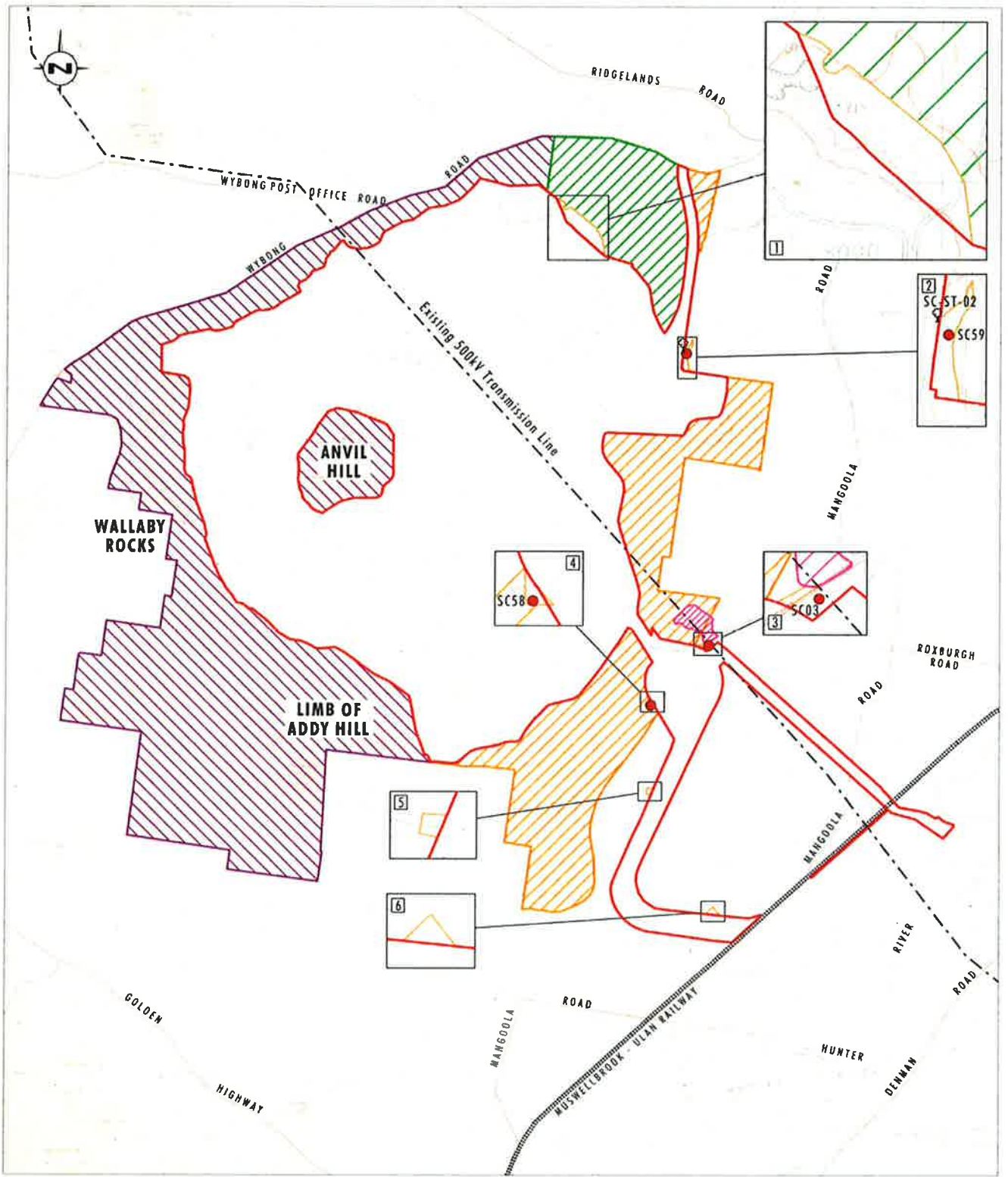
Legend

- | | | |
|---|------------------------------|--|
| Approved Project Disturbance Boundary | Coast Myall Exposed Woodland | Bullock Woodland |
| Proposed 500kV Transmission Line Easement | Sheltered Grey Gum Woodland | Red Ash Sheltered Forest |
| Modified Project Disturbance Boundary | Improved Pasture | Cypress Pine Woodland |
| Combined Ecology Offset Boundary | Spotted Gum Open Forest | Paperbark Woodland |
| Proposed ETL Relocation Offset Area | Swamp Oak Riparian Forest | Slaty Box Woodland (VEC, TSC Act) |
| Proposed Mod. Additional Biodiversity Offset Area | Vineyard | Weeping Myall Woodland (EEC, TSC and EPBC Acts) |
| Ironbark-Wattle Low Exposed Woodland Complex | Tall Mixed Shrubland Complex | Ironbark Woodland Complex (EEC, TSC Act) |
| Forest Red Gum Riparian Woodland | Drooping Sheoak Woodland | Final Void |
| Mixed Species Revegetation/Plantation | River Oak Riparian Forest | Rough-barked Apple Woodland (consistent with EEC, TSC Act) |
| Disturbed/Modified Native Grassland | Exotic Rushland | |

DRAFT FIGURE 12.26

Post Mining Rehabilitated Vegetation Communities

37. Insert the following figure at the end of Appendix 7:



Source: Dept of Lands (2006)

Legend

- Approved Project Disturbance Boundary
- Modified Project Disturbance Boundary
- Approved Aboriginal Cultural Heritage Offset Areas
- Habitat Enhancement Area
- Surveyed Habitat Enhancement Area
- SC10 Management Zone
- Artefact Scatter
- Scarred Tree

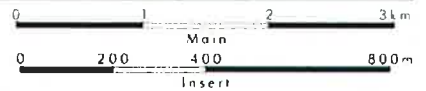


FIGURE 12.6
Location of Sites Associated with
Modification Areas