

# Development Consent

## Section 80 of the *Environmental Planning and Assessment Act 1979*

I, the Minister for Planning, approve the development application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

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.

Frank Sartor, MP  
Minister for Planning

Sydney

2005

File: 9038942

### SCHEDULE 1

<b>Development Application:</b>	DA 128-5-2005.
<b>Applicant:</b>	Readymix Holdings Pty Limited.
<b>Consent Authority:</b>	Minister for Planning.
<b>Land:</b>	Refer to Appendix 1
<b>Proposed Development:</b>	Lynwood hard rock quarry and associated infrastructure.
<b>State Significant Development:</b>	The proposal is classified as State significant development under Section 76A (7) of the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) as it meets the criteria in Schedule 1 of <i>State Environmental Planning Policy (State Significant Development) 2005</i>
<b>Integrated Development:</b>	The proposal is classified as integrated development under Section 91 of the EP&A Act as it requires additional approvals under the: <ul style="list-style-type: none"><li>• <i>Heritage Act 1977</i>;</li><li>• <i>National Parks and Wildlife Act 1974</i>;</li><li>• <i>Protection of the Environment Operations Act 1997</i>;</li><li>• <i>Rivers and Foreshores Improvement Act 1948</i>;</li><li>• <i>Roads Act 1993</i>; and</li><li>• <i>Water Act 1912</i>.</li></ul>
<b>Designated Development:</b>	The proposal is classified as designated development under Section 77A of the EP&A Act as it is for an extractive industry that meets the criteria in Schedule 3 of the <i>Environmental Planning and Assessment Regulation 2000</i> .

*Note:*

- To find out when this development consent becomes effective, see Section 83 of the EP&A Act;
- To find out when this development 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.

## TABLE OF CONTENTS

Red type represents April 2009 Modification

<b>GENERAL ADMINISTRATIVE CONDITIONS</b>	<b>4</b>
<b>SPECIFIC ENVIRONMENTAL CONDITIONS</b>	<b>6</b>
General Extraction and Processing Provisions	6
Noise	6
Blasting and Vibration	7
Air Quality	8
Meteorological Monitoring	9
Surface and Ground Water	10
Traffic and Transport	11
Aboriginal Heritage	12
Rehabilitation and Landscaping	14
Visual Impact	15
Waste Management	15
Emergency and Hazards Management	15
Production Data	15
Quarry Exit Strategy	16
<b>ADDITIONAL PROCEDURES</b>	<b>17</b>
Notification of Landowners	17
Independent Review	17
<b>ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING</b>	<b>18</b>
Environmental Management Strategy	18
Environmental Monitoring Program	18
Incident Reporting	18
Annual Reporting	18
Independent Environmental Audit	19
Community Consultative Committee	19
Access to Information	20
<b>APPENDIX 1 : SCHEDULE OF LAND</b>	<b>21</b>
<b>APPENDIX 2 : LIMITS OF EXTRACTION</b>	<b>22</b>
<b>APPENDIX 3 : NOISE ASSESSMENT LOCATIONS</b>	<b>23</b>
<b>APPENDIX 4 : LOCATION OF SEDIMENT DAMS</b>	<b>24</b>
<b>APPENDIX 5 : CONSTRUCTION TRAFFIC ROUTES</b>	<b>25</b>
<b>APPENDIX 6 : CULTURAL HERITAGE MANAGEMENT ZONE</b>	<b>26</b>
<b>APPENDIX 7 : DETAILED HERITAGE CONDITIONS</b>	<b>27</b>
<b>APPENDIX 8 : CONCEPTUAL REHABILITATION PLAN</b>	<b>30</b>
<b>APPENDIX 9 : HABITAT MANAGEMENT AREAS</b>	<b>32</b>
<b>APPENDIX 10 : INDEPENDENT DISPUTE RESOLUTION PROCESS</b>	<b>33</b>

## DEFINITIONS

AEMR	Annual Environmental Management Report
Applicant	Readymix Holdings Pty Limited (or its successors)
ARTC	Australian Rail Track Corporation
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Goulburn Mulwaree Council
DA	Development Application
Day	7.00am to 6.00pm, Monday to Saturday, and 8.00am to 6.00pm on Sundays and Public Holidays
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of the Department of Planning, or delegate
DWE	Department of Water and Energy
DPI	Department of Primary Industries
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
Evening	6.00pm to 10.00pm
GTA	General Term of Approval
Land	Land means the whole of a lot in a current plan registered at the Land Titles Office at the date of this development consent
Licence	Environmental Protection Licence issued by the Department of Environment and Conservation under the <i>Protection of the Environment Operations Act 1997</i>
Night	10.00pm to 7.00am, Monday to Saturday, and 10.00pm to 8.00am on Sundays and Public Holidays.
Riparian Areas	land within 40 metres of the top of bank of defined drainage lines as agreed with the DWE
RTA	Roads and Traffic Authority
Site	Land to which the DA applies
SEE	Statement of Environmental Effects

---

## SCHEDULE 2 GENERAL 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-128-5-2005;
  - (b) EIS for the *Proposed Lynwood Quarry Marulan, Volumes 1 to 4*, dated May 2005; and
  - (c) *Modification Application DA-128-5-2005 MOD 1 and the accompanying SEE titled "Proposed Minor Modifications to Lynwood Quarry, Marulan", dated January 2009; and*
  - (d) *Conditions of this consent.*
3. *If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of the approval shall prevail to the extent of any inconsistency.*
4. The Applicant shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
  - (a) any reports, plans or correspondence that are submitted in accordance with this development consent; and
  - (b) the implementation of any actions or measures contained in these reports, plans or correspondence.
- 4A. *The Applicant shall prepare revisions of any strategies, plans or programs required under this consent if directed to do so by the Director-General. Such revisions shall be prepared to the satisfaction of, and within a timeframe approved by the Director-General.*

### Limits on Approval

5. With respect to quarry operations, this consent shall lapse on 1 January 2038.

*Note: The conditions of this consent require the Applicant to carry out certain activities beyond the period of approval for the extracting, processing and transporting extractive material on the site.*
6. Prior to the commissioning of the proposed Hume Highway Interchange, the Applicant shall not transport more than 100,000 tonnes of product from the site in a year by road.
7. The Applicant shall not transport more than 5 million tonnes of product from the site in a year.
8. The Applicant shall not transport more than 1.5 million tonnes of product from the site in a year by road.

### Structural Adequacy

9. The Applicant shall ensure that any 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 any building works.*
- *Part 8 of the EP&A Regulation sets out the detailed requirements for the certification of development.*

### Demolition

10. 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.

### Protection of Public Infrastructure

11. The Applicant shall:
  - (a) repair, or pay all reasonable costs associated with repairing any public infrastructure that is damaged by the development; and
  - (b) relocate, or pay all reasonable costs associated with relocating any public infrastructure that needs to be relocated as a result of the development.

### Operation of Plant and Equipment

12. 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.

## SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

### GENERAL EXTRACTION AND PROCESSING PROVISIONS

#### Identification of Boundaries

1. Prior to carrying out any development, or as otherwise agreed by the Director-General, the Applicant shall:
  - (a) engage an independent registered surveyor:
    - survey the boundaries of the approved limit of extraction; and
    - submit a survey plan of these boundaries to the Department;
  - (b) 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.

*Note: The limit of extraction is shown conceptually on the plan in Appendix 2, and in more detail in the EIS.*

#### <sup>1</sup>Development in the Riparian Zone

2. The Applicant shall not carry out any development in the riparian zone of Joarimin, Lockyersleigh or Marulan Creek without the written approval of **DWE**. Any such development shall be carried out in accordance with an approved Riparian Area Management Plan (see conditions 44 and 45).

#### <sup>2</sup>NOISE

##### Noise Limits

3. The Applicant shall ensure that the noise generated by the operation of the development does not exceed the sound pressure level (noise) limits specified in Table 1.

Noise Assessment Location	Day	Evening	Night	
	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)
Location 1	35	35	35	45
Location 2	35	35	35	45
Location 3	35	35	35	45
Location 4	35	37	35	46
Location 5	35	35	35	46
Location 6	35	37	36	46
Location 7	38	38	35	55
Location 8	39	38	36	55
Location 9	39	39	37	56
Location 10	42	42	40	53
Location 11	35	35	35	47
Location 12	37	37	36	47
Location 13	40	38	37	47
Location 14	35	35	35	47

Table 1: Operational Noise Limits

##### Notes:

- For more information on the noise impact assessment locations see Appendix 3.
- Noise from the development is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise limits in Table 1, unless otherwise stated.
- However, noise from the development is to be measured at 1 m from the dwelling façade to determine compliance with the L<sub>A1</sub> (1 minute) in Table 1.
- Where it can be demonstrated that direct measurement of noise from the development is impractical, the **DECC** may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).

<sup>1</sup> Incorporates **DWE** GTA.

<sup>2</sup> Incorporates **DECC** GTA.

The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

- The noise limits in Table 1 apply under the following meteorological condition:
  - wind speed up to 3m/s at 10 m above ground level; or
  - temperature inversion conditions of up to 3°C/100 m and wind speed up to 2 m/s at 10 m above ground level.

### Noise Mitigation Measures

- During the development, the Applicant shall:
  - investigate ways to reduce the noise generated by the development;
  - implement all reasonable and feasible noise mitigation measures on the site; and
  - report to the Director-General each year on these investigations and the implementation of any new noise mitigation measures on the site in the AEMR.

### Operating Hours

- The Applicant shall comply with the operating hours in Table 2:

Activity	Day	Time
Construction works	Monday - Friday	7am to 6pm
	Saturday	8am to 1pm
	Sunday and Public Holidays	None
Topsoil/ overburden removal/emplacement; drilling	Any day	7am to 6pm
Blasting	Monday - Saturday	9am to 5pm
	Sunday and Public Holidays	None
Extraction	Any day	7am to 10pm
Processing (crushing, screening, stockpiling); loading, delivery, and distribution; maintenance	Any day	Anytime

Table 2: Operating Hours

Notes:

- Table 2 only relates to construction works that are audible at any residential receivers on privately owned land. Construction works that are inaudible at any residential receiver may be carried out at any time.
- Construction works within the Hume Highway reserve may be undertaken outside the hours specified in Table 2 with the written approval of the RTA.

### Monitoring

- Prior to carrying out any development, the Applicant shall prepare (and following approval implement), a Noise Monitoring Program for the development, in consultation with DECC, and to the satisfaction of the Director-General. This program should include a combination of attended and unattended noise monitoring, and a noise monitoring protocol for evaluating compliance with the noise limits in this consent.

### <sup>3</sup>BLASTING AND VIBRATION

#### Airblast Overpressure Criteria

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

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

Table 3: Airblast overpressure impact assessment criteria

<sup>3</sup> Incorporates DECC GTA

## Ground Vibration Impact Assessment Criteria

8. The Applicant shall ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 4 at any residence on privately owned land, or the criteria in Table 5 for the nominated infrastructure.

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

Table 4: Ground vibration impact assessment criteria for residences on privately-owned land

Peak particle velocity (mm/s)	Infrastructure
25	Main Southern Railway Line Reservoir
100	Gas Pipeline

Table 5: Ground vibration impact assessment criteria on infrastructure

However, if the Applicant has a written agreement with the ARTC to vary the peak particle velocity for the Main Southern Railway Line in Table 5, and a copy of this agreement has been forwarded to the Department, then the Applicant may exceed the limit specified in Table 5 in accordance with the written agreement.

## Operating Conditions

9. During the development, the Applicant shall implement best blasting practice to:
- (a) ensure that no flyrock leaves the site;
  - (b) protect the safety of people, property, and livestock;
  - (c) minimise the dust and fume emissions from blasting on the site, to the satisfaction of the Director-General.

## Public Notice

10. During the development, the Applicant shall:
- (a) notify the landowner/occupier of any residence within 2 kilometres of the quarry pit who registers an interest in being notified about the blasting schedule on site;
  - (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) keep the public informed about this hotline (or any alternative system), to the satisfaction of the Director-General.

## Monitoring

11. Prior to carrying out the development, the Applicant shall develop and implement a Blast Monitoring Program for the development, in consultation with **DECC**, and to the satisfaction of the Director-General. This program must monitor the impact of blasting on both residences and the infrastructure specified in Tables 4 and 5.

## <sup>4</sup>AIR QUALITY

### Impact Assessment Criteria

12. The Applicant shall ensure that dust generated by the development does not cause additional exceedances of the criteria listed in Tables 6-8 at any residence that exists on the date of this consent, or on more than 25 percent of any privately owned land.

<sup>4</sup> Incorporates **DECC** GTA

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

Table 6: Long term impact assessment criteria for particulate matter

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

Table 7: Short term impact assessment criteria for particulate matter

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

#### <sup>5</sup>Operating Conditions

13. During the development, the Applicant shall:
  - (a) minimise the emission of dust from the site; and
  - (b) ensure that all plant and equipment complies with the standard of concentration prescribed in the *Protection of the Environment Operations (Clean Air) Regulation 2002*.

#### Monitoring

14. Prior to carrying out any development, the Applicant shall prepare, and subsequently implement, an Air Quality Monitoring Program for the development, in consultation with DECC, and to the satisfaction of the Director-General. This program must include an air monitoring protocol for evaluating compliance with the air quality impact assessment criteria in this consent.

#### <sup>6</sup>METEOROLOGICAL MONITORING

15. Prior to carrying out the development, the Applicant shall establish a permanent meteorological station at a location approved by DECC, and to the satisfaction of the Director-General. The meteorological station shall monitor the parameters in Table 9.

Parameter	Units of Measure	Averaging Period	Frequency	Method (see note)
Wind speed @ 10 m	m/s	1-hour	Continuous	AM-2 & AM-4
Wind direction @ 10 m	Degrees	1-hour	Continuous	AM-2 & AM-4
Sigma Theta @ 10 m	Degrees	1-hour	Continuous	AM-2 & AM-4
Temperature @ 2 m	K	1-hour	Continuous	AM-4
Temperature @ 10 m	K	1-hour	Continuous	AM-4
Total Solar Radiation @ 10 m	W/m <sup>2</sup>	1-hour	Continuous	AM-4
Rainfall	mm	24-hour	Continuous	AM-4
Siting	-	-	-	AM-1 & AM-4

Table 9: Meteorological Station Monitoring Requirements

<sup>5</sup> Incorporates DECC GTA.

<sup>6</sup> Incorporates DECC GTA

Note: Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales, **DECC** (EPA) 2001.

## <sup>7</sup>**SURFACE AND GROUND WATER**

Note: The Applicant is required to obtain licences and permits for the development under the Protection of the Environment Operations Act 1997, **Water Management Act 2000** and the Water Act 1912.

### **Pollution of Waters**

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

### **Water Discharge Limits**

17. Except as may be expressly provided by a License, the Applicant shall ensure that any controlled discharge from the controlled discharge points at Sediment Dams A to F comply with the limits in Table 10.

Pollutant	Unit of measure	100 Percentile concentration limit
Total suspended solids	mg/L	50
PH	pH	6.5-8.5
Oil and grease	mg/L	10 or none visible

Table 10: Surface Water Discharge Limits

Note: For more information on the location of Sediment Dams A to F see Appendix 4.

### **Sediment Dams**

18. The Applicant shall ensure that::
- Sediment Dams A, B, E, and F are capable of treating the 90<sup>th</sup> percentile 5 day rainfall event; and
  - Sediment Dams C and D are capable of treating the 1:20 year ARI Critical Duration Storm Event.

Notes:

- For more information on the location of Sediment Dams A to F see Appendix 4;
- A 90<sup>th</sup> percentile five day rainfall event is 37mm of rainfall over any 5 day period; and
- A 1:20 year ARI Critical Storm Event is 30mm of rainfall over any 25 minute period.

### **Operating Conditions**

19. The Applicant shall:
- ensure that the water collected in the Sediment Dams is pumped to the supply dams as soon as practicable;
  - ensure that the accumulated sediment in all the Sediment Dams is kept below 30% of their design capacity;
  - construct impervious bunds around all fuel, oil, chemical storage areas that are large enough to contain 110% of the volume held in the largest container in accordance with the requirements in the **DECC Bunding and Spill Management** manual; and
  - not use any flocculants on site for water pollution control treatment without the written approval of **DECC**.

Note: The EIS indicated that flocculants maybe used for the treatment of collected stormwater. While the specific flocculant was not specified, some types of flocculants have the potential to cause ecotoxicological impacts on receiving waters.

### **Management and Monitoring**

20. Prior to carrying out any development, the Applicant shall prepare (and following approval implement) a Water Management Plan for the development, in consultation with the **DWE**, **DECC** and Sydney Catchment Authority, and to the satisfaction of the Director-General. This plan must include:
- a Water Balance;
  - an Erosion and Sediment Control Plan;
  - a Surface Water Monitoring Program;
  - a Ground Water Monitoring Program; and
  - a Surface and Ground Water Response Plan to address any potential adverse impacts associated with the development.

<sup>7</sup> Incorporates DWE and **DECC** GTAs.

21. The Water Balance shall:
  - (a) include details of all water extracted (including water make), dewatered, transferred, used and/or discharged by quarry; and
  - (b) describe measures to minimise water use by the development.
22. The Erosion and Sediment Control Plan shall:
  - (a) be consistent with the requirements of the Landcom's *Managing Urban Stormwater: Soils and Construction* manual;
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
  - (d) describe the location, function, and capacity of erosion and sediment control structures; and
  - (e) describe what measures would be implemented to maintain (and if necessary decommission) the structures over time.
23. The Surface Water Monitoring Program shall include:
  - (a) detailed baseline data on surface water flows and quality in Joarimin Creek, Lockyersleigh Creek, and Marulan Creek;
  - (b) surface water impact assessment criteria;
  - (c) a program to monitor surface water flows and quality;
  - (d) a protocol for the investigation of identified exceedances of the surface water impact assessment criteria; and
  - (e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.

*Note: Monitoring of surface flows to be completed by visual assessment.*

24. The Ground Water Monitoring Program shall include:
  - (a) detailed baseline data on ground water levels, flows, and quality, based on statistical analysis;
  - (b) groundwater impact assessment criteria for monitoring bores;
  - (c) a program to monitor regional ground water levels and quality; and
  - (d) a protocol for the investigation of identified exceedances of the groundwater impact assessment criteria.

*Note: The surface and ground water monitoring programs must be consistent with the current version of Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales (DECC).*

## **Review and Reporting**

25. Each year from the date of this consent, the Applicant shall:
  - (a) review, and if necessary update, the Water Management Plan; and
  - (b) report the results of this review in the AEMR, including:
    - details of the review for each sub-plan;
    - the results of monitoring; and
    - details of the measures undertaken/proposed to address any identified issues.

## **<sup>8</sup>TRAFFIC AND TRANSPORT**

### **Construction Traffic**

26. The Applicant shall ensure that:
  - (a) construction traffic on the temporary construction access is kept to a minimum;
  - (b) no construction traffic uses the temporary construction access once the proposed bridge over the Main Southern Railway Line has been commissioned;
  - (c) all other traffic uses the construction site access prior to the commissioning of the proposed Hume Highway Interchange; and
  - (d) no traffic uses the construction site access once the proposed Hume Highway Interchange has been commissioned.

*Note: For more information on the temporary construction access and construction site access, see Appendix 5.*

27. Prior to the commissioning of the proposed Hume Highway Interchange, the Applicant shall maintain the public roads on the construction access routes, or pay all reasonable cost associated with maintaining these roads during the period these roads are used for construction access, to the satisfaction of Council and/or the Department of Lands.
28. Prior to carrying out any development, the Applicant shall prepare (and following approval implement) a Construction Traffic Management Plan for the development, in consultation with the RTA, Council and the Department of Lands, and to the satisfaction of the Director-General. This plan must:
  - (a) include a Road Dilapidation Report of the public roads on the construction access routes; and
  - (b) describe what measures would be implemented to:

<sup>8</sup> Incorporates RTA, Council and Department of Lands GTAs

- maintain the public roads;
- minimise the potential noise and safety impacts associated with the construction traffic; and
- keep the community informed of any traffic disruptions that would be caused by the development.

### Hume Highway Interchange

29. The Applicant shall:
- design and construct the proposed grade separated intersection at the existing junction of the Hume Highway (SH2) and Marulan South Road/Jerrara Road; and following the satisfactory completion of this development,
  - close the existing median and proclaimed access point on the Hume Highway, to the satisfaction of the RTA.

#### Notes:

- *The design of these works shall be in accordance with relevant RTA standards and specifications:*
    - *geometric road design in accordance with RTA Road Design Guide;*
    - *pavement design in accordance with the AUSTROADS Pavement Design Guide;*
    - *bridge design in accordance with Australian Standard AS5100; and*
    - *grade separated interchange in accordance with NAASRA (AUSTROADS) Grade Separated Interchanges – A Design Guide.*
  - *The Applicant will be required to meet all the costs associated with this development, including design, land acquisitions, gazettal of new boundaries and access point, construction and project management.*
  - *If other quarries or developments are approved that use this intersection, the applicants for such developments may be required to contribute to the cost of constructing the intersection, pro-rata on maximum usage rates. The Applicant must keep detailed records of the intersection design and construction costs and provide this information to the Director-General if requested to assist in levying costs on any such developments.*
30. Prior to carrying out any development in the Hume Highway road reserve, the Applicant shall prepare a Traffic Management Plan for the proposed development in the road reserve to the satisfaction of the RTA.

### Crown Roads/Land

31. The Applicant shall not carry out any development on Crown roads or land without the written approval of the Department of Lands.

### Road Haulage

32. The Applicant shall ensure that all loaded vehicles entering or leaving the site are covered at all times.
33. The Applicant shall ensure that all loaded vehicles leaving the site are cleaned of materials that may fall on the road before they are allowed to leave the site.

## <sup>9</sup>ABORIGINAL HERITAGE

### Consent to Destroy

34. The Applicant may damage, deface or destroy the Aboriginal objects in Table 10 with the written approval of the **DECC**.

Aboriginal Site	AHISM#	Grid Reference
MQ2	51-6-0060	772450e 6153000n
MRN5	51-6-0246	772404e 6152581n
MRN7	51-6-0248	771306e 6154825n
MRN25	51-6-0266	771243e 6156345n
MRN26	51-6-0267	772059e 6155842n
MRN27	51-6-0268	772232e 6155840n
MRN28	51-6-0269	772784e 6155926n
MRN31	51-6-0272	771622e 6155609n
MRN32	51-6-0273	771622e 6155602n
MRN33	51-6-0274	771484e 6155470n
MRN35	51-6-0276	773340E 6155142n
MRN36	51-6-0277	773255e 6155299n
MRN37	51-6-0278	773251E 6155251n
MRN48	51-6-0289	772161e 6155992n
MRN52	51-6-0293	772516e 6155170n

Table 10: Aboriginal Sites

<sup>9</sup> Incorporates **DECC** GTAs

### **Cultural Heritage Management Zone**

35. The Applicant shall implement the proposed Cultural Heritage Management Zone to the satisfaction of the Director-General.

### **Management and Monitoring**

36. Prior to carrying out any development, the Applicant shall prepare (and following approval implement) an Aboriginal Heritage Management Plan for the development, in consultation with representatives of the relevant Aboriginal community groups, and to the satisfaction of the DECC and the Director-General. This plan must:
- (a) be prepared by a suitably qualified and experienced archaeologist;
  - (b) include a Sub-surface Testing and Salvage Program to adequately determine the Aboriginal heritage of the locations described in Table 10;
  - (c) include a Conservation Management Plan that describes the measures that would be carried out to:
    - implement the proposed Cultural Heritage Management Zone (shown conceptually in Appendix 8); and
    - protect the Aboriginal objects on the site that would be preserved in situ;
  - (d) include a Monitoring Program for all ground disturbing works (see condition 37); and
  - (e) describe the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the development.
37. Unless the DECC approves otherwise, the Applicant shall ensure that all ground disturbing works on the site are monitored at all times by a suitably qualified and experienced archaeologist and representatives of all the relevant Aboriginal community groups. If this monitoring detects any Aboriginal objects not listed in Table 10, then the Applicant shall immediately cease work in the area and notify the DECC.

#### *Notes:*

- *This monitoring only relates to topsoil stripping, not quarrying operations.*
- *For safety reasons, topsoil stripping may be undertaken before the commencement of development.*

## **<sup>10</sup>HERITAGE**

### **Old Marulan Township**

38. The Applicant may carry out the development in the area identified in the State Heritage Register as the Old Marulan Township (SHR No. 00127) with the written approval of the NSW Heritage Council.
39. Prior to seeking this approval, the Applicant shall undertake a detailed investigation of the archaeological potential of the proposed development area in the Old Marulan Township, including archaeological testing, to the satisfaction of the NSW Heritage Council. This archaeological investigation must clarify the nature, extent, and significance of the relics in the proposed development area.

*Note: The Applicant will be required to submit an application to the NSW Heritage Council under Section 60 of the Heritage Act 1977 for this archaeological investigation.*

40. In seeking this approval, the Applicant shall submit the following information to the NSW Heritage Council:
- (a) the final design of the proposed Hume Highway interchange, incorporating the results of the archaeological investigations (see condition 39), and including information on landscaping, lighting, and stormwater management;
  - (b) an Archaeological Assessment of the area to be impacted by the proposed interchange, that includes the:
    - nomination of an Excavation Director and archaeology team which will be approved by the Director of the NSW Heritage Office;
    - assessment of the significance of the archaeological remains to be impacted within the development area,
    - plans and details of the location and depth of excavation works and assessment of the exact impact on potential archaeological remains;
    - identification of research themes and identification of both site specific and general research questions,
    - details of the proposed on-site excavation methodology including details on philosophical approach to on-site work and the process and procedures proposed for recovery and recording of archaeological data, and details on how the archaeological research is proposed to be satisfactorily completed,
    - details of the proposed post-excavation methodology; and
    - details of the Interpretation Plan for the entire Old Marulan Township precinct.

<sup>10</sup> Incorporates NSW Heritage Council GTAs.

## Operating Conditions

41. The Applicant shall ensure that:
- (a) the development does not have any impact on:
    - the archaeological remains within the former Lot 1, DP210885;
    - heritage items MRNH1, MRNH2, and MRNH3;
    - the section of the State Heritage Register curtilage located at the eastern side of the Hume Highway, other than the impact upon the timber lined cistern/well (MRNH8) except where undertaken in accordance with the written approval of the NSW Heritage Council;
  - (b) as much fabric of the timber-lined cistern/well (MRNH8) and the archaeological remains uncovered through the archaeological excavation as possible is salvaged and incorporated as a key element in the interpretation of the site as part of the new development; and
  - (c) the movement of machines across archaeologically sensitive areas is kept to a minimum.

## Archaeological Field Work/Excavations

42. The Applicant shall comply with the detailed requirements in Appendix 7 to the satisfaction of the NSW Heritage Office.

## REHABILITATION AND LANDSCAPING

43. The Applicant shall:
- (a) rehabilitate the site in a manner that is generally consistent with the concept final landform in Appendix 8); and
  - (b) implement the proposed Habitat Management Area (shown conceptually in Appendix 9), to the satisfaction of the Director-General.

## Rehabilitation and Landscape Management Plan

44. Within 6 months of this consent, the Applicant shall prepare (and following approval implement) a Rehabilitation and Landscape Management Plan for the development, in consultation with DECC, DWE and Council, and to the satisfaction of the Director-General. This plan must:
- (a) describe in general the short, medium, and long-term measures that would be implemented to:
    - rehabilitate the site;
    - implement the Habitat Management Area;
    - manage the remnant vegetation and habitat on the site; and
    - landscape the site to mitigate any visual impacts of the development;
  - (b) include Riparian Area Management Plan/s (see condition 45) for those riparian areas to be disturbed in the next 5 years, excluding areas within quarry pits or emplacement areas as agreed with the Director-General;
  - (c) describe in detail the measures that would be implemented over the next 5 years to rehabilitate and manage the landscape on the site;
  - (d) describe how the performance of these measures would be monitored over time; and
  - (a) set completion criteria for the rehabilitation of the site.
45. The Riparian Area Management Plan/s must be prepared by a suitably qualified hydrologist; whose appointment has been approved by the Director-General, and include:
- (a) baseline surveys of creeks, providing existing bed, bank and vegetation information (including representative cross and longitudinal sections), in the areas in which the development is located, excluding the quarry pits and emplacement areas;
  - (b) detailed designs of the proposed works, including any proposed stabilization, scour protection, and/or enhancement works (including representative cross and longitudinal sections);
  - (c) a description of the measures that would be implemented in the event of flooding during construction/rehabilitation.
  - (d) details of proposed staging of the works;
  - (e) completion criteria for the rehabilitation of the riparian area;
  - (f) a protocol for monitoring the performance of the rehabilitation over time.
46. Within 3 months of the Independent Environmental Audit (see Condition 7 in Schedule 5), the Applicant shall update the Rehabilitation and Landscape Management Plan to the satisfaction of the Director-General.

## Rehabilitation Bond

47. Within 3 months of the first Independent Environmental Audit (see Condition 7 in Schedule 5), the Applicant shall lodge a rehabilitation bond for the development with the Director-General. The sum of the bond shall be calculated at \$2.50/m<sup>2</sup> for the total area to be disturbed in each 5 year period, or as otherwise directed by the Director-General.

Notes:

- If the rehabilitation is completed to the satisfaction of the Director-General, the Director-General will release the rehabilitation bond.
- If the rehabilitation is not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.

48. Within 3 months of each Independent Environmental Audit (see Condition 7 in Schedule 5) after the lodgment of the rehabilitation bond, the Applicant shall review, and if necessary revise the sum of the bond to the satisfaction of the Director-General. This review must consider:
- (a) the effects of inflation;
  - (b) any changes to the total area of disturbance; and
  - (c) the performance of the rehabilitation against the completion criteria of the Rehabilitation and Landscape Management Plan.

## **VISUAL IMPACT**

### **Visual Amenity**

49. The Applicant shall minimise the visual impacts of the development to the satisfaction of the Director-General.

### **Lighting Emissions**

50. The Applicant shall take all practicable measures to prevent and/or minimise any off-site lighting impacts from the development.
51. All external lighting associated with the development shall comply with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.

### **Advertising**

52. The Applicant shall not erect or display any advertising structure(s) or advertisements on the site without the written approval of the Director-General.

## **WASTE MANAGEMENT**

53. The Applicant shall:
- (a) monitor the amount of waste generated by the development;
  - (b) investigate ways to minimise waste generated by the development;
  - (c) implement reasonable and feasible measures to minimise waste generated by the development; and
  - (d) report on waste management and minimisation in the AEMR.
- to the satisfaction of the Director-General.
54. <sup>11</sup>The Applicant shall ensure that all wastes generated or stored at the site are assessed, classified and managed in accordance with the *Assessment, Classification and Management of Liquid and Non-liquid Wastes (DECC)* guideline, or its successor.

## **EMERGENCY AND HAZARDS MANAGEMENT**

### **Dangerous Goods**

55. The Applicant shall ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant *Australian Standards*, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

### **Safety**

56. The Applicant shall secure the development to ensure public safety to the satisfaction of the Director-General.

### **Bushfire Management**

57. The Applicant shall:
- (a) ensure that the development is suitably equipped to respond to any fires on-site; and
  - (b) assist the rural fire service and emergency services as much as possible if there is a fire on-site.

## **PRODUCTION DATA**

58. The Applicant shall:
- (a) provide annual production data to the DPI using the standard form for that purpose; and

---

<sup>11</sup> Incorporates DECC GTA

- (b) include a copy of this data in the AEMR.

#### **QUARRY EXIT STRATEGY**

- 59. At least 5 years prior to the cessation of quarry operations, the Applicant shall prepare a Quarry Exit Strategy for the development, in consultation with the **DWE** and Council, and to the satisfaction of the Director-General. This plan must:
  - (a) define the objectives and criteria for quarry closure;
  - (b) investigate options for the future use of the site, including any final void/s;
  - (c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the development; and
  - (d) describe how the performance of these measures would be monitored over time.

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. If the results of monitoring required in Schedule 3 identify that impacts generated by the development are greater than the relevant impact assessment criteria in Schedule 3, then the Applicant shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the criteria in Schedule 3.

### **INDEPENDENT REVIEW**

2. If a landowner (excluding quarry owned properties) considers that the operations of the quarry are exceeding the impact assessment criteria in Schedule 3, then he/she may ask the Applicant in writing for an independent review of the impacts of the development on his/her land.

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

- (a) consult with the landowner to determine his/her concerns;
  - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to determine whether the development is complying with the relevant criteria in Schedule 3, and identify the source(s) and scale of any impact on the land, and the development's contribution to this impact; and
  - (c) give the Director-General and landowner a copy of the independent review.
3. If the independent review determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Applicant may discontinue the independent review with the approval of the Director-General.
  4. If the independent review determines that the quarrying operations are not complying with the relevant criteria in Schedule 3, and that the quarry is primarily responsible for this non-compliance, then the Applicant shall:
    - (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the development complies with the relevant criteria; and
    - (b) conduct further monitoring to determine whether these measures ensure compliance; or
    - (c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in Schedule 3,to the satisfaction of the Director-General.

If the additional monitoring referred to above subsequently determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Applicant may discontinue the independent review with the approval of the Director-General.

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

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 10).

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

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 10).

## **SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING**

### **<sup>12</sup>ENVIRONMENTAL MANAGEMENT STRATEGY**

1. Prior to carrying out any development, the Applicant shall prepare (and following approval implement), an Environmental Management Strategy for the development to the satisfaction of the Director-General. This strategy must:
  - (a) provide the strategic context for environmental management of the development;
  - (b) identify the statutory requirements that apply to the development;
  - (c) describe in general how the environmental performance of the development would be monitored and managed during the development;
  - (d) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the development;
    - respond to any non-compliance;
    - manage cumulative impacts; and
    - respond to emergencies; and
  - (e) describe the role, responsibility, authority, and accountability of the key personnel involved in environmental management of the development.
2. Within 3 months of the completion of each Independent Environmental Audit (see Condition 7 below), the Applicant shall review, and if necessary update, the Environmental Management Strategy to the satisfaction of the Director-General.

### **ENVIRONMENTAL MONITORING PROGRAM**

3. Prior to carrying out any development, the Applicant shall prepare an Environmental Monitoring Program for the development, in consultation with the relevant agencies, and to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in schedule 3 of this consent into a single document.
4. Within 3 months of the completion of each Independent Environmental Audit (see Condition 7 below), the Applicant shall review, and if necessary update, the program to the satisfaction of the Director-General.

### **INCIDENT REPORTING**

5. Within 7 days of detecting an exceedance of the limits/performance criteria in this consent or an incident causing (or threatening to cause) material harm to the environment; the Applicant shall report the exceedance/incident to the Department (and any relevant agency). The report must:
  - (a) describe the date, time, and nature of the exceedance/incident;
  - (b) identify the cause (or likely cause ) of the exceedance/incident;
  - (c) describe what action has been taken to date; and
  - (d) describe the proposed measures to address the exceedance/incident.

### **ANNUAL REPORTING**

6. Within 12 months of the date of this consent, and annually thereafter, the Applicant shall submit an Annual Environmental Management Report (AEMR) to the Director-General and the relevant agencies. This report must:
  - (a) identify the standards and performance measures that apply to the development;
  - (b) describe the works carried out in the last 12 months;
  - (c) describe the works that will be carried out in the next 12 months;
  - (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
  - (e) include a summary of the monitoring results for the development during the past year;
  - (f) include an analysis of these monitoring results against the relevant:
    - impact assessment criteria/limits;
    - monitoring results from previous years; and
    - predictions in the EIS;
  - (g) identify any trends in the monitoring results over the life of the development;
  - (h) identify any non-compliance during the previous year; and
  - (i) describe what actions were, or are being, taken to ensure compliance.

---

<sup>12</sup> Incorporates DECC GTA.

## INDEPENDENT ENVIRONMENTAL AUDIT

7. Within 3 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 of the development. This audit must:
  - (a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the Director-General;
  - (b) be consistent with *ISO 19011:2002 - Guidelines for Quality and/ or Environmental Systems Auditing*, or updated versions of 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 any strategy/plan/program required under this consent; and, if necessary,
  - (f) recommend measures or actions to improve the environmental performance of the development, and/or any strategy/plan/program required under this consent.
8. Within 6 weeks of completing each Independent Environmental Audit, the Applicant shall submit a copy of the audit report to the Director-General, together with its response to any recommendations in the audit report.
- 8A Within 3 months of submitting a copy of the audit report to the Director-General, the Applicant shall review and if necessary revise any strategies/plan/programs required under this consent, to the satisfaction of the Director-General

## COMMUNITY CONSULTATIVE COMMITTEE

9. Prior to carrying out any development, the Applicant shall establish a Community Consultative Committee. The CCC shall:
  - (a) be comprised of:
    - 2 representatives from the Applicant, including the person responsible for environmental management at the quarry;
    - 1 representative from Council (if available); and
    - at least 3 representatives from the local community,whose appointment has been approved by the Director-General;
  - (b) be chaired by an independent chairperson, whose appointment has been approved by the Director-General;
  - (c) meet at least twice a year;
  - (d) review the Applicant's performance with respect to environmental management and community relations;
  - (e) undertake regular inspections of the quarry operations;
  - (f) review community concerns or complaints about the quarry operations, and the Applicant's complaints handling procedures; and
  - (g) provide advice to:
    - the Applicant on improved environmental management and community relations, including the provision of information to the community and the identification of community initiatives to which the Applicant could contribute;
    - the Department regarding the conditions of this consent; and
    - the general community on the performance of the quarry with respect to environmental management and community relations.

### Notes

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*
- *The membership of the CCC shall be reviewed on a regular basis (every 3 years).*
- *If possible, an alternate member should be appointed for each of the representatives from the local community.*

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

- (h) forward a copy of the minutes of each CCC meeting, including a response to any recommendations from the CCC, to the Director-General within a month of the CCC meeting.

#### **ACCESS TO INFORMATION**

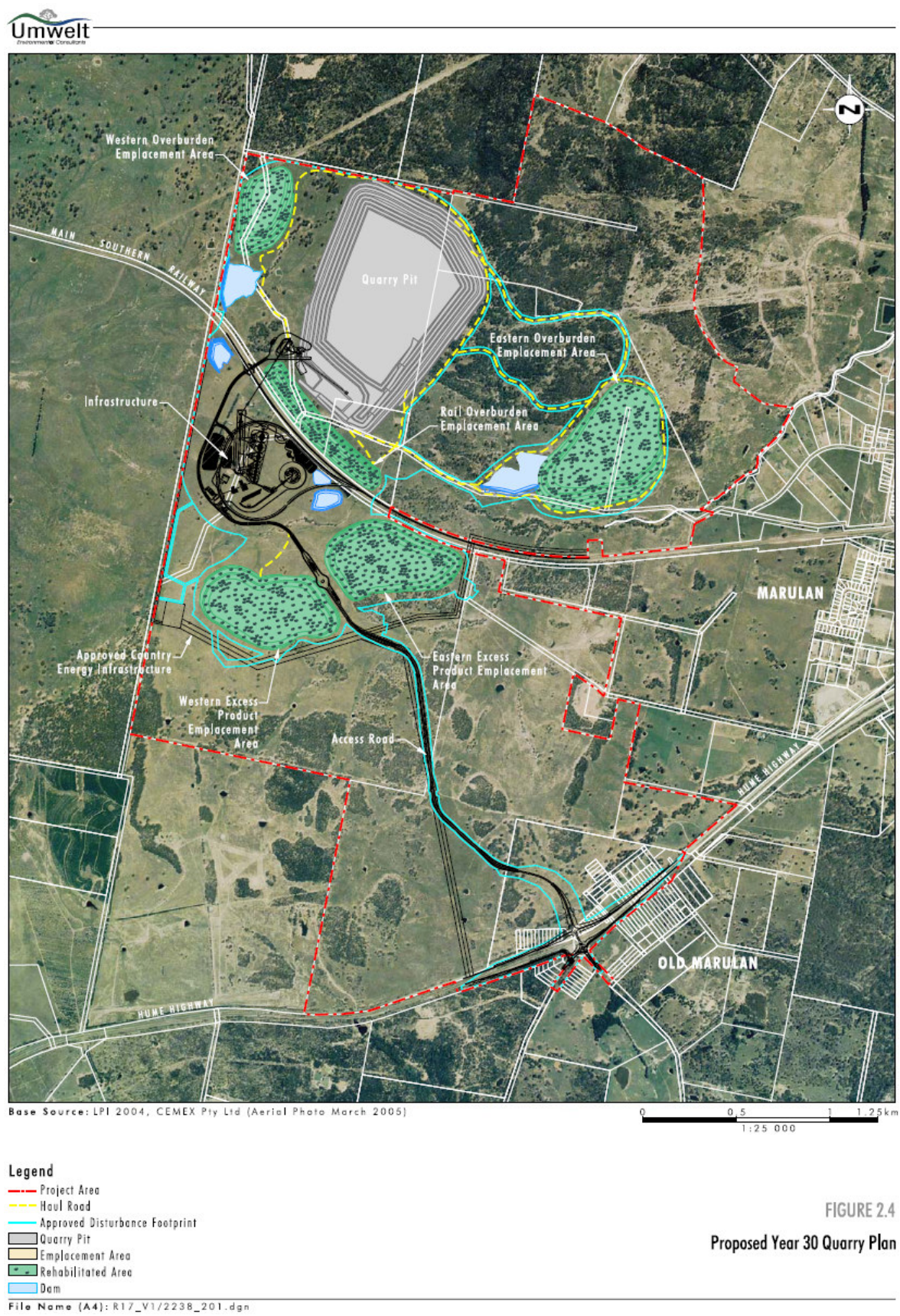
- 11. Within 1 month of the approval of any plan/strategy/program required under this consent (or any subsequent revision of these plans/strategies/programs), the completion of the independent audits required under this consent, or the completion of the AEMR, the Applicant shall:
  - (a) provide a copy of the relevant document/s to the Council, relevant agencies and the CCC;
  - (b) ensure that a copy of the relevant document/s is made publicly available at the quarry; and;
  - (c) put a copy of the relevant document/s on the Applicant's website;to the satisfaction of the Director-General.
- 12. During the life of the development, the Applicant shall:
  - (a) make a summary of monitoring results required under this consent publicly available at the quarry and on its website; and
  - (b) update these results on a regular basis (at least every 3 months),to the satisfaction of the Director-General.

## APPENDIX 1 : SCHEDULE OF LAND

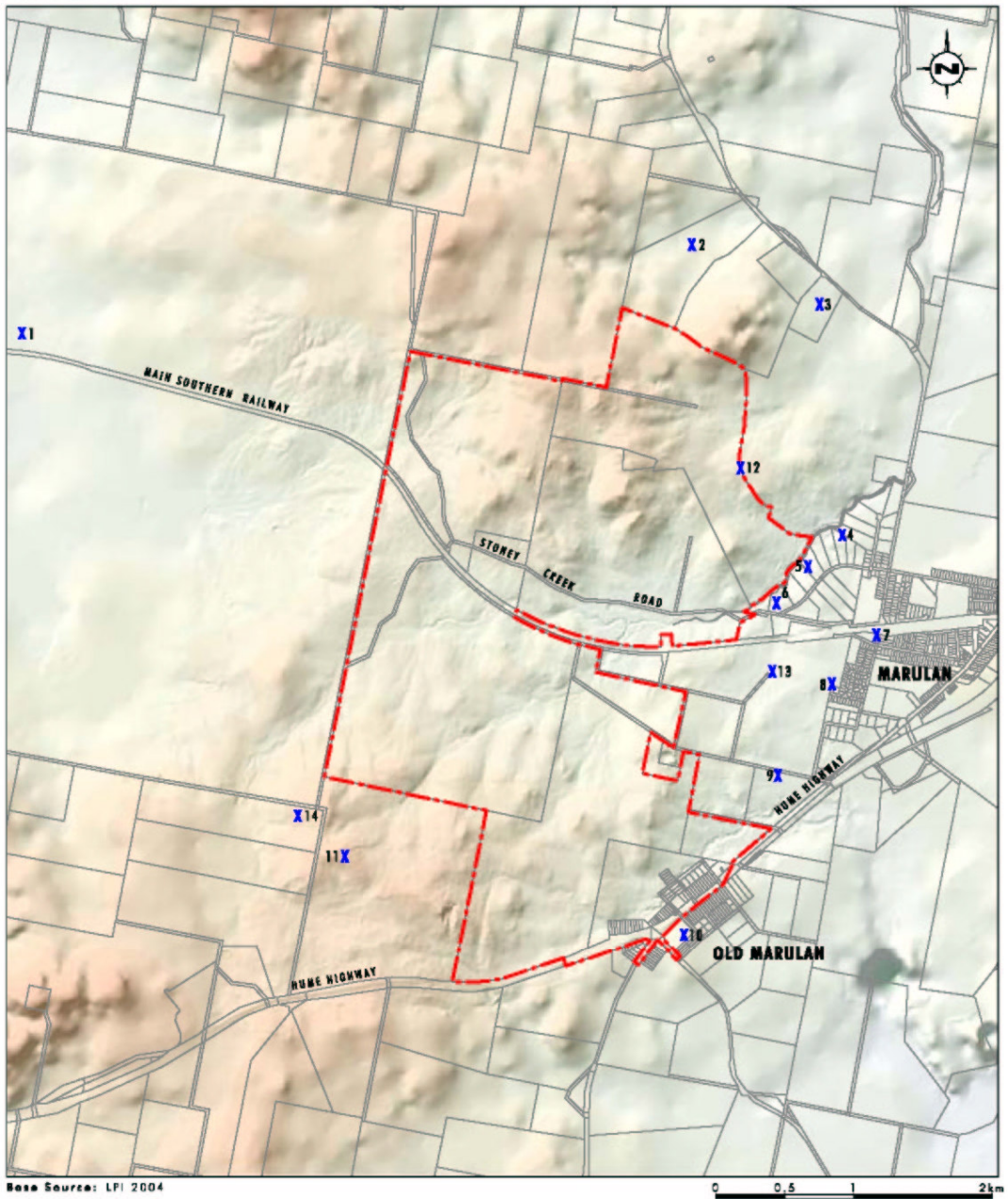
Land to which the Development Application refers:

Lot No.	DP No.	Owner
112	750029	Cemex
2	1116876	Cemex
230	750029	Cemex
249	750029	Cemex
3 - 4	1036993	Cemex
1	1074819	Cemex
1	1117910	Cemex
1 and 3	1074107	Cemex
10	700579	Cemex
7001	1025603	Crown Land
7002	1025604	Crown Land
	2153 - 3040	Crown Land
2 - 15	196132	Cemex
1/Section 8	758653	Crown Land
1-5/Section 12	758653	Cemex
1-9/Section 7	758653	Cemex
2-4/Section 5	758653	Cemex
1/Section 5	758653	Crown Land
Part 7 and Part 8/Section 1	758653	Cemex
10/Section 10	758653	Crown Land
10 - 11	111641	Cemex
1 - 2	214304	Cemex
1 - 14	797340	Cemex
Part Stoney Creek Road		
Part Main Southern Railway Line		
Part Hume Highway		
Part Marulan South Road		
Part Jerrara Road		
Part Joarimin Creek		
Crown land and Crown road reserves within the DA area		

APPENDIX 2 : LIMITS OF EXTRACTION



## APPENDIX 3 : NOISE ASSESSMENT LOCATIONS



Base Source: LPI 2004

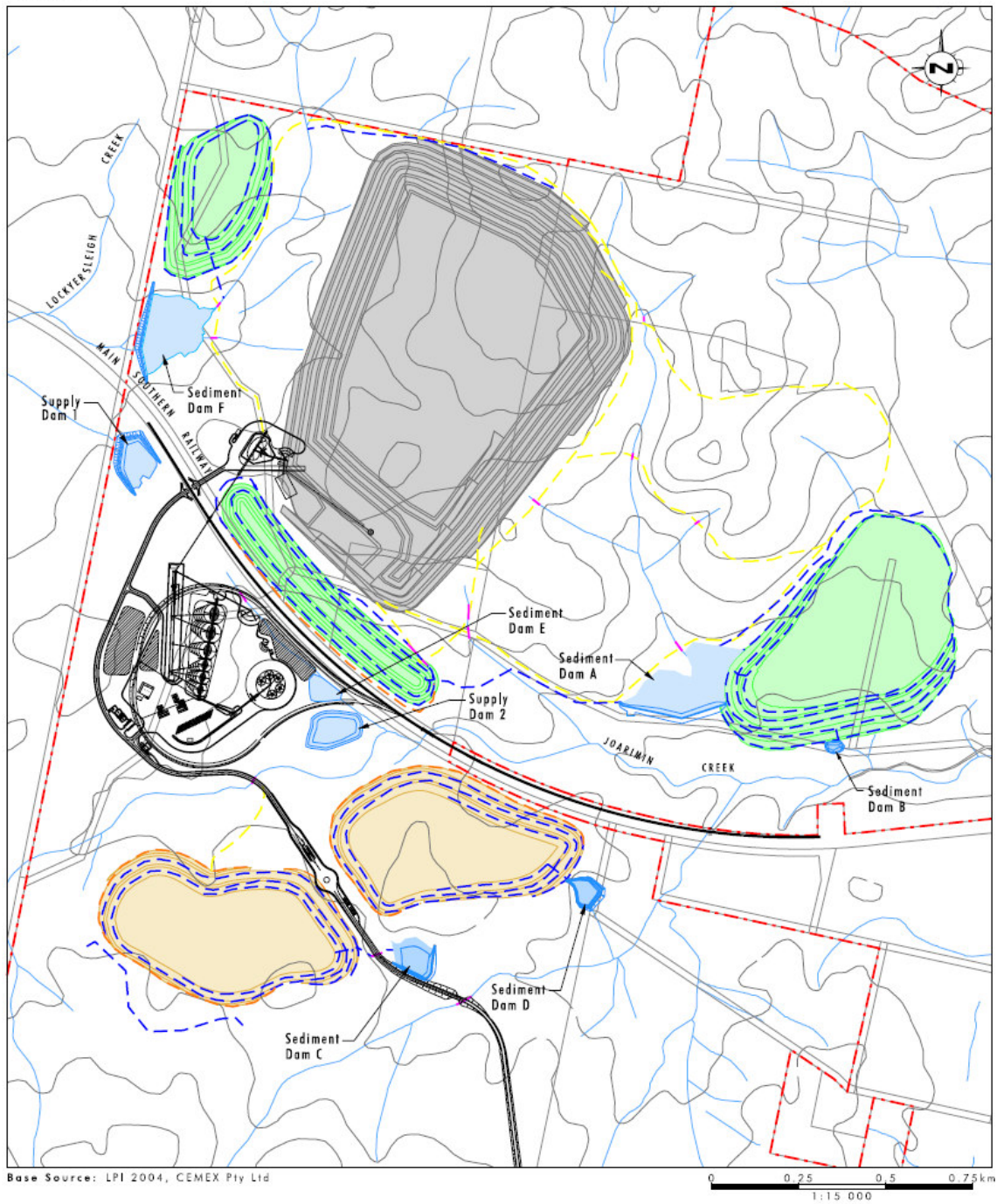
### Legend

- Project Area
- X Noise Assessment Location

FIGURE 1

Noise Assessment Locations  
(Adapted from Figure 5.22 of the EIS)

## APPENDIX 4 : LOCATION OF SEDIMENT DAMS



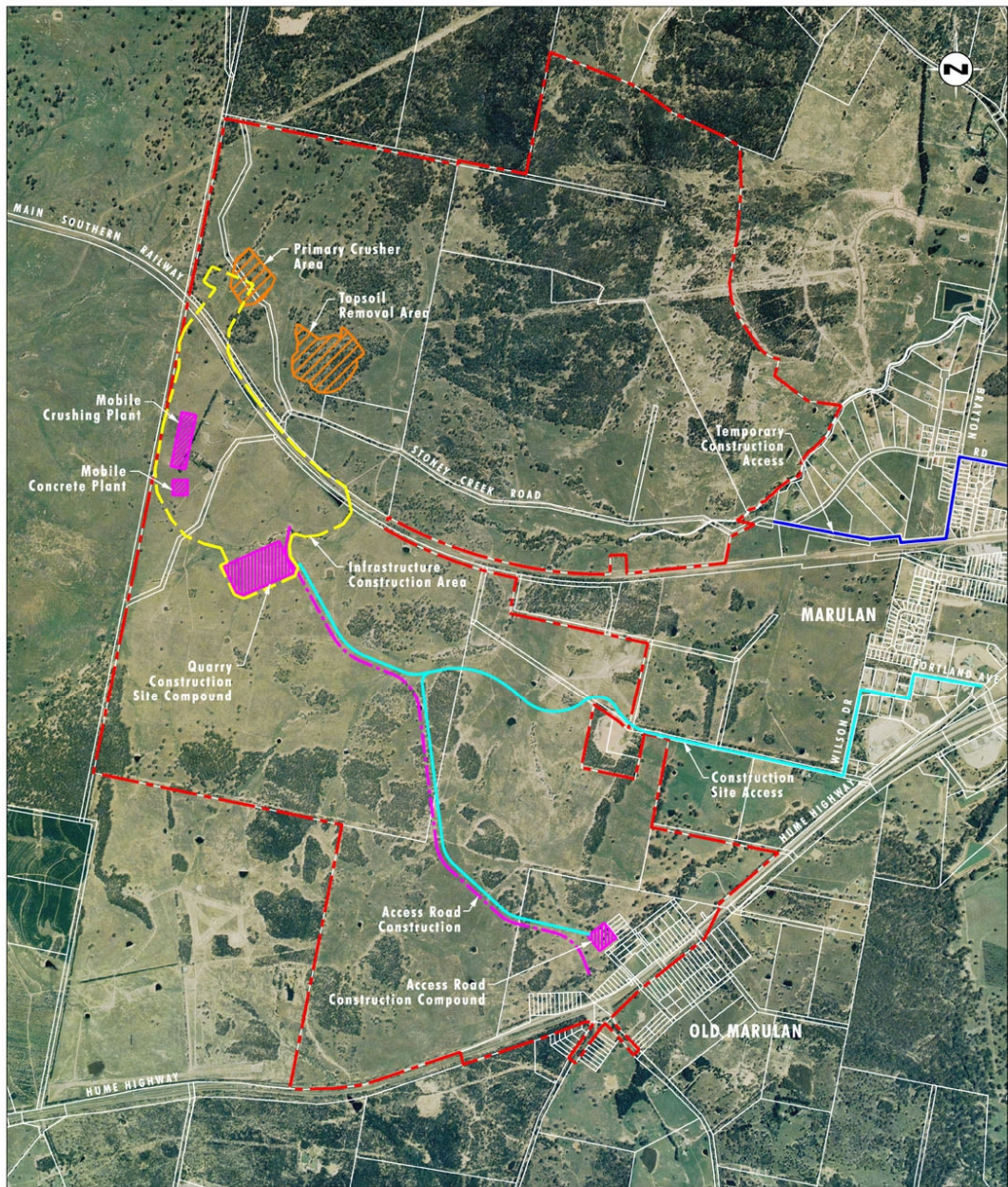
**Legend**

- Project Area
- Catch Drain
- Sedimentation Fence
- Culvert
- Haul Road

FIGURE 4.1

Proposed Water Management  
Controls - Year 30

## APPENDIX 5 : CONSTRUCTION TRAFFIC ROUTES



Base Source: LPI 2004, Readymix Holdings Pty Ltd (Aerial Photo March 2005)

0 0.5 1 1.25km

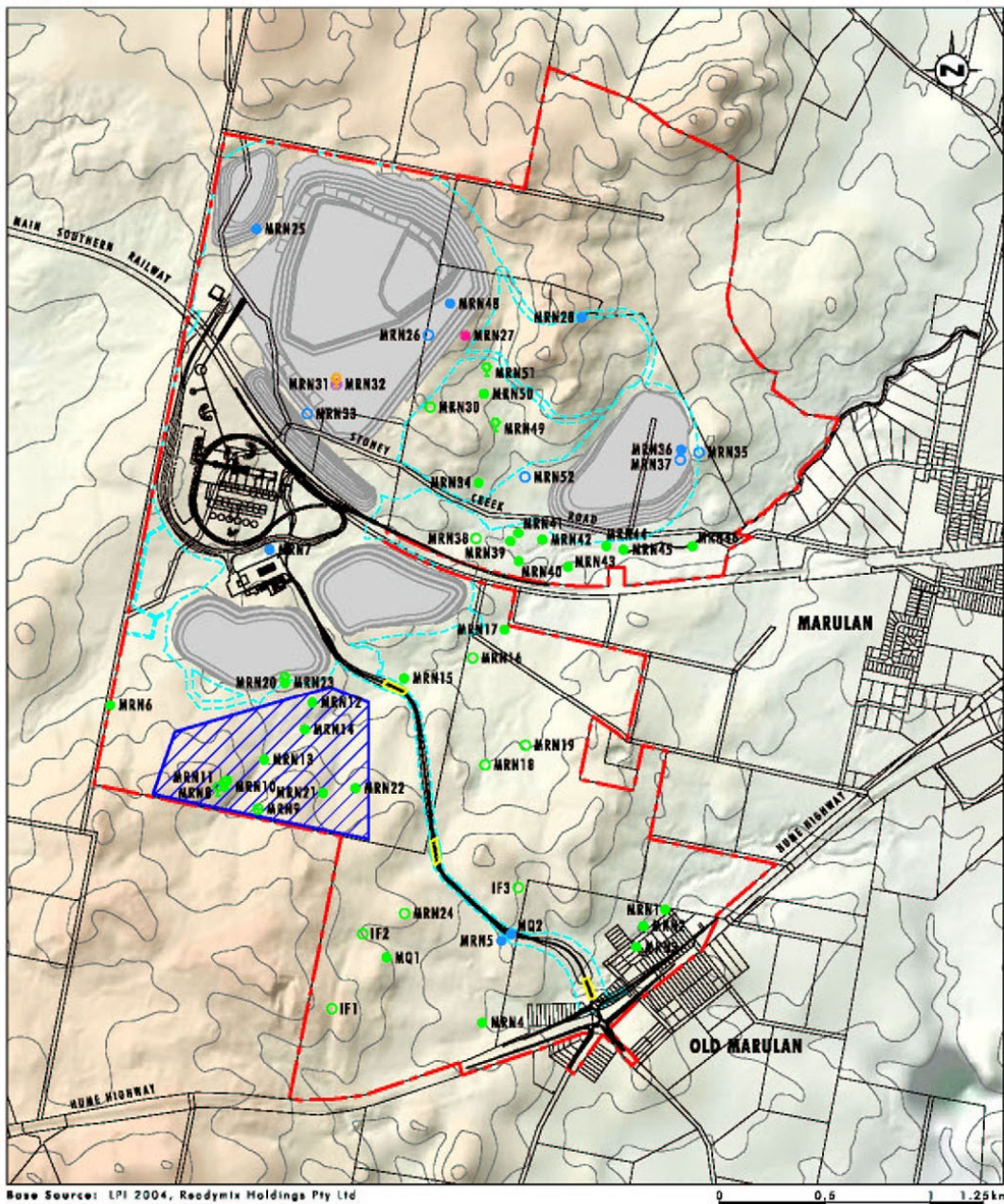
### Legend

- Project Area
- Access Road Construction
- Construction Site Access
- Temporary Construction Access
- Infrastructure Construction Area
- Construction Compounds and Plant Locations

FIGURE 3.1

Construction Phase Conceptual Layout

## APPENDIX 6 : CULTURAL HERITAGE MANAGEMENT ZONE



Base Source: LPI 2004, Reodymix Holdings Pty Ltd

### Legend

- Project Area
- Cultural Heritage Management Zone
- Approximate Disturbance Footprint
- Artefact Scatter
- Isolated Find
- ⊙ Stone Arrangement
- ♂ Scarred Tree

### Management Recommendations

- Managed In-situ
- Section 90 Consent with Collection
- Section 90 Consent with Subsurface Salvage
- Section 90 Consent for Scarred Tree Removal
- Section 90 Consent without Salvage
- Section 87 Permit for Monitoring of Access Track Construction

FIGURE 5.26

Recommended Management Measures for Aboriginal Sites

File Name (A4): R03\_V1/1829\_242.dgn

## APPENDIX 7 : DETAILED HERITAGE CONDITIONS

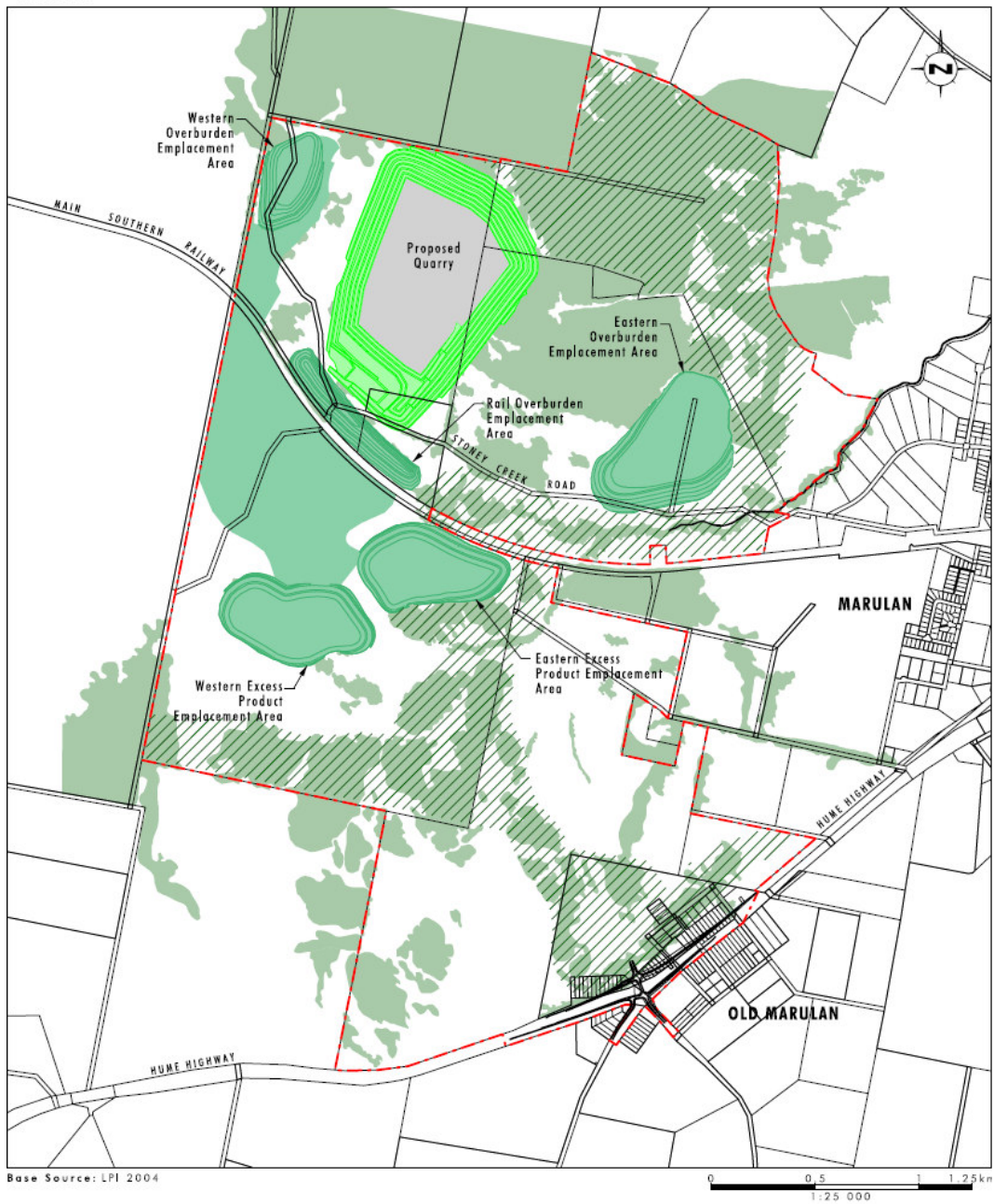
These conditions apply to the portion of the State Heritage Register Area within the site that is impacted by the development.

1. The NSW Heritage Office must be informed in writing of the start of the archaeological investigation at least five (5) days prior to the commencement of, and within five (5) days of the completion of on-site archaeological work.
2. The Heritage Council and staff of the NSW Heritage Office authorised under section 148(1) of the 'Heritage Act, 1977' reserve the right to inspect the site and records at all times, as well as access any relics recovered from the site.
3. The Applicant must ensure that all personnel involved in excavation works attend a comprehensive briefing on the requirements of the 'Heritage Act, 1977' in relation to archaeological relics and the proposed archaeological programme. The briefing is to be presented by the Excavation Director nominated in the section 60 application and is to be undertaken prior to the commencement of on-site works. A copy of this approval and conditions of consent should be made available to all archaeological on-site staff.
4. The Applicant must ensure that if substantial intact archaeological deposits and/or State significant relics not identified in *Environmental Impact Statement, Readymix Holding Pty Ltd Proposed Lynwood Quarry, Marulan*, prepared by Umwelt Environmental Consultants, are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.
5. The Heritage Council of NSW must approve any substantial deviations from the approved research design outlined in *Environmental Impact Statement, Readymix Holding Pty Ltd Proposed Lynwood Quarry, Marulan*, prepared by Umwelt Environmental Consultants, including extent and techniques of excavations, as an application for the variation of an approval under section 65A or a new application under section 60 of the 'Heritage Act, 1977'.
6. The Applicant must ensure that the nominated Excavation Director is present at the site supervising all archaeological fieldwork activity likely to expose significant relics 100% of the duration of the archaeological activity. Should this not be possible, then the Applicant must forward for the approval of the Heritage Council or Director of the NSW Heritage Office the details of a Site Director in charge for this period.
7. At all times during periods of archaeological excavation the Applicant must comply with any directions of the nominated Excavation Director in relation to works likely to impact on this resource. Where major issues arise the Excavation Director must consult with the Director of the heritage Office prior to issuing directions.
8. Given the exceptional significance of the archaeological remains of the Old Marulan Township, the Applicant must ensure that the nominated Excavation Director, and archaeological excavation team, are given priority when allocating resources to allow thorough archaeological excavation and full and detailed recording to be undertaken to the satisfaction of the Heritage Council. Where necessary, work schedules shall be adjusted to accommodate the approved archaeological works.
9. Throughout the archaeological excavation works and post-excavation analysis, the Applicant must ensure that:
  - (a) Appropriate signage to explain the history of the site and the archaeological excavation works is placed at the site during the work,
  - (b) A local public information program is implemented including press releases to ensure the public is informed about the project and its outcomes,
  - (c) Community participation in the archaeological works on the site is allowed for through the inclusion of volunteers on the archaeological team under the supervision of the Excavation Director,
  - (d) A website addressing the archaeological works on the site must be created. This website must feature a history of the site, archaeological methodology, updated information on the archaeological works, photographs of the site and significant archaeological remains uncovered, links to the archaeological reports and links to other relevant sites. Public feedback must also be allowed for in this section of the website. Updated information on the Open Day to be held during archaeological works at Old Marulan Township and an on-line booking service must also be included,
  - (e) The progress on the archaeological works on site is systematically video recorded,
  - (f) The services of a conservator must be utilised for conservation of significant artefacts,
  - (g) The Heritage Office is notified weekly, in writing, of the progress of work during excavation and monthly during post excavation analysis,

- (h) All affected areas of the site are signed off by the Heritage Office prior to commencement of bulk excavation in those identified locations, and
  - (i) At the completion of the archaeological works on site the results of the archaeological programme are interpreted as part of an interpretation programme for the Old Marulan Township precinct.
10. It is essential that the Applicant and nominated Excavation Director allow for and present opportunities for interpretation, public education and public access to the results of the archaeological investigation during and upon completion of the works programme. A number of Public Open Days (to be determined based on public demand) must be conducted at the site. These Public Open Days must be scheduled to take place during a weekend to facilitate public attendance and must be advertised at least one week ahead to facilitate greater public awareness of the opportunity. Visits need to be pre-booked to better organise the groups and on-site activities. The Applicant must ensure that local historical societies and other relevant cultural organisations are formally notified and invited to the Public Open Days.
  11. An interpretation programme for the entire Old Marulan Township heritage precinct incorporating the results of the archaeological excavation must be implemented. This interpretation should help the public understand the history and significance of the site. Final design details of the interpretation plan, including information on the display and housing of artefacts and other relevant materials, and interpretation of the structural remains, is to be submitted to the Director of the Heritage Office for written approval before implementation of the interpretation.
  12. The Applicant must ensure that an archaeological publication for the general public of Old Marulan Township incorporating the results of the archaeological programme at the site is prepared. Final design details of this publication are to be submitted to the Director of the NSW Heritage Office for approval within six months of the completion of the excavation programme. The publication is to be completed within one (1) year of the conclusion of the project unless an extension of time is approved by the Heritage Council of NSW.
  13. The Applicant must ensure that the nominated Excavation Director takes adequate steps to record in detail relics, structures and features discovered on the site during the archaeological works in accordance with current best practice. This work must be undertaken in accordance with the NSW Heritage Office guidelines, 'How to Prepare Archival Records of Heritage Items' (1998) and 'Guidelines for Photographic Recording of Heritage Items' (2004). One (1) copy of the photographic and archival recording shall be submitted to the Heritage Council of NSW. A further copy shall be lodged with the local library and/or another appropriate local repository in the area in which the site is located
  14. The Applicant is responsible for the safe-keeping of all relics recovered from the site..
  15. The Applicant must ensure that the site under archaeological investigation is made secure and that the unexcavated artefacts, structures and features are not subject to deterioration, damage or destruction during and after fieldwork.
  16. The Applicant must ensure that the nominated Excavation Director cleans, stabilises, labels, analyses, catalogues and stores any artefacts recovered from the site in a way that allows them to be retrieved according to both type and provenance.
  17. The Applicant must ensure that a summary of the results of the field work, up to 500 words in length, is submitted to the Heritage Council of NSW for approval within one (1) month of completion of archaeological field work. This information is required in accordance with section 146(b) of the 'Heritage Act, 1977'.
  18. The Applicant must ensure that a final excavation report is prepared by the nominated Excavation Director, to publication standard, within one (1) year of the completion of the field based archaeological activity unless an extension of time or other variation is approved by the Heritage Council of NSW.
  19. The Applicant must ensure that one (1) electronic copy of the final excavation report is submitted on CD to the Heritage Council of NSW together with two (2) printed copies of the final excavation report. These reports are required in accordance with section 146(b) of the 'Heritage Act, 1977'. The Applicant must also ensure that further copies are lodged with the local library and/or another appropriate local repository in the area in which the site is located.
  20. The Applicant must ensure that the information presented in a final excavation report includes the following:
    - (a) An executive summary,
    - (b) Due credit to the client paying for the excavation on the title page,
    - (c) An accurate site location and site plan,
    - (d) Historical research, references, and bibliography,

- (e) Detailed information on the excavation including the aim, the context for the excavation, procedures, treatment of artefacts (cleaning, conserving, sorting, cataloguing, labelling, scale photographs and/or drawings, location of repository) and analysis of the information retrieved,
- (f) Detailed response to research questions,
- (g) Nominated repository for the items,
- (h) Conclusions from the archaeological programme. This information must include a reassessment of the site's heritage significance, statement(s) on how archaeological investigations at this site have contributed to the community's understanding of the site and recommendations for the future management of the site, and
- (i) Details of how this information about this excavation has been publicly disseminated.

## APPENDIX 8 : CONCEPTUAL REHABILITATION PLAN



### Legend

- Project Area
- Existing Vegetation
- Rehabilitated Area
- Rehabilitated Quarry Batters
- Assisted Natural Regeneration (Habitat Corridor Function Enhancement)

FIGURE 4.7

Year 30 Conceptual  
Final Rehabilitation

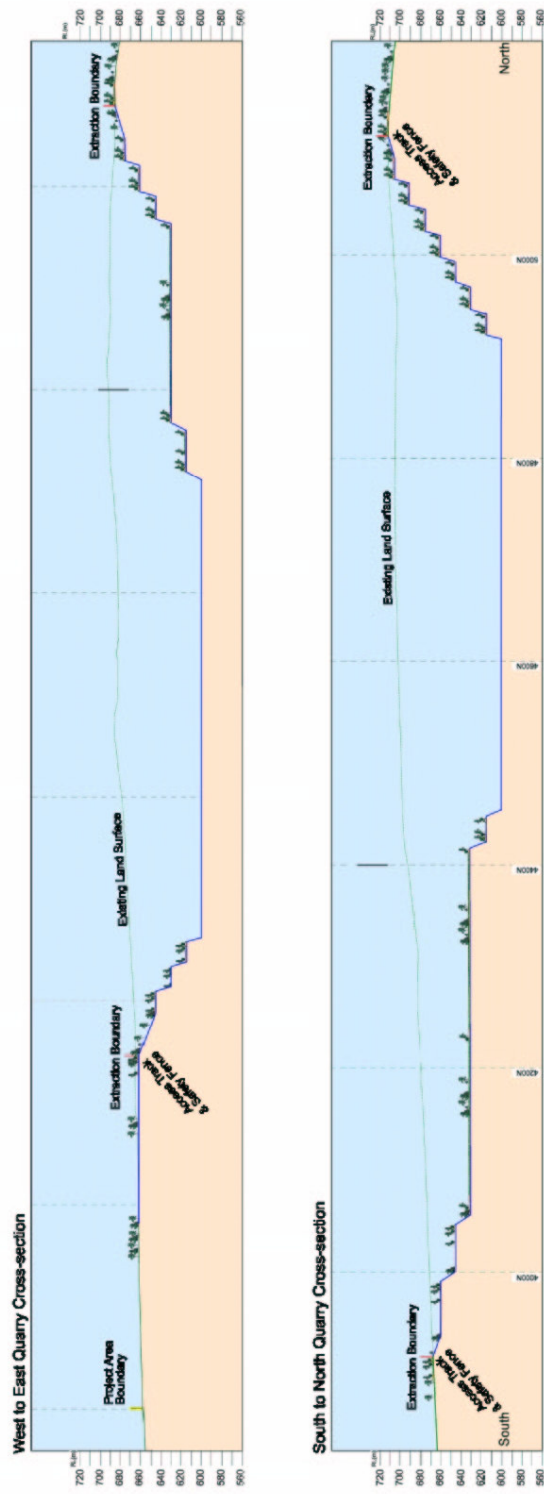
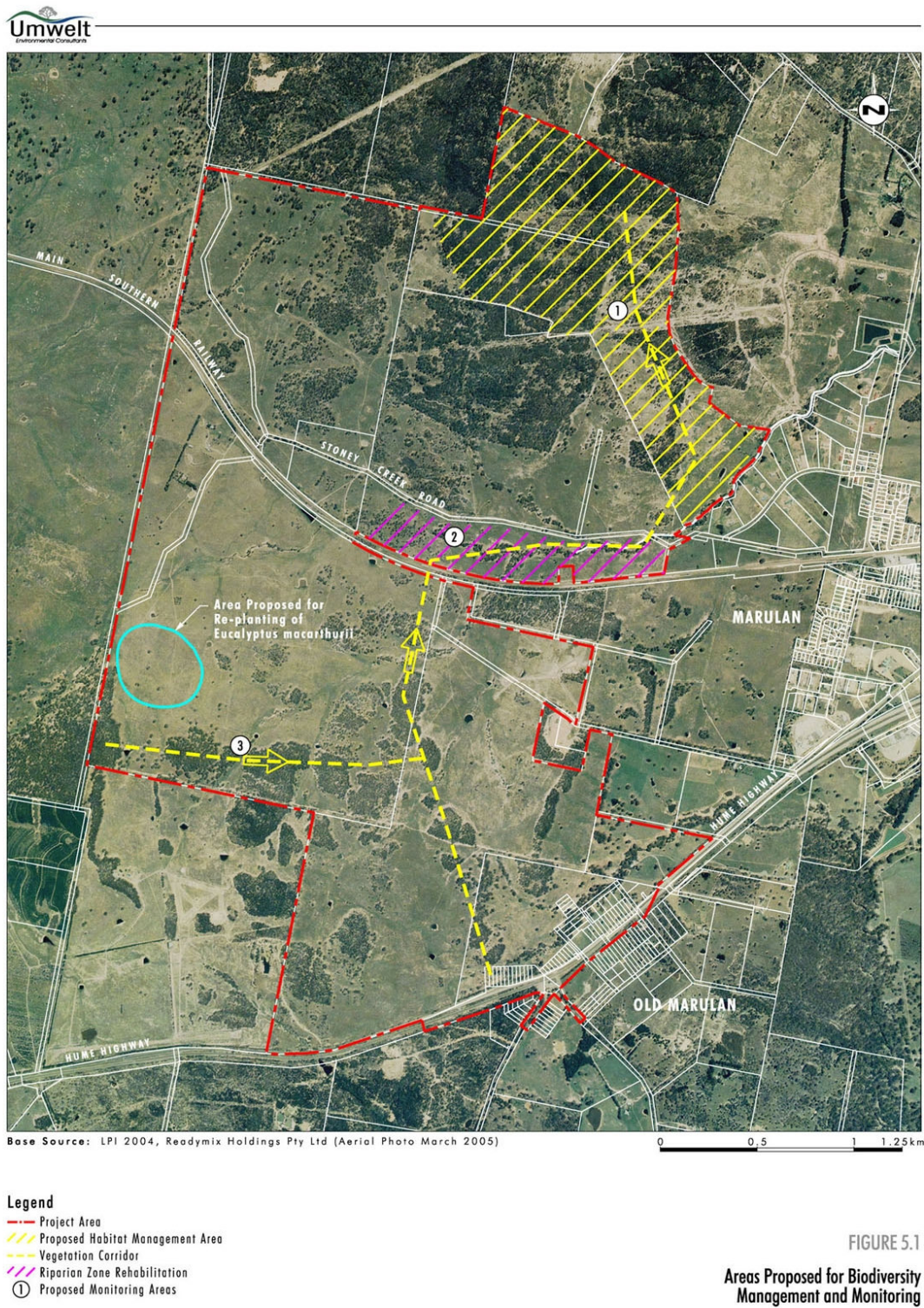


FIGURE 3.21a  
 Representative Cross-section  
 of Rehabilitated Quarry Pit

APPENDIX 9 : HABITAT MANAGEMENT AREAS



## APPENDIX 10 : INDEPENDENT DISPUTE RESOLUTION PROCESS

### Independent Dispute Resolution Process (Indicative only)

