

Project Approval

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

I approve the project referred to in Schedule 1, subject to the conditions set out 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 on-going environmental management of the project.

Hon Kristina Keneally MP
Minister for Planning

Sydney

2009

SCHEDULE 1

Project Application:

07_0155

Proponent:

CEAL Limited trading as Multiquip Quarries

Approval Authority:

Minister for Planning

Land:

Extraction Area Lot 24, DP 1001312, Oallen Ford Road,
Bungonia

Bypass Road Lot 2 DP 735523, Lot 82 DP 750022, Lot
7005 DP 1002591 and Lot 7006 DP
1002591

Project:

Ardmore Park Project

Red type represents October 2010 Modification.

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DEFINITIONS

AEMR	Annual Environmental Management Report
Bypass Road	Private road between Oallen Ford Road and Mountain Ash Road
Council	Goulburn Mulwaree Shire Council
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of the Department of Planning, or delegate
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	Environmental Assessment for the project titled <i>Environmental Assessment for the Modified "Ardmore Park" Quarry Project and, Specialist Consultant Studies Compendium</i> , dated July 2008, prepared by RW Corkery and Co, including the response to submissions
EA (Mod 1)	<i>Environmental Assessment titled Ardmore Park Quarry – Supporting Documentation for a Request to Modify Project Approval PA 07_0155, dated May 2010, prepared by RW Corkery and Co, including the response to submissions dated August 2010 and letter dated 30 August 2010</i>
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act 1997</i>
Extraction Area	The land described as the extraction area in Appendix 1
Feasible	Feasible relates to engineering considerations and what is practical to build
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Minister	Minister for Planning, or delegate
Privately owned land	Land not owned by a public agency or a quarry company (or its related companies)
Project	The development as described in the EA
Proponent	CEAL Limited trading as Multiquip Quarries, or its successors in title
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Response to Submissions	The Proponent's response to issues raised in submissions, dated December 2008, prepared by RW Corkery and Co, and subsequent submissions to the Department dated 2 February 2009, 30 March 2009 and 15 April 2009
RTA	Roads and Traffic Authority
Site	Land to which the project application applies
Stage 1 road upgrade works	Road upgrades described in items 5.1 to 5.8 of the Statement of Commitments (Table B) in Appendix 2, as amended to provide for a minimum 7.0 metre sealed carriageway along the entire transport route (comprising 2 x 3.0 metre lanes and 2 x 0.5 metre shoulders, plus 2 x 0.5 metre unsealed shoulders), apart from the bypass road and the bridge crossings identified as the Stage 2 and Stage 3 road upgrade works, unless otherwise agreed by Council.
Stage 2 road upgrade works	Road upgrades described in items 5.9 to 5.12 of the Statement of Commitments (Table B) in Appendix 2, as amended to provide for a minimum 8.0 metre sealed carriageway along the entire transport route (comprising 2 x 3.5 metre lanes and 2 x 0.5 metre shoulders, plus 2 x 0.5 metre unsealed shoulders), apart from the bypass road and the bridge crossings identified as the Stage 3 road upgrade works, unless otherwise agreed by Council.
Stage 3 road upgrade works	Road upgrades described in items 5.13 to 5.14 of the Statement of Commitments (Table B) in Appendix 2.
Statement of Commitments	The Proponent's commitments in Appendix 2
VENM	Virgin Excavated Natural Material, as defined in the <i>Protection of the Environment Operations Act 1997</i>

SCHEDULE 2 ADMINISTRATIVE

Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA;
 - (a1) EA (Mod 1);
 - (b) statement of commitments; and
 - (c) conditions of this approval.

Notes:

- The layout of the project is shown in the figure in Appendix 1; and
- The statement of commitments is included in Appendix 2.

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 this approval shall prevail to the extent of any inconsistency.
4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
 - (a) any reports, plans, programs or correspondence that are submitted in accordance with the conditions of this approval; and
 - (b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.

Limits on Approval

5. Extraction and processing operations may take place until 30 July 2039.

Note: Under this approval, the Proponent is required to rehabilitate the site to the satisfaction of the Director-General. Consequently this approval will continue to apply in all other respects other than the right to conduct extraction and processing operations until the site has been rehabilitated to a satisfactory standard.

6. The Proponent shall not transport more than 400,000 tonnes of product a year from the site by road.

Note: Truck movements are further restricted under condition 25 of schedule 3.

Management Plans / Monitoring Programs

7. With the approval of the Director-General, the Proponent may submit any management plan, program or strategy required by this approval on a progressive basis.

Structural Adequacy

8. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works;
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

Demolition

9. The Proponent 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

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

Operation of Plant and Equipment

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

Crown Land

12. The Proponent shall not commence any development authorised by this approval on Crown land without the prior approval of the Department of Lands.

Section 94 Contributions

13. The Proponent shall pay Council a monthly contribution of 4 cents per kilometre per tonne of material trucked from the site for the upgrade and maintenance of roads in accordance with *Mulwara Shire – Development Contributions Plan 2003-2008* in force at the date of this approval. The contribution amount shall be adjusted every 3 years from the date of this approval to account for the effects of inflation (Consumer Price Index).

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE

GENERAL EXTRACTION AND PROCESSING PROVISIONS

Identification of Boundaries

1. Within 3 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall:
 - (a) engage an independent registered surveyor to survey the boundaries of the approved limit of extraction and the approved ancillary work areas;
 - (b) submit a survey plan of these boundaries to the Director-General; and
 - (c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

Note: The limit of extraction and ancillary areas is shown conceptually on the layout plans in Appendix 1.

ACQUISITION OF AFFECTED PROPERTIES

Acquisition Upon Request

- 1A. Prior to the commencement of any extraction the Proponent shall make a firm and binding offer to acquire Lot 23 DP 1001312 ("Residence 7" in Appendix 3) in accordance with the terms of the agreement, dated 14 July 2008, as amended, between the Proponent and the owners of this property, unless otherwise agreed by the Director-General.

NOISE

Operational Noise Assessment Criteria

2. The Proponent shall ensure that the noise generated by the project, including the bypass road, does not exceed the noise impact assessment criteria in Table 1 at any residence or on more than 25 per cent of any privately-owned land.

Table 1: Noise Impact Assessment Criteria

Noise Assessment Location	<i>L</i>_{Aeq} (15 minute)
Residence 1	35
Residence 2	35
Residence 3	35
Residence 4	35
Residence 5	35
Residence 6	36
Residence 8	35
Residence 9	36
Residence R1	35
Residence R2	35
Residence R3	36
Residence R4	35
Residence V1	38
Residence V2	36

Notes:

- *To interpret the locations referred to Table 1, see the figures in Appendix 3.*
- *Noise generated by the project is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy.*
- *The noise limits do not apply if the Proponent has an agreement with the relevant owner/s of these residences/land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.*

Traffic Noise Impact Assessment Criteria

3. The Proponent shall take all reasonable and feasible measures to ensure that the traffic noise generated by the project (after commencement of quarrying operations) does not exceed the traffic noise impact assessment criteria in Table 2.

Table 2: Traffic noise criteria dB(A) L_{Aeq} (1 hour)

Roads	Day/Evening
Oallen Ford Road Mountain Ash Road Jerrara Road	55

Note: Traffic noise generated by the project is to be measured in accordance with the relevant procedures in the DECC's Environmental Criteria for Road Traffic Noise.

Operating Hours

4. The Proponent shall comply with the operating hours in Table 3.

Table 3: Operating Hours

Activity	Day	Time
Construction work	Monday - Friday	7.00am to 6.00pm
	Saturday	8.00am to 1.00pm
	Sunday and Public Holidays	None
Quarrying, processing (including overburden removal) and product transportation	Monday – Friday	7.00am to 6.00pm
	Saturday	7.00am to 1.00pm
	Sunday and Public Holidays	None

Notes:

- Maintenance activities may be conducted outside the hours in Table 3 provided that the activities are not audible at any privately-owned residence beyond the boundary of the site.
- This condition does not apply to delivery of material if that delivery is required by police or other authorities for safety reasons, and/or the operation or personnel or equipment are endangered. In such circumstances, notification is to be provided to DECC and the affected residents as soon as possible, or within a reasonable period in the case of emergency.

Additional Noise Mitigation Measures

5. The Proponent shall construct the western earth mound and acoustic barrier prior to the commencement of any extraction (apart from overburden extraction for the purpose of constructing the mound) or processing activities to the east of the earth mound and acoustic barrier, unless otherwise agreed by the Director-General.

Noise Monitoring

6. The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with DECC, and be submitted to the Director-General for approval prior to carrying out any development on site; and
 - include details of how the noise performance of the project would be monitored, and include a noise monitoring protocol for evaluating compliance with the relevant noise limits in this approval.

AIR QUALITY

Impact Assessment Criteria

7. The Proponent shall ensure that dust generated by the project does not cause exceedances of the criteria listed in Tables 4, 5 and 6 at any residence or on more than 25 per cent of any privately owned land.

Table 4: Long term impact assessment criteria for particulate matter

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

Table 5: Short Term impact assessment criterion for particulate matter

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

Table 6: Long Term impact assessment criterion for particulate matter

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

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

Operating Conditions

8. The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately owned land.

Air Quality Monitoring

9. The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program shall:
 - (a) be prepared in consultation with DECC, and be submitted to the Director-General for approval prior to carrying out any development on site;
 - (b) include details of how the air quality performance of the project would be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval.

METEOROLOGICAL MONITORING

10. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

WATER

Water Supply

11. The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of operations to match its water supply.

Note: The Proponent is required to obtain necessary water licences for the project under the Water Act 1912 and/or Water Management Act 2000.

Discharges

12. The Proponent shall not discharge any water from the quarry or its associated operations except in accordance with an EPL.

Water Management and Monitoring

13. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be prepared in consultation with DWE, DECC and SCA, and be submitted to the Director-General for approval prior to carrying out any development on site; and
 - (b) include a:
 - Site Water Balance;
 - Erosion and Sediment Control Plan;
 - Surface Water Monitoring Program;
 - Groundwater Monitoring Program; and
 - Surface and Groundwater Response Plan.
14. The Site Water Balance must:
 - (a) include details of:
 - sources and security of water supply;
 - water use on site;
 - water management on site, including the location and capacity of water storages on site and the means of access;
 - off-site water transfers; and
 - reporting procedures; and
 - (b) investigate and describe measures to minimise water use by the project.
15. The Erosion and Sediment Control Plan must:
 - (a) be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction*,

Volume 1, 4th Edition, 2004 (Landcom);

- (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) principles for the design and construction of waterway crossings along the transport route, in consultation with DPI;
 - (e) describe the location, function, and capacity of erosion and sediment control structures;
 - (f) demonstrate that the design capacity of basins intended to collect storm runoff will not be compromised by storage of operational water; and
 - (g) describe what measures would be implemented to maintain (and if necessary decommission) the structures over time.
16. The Surface Water Monitoring Program must include:
- (a) detailed baseline data on surface water flows and quality in downstream watercourses that could be affected by the project;
 - (b) surface water quality and stream health impact assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts;
 - (c) a program to monitor:
 - surface water flows, quality, and impacts on water users;
 - stream health; and
 - channel stability.
17. The Groundwater Monitoring Program must include:
- (a) detailed baseline data on groundwater levels, flows and quality in the region, and particularly any groundwater bores, springs and seeps (including spring and seep fed dams) that may be affected by operations on site;
 - (b) groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; and
 - (c) a program to monitor:
 - groundwater levels and quality in new and existing monitoring bores;
 - the impacts of the project on:
 - any groundwater bores, springs and seeps (including spring and seep fed farm dams) on privately-owned land; and
 - any groundwater dependent ecosystems.
18. The Surface and Groundwater Response Plan must include:
- (a) a protocol for the investigation, notification and mitigation of any exceedances of the surface and ground water impact assessment criteria;
 - (b) measures to mitigate and/or compensate potentially affected landowners, including provision of alternative long-term supply of water to the affected landowner that is equivalent to the loss attributed to the project; and
 - (c) the procedures that would be followed if any unforeseen impacts are detected during the project.

LANDSCAPE MANAGEMENT

Rehabilitation

19. The Proponent shall progressively rehabilitate the site, in a manner that:
- (a) is generally consistent with the concept final landform in the EA (as reproduced in Appendix 4); and
 - (b) provides at least 14.7 hectares of Yellow Box – Red Gum Woodland, to the satisfaction of the Director-General

Landscape Management Plan

20. The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DECC by suitably qualified expert/s whose appointment/s have been approved by the Director-General, and be submitted to the Director-General for approval prior to the commencement of quarrying operations; and
 - (b) include a:
 - Rehabilitation Management Plan; and
 - Quarry Closure Plan.

Note: The Department accepts that the initial Landscape Management Plan may not include a detailed Quarry Closure Plan. However, the initial plan must include an outline and a timetable for completion of the detailed Quarry Closure Plan.

Rehabilitation Management Plan

21. The Rehabilitation Management Plan must include:
- (a) the rehabilitation objectives for the site;

- (b) a description of the short, medium, and long term measures that would be implemented to:
 - rehabilitate the site; and
 - maintain and enhance existing site vegetation outside the disturbance area;
- (c) detailed performance and completion criteria for the site rehabilitation;
- (d) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - progressively rehabilitating disturbed areas;
 - protecting vegetation and soil outside the disturbance areas;
 - rehabilitating creeks and drainage lines on the site to ensure no net loss of stream length and aquatic habitat;
 - undertaking pre-clearance surveys;
 - managing impacts on fauna;
 - landscaping the site to minimise visual impacts, including a landscape plan for the visual/noise bund and other boundaries of the site;
 - conserving and reusing topsoil;
 - VENM quality assurance;
 - collecting and propagating seed for rehabilitation works;
 - salvaging and reusing material from the site for habitat enhancement;
 - controlling weeds and feral pests;
 - controlling access; and
 - bushfire management;
- (e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
- (f) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
- (g) details of who would be responsible for monitoring, reviewing, and implementing the plan.

Quarry Closure Plan

22. The Quarry Closure Plan must:
- (a) include provision for certification from a qualified geotechnical engineer that the final proposed landform is stable;
 - (b) define the objectives and criteria for closure of the quarry;
 - (c) investigate options for the future use of the site, including any final void;
 - (d) describe the measures that would be implemented to minimise or manage the ongoing (post closure) environmental effects of the project; and
 - (e) describe how the performance of these measures would be monitored over time.

Rehabilitation Bond

23. Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation and offset bond for the project with the Director-General. The sum of the bond shall be calculated at:
- \$2.50/m² for the area of new disturbance in each 3 year review period;
 - \$1.00/m² for the total area of land previously disturbed by the quarry,
- 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 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 bond, and arrange for the satisfactory completion of the relevant works.*

ABORIGINAL HERITAGE

24. The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with the DECC, and be submitted to the Director-General for approval prior to carrying out any development on site; and
 - (b) include a:
 - description of the subsurface test pit investigations that would be implemented in the extraction area to determine if archaeological material is present and the significance of any such material;
 - description of the measures that would be implemented if any new Aboriginal objects or relics are discovered during the project; and
 - protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.

TRAFFIC AND TRANSPORT

Transport Route Upgrades

25. The Proponent shall:
- restrict all product transport from the site until it has completed the Stage 1 road upgrade works, to the satisfaction of Council;
 - restrict product transport to a maximum of 20 truck movements (in + out) per day Monday to Friday, and 12 truck movements per day on Saturdays, until it has completed the Stage 2 road upgrade works, to the satisfaction of Council;
 - restrict product transport to a maximum of 56 truck movements (in + out) per day Monday to Friday, and 30 truck movements per day on Saturdays, until it has completed the Stage 3 road upgrade works, to the satisfaction of Council;
 - restrict truck movements associated with the project to a maximum of 88 truck movements (in + out) per day Monday to Friday, and 42 truck movements per day on Saturdays, upon completion of the Stage 3 road upgrade works.

Notes:

- *The road upgrade stages are defined in Schedule 1 of this approval.*
- *The restrictions on product transport in this condition do not apply to any product transport to and from the road upgrade sites.*

26. The Proponent shall:
- upgrade the acceleration lane for northbound traffic on the Hume Highway at its junction with Jerrara Road, to the satisfaction of the RTA, prior to undertaking any product transport from the site; or
 - restrict any product transport from the site until a suitable grade separated interchange is operational at the junction of the Hume Highway and Jerrara Road, unless otherwise agreed by the RTA.

Note: The restrictions on product transport in this condition do not apply to any product transport to and from the road upgrade works required by this approval.

Traffic Management Plan

27. The Proponent shall prepare and implement a Traffic Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with Council and the RTA by suitably qualified independent expert/s whose appointment/s have been approved by the Director-General, and be submitted to the Director-General for approval prior to carrying out any development on site;
 - provide for Road Safety Audits prior to the commencement of each stage of road upgrade works in accordance with RTA's *Accident Reduction Guide Part 2 Road Safety Audits (August 2005)*;
 - include a program for an action plan and outline the measures to be implemented to address any issues identified by the Road Safety Audit;
 - include traffic control plans to describe proposed traffic control measures during construction activities on public roads;
 - include a protocol for the management of quarry vehicles on the bypass road, including the prevention of trucks from queuing on Mountain Ash Road to enter the bypass road;
 - identify arrangements with school bus drivers including any restrictions on activities during school bus pick up/drop off times and provision of any other measures (e.g. bus bays); and
 - include a driver's Code of Conduct.

Note: The Department accepts that the initial Traffic Management Plan would only include the findings of the first Road Safety Audit. Subsequent revisions of the Traffic Management Plan may be submitted on completion of subsequent Road Safety Audits.

Road Haulage

28. The Proponent shall ensure that:
- all loaded vehicles entering or leaving the site are covered; and
 - all loaded vehicles leaving the site are cleaned of materials that may fall on the road, before they leave the site.
29. No project-related heavy vehicles shall use King Street to get to or from the site, except in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Haulage Records

30. The Proponent shall record and maintain a log of the extraction quantities and traffic movement in and out of the site, available for inspection at the request of the Director-General or Council.

VISUAL

Visual Amenity

31. The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director-General.

Visual Impact Mitigation

32. Within 6 months of this approval, the Proponent shall prepare a report that:
- (a) identifies the privately-owned residences that are likely to experience significant visual impacts during the construction and operation of the project; and
 - (b) describes (in general terms) the additional mitigation measures that could be implemented to reduce the visibility of the quarry from these residences, to the satisfaction of the Director-General.
33. Within 3 months of the Director-General approving this report, the Proponent shall advise all owners of privately-owned residences identified in the report that they are entitled to additional mitigation measures to reduce the visibility of the quarry from their properties.
34. Upon receiving a written request from an owner of a residence identified in this report, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) in consultation with the landowner, and to the satisfaction of the Director-General.

These mitigation measures must be reasonable and feasible.

If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.

Note: The additional visual impact mitigation measures must be aimed at reducing the visibility of the quarry from significantly affected residences and do not necessarily require measures to reduce visibility of the quarry from other locations on the affected properties. The additional visual impact mitigation measures do not necessarily have to include measures on the affected property itself (i.e. the additional measures may consist of measures outside the affected property boundary that provide an effective reduction in visual impacts).

Lighting Emissions

35. The Proponent shall:
- (a) take all practicable measures to mitigate off-site lighting impacts from the project; and
 - (b) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

Advertising

36. The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the Director-General.

Note: This does not include traffic management and safety or environmental signs.

WASTE MANAGEMENT

Waste Minimisation

37. The Proponent shall:
- (a) only import VENM to the site; and
 - (b) minimise the amount of waste generated by the project to the satisfaction of the Director-General.

EMERGENCY AND HAZARDS MANAGEMENT

Dangerous Goods

38. The Proponent 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

39. The Proponent shall secure the project to ensure public safety to the satisfaction of the Director-General.

Bushfire Management

40. The Proponent shall:
- (a) ensure that the project 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

41. The Proponent shall:
- (a) provide annual production data to the DPI using the standard form for that purpose; and
 - (b) include a copy of this data in the AEMR.
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SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent 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 project is complying with the relevant criteria.

INDEPENDENT REVIEW

2. If a landowner of privately-owned land considers that the quarrying operations are exceeding the impact assessment criteria in Schedule 3, then he/she may ask the Director-General in writing for an independent review of the relevant impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Proponent 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 project is complying with the relevant criteria in Schedule 3, and identify the source(s) and scale of any impact on the land, and the project'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 Proponent 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 Proponent shall:
 - (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project 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 Proponent may discontinue the independent review with the approval of the Director-General.

If the Proponent is unable to finalise an agreement with the landowner, then the Proponent 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 5).

5. If the landowner disputes the results of the independent review, either the Proponent 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 5).

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, MONITORING, REPORTING & AUDITING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy shall be submitted to the Director-General prior to carrying out any development on site, and must:
 - (a) provide the strategic context for environmental management of the project;
 - (b) identify the statutory requirements that apply to the project;
 - (c) describe in general how the environmental performance of the project would be monitored and managed;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the construction, operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the life of the project;
 - respond to any non-compliance;
 - manage cumulative impacts; and
 - respond to environmental incidents and emergencies; and
 - (e) describe the role, responsibility, authority, and accountability of the key personnel involved in the environmental management of the project.

ENVIRONMENTAL MONITORING PROGRAM

2. The Proponent shall prepare an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General prior to carrying out any development on site, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document.

REPORTING

Incident Reporting

3. Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.
4. Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that:
 - (a) describes the date, time, and nature of the exceedance/incident;
 - (b) identifies the cause (or likely cause) of the exceedance/incident;
 - (c) describes what action has been taken to date; and
 - (d) describes the proposed measures to address the exceedance/incident.

Annual Reporting

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

Revision of Strategies, Plans and Programs

- 5A. Within 3 months of:
 - (a) the submission of an incident report under condition 4 above;
 - (b) the submission of an AEMR under condition 5 above;
 - (c) the submission of an audit report under condition 7 below; or
 - (d) any modification to this approval,

the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.

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

INDEPENDENT ENVIRONMENTAL AUDIT

6. Within 2 years of the date of the commencement of quarrying operations, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
 - (a) be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the project, and its effects on the surrounding environment;
 - (d) assess whether the project is complying with the relevant standards, performance measures and statutory requirements; and
 - (e) review the adequacy of any strategy/plan/program required under this approval, and, if necessary, recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.

Note: The person(s) conducting the audit should have expertise in the fields of traffic management, hydrogeology and quarry rehabilitation.

7. Within 6 weeks of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General, with a response to any of the recommendations in the audit report.
8. Within 3 months of submitting a copy of the audit report to the Director-General, the Proponent shall review and if necessary revise the sum of the Rehabilitation Bond (see Schedule 3), to consider:
 - the effects of inflation;
 - any changes to the total area of disturbance; and
 - the performance of the revegetation against the completion criteria of the Rehabilitation Management Plan,to the satisfaction of the Director-General.

COMMUNITY CONSULTATIVE COMMITTEE

9. The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in general accordance with the Department's *Guideline for Establishing and Operating Community Consultative Committees for Mining Projects*. The CCC must be established within 3 months of the date of this approval, unless otherwise agreed by the Director-General.

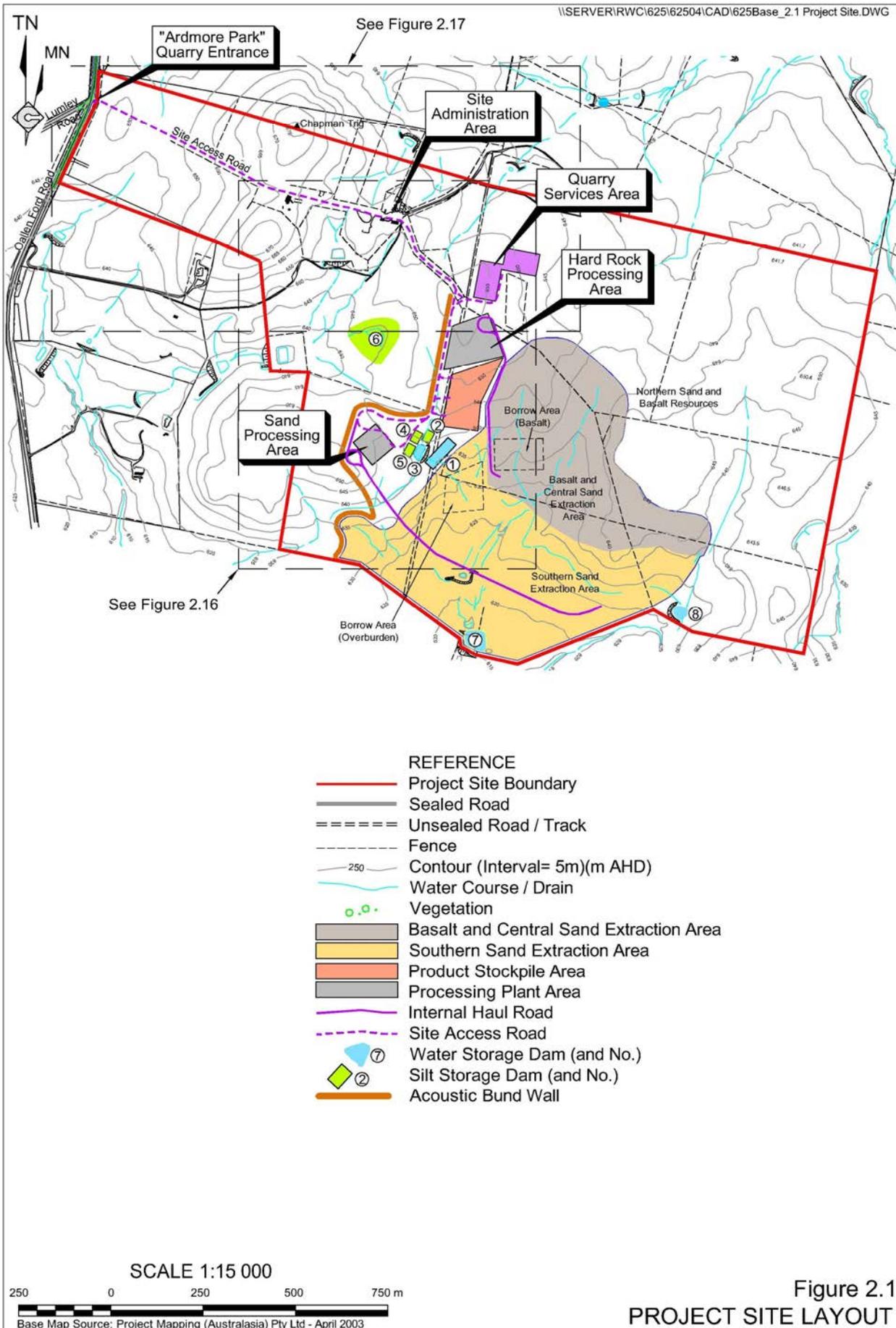
Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, adjoining landholders, residents of Bungonia village and resident/s along the haulage route.*

ACCESS TO INFORMATION

10. Within 1 month of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMR required under this approval, the Proponent shall:
 - (a) provide a copy of the relevant document/s to the relevant agencies and to members of the general public upon request; and
 - (b) ensure that a copy of the relevant document/s is made publicly available on its website and at the Proponent's office.
11. During the project, the Proponent shall:
 - (a) make a summary of monitoring results required under this approval publicly available on its website and at the site office; and
 - (b) update these results on a regular basis (at least every 3 months).

**APPENDIX 1
GENERAL LAYOUT OF PROJECT**



APPENDIX 2

STATEMENT OF COMMITMENTS

Table A Statement of Commitments for Project Site Operations and Management

Desired Outcome	Action	Timing	
1. Area of Activities			
All approved activities are undertaken in the area(s) nominated on the approved plans and figures (unless moved slightly to avoid individual trees).	1.1	Survey and mark the boundaries of the areas of disturbance on the ground.	Prior to any vegetation clearing.
	1.2	Survey and peg the centre line of the Site Access Road.	Prior to construction of the Site Access Road.
2. Operating Hours			
Management of construction and operational activities in accordance with the approved operating hours.	2.1	Undertake all activities within the hours of: 7.00am to 6.00pm / Monday to Friday and 7.00am to 1.00pm / Saturday.	Ongoing.
3. Waste Management			
Minimisation of general waste creation and maximisation of recycling, wherever possible.	3.1	Place all paper and general wastes originating from the Administration and Quarry Services Area, together with routine maintenance consumables from the daily servicing of equipment in garbage bins located adjacent to the various buildings.	Ongoing.
Minimisation of the potential risk of environmental impact due to waste creation, storage and/or disposal.	3.2	Collect general waste bins daily and place contents in large waste skip bins positioned adjacent to the heavy vehicle maintenance building to await removal by licensed contractor.	Daily
	3.3	Organise the regular collection of industrial wastes.	Monthly
	3.4	Store waste oils and grease at the maintenance workshop for collection by a licensed waste recycling contractor.	Monthly
	3.5	Collect all parts and packaging and transfer to the maintenance workshop for disposal or recycling.	As required.
	3.6	Store potentially hydrocarbon-contaminated water in the oil/water separator for regular removal from site by a licensed contractor.	As required.
	3.7	Install adequate toilet and ablution facilities within the Administration and Quarry Services Area for the site workforce and visitors.	During site establishment.
	3.8	Direct sewage to either the existing septic system of the "Ardmore Park" property or a bio-cycle (or equivalent system) within the Administration and Quarry Services Area with effluent irrigation to land.	Ongoing.
4. Rehabilitation			
The creation of a stable final landform, available for the proposed future use(s) of agriculture and/or nature conservation.	4.1	Adopt a progressive approach to rehabilitation to ensure that completed areas are quickly shaped and vegetated to provide a stable landform.	Ongoing during rehabilitation activities.
	4.2	Stabilise earthworks, drainage lines and disturbed areas no longer required for quarry-related activities.	As areas become available.
	4.3	Blend the created landform with the surrounding land fabric.	As areas become available.
	4.4	Maintain a number of water storages to facilitate the subsequent use of the land for agricultural purposes.	Prior to quarry closure.
	4.5	Replant native vegetation along reinstated drainage lines and lower lying areas of the Project Site totalling approximately 14.7ha.	Ongoing during rehabilitation activities.

Desired Outcome	Action	Timing
	4.6 Utilise native tree, shrub and grass species that would promote the re-establishment of the endangered ecological community White Box Yellow Box Blakely's Red Gum Woodland, and link existing areas of native vegetation to the southeast and northwest of the Project Site.	Ongoing during rehabilitation activities.
	4.7 Retain cleared trees and branches for use in stabilising slopes identified for rehabilitation with native woodland communities.	Ongoing during rehabilitation activities.
	4.8 Report each year's rehabilitation within an Annual Environmental Management Report (AEMR).	Annually.
	4.9 Undertake a targeted weed spraying programs, to eliminate or control noxious weeds currently occurring on the Project Site.	Annually.
5. Groundwater		
Prevention of groundwater contamination.	5.1 Securely store all hydrocarbon products within designated and bunded areas.	Ongoing.
	5.2 Refuel all of the project fleet within designated areas of the Project Site.	Ongoing.
	5.3 Undertake all maintenance activities within designated areas of the Project Site facilities area, ie. maintenance workshop.	Ongoing.
	5.4 Direct all water from wash-down areas and workshops to oil/water separators and containment systems.	Ongoing.
	5.5 Ensure all storage tanks are either self-bunded tanks or bunded with an impermeable surface and a capacity to contain a minimum 110% of the largest storage tank capacity.	Ongoing.
	5.6 Collect samples of groundwater in all monitoring wells on a 12-month basis and submit to a NATA registered laboratory for the testing of pH, Electrical conductivity (EC), Total Dissolved Solids (TDS) and the determination of major anions, major cations, iron and hydrocarbons.	Annually.
	5.7 Measure water levels on a monthly basis up to and throughout the extraction phase from Bores BHAP1, BHAP5, BHAP7 and BHAP10.	Monthly.
	5.8 Replace the bores that are destroyed during the staged extraction process with strategically positioned and suitably installed new monitoring wells where appropriate.	As required.
	5.9 (In the event that monitoring indicates a decreasing SWL trend attributable to the proposed extraction of groundwater), reduce pumping rates, initially through reducing water provided for ongoing stock watering and if required through a reduced processing rate at the sand washing plant.	In the event that monitoring indicates a decreasing SWL trend attributable to the proposed extraction of groundwater.
Prevention of any reduction in the availability of groundwater flows to local springs.	5.10 Assess the flow rate and water quality of groundwater from the "Inverary Park" and Southern Spring against low flow records.	6 monthly.
	5.11 Establish photo points at representative spring ("Inverary Park", southern and western springs) and other locations to assess any changes in flow regimes and vegetation over time	Prior to the commencement of extraction.

Desired Outcome	Action	Timing
	5.12 (In the event of a deterioration of flow rates and/or water availability to below historic low flows) undertake one of the following options: (i) supply groundwater to the affected water user from Multiquip's proposed production bore (BHAP6) to the measured and documented loss and with a water quality commensurate or better; or (ii) provide monetary compensation to the affected water user; or (iii) install a replacement bore to provide the measured and documented loss of groundwater with a quality commensurate or better.	In the event of a deterioration of flow rates and/or water availability to below historic low flows.
Preparation of a contingency plan in the event that the availability or quality of groundwater is reduced for local groundwater users.	5.13 Undertake remedial action if the available drawdown attributable to the mine for the existing groundwater users is reduced by over 15%. The remedial actions that may be appropriate include the deepening of bores or replacement of bores to accommodate deeper, high lift pumps.	As required.
	5.14 Commission review of all monitoring results on an annual basis by a consulting hydrogeologist or other environmental professional and report in each AEMR.	Annually
6. Surface Water		
Diversion of clean water flows away from areas of project related disturbance.	6.1. Construct diversion banks upstream of the extraction area and other related disturbance to the design specifications of Landcom (2004).	Prior to disturbance in relevant catchment of the Project Site.
	6.2. Construct clean water storage dam (Dam 8) at the discharge points of the main diversion structures.	Prior to disturbance in relevant catchment of the Project Site.
	6.3. Inspect the diversion banks and storage dams on a monthly basis, or following rainfall of >25mm/24 hours, and undertake maintenance work as necessary.	Monthly or following rainfall of >25mm/24 hours.
Capture of dirty water flows from areas of project related disturbance.	6.4. Construct catch banks downstream of disturbed ground to the design specifications of Landcom (2004).	Prior to disturbance in relevant catchment of the Project Site.
	6.5. Inspect the catch banks on a monthly basis, or following rainfall of >25mm/24 hours, and undertake maintenance work as necessary.	Monthly or following rainfall of >25mm/24 hours.
	6.6. Construct sediment basins and clarification ponds as identified on Figure 5.15 (in the EA) and to the design specifications of Landcom (2004).	Prior to disturbance in relevant catchment of the Project Site.
	6.7. Inspect the sediment basins on a monthly basis, or following rainfall of >25mm/24 hours, and clean out the sediment basins of consolidated sediment once capacity reduced by 20%.	Monthly or following rainfall of >25mm/24 hours.
	6.8. Review general performance of catchment and settlement structures and upgrade the existing structures or install additional structures to ensure all dirty water is captured and settled prior to discharge.	Ongoing.
Discharged water quality to meet nominated criteria.	6.9. Construct catchment and settlement structures 'in-line' such that overflow from one structure is directed to another downstream.	During construction.
	6.10. Divert drainage in the final landform to Dams 7 and 8.	Prior to project completion.

Desired Outcome	Action	Timing
	6.11. Ensure drainage paths between the catchment and settlement structures are well grassed.	Ongoing.
	6.12. Ensure any water discharged meets the DECC Environment Protection Licence criteria, expected to be as follows. <ul style="list-style-type: none"> • TSS < 50mg/L. • pH: 5.5 to 8.5. • Oil & grease < 10mg/L. • Electrical conductivity < 350µS/cm 	Ongoing.
Prevention of hydrocarbon contamination of water on the Project Site.	6.13. Securely store all hydrocarbon products.	Ongoing
	6.14. Refuel all but the less mobile mining equipment which would be refuelled within the open cut area, within designated areas.	Ongoing.
	6.15. Direct all water from wash-down areas and workshops to oil/water separators and containment systems.	Ongoing.
	6.16. Ensure all storage tanks are either self-bunded tanks or bunded with an impermeable surface and have a capacity to contain a minimum 110% of the largest storage tank capacity.	When imported to site or constructed.
	6.17. Implement a 3-phase remedial action plan in the event of a major hydrocarbon spill as follows. <ul style="list-style-type: none"> • Phase 1 – Initial Recovery: Recover as much as possible at the source by pumping free hydrocarbon from the surface and excavating hydrocarbon-contaminated materials. • Phase 2 – Source Control: Begin hydraulic control of the source to prevent spreading of contamination. • Phase 3 – Recovery: If necessary, install boreholes to remove and treat contaminated groundwater. 	As required.
7. Noise		
All activities are undertaken in such a manner as to reduce the noise level generated and minimise impacts on surrounding landholders and/or residents.	7.1. Construct an acoustic bund wall to the west of the internal road network and around the sand processing area.	During construction period.
	7.2. Locate the mobile crushing plant and hard rock processing plant within a cut section of the Project Site, approximately 8m below surface level (to the east).	During construction period.
	7.3. Commence extraction from the southern sand resource area at the northern extremity of Stage 1 and move progressively southward toward Stage 2.	As part of extraction operations.
	7.4. Enclose the hard rock processing plant using Panel-Tech Thermaspan Colorbond panels, leaving openings only for plant conveyors.	During construction period.
	7.5. Adhere to the nominated hours of operation, ie. no extraction, processing and associated activities would take place before 7:00am or after 6:00pm.	Ongoing.
	7.6. Use equipment with lower sound power levels in preference to more noisy equipment.	Ongoing.
	7.7. Instruct all truck drivers to avoid the use of engine brakes when approaching the Project Site entrance.	Ongoing.

Desired Outcome	Action	Timing
	7.8. Regularly service all equipment used on site to ensure the power sound levels remain at or below the levels specified in the noise assessment for the EA.	Ongoing.
	7.9. Grade the internal road network to limit body noise from empty trucks travelling on the Project Site.	Ongoing.
	7.10. Establish a noise monitoring program (NMP) to initially validate the predictions arising from the modelling and then record noise levels against the Project noise criteria. The NMP would include a noise monitoring protocol which would include the contingent measures to be followed should non-compliant noise levels be measured.	Within 6 months of project approval.
8. Air Quality		
Site activities are undertaken without exceeding DECC air quality criteria or goals.	8.1. Minimise clearing ahead of construction and operational activities.	Ongoing.
	8.2. Undertake soil stripping at a time when there is sufficient soil moisture to prevent significant lift-off of dust.	Ongoing.
	8.3. Avoid stripping soil in periods of high wind.	Ongoing.
	8.4. Use water application to increase soil moisture should stripping occur during periods of high wind or low soil moisture.	Ongoing.
	8.5. Apply water to the hard rock processing plant feed hopper and crushers.	Ongoing.
	8.6. Install bund walls and wind breaks as required.	Ongoing.
	8.7. Locate the mobile crushing plant within the cut section of the hard rock processing area.	During construction and initial production phase.
	8.8. Enclose the dust generating components of the hard rock processing plant with limited openings to allow entry and exit of conveyors and access by project personnel.	During construction.
	8.9. Use a 10 000 litre water truck to regularly wet the active internal unsealed roads.	Ongoing.
	8.10. Seed topsoil stockpiles, acoustic bund walls and areas where landform preparation is complete to assist in stabilising the exposed surface	Ongoing.
	8.11. Minimise the drop heights between front-end loader buckets and trucks carrying sand/basalt or overburden through operator training and education on the management of dust	Ongoing.
	8.12. Cover all trucks carrying quarry products with approved covers and securely fix the tailgates to prevent windblown dust emission or spillages.	Ongoing.
	8.13. Undertake an air quality monitoring program to demonstrate compliance with the nominated goals. <ul style="list-style-type: none"> • Deposited dust at selected residences and strategic locations surrounding the Project Site. • Continuous wind speed and direction at the Project Site weather station. 	Within 6 months of project approval.

Desired Outcome	Action	Timing
9. Flora and Fauna		
Minimisation of long term impact on flora and fauna on and around the Project Site.	9.1. Construct the Project Site infrastructure to avoid where possible, remnant stands of vegetation.	During Construction.
	9.2. Minimise clearing and consistent with operational requirements.	During clearing.
	9.3. Undertake vegetation clearing on a campaign basis to provide for immediate extraction operations.	Ongoing.
	9.4. Clearly define all areas to be cleared.	Prior to clearing.
	9.5. Construct any additional internal roads required on the cleared lands well away from stands of native vegetation.	Ongoing.
	9.6. (Where practicable), directly transfer soil material and biomass stripped to completed sections of the final landform for spreading	Ongoing
	9.7. Carry out, where possible, tree removal, especially the mature trees in late spring and early autumn to avoid spring nesting birds and over-wintering bats.	Ongoing.
	9.8. Retain felled trees for use in rehabilitation of the final landform.	Ongoing.
	9.9. Ensure the quality of water discharged from the Project Site has a neutral or beneficial impact on the downstream catchment.	Ongoing.
	9.10. Control noxious weeds at all times.	Ongoing.
	9.11. Commence progressive rehabilitation of the open cut area, including establishment of Vegetation Offset Area as soon as possible.	During Year 1 of project.
	9.12. Undertake landscape plantings to screen the proposed quarry and associated facilities from view, stabilise the soils and drainage lines and provide habitat for fauna	During first 3 years of the project.
	9.13. Maintain the existing fences around the remnant forest communities associated with the knolls on the "Ardmore Park" property.	Ongoing.
10. Aboriginal Heritage		
Provide appropriate protection to identified Aboriginal artefacts.	10.1. Ensure the in-situ protection of the identified artefacts through workforce education.	Ongoing
	10.2. Apply for the relevant permit to undertake test pitting over the southern sand resource (in accordance with the recommendations of AASC (2008).	Prior to the commencement of extraction.
Minimise potential to impact upon unidentified Aboriginal artefacts.	10.3. Invite Aboriginal monitors to site to review the results of test pitting activities.	Ongoing.
	10.4. Cease work at any area if further Aboriginal objects are uncovered during the course of the Project, and contact the DECC (NPWS) for advice.	Ongoing.
Employees who are sensitive and respectful of possible identified Aboriginal sites and artefacts.	10.5. Conduct a Cultural Heritage Awareness Induction Course for staff, contractors and any heritage monitors working on the Project Site.	Ongoing.
Notification of Aboriginal Sites under Part 6 s91 NPWS Act.	10.6. Supply formal site cards for all identified Aboriginal artefacts to the DECC Aboriginal Heritage Information Management System (AHIMS) Registrar.	Following identification of an Aboriginal artefact or site.
11. Non-Aboriginal Heritage		
Provide appropriate protection to site of non-Aboriginal heritage significance.	11.1. Locate the Project Site entrance works at least 5.5m from the Larbert Tree and protect the tree from accidental damage during road construction and operation of the quarry.	Ongoing.

Desired Outcome	Action	Timing
	11.2 Prepare a Cultural Heritage Management Plan (CHMP) for the project which would: <ul style="list-style-type: none"> • be prepared in consultation with the NSW Heritage Office • include an inventory of all listed heritage items locally; • provide opportunity for further research as to any physical evidence of the Old Argyle Road; • include a protocol for surface disturbing activities in the vicinity of the recorded location of the Old Argyle Road; and • include a protocol to be followed in the event that archaeological material is exposed as a result of surface disturbing activities. 	Prior to commencement of the project.
12. Visibility		
Reduce the impact of the project on the visual amenity of private and public vantage points.	12.1 Orient the various components of the Project Site in such a way that the existing topographical features would offer maximum screening of the Project Site.	Complete.
	12.2 Minimise the extent of land disturbance / clearing in advance of extraction.	Ongoing.
	12.3 Construct a 4m bund wall around the sand washing plant, along the internal product transport route and ultimately along the Project Site access road to the west of the "Ardmore Park" residence.	During construction activities.
	12.4 Seed the bund wall with native grass, shrub and tree species to act as an additional visual screen.	Following construction.
	12.5 Plant out the elevated areas immediately west of the processing plants and internal road network as part of an ongoing commitment to re-establish areas of native vegetation (particularly those of the White Box Yellow Box Blakely's Red Gum Woodland community).	Ongoing.
13. Soils, Land Capability and Agricultural Suitability		
Maintenance of soil value for rehabilitation and minimisation of soil loss through erosion.	13.1 Strip topsoil and subsoil to the depths nominated in the EA. Only those areas required for immediate construction or extraction activities would be stripped.	Ongoing.
	13.2 Provide mobile equipment operators with clear instructions to keep the topsoil and subsoil separate	Ongoing
	13.3 Transfer and respread directly stripped soil materials directly over areas to be rehabilitated following the first 18 to 24 months of mine operations.	Ongoing.
	13.4 Stockpile soil away from natural surface drainage lines.	Ongoing
	13.5 Seed any stockpile retained for in excess of three months with cereal and pasture species	As required.
	13.6 Cover long-term subsoil stockpiles with a cover of topsoil.	As required.
	13.7 Install erosion protection around soil stockpiles.	Ongoing.
	13.8 Divert surface water flow away from soil stockpile areas.	
	13.9 Monitor erosion from soil stockpiles or rehabilitated surfaces throughout the life of	Ongoing.

Desired Outcome	Action	Timing
	the Project with remedial works undertaken should erosion be observed.	
14. Bushfire Hazard		
Minimise potential for initiation of fire through combustion of fuel.	14.1 Undertake refuelling within designated fuel bays or within cleared area of the Project Site.	Ongoing.
	14.2 Turn vehicles off during refuelling.	Ongoing.
	14.3 Enforce no smoking policy in designated areas of the Project Site.	Ongoing.
	14.4 Maintain fire extinguishers within site vehicles.	Ongoing.
Manage potential and actual bushfire occurrences in accordance with local bushfire control plans.	14.5 Prepare a Bushfire Management Plan for the Project.	Within 6 months of the Project commencing.
	14.6 Regularly liaise with Goulburn Mulwaree Council personnel in relation to bushfire hazard.	Ongoing.

Table B
Statement of Commitments for Transport Operations and Management

Desired Outcome	Action	Timing
1. Area of Activities		
All approved activities are undertaken in the area(s) nominated on the approved plans and figures (unless moved slightly to avoid individual trees).	1.1 Peg the centre line of the Bungonia By-pass section of the transport route, specifically where a meander is to be created to avoid any mature native trees.	Prior to construction of the transport route.
	1.2 Survey and mark the boundaries of the areas of disturbance on the ground.	Prior to any vegetation clearing.
2. Operating Hours		
Management of transport operations in accordance with the approved operating hours.	2.1 Undertake road upgrade and construction operations within the hours of: 7.00am to 6.00pm / Monday to Friday and 7.00am to 1.00pm / Saturday.	During Construction and upgrading works along the Transport Route.
	2.2 Ensure no truck exits the site before 7.00am Monday to Saturday or enters the site after 6.00pm Monday to Friday and 1.00pm Saturday.	Ongoing
3. Waste Management		
Minimisation of general waste creation and maximisation of recycling, wherever possible.	3.1 Collect all waste materials in temporary skip bin(s) at the construction / upgrade site and transfer to local landfill as required.	During Construction of the Transport Route.
Minimisation of the potential risk of environmental impact due to waste creation, storage and/or disposal.	3.2 Undertake all vehicle refuelling within a bunded area of the Project Site or protected area in the vicinity of the construction site.	During Construction of the Transport Route.
	3.3 Install temporary toilet and ablution facilities away from natural drainage lines.	As required.
4. Rehabilitation		
The creation of a stable landform, available for the proposed future use(s) of agriculture and/or nature conservation.	4.1 Stabilise earthworks, drainage lines and disturbed areas no longer required for project-related activities.	Ongoing.
	4.2 Maintain aquatic and terrestrial habitat corridors along Bungonia Creek.	During Construction of the Transport Route.
	4.3 Avoid unnecessary disturbance to vegetation along the alignment of the Bungonia By-pass through the Crown land.	During Construction of the Transport Route.
5. Transport Route Construction and Upgrading – see Figures A, B & C below		
Stage 1 Roadworks. The completion of the construction of the Bungonia Bypass and the completion of specified intersection upgrades (see Figure A below).	5.1 Construct the Project Site entrance with Oallen Ford Road (see Detail A below).	Throughout Stage 1 Roadworks.
	5.2 Construct the Bungonia Bypass, including the crossing of Bungonia Creek (see Detail B below), as follows. <ul style="list-style-type: none"> • Two 2.5m lanes with 0.5m shoulder between Oallen Ford Road and the Crown 	Throughout Stage 1 Roadworks.

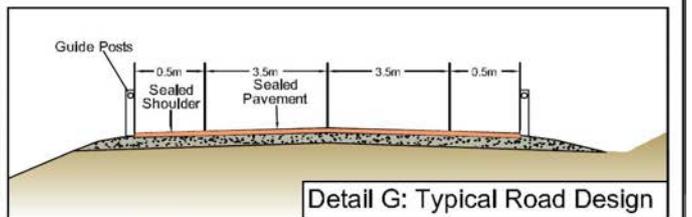
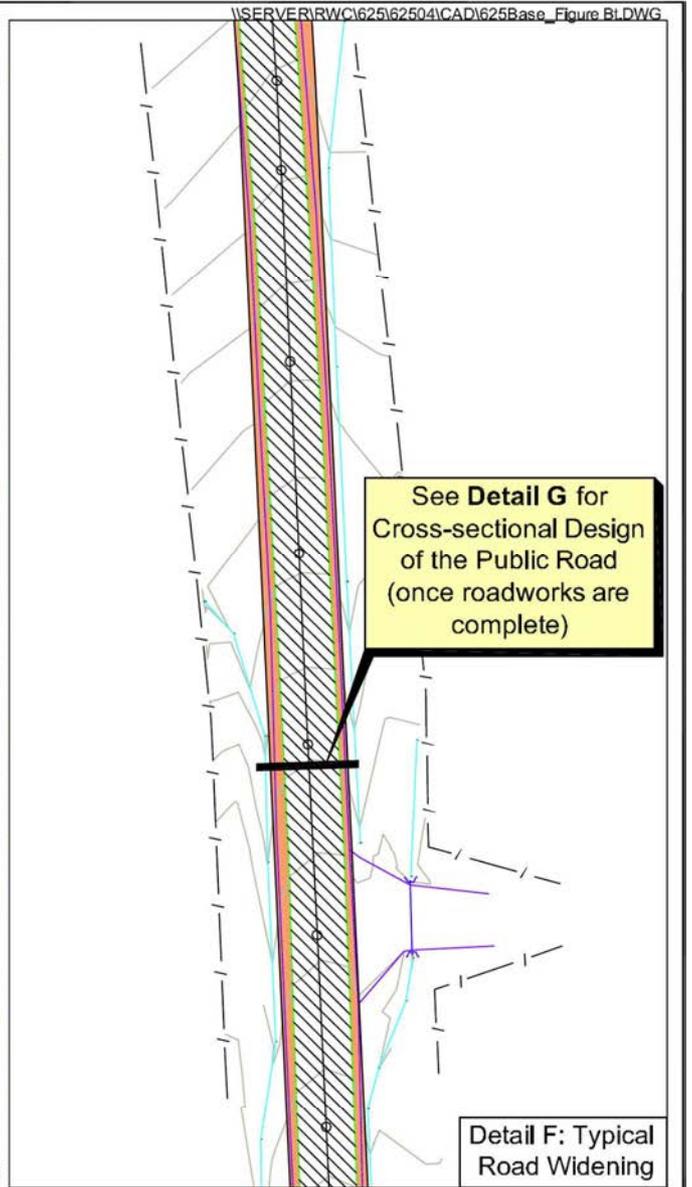
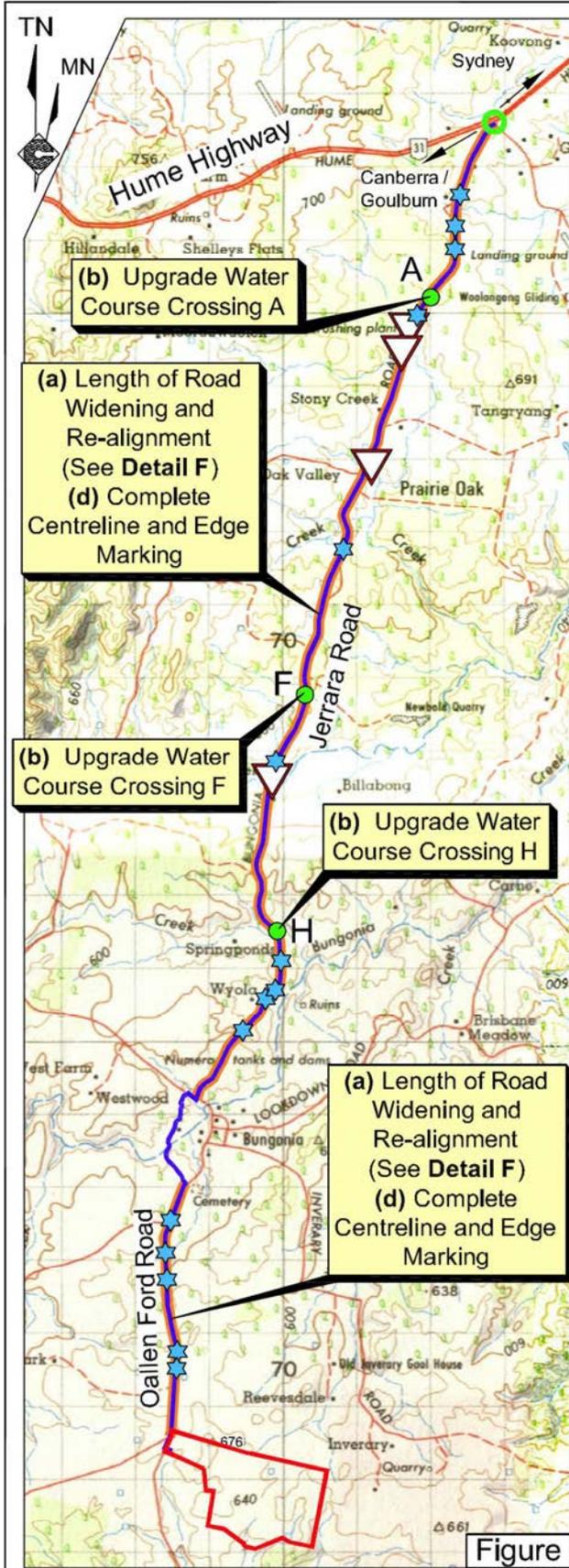
Desired Outcome	Action	Timing
	<p>land (see Detail E below).</p> <ul style="list-style-type: none"> • Single lane bridge spanning Bungonia Creek as described in Section 3.2.4.5 and Figure 3.6 in the EA. • A single lane of 3.0m, with 0.5m shoulder on both sides, through the Crown land (see Detail F below). A pass-by bay would be included over already cleared land at both the Northern and Southern ends of this section of the by-pass. 	
	5.3. Construct the intersections of the Bungonia Bypass with Oallen Ford Road (see Detail C below) and Mountain Ash Road (see Detail D below).	
	5.4. Upgrade the Mountain Ash Road – Jerrara Road intersection.	
	5.5. Upgrade Water Course Crossing I as part of the Mountain Ash Road – Jerrara Road intersection upgrade (see Detail D below).	
	5.6. Widen the carriageway of Jerrara Road at Water Course Crossings E (5.94km from the Hume Highway to accommodate an 8m sealed pavement).	
	5.7. Install “Give Way” signs on the southbound approach to Water Course Crossings: <ul style="list-style-type: none"> - B (3.16km from the Hume highway); - C (3.43km from the Hume Highway); - D (5.12km from the Hume Highway); and - G (9.72km from the Hume highway). 	
	5.8. Install other road signage as required by Goulburn Mulwaree Council.	
Stage 2 Roadworks. The completion of pavement widening and public road upgrades (see Figure B below).	5.9. The widening and minor realignment of the public roads of proposed transport route between the Project Site and the Hume Highway.	Throughout Stage 2 Roadworks.
	5.10. The upgrade of Water Course Crossings A, F and H.	
	5.11. Rehabilitate those sections of pavement identified as having a pavement life of less than 10 years.	
	5.12. Complete centreline and edge marking over the entire length of the transport route.	Throughout Stage 2 Roadworks.
Stage 3 Road Works. Completion of remaining water course crossing upgrades (see Figure C below).	5.13. Upgrade Water Course Crossings: <ul style="list-style-type: none"> - B (3.16km from the Hume highway); - C (3.43km from the Hume Highway); - D (5.12km from the Hume Highway); and - G (9.72km from the Hume highway); to provide a sealed pavement crossing of 8.0m.	Throughout Stage 3 Roadworks.
	5.14. Remove “Give Way” signs from the southbound approach to these crossings once the Stage 3 roadworks are completed.	
6. Product Transportation		
Product transportation is undertaken in such a manner as to minimise impacts for motorists travelling on the local road network and surrounding landholders and/or residents.	6.1. Erect “Trucks Entering” signs on Oallen Ford Road on both the southbound and northbound approaches to the Project Site entrance and on Lumley Road 200m from the Project Site entrance.	Prior to the commencement of transport operations.
	6.2. Establish a complaints register, advertised in the local telephone directory, to allow concerned residents to report any traffic related incidents, unsafe operation or general	Prior to commencement of transport operations and ongoing.

Desired Outcome	Action	Timing
	concern. Multiquip would thoroughly investigate all complaints.	
	6.3. Restrict the number of truckloads exiting the Project Site to 10 per day until the Stage 2 road upgrade works are complete.	Following the completion of Stage 1 road works.
	6.4. Restrict the number of truckloads exiting the Project Site to 28 per day until the Stage 3 watercourse crossing upgrades are complete.	Following the completion of the Stage 2 roadworks (see Commitments 5.9 to 5.12).
	6.5. Following the completion of the Stage 3 roadworks (see Commitments 5.13 and 5.14) restrict the number of truckloads exiting the Project Site to 44 per day.	Ongoing following the completion of Stage 3 roadworks.
	6.6. Adhere to the nominated hours of operation, ie. no vehicles would arrive at the Project Site before 7:00am or leave the Project Site after 6:00pm.	Ongoing
	6.7. Enforce driver adherence to all speed limits. <ul style="list-style-type: none"> 80km/hr on public roads. 60km/hr on the Bungonia Bypass. 	Ongoing.
	6.8. Ensure each exiting truck uses an on-site weighbridge to ensure all legal weight restrictions are adhered to.	Ongoing.
	6.9. Use only vehicles which employ the most up-to-date noise/emission reducing technology.	Ongoing.
	6.10. Cover all loads to minimise dust and particulate matter and debris emissions	Ongoing.
	6.11. Instruct all truck drivers to avoid the use of engine brakes when approaching the Project Site entrance.	Ongoing.
	6.12. Regularly service all trucks to ensure the power sound levels remain at or below the levels specified in the noise assessment for the EA.	Ongoing.
	6.13. Prepare and implement a transport Code of Conduct developed for the project. The Code of Conduct would require drivers to obey all traffic signs, speed zones and to operate in a safe and courteous manner at all times.	Ongoing.
7. Surface Water		
Construction of appropriate roadside drainage.	7.1. Complete specific roadside drainage upgrades as identified in Table 6.9 (in the EA)	During Stages 2 and 3 roadworks.
	7.2. Complete standard drainage upgrades on all drainage line crossings including: <ul style="list-style-type: none"> extension of the pipes, culverts or bridges to facilitate the wider road; raising of the pipe headwalls to accommodate higher batters; and/or steepening batter slopes between the road pavement and the pipe headwall. 	During Stages 2 and 3 roadworks.
	7.3. Implement a standard suite of design measures on all piped and box culvert drainage line crossings, as follows. <ul style="list-style-type: none"> All pipes and culverts would be provided with inlet protection (in accordance with Chapter 5.4.3 of Landcom (2004)) made from locally-sourced rock cobbles. All pipes and culverts would be provided with outlet protection, ie. energy dissipators (in accordance with Standard Drawing 5-8 of Landcom (2004)), made from locally-sourced rock cobbles. 	During Stages 2 and 3 roadworks.

Desired Outcome	Action	Timing
	<ul style="list-style-type: none"> Excess accumulations of sediment or leaf litter would be removed from pipes and culverts as works progress. Where table drains discharge into watercourses or drainage depressions, the outlet point will be provided with scour protection in the form of riprap (or equivalent). Where drainage lines show evidence of gulying deeper than 1.0m within 20m of the road crossing, batters would be graded back to 6H:1V and stabilised using appropriate erosion control measures and native vegetation would be planted in and around energy dissipation structures. 	
	<p>7.4. (Where the general crossing design works would require the construction of, or remedial work to, fill batters), undertake the works as follows.</p> <ul style="list-style-type: none"> Prevent stormwater runoff from drain down the fill batters. Where unavoidable, direct the water as sheet flow over sections of the fill batter vegetated using a hydromulch or equivalent erosion control measures. Direct any concentrated flows via flumes constructed from suitably robust material, including flow arresting measures, and discharging onto an energy dissipater. Fill batters would not exceed 2H:1V gradients. Stabilise fill batters by compaction and use a hydromulch (or equivalent) to aid the establishment of grasses. Install sediment fencing 1m from the toe of any batters. 	During Stages 2 and 3 roadworks.
	7.5. Install table drains to manage stormwater runoff from the road pavement as specified by SEEC Morse McVey (2008).	During Stages 2 and 3 roadworks.
Manage erosion and sediment control during the road upgrading and construction works.	7.6. Minimise clearing of groundcover in advance of upgrading / construction activities.	During Stages 1 and 2 roadworks.
	7.7. Install sediment fencing, in accordance with Standard Drawing SD 6-8 of Landcom (2004) down-slope of any construction area until works are complete.	During Stages 1 and 2 roadworks.
	7.8. Strip and stockpile topsoil, in accordance with Standard Drawing SD 4-1 of Landcom (2004), for later re-use.	During Stages 1 and 2 roadworks..
	7.9. Maintain upslope catchment length of exposed soil areas below 80m. Any slope length exceeding 80m should have a diversion bank, constructed in accordance with Standard Drawing SD 5-5 of Landcom (2004), to direct overland flows onto well-protected, vegetated lands.	During Stages 1 and 2 roadworks..
	7.10. Restrict construction traffic access to the minimum required for efficient operation of activities.	During Stages 1 and 2 roadworks.
	7.11. Construct diversion banks to divert "clean" runoff from upslope of any construction areas. Discharges would be onto a stabilised, well-vegetated area, preferably using a level spreader or sill.	During Stages 1 and 2 roadworks.
	7.12. Protect areas of concentrated flow, eg. drainage pathways, table drains etc., using	As part of road upgrading and

Desired Outcome	Action	Timing
	appropriate erosion control measures such as a biodegradable Rolled Erosion Control Product (RECP), eg. coconut fibre matting or jute matting.	construction.
	7.13. Stabilise batters following construction or reshaping with vegetation.	As part of road upgrading and construction.
Maintain a Vegetation Offset Area	7.14. Progressively establish a Vegetation Offset Area (VOA) as part of Project Site rehabilitation activities. The VOA would: <ul style="list-style-type: none"> cover an area of 14.7ha; be established through a combination of hand seeding and tube stock planting; focus plantings on the reinstated drainage lines and topographically lower areas of the Project Site; involve a mix of native <i>Acacia</i>, <i>Eucalyptus</i> and <i>Casuarina</i> species, specifically targeting the re-establishment of the White Box Yellow Box Blakely's Red Gum woodland community in some areas; be planted at a density of between 1 000 and 2 000 trees per hectare. be protected from stock by fencing for at least two years; be watered regularly to promote survival; and have signage erected identifying the area as a vegetation offset planting area for the management of water quality within the Sydney Drinking Water Catchment. 	Ongoing as part of rehabilitation activities.
8. Noise		
All transport operations are undertaken in such a manner as to reduce the noise level generated and minimise impacts on surrounding landholders and/or residents.	8.1. Prevent product deliveries until construction of the Bungonia By-pass is complete.	During Stage 1 roadworks.
	8.2. Restrict product delivery truck movements to 20 per day until the road upgrading works are completed.	Following completion of Stage 1 roadworks.
	8.3. Adhere to the nominated hours of operation, ie. no vehicles would arrive at the Project Site before 7:00am or leave the Project Site after 6:00pm.	Ongoing.
	8.4. Enforce driver adherence to all speed limits.	Ongoing.
	8.5. Use only vehicles which employ the most up-to-date noise/emission reducing technology as part of transport fleet.	Ongoing.
	8.6. Instruct all truck drivers to avoid the use of engine brakes when approaching the Project Site entrance.	Ongoing.
	8.7. Regularly service all trucks to ensure the power sound levels remain at or below the levels specified in the noise assessment for the EA.	Ongoing.
	8.8. Ensure noise levels attributable to the construction and operation of the transport route, ie. product transportation, complies with the nominated noise criteria at residences fronting the transport route, within Bungonia village and within audible range of the Bungonia By-pass.	Ongoing.
9. Air Quality		
Transport Route construction and road upgrading activities are	9.1. Minimise clearing ahead of construction.	During Stages 1 and 2 roadworks.

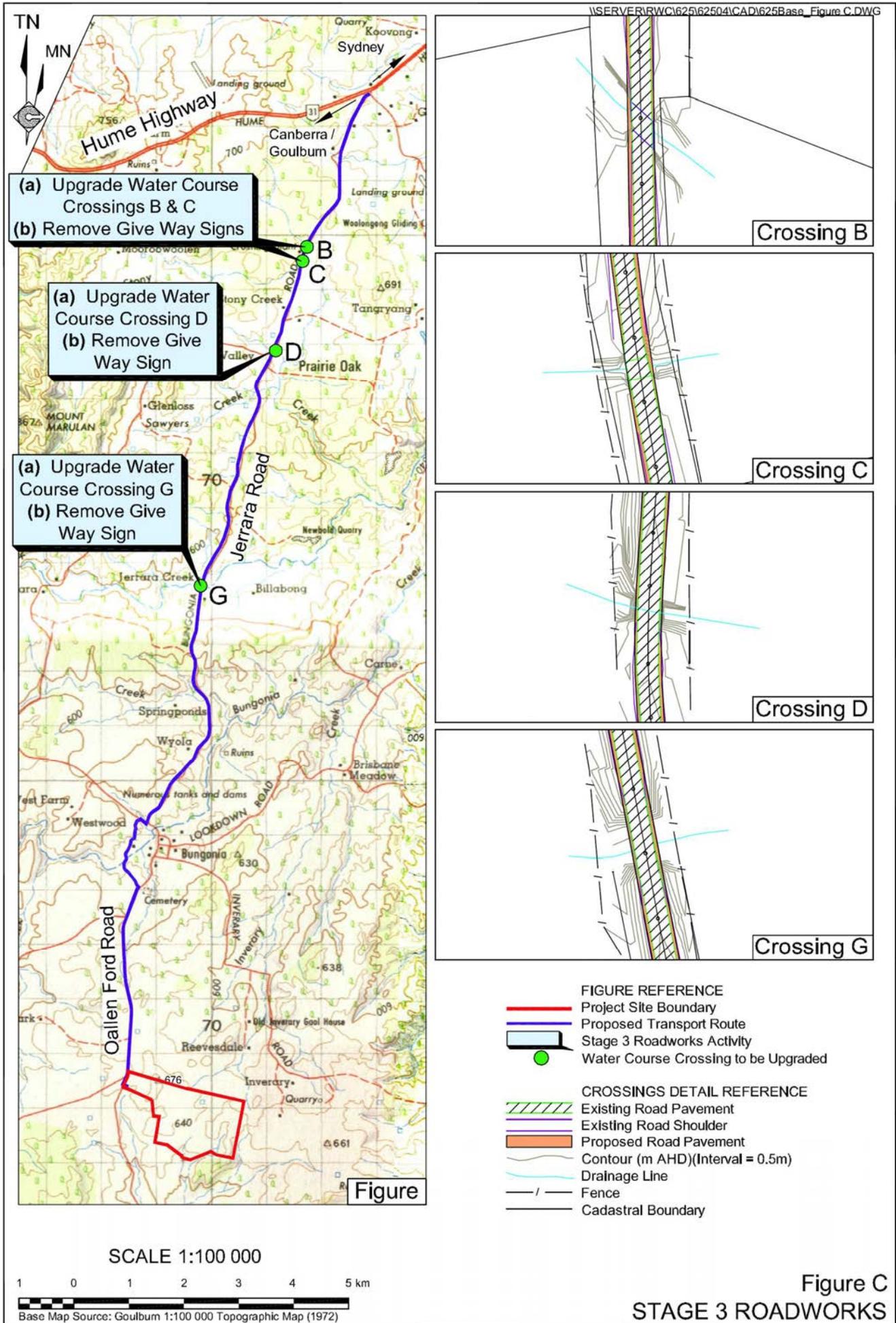
Desired Outcome	Action	Timing
undertaken without exceeding DECC air quality criteria or goals.	9.2. Minimise the number of stockpiles and restrict access to a single working face.	During Stages 1 and 2 roadworks.
	9.3. Compact stockpiles as material is removed or added to stockpiles.	During Stages 1 and 2 roadworks.
	9.4. Restrict all vehicles to designated routes within the Bungonia By-pass construction area with a speed limit of 20km/h.	During Stages 1 transport operations.
	9.5. Clean dirt tracked onto the public road network.	During Stage 1 roadworks.
Site activities are undertaken without exceeding DECC air quality criteria or goals.	9.6. Stand down vehicles with smoky exhausts (more than 10 seconds) for maintenance.	Ongoing.
	9.7. (During hot, dry and/or windy conditions) limit topsoil stripping activities to that required for the ensuing days construction.	During Stages 1 and 2 roadworks.
	9.8. Avoid stripping soil in periods of high wind.	Ongoing.
	9.9. Apply water using a water cart to exposed surfaces.	During Stages 1 and 2 roadworks.
10. Flora and Fauna		
Minimisation of long term impact on flora and fauna on and around the Project Site.	10.1. Minimise clearing and consistent with operational requirements.	During clearing.
	10.2. Inspect trees to be cleared prior to clearing to ensure no native fauna is in residence at the time	Prior to clearing
	10.3. Undertake vegetation clearing on a campaign basis to provide for construction operations.	Ongoing.
	10.4. Clearly define all areas to be cleared.	Prior to clearing.
	10.5. Retain felled trees for use in rehabilitation of the final landform.	Ongoing.
	10.6. Construct appropriate drainage and erosion and sediment control features and implement procedures to prevent water containing high sediment levels from discharging from the transport route.	During construction.
	10.7. Control noxious weeds at all times.	Ongoing.
11. Aboriginal Heritage		
Provide appropriate protection to identified Aboriginal artefacts.	11.1. Ensure the in-situ protection of the identified artefacts through workforce education.	Complete.
	11.2. Align the Bungonia By-pass to avoid the identified sites containing Aboriginal artefacts.	Prior to commencement of construction activities.
	11.3. Apply for the relevant permit to undertake test pitting over BPAD1 (in accordance with the recommendations of AASC (2008)).	Prior to commencement of construction activities.
Minimise potential to impact upon unidentified Aboriginal artefacts.	11.4. Invite Aboriginal monitors to site to review results of test pitting activities.	Ongoing.
	11.5. Cease work at any area if further Aboriginal objects are uncovered during the course of the project, and contact the DECC (NPWS) for advice.	Ongoing.
Employees who are sensitive and respectful of possible identified Aboriginal sites and artefacts.	11.6. Conduct a Cultural Heritage Awareness Induction Course for staff, contractors and any heritage monitors working on the Project Site.	Ongoing.
Notification of Aboriginal Sites under Part 6 s91 NPWS Act.	11.7. Supply formal site cards for all identified Aboriginal artefacts to the DECC Aboriginal Heritage Information Management System (AHIMS) Registrar.	Following identification of an Aboriginal artefact or site.



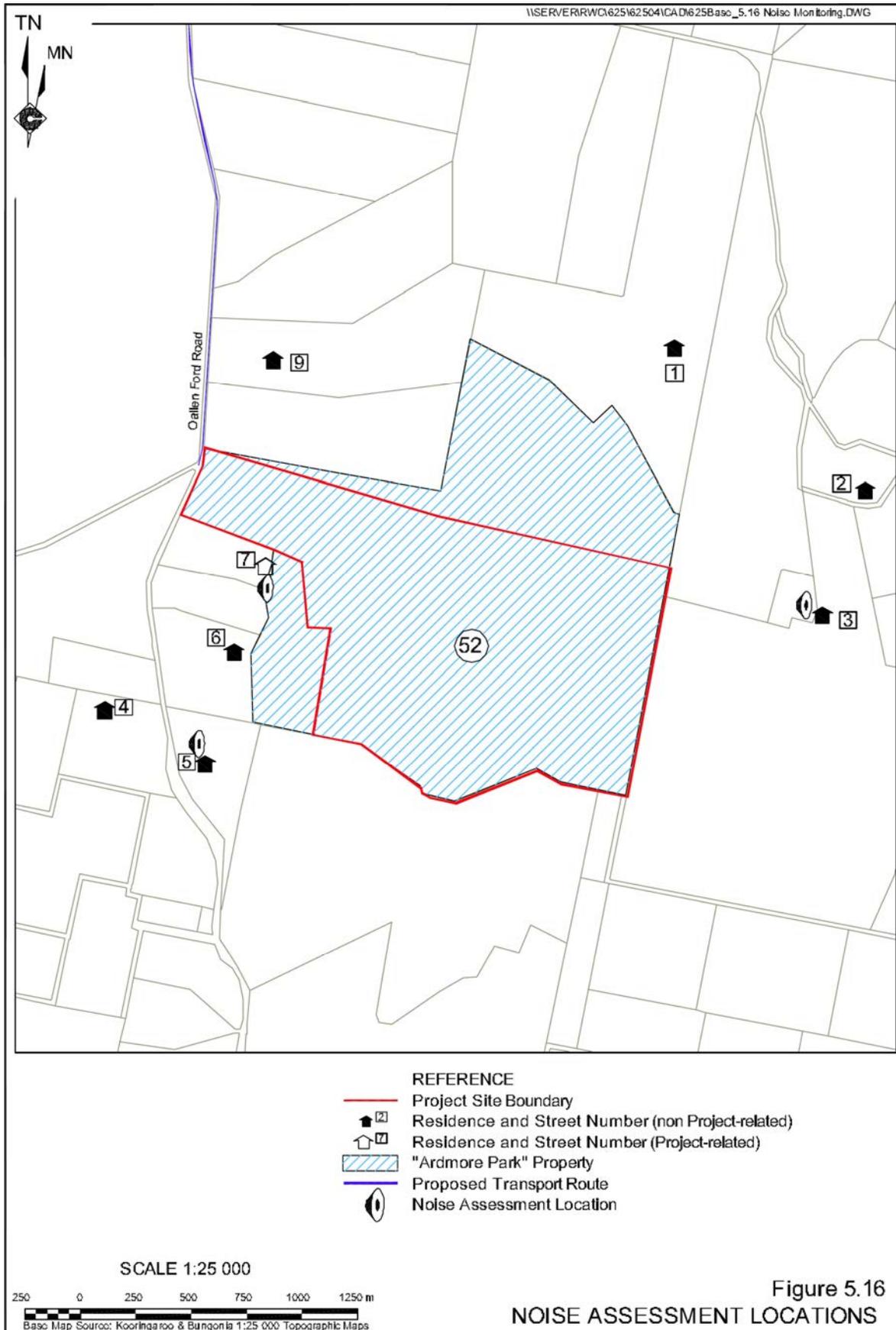
- FIGURE REFERENCE**
- Project Site Boundary
 - Proposed Transport Route
 - Pavement Widening to be Completed
 - Stage 2 Roadworks Activity
 - Water Course Crossing to be Upgraded
 - ▽ Give Way Sign Retained
 - ★ Location of Pavement Rehabilitation (Based upon factors adjusted by PMS)

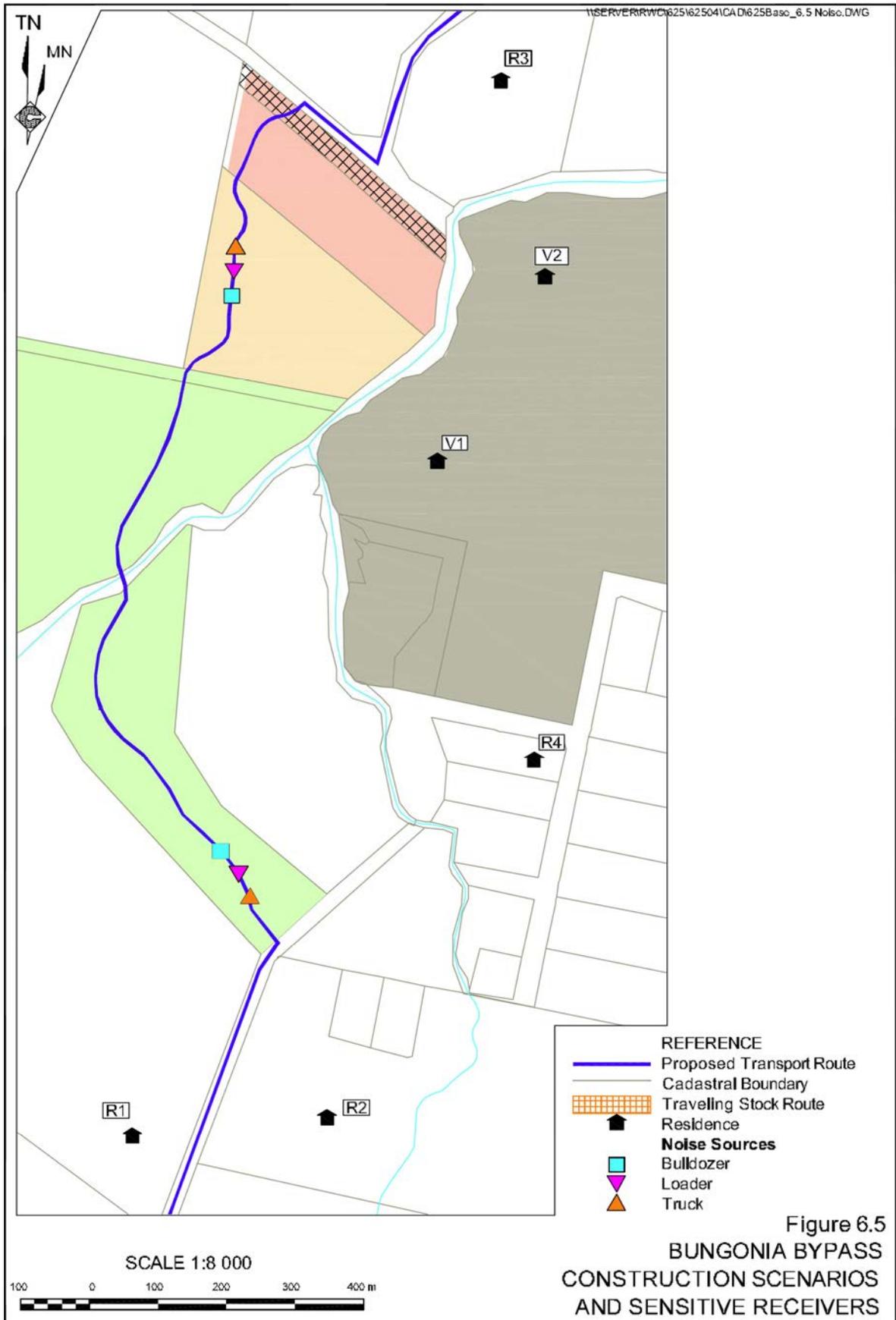
- DETAIL REFERENCE**
- ▨ Existing Road Pavement
 - ▨ Existing Road Shoulder
 - ▨ Proposed Road Pavement
 - Contour (m AHD)(Interval = 0.5m)
 - Drainage Line
 - / — Fence
 - Cadastral Boundary

Figure B(Amended)
STAGE 2 ROADWORKS



APPENDIX 3 NOISE ASSESSMENT LOCATIONS





APPENDIX 4 FINAL LANDFORM PLANS

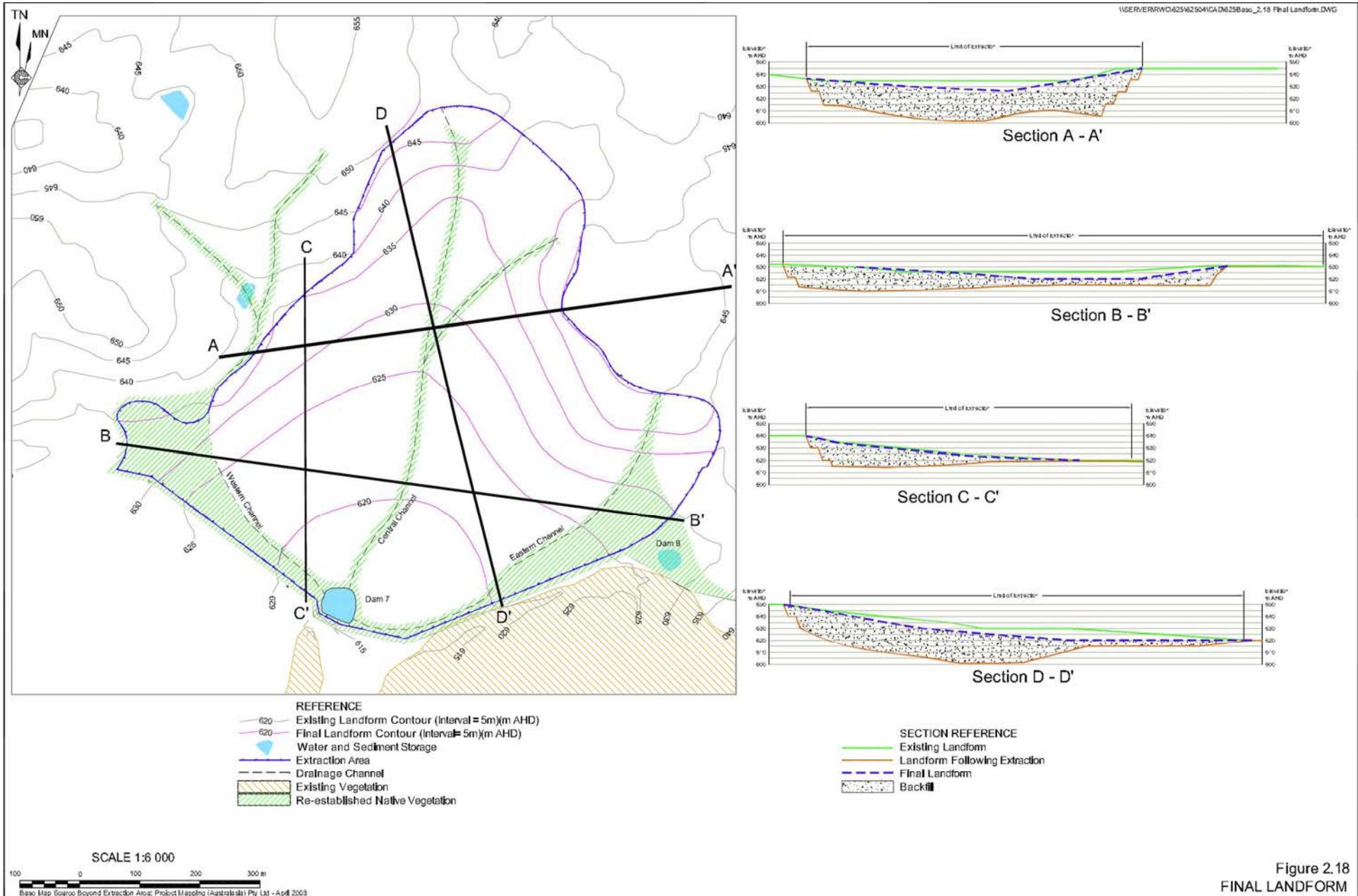


Figure 2.18
FINAL LANDFORM

APPENDIX 5
INDEPENDENT DISPUTE RESOLUTION PROCESS

