

Champions Quarry Expansion

ENVIRONMENTAL MANAGEMENT STRATEGY

Final Report

Version 3.2 (October 2017)

Champions Quarry
“Working with the Environment”

REVISION HISTORY AND APPROVAL OF ENVIRONMENTAL MANAGEMENT STRATEGY

Version	Date	Description	By	Review
1.0	3 July 2013	Environmental Management Strategy Final Report	Champions Quarry	Jeff Champion
			DP & I	
2.0	11 July 2013	Environmental Management Strategy Final Report – Version 2.0 (2013)	Champions Quarry	Jeff Champion
			DP & I	Approved
3.0	9 January 2017	Environmental Management Strategy Final Report – Version 3.0 (2017)	Champions Quarry	Jeff Champion
			DP & E	Comments
3.1	March 2017	Environmental Management Strategy Final Report – Version 3.1 (2017)	Champions Quarry	Jeff Champion
			DP & E	Approved
3.2	October 2017	Environmental Management Strategy Final Report – Version 3.2 (2017)	Champions Quarry	Jeff Champion
			DP & E	Approved

This Management Plan has been prepared after due consideration of the Guidelines from DP & E which seek to ensure that this is an effective and user friendly Plan. It is not a prescriptive or detailed document but provides a broad framework and direction.

This Management Plan is considered a dynamic document and will be reviewed where necessary as part of the annual review process (see Section 8 of the EMS). This Management Plan and any subsequent revisions must be approved by Champions Quarry Management and DP & E.

A copy of the revised Management plan will be available on the Proponent's website.

REVISION HISTORY AND APPROVAL OF PROJECT APPROVAL (CONDITIONS OF APPROVAL)

Date	Description	By	Review
30 August 2012	Project Approval	Champions Quarry	Jeff Champion
		DP & I	
29 October 2013	Notice of Modification (09_0080 MOD 1)	Champions Quarry	Jeff Champion
		DP & I	
16 September 2016	Notice of Modification (09_0080 MOD 2)	Champions Quarry	Jeff Champion
		DP & E	
9 August 2017	Notice of Modification (09_0080 MOD 3)	Champions Quarry	Jeff Champion
		DP & E	

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Annexure B – Planning and Assessment Commission of NSW Conditions of Approval dated 30 August 2012 (incorporating the Statement of Commitments) and Associated Modifications

REFERENCES

GLOSSARY

Biodiversity Offset Strategy	The conservation and enhancement strategy described in the documents listed in condition 2(a) of Schedule 2, and shown in the figure in appendix 6 of the Project Approval
CoA	Planning and Assessment Commission of NSW Conditions of Approval dated August 30, 2012 Incorporating the Statement of Commitments) as amended
CCC	Community Consultative Committee
Contractor	Contractor engaged by the Proponent to undertake activities associated with the Project (and includes Subcontractors)
Department	Department of Planning and Environment
DoP	Department of Planning
DP & E	Department of Planning and Environment (previously known as DP & I)
DP & I	Department of Planning and Infrastructure (previously known as DoP)
DPI (Agriculture)	Department of Primary Industries - Agriculture
DPI (Water)	Department of Primary Industries - Water
DRG	Division of Resources and Geoscience within the NSW Department of Planning and Environment
Environment	Surroundings in which the Project operates within including: air; water, land, natural resources, flora, fauna, humans, heritage and their interrelation
Environmental Aspect	Element of organisational activities or products that can interact with the environment
Environmental Impact	Any changes to the environment, whether adverse or beneficial, wholly or partially resulting from an organisational aspect
Extraction Areas	The Central and Southern Extraction Areas, shown on Figure 9 in Appendix 6 of the Project Approval
EA	Champions Quarry Expansion, Environmental Assessment Report prepared by ERM Pty Limited and dated February 2010
EA (MOD 1)	Modification Application MP 09_0080 MOD 1 dated April 2013
EA (MOD 2)	Modification Application MP 09_0080 MOD 2 dated February 2016, the accompanying annexures A and B and the response to submissions dated April 2016

EA (MOD 3)	Modification Application MP 09_0080 MOD 3 dated February 2017, titled Annexure A – Application pursuant to Section 75W of the Environmental Planning and Assessment Act 1979, and the response to submissions dated July 2017
EMP	Environmental management practices
EP & A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environmental Protection Licence under the POEO Act
Guidelines	The Guideline for Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004)
LCC	Lismore City Council
Minister	Minister for Planning, or delegate
NOW	NSW Office of Water, within the Department of Primary Industries
Notice of Modification	Any Notice of Modification issued pursuant to Section 75W of the EP & A Act
OEH	Office of Environment and Heritage
Operational Area	The area identified by the thick red broken line in Figure 1.2
POEO Act	<i>Protection and Environment Operations Act 1997</i>
Preferred Project Report (PPR)	Champions Quarry Expansion, Preferred Project Report prepared by ERM Pty Limited and dated December 2011
Project Approval	Project Approval issued by Planning and Assessment Commission of New South Wales containing the CoA dated 30 August 2012 as amended from time to time
Proponent	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd and any other entity or person who seeks to carry out the development approved under the Project Approval
Response to Submissions	Champions Quarry Response to Submissions, prepared by ERM Pty Limited and dated September 2010 and containing the Proposed Quarry Management Plan
RMS	Roads and Maritime Services
Secretary	Secretary of DP & E, or nominee
SoC	Statement of Commitment (Appendix 3 of the Project Approval)
Strategy	Refers to this Environmental Management Strategy

Subcontractor

Any company, body or person who is contracted to the Contractor for the purpose of supplying services or goods.

1 INTRODUCTION

1.1 OVERVIEW

This Environmental Management Strategy (referred to hereafter as the “Strategy”) applies to the activities proposed as part of the expansion to the quarry known as Champions Quarry located at Tuckurimba (near Lismore) on the Far North Coast of New South Wales (herein referred to as “the Project”). This Strategy has been prepared after giving consideration to the Guidelines, Champions Quarry Environmental Assessment (2010), Champions Quarry Response to Submissions (September 2010), Champions Quarry Preferred Project Report (December 2011) and the Planning and Assessment Commission of NSW Conditions of Approval (CoA) dated August 30, 2012.

1.2 PURPOSE

The purpose of this Strategy is to provide a systematic management framework for the protection of the environment during the execution of the Project. This Strategy has been prepared in accordance with the Guidelines which seek to ensure that this is an effective and user friendly Strategy. It is not a prescriptive or detailed document but provides a broad framework and direction. This Strategy has been specifically prepared to assess all of the environmental risks associated with the activities of the Project (described herewithin) and provide appropriate systems and processes to control and manage those risks.

1.3 SCOPE OF THE ENVIRONMENTAL MANAGEMENT STRATEGY

This Strategy has been prepared to meet the Project Approval and is applicable to the proposed activities associated with the expansion of Champions Quarry located near Lismore on the Far North Coast of New South Wales (refer to Figure 1.1).

Activities applicable to this Strategy include, but are not limited to, those activities required for clearing, top soil and over burden removal, extraction of quarry product, processing, stockpiling, loading and transportation of material.

Commonwealth and New South Wales legislative jurisdictions apply to this Strategy and activities associated with this Project.

1.4 OBJECTIVES OF THE ENVIRONMENTAL MANAGEMENT STRATEGY

The objectives of this Strategy are:

- To govern environmental management of the activities associated with the Project including those carried out by the Proponent, any Contractor(s), the Proponent’s personnel seconded to the Contractor, Subcontractors and visitors;
- To describe how the Proponent (or a Contractor or Subcontractor) will conform to the environmental management requirements of the Project Approval, Commonwealth and State environment legislation and the requirements of the Secretary; and
- To provide a systematic framework for the identification, assessment and management of environmental risks associated with the Project.

1.5 APPROVAL AND CONSULTATION PROCESS FOR THE ENVIRONMENTAL MANAGEMENT STRATEGY

The Project Approval prescribes the regulatory authorities and community groups to be consulted in the preparation of each component of this Strategy. These requirements are summarised in Table 1.1 below.

Figure 1.1 – Quarry Location

Known as Figure 2.1 Project Site Location dated 25 July 2011 extracted from Preferred Project Report December 2011 at page 6



Figure 2.1

Project Site Location

Client:	Champions Quarry
Project:	Champions Quarry
Drawing No:	0114048pm_01
Date:	25/07/11
Drawn by:	AM
Source:	Department of Lands
Scale:	Refer to Scale Bar
Drawing size:	A4
Reviewed by:	IWW

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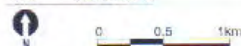


Table 1.1 Environmental Management Strategy and Management Plan

Regulatory Authority	Plan/Procedure
NSW Environment Protection Authority	Noise Management Plan Air Quality Management Plan Water Management Plan Waste Management Plan
Department of Primary Industries – Water	Water Management Plan
Roads and Maritime Services	Transport Management Plan
Lismore City Council	Transport Management Plan Landscape Management Plan
Office of Environment and Heritage	Heritage Management Plan Landscape Management Plan
Aboriginal Stakeholders	Heritage Management Plan
Division of Resources and Energy within the Department of Industry	Landscape Management Plan
Department of Primary Industries – Agriculture	Landscape Management Plan

A draft copy of the plans identified in Table 1.1 will be provided to the appropriate authorities and community groups. A final version will be prepared, taking into consideration any comments by the abovementioned authorities and will be provided to the DP & E.

1.6 ENVIRONMENTAL MANAGEMENT STRATEGY STRUCTURE AND MANAGEMENT PLANS

The environmental management strategy consists of this Strategy document plus a series of issue specific management plans and monitoring programs. This Strategy contains the framework of the environmental system elements and general project information. The management plans and monitoring projects will be further developed to document the aspects, impacts, safeguards and monitoring requirements for each key environmental factor, and also nominate who is responsible for implementing controls and the frequency/timing of the implementation. The management plans and monitoring programs will include checklists of obligations and safeguards in relation to each environmental factor.

The management plans and monitoring programs will follow prescriptive content requirements of the Project Approval. The management plans and monitoring programs that will compliment this strategy are identified in Table 1.2.

Table 1.2 Environmental Management Plan Requirements

Number	Environmental Plan	Condition¹	Timing
EMP 1	Noise Management Plan	9	Submitted to the Secretary for approval prior to the construction of Bund A and/or Bund D
EMP 2	Air Quality Management Plan	12	Submitted to the Secretary for approval prior to the construction of Bund A and/or Bund D
EMP 3	Water Management Plan	17	Submitted to the Secretary for approval prior to the construction of Bund A and/or Bund D
EMP 4	Transport Management Plan	31	Submitted to the Secretary for approval prior to carrying out any quarrying operations
EMP 5	Waste Management Plan	33	Submitted to the Secretary for approval prior to the commencement

¹ Environmental Performance Conditions, Schedule 3 of the Project Approval

			of any processing of any extracted materials
EMP 6	Heritage Management Plan	36	Submitted to the Secretary for approval prior to carrying out any development on the site (other than the construction of bunds and vegetative screening) under the Project Approval
EMP 7	Landscape Management Plan	45	Submitted to the Secretary for approval prior to carrying out any development on the site (other than the construction of bunds and vegetative screening) under the Project Approval

1.7 CROSS REFERENCING REQUIREMENTS OF MANAGEMENT PLANS AND RELEVANT CHAPTERS/PARAGRAPH

Table 1.3 – Cross Referencing Requirements of Management Plans and Relevant Chapters/Paragraph

Relevant Condition	Statement of Project Approval	Paragraph/Chapter Dealing with Condition
Condition 1(b) – Schedule 5	An Environmental Management Strategy that provides the strategic framework for the environmental management of the project.	Management Plan in its entirety
Condition 1(c) – Schedule 5	An Environmental Management Strategy that identifies the statutory approvals that apply to the project.	Chapter 4
Condition 1(d) – Schedule 5	An Environmental Management Strategy that describes the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.	Paragraph 6.1 and 6.2
Condition 1(e) – Schedule 5	An Environmental Management Strategy that describes the procedures that would be implemented to:	N/A
	<ul style="list-style-type: none"> keep the local community and relevant agencies informed about the operation and environmental performance of the project; 	Paragraph 6.3.2
	<ul style="list-style-type: none"> receive, handle, respond to, and record complaints; 	Paragraph 6.3.3
	<ul style="list-style-type: none"> resolve any disputes that may arise during the course of the project; 	Chapter 6
	<ul style="list-style-type: none"> respond to any non-compliance; and 	Paragraph 6.4
Condition 1(f) – Schedule 5	<ul style="list-style-type: none"> respond to emergencies. 	Paragraph 6.4
	An Environmental Management Strategy that includes:	N/A
	<ul style="list-style-type: none"> copies of any strategies, plans and programs approved under the conditions of this approval; and 	Chapter 5
	<ul style="list-style-type: none"> a clear plan depicting all the monitoring required to be carried out under the conditions of this approval. 	Paragraph 7.1.2

1.8 CHAMPIONS QUARRY ENVIRONMENTAL POLICIES

The Proponent is committed to responsible environmental management of the Project and believes that all potential adverse Environmental Impacts can be effectively managed. The

Proponent takes a practical and positive approach to the environment and adopts the slogan “working with the environment”.

1.9 PROJECT DESCRIPTION

Champions Quarry is located on Wyrallah Road at Tuckurimba, 16 kilometres south of Lismore. It is within the LCC Local Government Area in the Far North Coast region of New South Wales.

A sandstone quarry has been in operation at the site since 1959, with the present operations allowing extraction up to 29,000m³ (approximately 64,000 tonnes) of sandstone material per annum over a period of 15 years. Production has taken place over the life of the current consent. The quarry has also complied with all other relevant conditions of consent over the current life.

The Proponent’s consultants have identified an initial resource of approximately 12 million tonnes of quality sandstone material at the site. Accordingly, the Proponent sought an expansion to the operations under the provisions of the Part 3A of the EP & A Act and was granted an expansion to 250,000 tonnes of extractive materials per calendar year until the year 2038. The Project Approval allows for an expansion of the existing quarry (to include the areas known as the central extraction area and southern extraction area identified in Figure 1.2). Extraction will take place at the central and southern extraction areas. Upon completion of extraction at the central extraction area, the central extraction area will become a processing area.

The extraction of the approved resource will take place within an area of approximately 16 hectares which is divided into the central and southern extraction areas. The extraction within the southern extraction area will take place in work cells that will each have a maximum area of three hectares. Rehabilitation will take place on a progressive basis to enable extraction in further 3 hectare work cells.

Figure 1.2 – Site Features and Neighbouring Receivers

Known as Appendix 2 Project Layout Plans – Figure 3 extracted from the Planning and Assessment Commission of NSW Conditions of Approval dated 30 August 2012 (as amended by Modification 3).

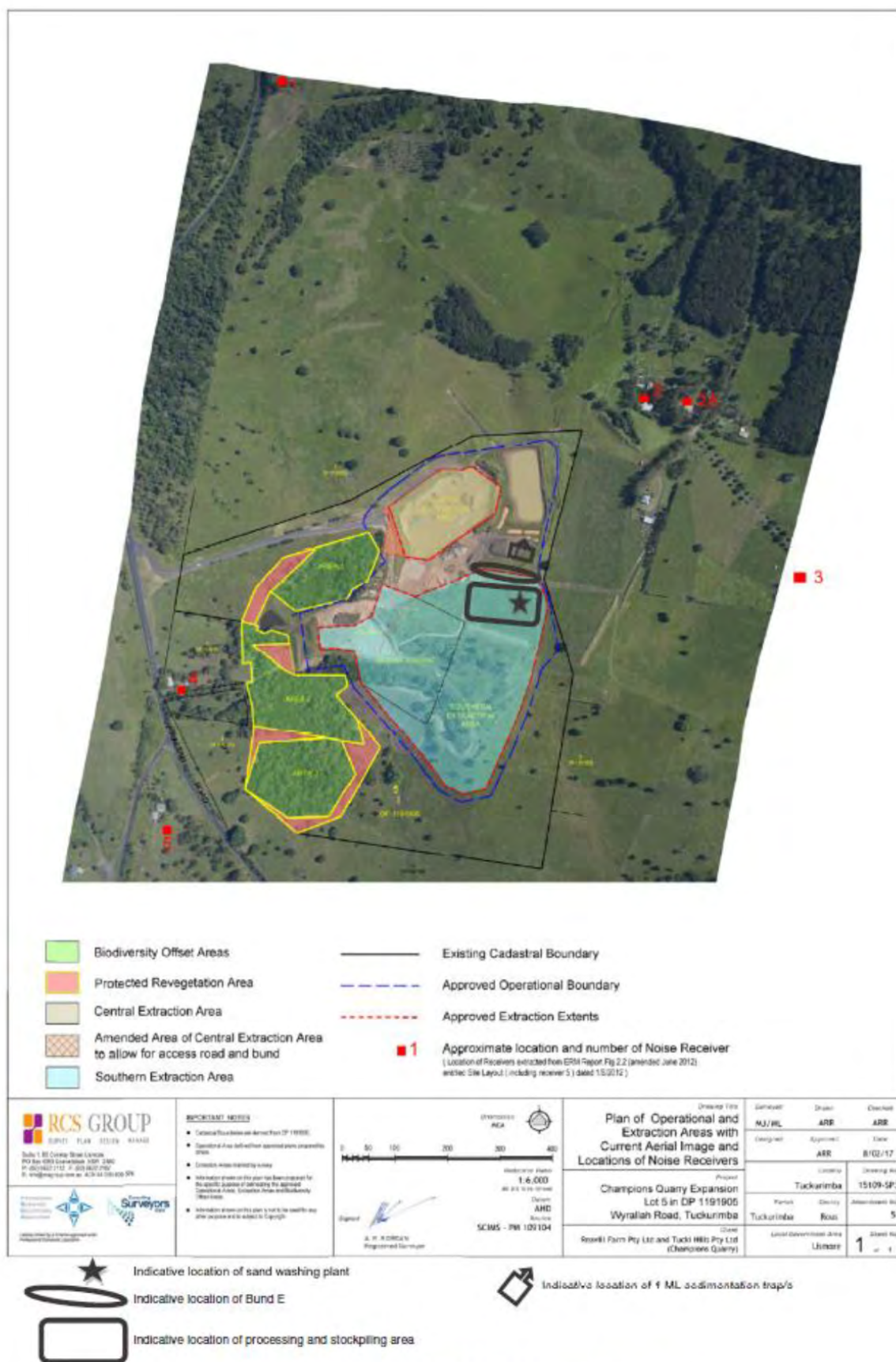


Figure 3: Site Features and Neighbouring Receivers

Quarrying at the site will include the following:

- The expansion of the approved resource and processing area;
- Topsoil and overburden removal using a bulldozer/s and/or excavator/s and/or loader/s and/or other suitable machines;
- Excavation of sandstone resource by ripping and pushing the material to create stockpiles of unprocessed material;
- Use of loader/s and/or excavator/s and/or trucks to transport material within the Operational Area and transportation off site;
- Occasional use of a rock saw and/or nitrogen fed jackhammer to assist with the extraction of dimensioned sandstone and other quarry products;
- Processing material including crushing, screening, carting, washing and stockpiling of raw extractive material;
- Associated quarry infrastructure including plant maintenance, weighbridge installation, implementation of a sand washing plant, office amenities and storage facilities, erosion and sediment control basins, bund construction, drainage construction and dam construction;
- Loading, transport and distribution;
- Progressive staged rehabilitation of work cells; and
- Boundary adjustment of existing rural allotments.

The sandstone product ranges from low to medium strength, accordingly material will be extracted by excavators and/or dozers. No permission to blast has been sought or approved. All despatched material from the quarry is proposed to be transported by road.

1.10 PROJECT STAGING

Quarrying operations in the southern extraction area will take place in work cells that will each have a maximum area of three hectares. Each work cell will be behind leading permanent and/or sacrificial bund/s and in deepening pits, shielded from the view to the receivers to the north and the east.

The southern extraction area contains four quadrants which will be progressively quarried as the previous work cells are exhausted. The quarry work cells will be progressively rehabilitated as each work cell is exhausted and trailing batters and benches are completed.

2 QUARRYING ACTIVITIES AND LOGISTICS

2.1 TOPSOIL AND OVERBURDEN REMOVAL

The layer of soil and overburden on-site will be stripped off the active extraction cells and used for bunds, rehabilitation or on sold. Overburden removal will generally be by bulldozer/s and/or excavator/s and/or loader and truck with other plant as required.

The limited vegetative material produced as a result of the limited clearing proposed will be either chipped or put in areas adjacent to the quarry to provide additional native habitat.

2.2 EXTRACTION OF QUARRY PRODUCT

The main resource targeted at Champions Quarry is high quality sandstone material suitable for use within a wide range of construction materials and products. The sandstone product ranges from low to medium strength, accordingly material will be extracted by excavators and/or dozers. No permission to blast has been sought or approved. A rock saw and/or nitrogen fed jackhammer may occasionally be utilised to assist with the extraction of dimensioned sandstone and other products. All extraction operations will be conducted within the noise criteria contained in the Project Approval.

2.3 PROCESSING

Following excavation of the raw sandstone materials, some of the material will be crushed and screened in the southern extraction area using a mobile screening plant, while sand washing, processing and some other specialty production will be undertaken in the central extraction area.

2.4 STOCKPILING

It is estimated that stockpiling of processed material will not exceed 35,000 tonnes at any one time. This will be stored in the Operational Area. Water will be employed to suppress dust dispersion where required.

2.5 LOADING, TRANSPORT AND DISTRIBUTION

A front end loader or similar machine will be used to load processed material into haul trucks that will transport material directly off site. Some material will be loaded and transported from the southern extraction area to the central extraction area for further processing and distribution from there.

The access from the quarry to Wyrallah Road will be via the existing constructed gravel internal road which will be upgraded to a bitumen standard. The main intersection at Wyrallah Road has been recently upgraded to accommodate current and future quarry traffic movements.

The Traffic Impact Study (Roadnet 2009) states as follows in respect of a maximum extraction of 1500 tonnes per day (and 50 laden trucks per day):

“the increased traffic volumes as a result of the proposed increased capacity of Champions Quarry will not have any adverse impacts on traffic flows and road safety along the haulage route.”

Prior to carrying out quarrying operations in accordance with the Project Approval, it is proposed that the following actions be completed:

1. Coraki Road/Wyrallah Ferry Road intersection – intersection be upgraded to provide a sealed turning path for southbound quarry trucks and quarry trucks with trailers from Coraki Road into Wyrallah Ferry Road generally in accordance with the conceptual layouts in Appendix 5 of the Project Approval;

This intersection work was completed in July 2014.

2. Wyrallah Road/Wyrallah Ferry Road intersection – intersection be upgraded to provide a sealed left-turn lane for northbound quarry trucks and trucks with trailers from Wyrallah Road into Wyrallah Ferry Road generally in accordance with the conceptual layouts in Appendix 5 of the Project Approval; and

This intersection work was completed in July 2014.

3. Minor works be carried out including:
 - a. Vegetation trimming; and
 - b. Reviewing and installing signage.

The minor works were completed in May 2014.

Prior to carrying out quarrying operations in the southern extraction area, it is proposed a suitably qualified expert be commission to undertake a road safety audit of existing approved bus stops along the haulage routes and implementation of recommendations to upgrade any relevant bus stops.

A Road Safety Audit of existing approved bus stops along the haulage routes was prepared and submitted to DP & E in February 2014.

3 ENVIRONMENTAL CHARACTERISTICS, IMPACTS AND RISKS

3.1 SITE AND SURROUNDING AREA ENVIRONMENTAL CHARACTERISTICS

Champions Quarry is located on part of an area of approximately 187 hectares within a broader rural holding of 306 hectares owned by the Proponent at Tuckurimba. The land is primarily grazing land. Current lot details (which will be subject to a boundary adjustment) are set out in Table 3.1 below.

Table 3.1 Current Land Ownership Details

Property	Road Address	Landowner	Area
Lot 5 on DP57350	94 Hazlemount Lane	Reavill Farm Pty Ltd	41.77ha
Lot 1 DP729118	1586A Wyrallah Road	Reavill Farm Pty Ltd	1.75ha
Lot 4 DP588125	1586 Wyrallah Road	Reavill Farm Pty Ltd	38.71ha
Lot 183 DP1013042	1692 Wyrallah Road	Tucki Hills Pty Ltd	46.85ha
Lot 1 DP 127550	1694 Wyrallah Road	Tucki Hills Pty Ltd	34.30ha
Lot 101 DP 755746	1782F Wyrallah Road	Tucki Hills Pty Ltd	24.48ha
Total			187.86ha

The quarry site presently contains the existing quarry, extensive areas of pasture, a small area of vegetation and an area previously used as a motocross track. Adjacent to the site are small to large rural properties utilised for grazing or cropping. There is an internal haulage road from the central extraction area to Wyrallah Road.

Quarrying currently occurs in the single pit (located in the central extraction area) that is proposed to be expanded laterally (towards the south and the west) and vertically. No lateral expansion to the east is proposed beyond the existing quarry footprint.

The boundary adjustment was finalised upon registration of the plan of subdivision in February 2014. Champions Quarry is now contained within Lot 5 DP 1191905.

3.2 RISK MANAGEMENT FRAMEWORK

The Proponent aims to integrate risk management into all that it does, prevent any environmental incidents from occurring and to appropriately control any incident which may occur. The risk assessment process aims to identify potential environmental hazards, assess risks and provide a mechanism for developing risk controls.

3.3 RISK IDENTIFICATION AND ASSESSMENT

The environmental hazards and risks associated with the quarry expansion activities will be identified and assessed by the Proponent prior to expansion works commencing. Annexure A outlines the key environmental issues and risks arising from the proposed development and recommended mitigation and management regimes to address these issues as stated in the EA. This risk assessment should be used as a basis and further defined prior to construction and outline any additional environmental risks and implementation of associated controls.

3.4 VEGETATION AREAS AND RECEIVERS LOCATIONS

Throughout the preparation of the EA specific vegetation areas and receivers locations were identified.

Vegetation areas comprise the “Biodiversity Offset Areas” and “Protected Revegetation Areas” identified in Figure 3.1 being at least 7.91 ha in total.

Receivers locations are identified in Figure 3.2. These Figures will assist as day to day management tools for on-site environmental management and for auditors and regulatory agencies.

3.5 ENVIRONMENTAL CONTROL MEASURES AND PROCEDURES

A range of environmental obligations and control measures have been identified in the EA and Project Approval. Specific measures and procedures have been identified to address each of the obligations and included in the relevant management plans and monitoring policies. The process of matching actions with obligations and assigning responsibility for each action will ensure that each project obligation is being implemented.

Figure 3.1 – Biodiversity Offset Strategy

(Known as Appendix 6 Figure 9: Biodiversity Offset Strategy extracted the Project Approval issued by Planning and Assessment Commission of New South Wales containing the Project Approval as amended by Modification 2)

APPENDIX 6
BIODIVERSITY OFFSET STRATEGY



Figure 9: Biodiversity Offset Areas and Protected Revegetation Area

Figure 3.2 – Receivers Locations

Known as Appendix 2 Project Layout Plans – Figure 2.2 (amended 1 June 2012) extracted from the Planning and Assessment Commission of NSW Conditions of Approval dated 30 August 2012

**APPENDIX 2
PROJECT LAYOUT PLANS**



Figure 2: Project Site and Nearest Residential Receivers

4 STATUTORY REQUIREMENTS

4.1 PROJECT LEGISLATIVE POSITION AND CONDITIONS

In March 2009 the proponent met with representatives from the DoP. In April 2009 the Proponent submitted a major project application to the Minister for Planning pursuant to Section 75(b) of the EP & A Act. In June 2009 the Director Generals' requirements were issued. The EA was subsequently prepared and lodged with DoP seeking project approval.

In response to the exhibition of the EA, submissions were received from government agencies, other groups and DoP also provided a synopsis of public submissions. The Proponent subsequently updated the proposal by preparing a Response to Submissions.

In January 2011, the DP & I provided the Proponent with Draft Project Approval. DP & I subsequently requested a PPR be prepared and submitted. As a result additional project site plans, traffic assessment, acoustic summaries, marketing assessments and anthropological assessments were undertaken and included as part of the PPR in December 2011. Approval of the Project was given in August 2012.

The Project was not considered to be a controlled action under the EPBC Act or trigger any other Commonwealth environmental legislation.

4.1.1 MINISTERS CONDITIONS OF APPROVAL

In accordance with section 75B of the EP & A Act, the Project was considered a 'Major Project' and project approval has been granted by the Planning Assessment Commission.

Schedule 5 Condition 1 of the Project Approval outlines the requirements for the preparation and approval by the DoP of this Strategy. Approval condition 1(f) states that the strategy is to include the following:

1. copies of any strategies, plans and programs approved under the conditions of this approval (to be provided following approval); and
2. a clear plan depicting all the monitoring required to be carried out under the conditions of this approval (as set out in the plans referred to in Table 1.2).

4.1.2 PROJECT ENVIRONMENTAL OBLIGATIONS

In summary the following environmental obligations are applicable to the Project:

1. The Project Approval;
2. The PPR;
3. The Response to Submissions; and
4. The EA.

A copy of the Project Approval is included as Annexure B (incorporating the Statement of Commitments).

4.2 LEGISLATION AND POLICIES

The Applicable legislative and other requirements related to environmental management of the Project are outlined below.

4.2.1 COMMONWEALTH LEGISLATION

- *Environmental Protection and Biodiversity Act 1999*

4.2.2 STATE LEGISLATION

- *Environmental Planning and Assessment Act 1979*

The primary piece of legislation governing the management of the site from a planning context is Part 3A of the *Environmental Planning and Assessment Act 1979* which includes a number of stipulations for the provision of community consultation on the Project and required environmental assessment processes. This Project was approved by the Minister for Planning and infrastructure under Section 75J of Part 3A of the EP & A Act for Major Projects.

Project Approval is included as Annexure B along with the relevant modifications.

Pursuant to Schedule 2, Condition 13 of the Project Approval the Proponent must surrender the development consent for existing operations on the Project site in accordance with Section 104A of the EP & A Act.

Pursuant to Schedule 2, Condition 14 of the Project Approval the Proponent is required to obtain construction and occupation certificates for proposed building works.

- *Environmental Planning and Assessment Regulation 2000*

Pursuant to Schedule 2, Condition 14 of the Project Approval the Proponent is required to obtain certification of the Project in accordance with Part 8 of the Environmental Planning and Assessment Regulation 2000.

- *Protection of the Environment and Operations Act 1997* and associated relevant subordinate legislation

Pursuant to Schedule 2, Condition 14 of the Project Approval the Proponent must ensure that all surface water discharges from the site comply with the discharge limits of any environmental protection licence which regulates water discharges from the site or with Section 120 of the Protection of the Environment and Operations Act 1997.

- *Water Act 1912 and Water Management Act 2000*

Pursuant to Schedule 2, Condition 13 of the Project Approval the Proponent is required to obtain the necessary water licences for the Project under the *Water Act 1912* and/or *Water Management Act 2000*.

Other state legislation that may inadvertently affect the operations of the Project include:

- *Environmentally Hazardous Chemicals Act 1985*
- *Environmentally Hazardous Chemical Regulation 2008*
- *Pesticides Act 1999*
- *Waste Avoidance and Resource Recovery Act 2001*
- *Local Government Act 1993*

- *Roads Act 1993*
- *Native Vegetation Act 2003*
- *Noxious Weeds Act 1993*
- *Rural Fires Act 1997*
- *Mine Health and Safety Act 2004 and Mines Health and Safety Act 2011* and associated relevant subordinate legislation

4.3 APPROVALS, LICENCES AND PERMITS

In accordance with section 75B of the EP & A Act, the Project was considered a 'Major Project' and project approval has been granted by the Planning Assessment Commission.

Schedule 5 Condition 1 of the Project Approval outlines the requirements for the preparation and approval of an environmental management strategy for the Project. Approval condition 1(f) states the Strategy is to include copies of any approved strategies, plans and programs that are required under the approval. The monitoring policies and management plans required by the Project Approval and their timing are outlined in Table 1.2.

All of monitoring policies and management plans listed in Table 1.2 must be prepared and submitted to the relevant authorities in the timeframes set out in Table 1.2.

5 ENVIRONMENTAL OBJECTIVES, TARGETS AND PERFORMANCE INDICATORS

The Strategy objectives and targets link to the following:

1. The specific requirements of the Project Approval;
2. The PPR;
3. The Response to Submissions; and
4. The EA.

The Strategy is reviewed annually, accordingly these objectives and targets will reflect the risks identified in the risk assessment process. The performance against set objectives and targets identified in the plans set out in Table 1.2 and the Project Approval will be measured and monitored through a number of processes including analysis of the information provided for performance measurement reports, operational meetings, incident reports and staff performance.

Key performance indicators will be further developed by the Proponent and Contractors to demonstrate the successful implementation of the environmental commitments for the Project. Key performance indicators may be further defined to cover:

- Regulatory compliance;
- Compliance with environmental management plan processes;
- Demonstration of continuous improvement;
- Reportable environmental Incidents or offences; and
- Minimising Environmental Impacts and meeting objectives.

Table 5.1 outlines the Strategy objectives, targets, and key performance indicators for the Project.

Table 5.1 An overview of the Objectives, Targets and Key Performance Indicators

Environmental Issue	Objective	Target	Key Performance Indicator (Reference)
Environmental Approvals	Comply with all applicable legislation, regulations, standards, codes and licences that relate to the Project.	100% compliance	Environmental management strategy or applicable monitoring program or management plan
Noise Management	To implement appropriate EMP's to minimise noise impacts.	<ul style="list-style-type: none"> • To minimise noise related impacts resulting from the quarry Project. • Zero noise related complaints from the community. 	Noise Management Plan
Air Quality Management	To implement appropriate EMP's to minimise air quality impacts.	<ul style="list-style-type: none"> • To minimise air quality related impacts resulting from the quarry Project. • Zero air quality related complaints from the community. 	Air Quality Management Plan

Environmental Issue	Objective	Target	Key Performance Indicator (Reference)
Soil and Water	To implement appropriate EMP's for soil and water management.	<ul style="list-style-type: none"> • Manage soil, site water, surface water and groundwater in accordance with the relevant legislation and NOW Guidelines. • Zero soil and water related complaints from the community. • To minimise soil and water related impacts from the quarry Project. 	Water Management Plan
Traffic Management	To minimise traffic and road safety impacts resulting from the quarry Project.	<ul style="list-style-type: none"> • Manage traffic in accordance with LCC and RMS Guidelines. 	Transport Management Plan
Waste Management	To minimise waste resulting from the Project. To ensure waste generated by the Project is appropriately stored handled and disposed of.	<ul style="list-style-type: none"> • Manage waste in accordance with the relevant legislation and NOW Guidelines. • Zero spills affecting the environment. 	Waste Management Plan
Aboriginal Heritage	To protect and minimise any impact on any Aboriginal objects or human remains that may be impacted by the Project.	<ul style="list-style-type: none"> • Monitor surface disturbances and manage the discovery of any Aboriginal objects and human remains. 	Heritage Management Plan
Flora, Fauna and Landscape	To minimise any disturbance to native flora and fauna.	<ul style="list-style-type: none"> • Manage remnant vegetation and habitat on site. • Implement an appropriate biodiversity offset strategy. • Comply with rehabilitation objectives and progressive rehabilitation obligations in the Project Approval. 	Landscape Management Plan
Visual Impact	To minimise visual impacts resulting from the quarry Project.	<ul style="list-style-type: none"> • Comply with the Project Approval in relation to visual impact including minimising visual impact by utilising vegetative screens and bunds. 	Environmental Management Strategy
Community Consultative Committee	The community is to be kept informed in relation to the Project.	<ul style="list-style-type: none"> • Engage with and respond to the community in relation to the operation of the Project including forming a CCC. 	Environmental Management Strategy

5.1 MANAGEMENT PLANS GENERALLY

All management plans prepared in accordance with the Project Approval will be prepared in accordance with Schedule 5, Condition 3 of the Project Approval, any relevant guidelines and include the following (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans):

- Detailed baseline data;
- A description of:

- The relevant statutory requirements (including any relevant approval, licence or lease conditions);
- Any relevant limits or performance measures/criteria; and
- The specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Project or any management measures;
- A description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
- A program to monitor and report on the:
 - Impacts and environmental performance of the Project; and
 - Effectiveness of any management measures;
- A contingency plan to manage any unpredicted impacts and their consequences;
- A program to investigate and implement ways to improve the environmental performance of the Project over time;
- A protocol for managing and reporting any:
 - Incidents;
 - Complaints;
 - Non-compliance with statutory requirements; and
 - Exceedances of the impact assessment criteria and/or performance criteria; and
- A protocol for periodic review of the plan.

5.2 NOISE MANAGEMENT STRATEGY AND PLAN

5.2.1 NOISE MANAGEMENT OBJECTIVES

The noise management objectives of the operations are to implement appropriate EMP's to minimise noise impacts.

5.2.2 NOISE ASSESSMENT CRITERIA

In accordance with Condition 3 of Schedule 3 of the Project Approval the Proponent must construct:

- Bund A prior to carrying out any quarrying operations on site under this approval;
- Bund D prior to carrying out any quarrying operations within the Southern Extraction Area; and
- Bund E prior to commissioning the sand washing plant within the Southern Extraction Area,

to the satisfaction of the Secretary.”

Schedule 3, Condition 4 and 5 of the Project Approval sets out the noise assessment criteria during Project construction and for all other times at specific receivers locations. The receivers locations are set out in Appendix 2 of the Project Approval.

During project construction periods including in which Bunds A, C (stage 3 only) and D and the water re-use and water supply dams are being actively constructed, the Proponent must ensure that the noise generated on site does not exceed the criteria in Table 5.2 at any residence on privately owned land.

Table 5.2 – Noise criteria during Project construction

Receiver	L_{Aeq(15 min)} dB(A)
NAL 1, NAL 4 and NAL 5	45
NAL 2, NAL 2A, NAL 3 and privately owned land along the southern end of Hazlemount Lane	42
All other receivers	40

Except for project construction times and when Bunds A, C (stage 3 only) and D and the water re-use and water supply dams are being actively constructed, the Proponent must ensure that the noise generated on site does not exceed the criteria in Table 5.3 at any residence on privately owned land.

Table 5.3 – Noise criteria other than during construction

Receiver	L_{Aeq(15 min)} dB(A)
NAL 4 and NAL 5	38
NAL 2, NAL 2A, NAL 3 and privately owned land along the southern end of Hazlemount Lane	37
NAL 1 and all other receivers	35

However these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the DP & I in writing of the terms of this agreement.

In accordance with Schedule 3, Condition 6 of the Project Approval the Proponent will comply with the operating hours in Table 5.4 and in accordance with Schedule 3, Condition 7 of the Project Approval not carry out any blasting on site.

Table 5.4 – Operating Hours

Day	Construction	Rock Hammer Operations	All other quarrying operations (including on-site truck movements)
Monday – Friday	7am – 6pm	9am – 12 pm and 2pm – 4pm	7am – 6pm
Saturday	8am – 1pm	None	8am – 1pm
Sunday and Public Holidays	None	None	None

Condition 6A of Schedule 3 of the Project Approval states:

“The following activities may be carried out outside the hours specified in Table 3:

- (a) delivery or dispatch of materials as requested by Police or other public authorities; and
- (b) emergency work to avoid the loss of lives, property or to prevent environmental harm.

In such circumstances, the Proponent must notify the Secretary and affected residents prior to undertaking the activities, or as soon as is practical thereafter.”

5.2.3 NOISE MANAGEMENT PLAN

In accordance with Schedule 3, Condition 9 of the Project Approval the Proponent must prepare and implement a noise management plan for the Project to the satisfaction of the Secretary. The plan will (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans):

- Be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the construction of Bund A and/or Bund D;
- Describe the measures that measures that would be implemented to ensure:
 - Best management practice is being employed on site;
 - The noise impacts of the Project are minimised during any meteorological conditions when the noise limits in the Project Approval do not apply;
 - Compliance with the relevant conditions of the Project Approval;
- Describe the proposed noise management system in detail; and
- Include a monitoring program that:
 - Is capable of regularly evaluating the performance of the Project, including individual items of plant such as the rock hammer and rock saw;
 - Includes quarterly monitoring by a suitably qualified and experienced specialist, unless otherwise required by the Secretary;
 - Includes annual sound power testing unless otherwise agreed by the Secretary;
 - Includes a protocol for determining exceedances of the relevant conditions in the Project Approval; and
 - Evaluates and reports on the effectiveness of the noise management system on site.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

5.3 AIR QUALITY MANAGEMENT STRATEGY AND PLAN

5.3.1 AIR QUALITY MANAGEMENT OBJECTIVES

The air quality management objectives of the operations are to implement appropriate EMP's to minimise air quality impacts.

5.3.2 AIR QUALITY ASSESSMENT CRITERIA

In accordance with Schedule 3, Condition 10 of the Project Approval the Proponent must ensure that all reasonable and feasible avoidance mitigation measures are employed so that particulate matter emissions on site do not exceed the criteria in Table 5.5, Table 5.6 and Table 5.7 at any residence on privately owned land, or on more than 25 percent of any privately owned land.

Table 5.5 – Long Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging Period	Criterion
Total Suspended Particulates (TSP)	Annual	90µg/m ³
Particulate Matter < 10 µm (PM ₁₀)	Annual	30µg/m ³

Table 5.6 – Short Term Impact Assessment Criteria for Particulate Matter

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

Table 5.7 – Long Term Impact Assessment Criteria for Deposited Dust

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

5.3.3 AIR QUALITY MANAGEMENT PLAN

In accordance Schedule 3, Condition 12 of the Project Approval the Proponent must prepare and implement an air quality management plan for the project to the satisfaction of the Secretary. The plan will (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans):

- Be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the construction of Bund A and/or Bund D;
- Describe the measures that would be implemented to ensure:
 - Best management practice is employed;
 - The air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and
 - Compliance with the relevant conditions of this approval;
- Describe the proposed air quality management system; and
- Include an air quality monitoring program that:
 - Is capable of evaluating the performance of the project;
 - Includes a protocol for determining any exceedances of the relevant conditions of approval;
 - Adequately supports the air quality management system; and
 - Evaluates and reports on the adequacy of the air quality management system.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

5.4 SOIL AND WATER MANAGEMENT STRATEGY AND PLAN

5.4.1 SOIL AND WATER MANAGEMENT OBJECTIVES

The soil and water management objectives of the operations are to implement appropriate EMP's for soil and water management.

5.4.2 SOIL AND WATER ASSESSMENT CRITERIA

Specific soil and water assessment criteria have not been included in the Project Approval. Rather the Project Approval requires the Proponent as part of its overall water management plan to select performance criteria including:

- Surface water management plan that includes:
 - Detailed baseline data on surface water flows and quality in the water-bodies that could be affected by the Project;
 - Objectives and performance criteria for water storage dams, reinstatement of drainage lines on rehabilitated areas of the site, and for the control of water pollution from rehabilitated areas of the site;
 - Performance criteria for the water management system, surface water quality of local water ways and the Tuckean Swamp and associated wetland, and ecosystem health of local water ways and Tuckean Swamp and associated wetland;
 - Performance criteria for surface water quality attributes relevant to water quality impacts on biological diversity and aquatic ecological integrity, including salinity, heavy metals, sediment load, pH, hardness and biological oxygen demand;
- Ground water management plan that includes:
 - Detailed baseline data on groundwater levels, yield and quality in the area, that could be affected by the Project; and
 - Groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts.

In addition in accordance with Schedule 3, Condition 14 of the Project Approval, surface water discharges must comply with the discharge limits in any environmental protection licence which regulates water discharges from the site. The limits as set will be determined following the application for the relevant environmental protection licence.

In accordance with Schedule 3, Condition 14A, prior to operating the sand washing plant, the Proponent must construct a sediment pond with capacity of at least one megalitre to receive all discharges from the plant.

5.4.3 WATER MANAGEMENT PLAN

In accordance Schedule 3, Condition 17 of the Project Approval the Proponent must prepare and implement a water management plan for the project to the satisfaction of the Secretary. The plan must be prepared in consultation with the EPA and NOW by a suitably qualified and experienced person/s whose appointment has been approved by the Secretary, and submitted to the Secretary for approval prior to the construction of Bund A and/or Bund D.

The plan will (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans) include the following:

- Site water balance that:
 - Includes details of sources and security of water supply, including contingency planning for future reporting periods;
 - Includes details of water use on site;
 - Includes details of water management on site;
 - Includes details of reporting procedures, including comparisons of site water balance each calendar year; and
 - Describes the measures that would be implemented to minimise clean water use on the site;
- Surface water management plan that includes:
 - Detailed baseline data on surface water flows and quality in the water-bodies that could be affected by the Project;
 - A detailed description of the surface water management system on site, including the:
 - Clean water diversion systems;
 - Erosion and sediment controls;
 - Water storages
 - A plan for extracting, handling, and emplacing any long-term potentially acid forming material identified on site;
 - Detailed plans, including design objectives and performance criteria for:
 - Water storage dams;
 - Reinstatement of drainage lines on rehabilitated areas of the site; and
 - Control of water pollution from rehabilitated areas of the site;
 - Performance criteria, including trigger levels for investigating any potentially adverse impacts, for:
 - The water management system;
 - Surface water quality of local water ways and the Tuckean Swamp and associated wetland; and
 - Ecosystem health of local water ways and Tuckean Swamp and associated wetland;
 - Performance criteria for surface water quality attributes relevant to water quality impacts on biological diversity and aquatic ecological integrity, including salinity, heavy metals, sediment load, pH, hardness and biological oxygen demand;
 - A program to monitor:

- The effectiveness of the water management system;
- Surface water flows and quality in local water ways and the Tuckean Swamp and associated wetland;
- A plan to respond to any exceedances of performance criteria, and mitigate and/or offset any adverse surface water impacts of the Project; and
- Groundwater management plan that includes:
 - Detailed baseline data on groundwater levels, yield and quality in the area, that could be affected by the Project; and
 - A program to augment the baseline data of the southern extraction area prior to the commencement of quarrying operations in the area;
 - Groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
 - A program to monitor:
 - Groundwater inflows to the quarrying operations;
 - The impacts of the Project on:
 - ❖ The local alluvial aquifer;
 - ❖ Any groundwater bores on privately owned land that could be affected by the Project;
 - ❖ Groundwater dependent ecosystems;
 - Seepage/leachate from water storages or backfilled voids on site;
 - Any interaction between water from the re-use dam and the local aquifer identified within nearby alluvial sediments; and
 - A plan to respond to any exceedances of the groundwater assessment criteria.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

5.5 VISUAL MANAGEMENT STRATEGY

5.5.1 VISUAL MANAGEMENT OBJECTIVES

The visual management objectives of the operations are to minimise visual impacts resulting from the quarry Project.

5.5.2 VISUAL ASSESSMENT CRITERIA

Specific visual assessment criteria have not been included in the Project Approval. Rather Schedule 3, Condition 21 of the Project Approval requires the Proponent to:

- Implement all reasonable and feasible measures to minimise the visual impacts and any off site lighting impacts of the Project; and

- Maintain and improve the effectiveness of the bunds, listed as A-F in the project layout plans in Appendix 2 of the Project Approval and all associated and other vegetative screens, over the life of the Project.

5.6 TRANSPORT MANAGEMENT STRATEGY AND PLAN

5.6.1 TRANSPORT MANAGEMENT OBJECTIVES

The transport management objectives of the operations are to minimise traffic and road safety impacts resulting from the quarry Project.

5.6.2 TRANSPORT ASSESSMENT CRITERIA

Specific transport assessment criteria have not been included in the Project Approval. Rather the Project Approval (Schedule 3, Conditions 23-30A) requires the Proponent to do the following:

- Upgrade specific intersections;
- Commission an expert to undertake and prepare a road safety audit report, auditing existing approved bus stops along the haulage routes and implement recommendations of the report;
- Undertake signage works;
- Make road contributions to LCC;
- Provide sufficient on site parking for Project related traffic;
- Implement some minor Project related operating conditions; and
- Retain records of time and dispatch, weight of load and vehicle identification.

5.6.3 TRANSPORT MANAGEMENT PLAN

In accordance Schedule 3, Condition 31 of the Project Approval the Proponent must prepare and implement a transport management plan for the project to the Secretary. The plan will (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans) include the following:

- Be prepared in consultation with the RMS and LCC and submitted to the Secretary for approval prior to carrying out any quarrying operations;
- Include a drivers code of conduct for the Project;
- Describe the measures that would be implemented to ensure:
 - Haulage is minimised or routes altered to avoid school buses;
 - A CB radio communication protocol is established with local bus companies, to improve driver awareness of quarry truck and school bus locations along haulage routes;
 - Drivers of Project related vehicles comply with the drivers code of conduct; and
 - Compliance with the relevant conditions of the Project Approval; and

- Include a program to monitor the effectiveness of the implementation of these measures.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

5.7 WASTE MANAGEMENT STRATEGY AND PLAN

5.7.1 WASTE MANAGEMENT OBJECTIVES

The waste management objectives of the operations are to minimise waste resulting from the Project and to ensure waste generated by the Project is appropriately stored, handled and disposed of.

5.7.2 WASTE ASSESSMENT CRITERIA

Specific waste assessment criteria have not been included in the Project Approval.

5.7.3 WASTE MANAGEMENT PLAN

In accordance Schedule 3, Condition 33 of the Project Approval the Proponent must prepare and implement a waste management plan for the project to satisfaction of the Secretary. The plan will (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans):

- Be prepared in consultation with EPA, and submitted to the Secretary for approval prior to the commencement of any processing of extracted materials;
- Identify the various waste streams of the Project;
- Estimate the volumes of waste material that would be generated by the Project;
- Describe and justify the proposed strategy for disposing of this waste material; and
- Include a program to monitor the effectiveness of these measures.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

5.8 ABORIGINAL HERITAGE MANAGEMENT STRATEGY AND PLAN

5.8.1 ABORIGINAL HERITAGE MANAGEMENT OBJECTIVES

The Aboriginal heritage management objectives of the operations are to protect and minimise any impact on any Aboriginal objects or human remains that may be impacted by the Project.

5.8.2 ABORIGINAL HERITAGE ASSESSMENT CRITERIA

Specific heritage assessment criteria have not been included in the Project Approval. Rather Schedule 3, Condition 35 of the Project Approval requires the Proponent prior to causing any surface disturbance of the land in the sites for the:

- Water supply dam;
- Water reuse dam;

- Southern extraction area,

to undertake targeted sub-surface archaeological investigations, in consultation with OEH and Aboriginal stakeholders, to the satisfaction of the Secretary.

5.8.3 HERITAGE MANAGEMENT PLAN

In accordance Schedule 3, Condition 36 of the Project Approval the Proponent must prepare and implement a heritage management plan for the project to satisfaction of the Secretary. The plan will (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans):

- Be prepared in consultation with the OEH and Aboriginal stakeholders;
- Be submitted to the Secretary for approval prior to carrying out any development on site (other than the construction of bunds and vegetative screening) under the conditions of the Project Approval;
- Include a detailed program for proposed targeted sub surface archaeological investigations, including a strategic sampling methodology; and
- Describe the measures that would be implemented for:
 - Monitoring all new surface disturbance on site for unidentified Aboriginal objects;
 - Managing the discovery of any human remains or previously identified Aboriginal objects on site; and
 - Ensuring ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

5.9 LANDSCAPE MANAGEMENT STRATEGY AND PLAN

5.9.1 LANDSCAPE MANAGEMENT OBJECTIVES

The landscape management objectives of the operations are to minimise any disturbance to native flora and fauna.

5.9.2 LANDSCAPE ASSESSMENT CRITERIA

Specific landscape assessment criteria have not been included in the Project Approval. Rather the Project Approval (Schedule 3, Conditions 37-47) requires the Proponent to:

- Ensure that the Project has no greater than negligible environmental consequences on the Tuckean Swamp and associated wetland;
- Ensure that the Project has negligible environmental consequences for the local Koala population;
- Implement a biodiversity offset strategy;

- Provide appropriate long term security for the land within the biodiversity offset strategy to the satisfaction of the Secretary (Project Approval, Schedule 3, Condition 42 as amended by Notice of Modification);
- Rehabilitate the site to the satisfaction of the Secretary and for rehabilitation to occur progressively; and
- Lodge a conservation and rehabilitation bond.

The landscape management plan requires detailed performance criteria to be established for evaluating the performance of the biodiversity offset strategy and the rehabilitation of the site, including triggering remedial action (if necessary).

5.9.3 LANDSCAPE MANAGEMENT PLAN

In accordance Schedule 3, Condition 45 of the Project Approval the Proponent must prepare and implement a landscape management plan for the project to satisfaction of the Secretary. The plan will (unless the Secretary waives some of these requirements if they are unnecessary or unwarranted for particular management plans):

- Be prepared in consultation with OEH, DRE, DPI (Agriculture) and LCC;
- Be submitted to the Secretary for approval prior to carrying out any development on site (other than the construction of bunds and vegetative screening) under the Project Approval;
- Describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
- Describe the short, medium and long term measures that would be implemented to:
 - Manage remnant vegetation and habitat on site;
 - Implement the biodiversity offset strategy;
 - Ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
- Include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy and the rehabilitation of the site, including triggering remedial action (if necessary);
- Include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - Ensuring compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
 - Enhancing the quality of remnant vegetation and fauna habitat;
 - Restoring native endemic vegetation and fauna habitat within the biodiversity offset areas and rehabilitation area;
 - Maximising the salvage of environmental resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
 - Collecting and propagating seed;

- Ensuring negligible environmental consequences for the local koala population;
 - Minimising the impacts on native fauna on site, including undertaking appropriate pre clearance surveys;
 - Controlling weeds and feral pests;
 - Controlling erosion;
 - Managing grazing and agriculture on site;
 - Controlling access; and
 - Bushfire management;
- Include a consultation program regarding the potential removal of Bund A as part of the rehabilitation of the site. Receptors NAL 2 and 3 must be consulted as part of the program;
- Include a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
- Identify the potential risks to successful implementation of the biodiversity offset strategy and rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- Include details of who would be responsible for monitoring, reviewing, and implementing the plan.

6 ENVIRONMENTAL MANAGEMENT STRATEGY IMPLEMENTATION

6.1 STRUCTURE, ROLES, RESPONSIBILITIES AND AUTHORITY

This section of the Strategy designates the responsibilities of the Proponent's personnel and Contractors in implementing this Strategy. It also sets out the role, responsibility, authority and accountability of the personnel relevant to the Project (refer to Figure 6.1).

Figure 6.1 Environmental Management Strategy Organisational Chart

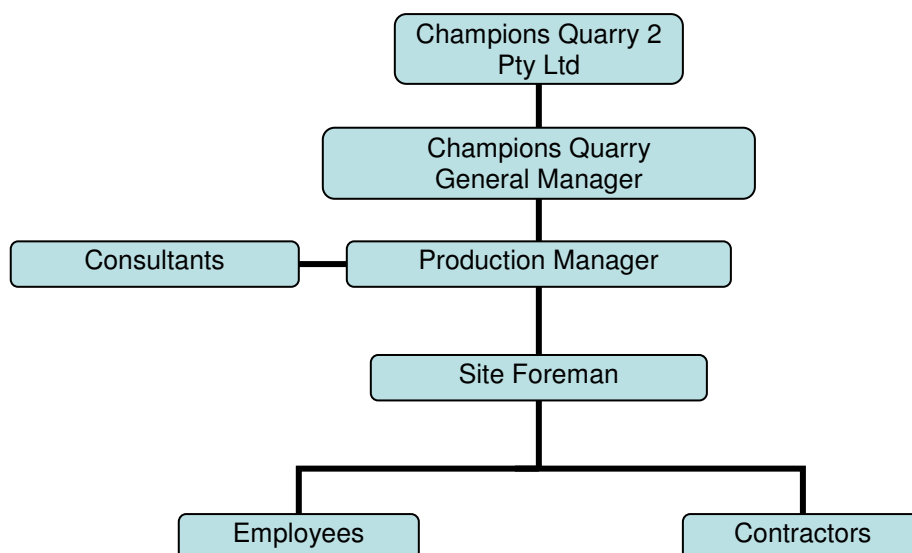


Table 6.1 – Champions Quarry Roles and Responsibilities

Role	Responsibility and Authority
Champions Quarry General Manager	Champions Quarry General Manager is responsible for ensuring the environmental management strategy is adhered to.
Production Manager	<p>The Production Manager is responsible for:</p> <ul style="list-style-type: none"> Ensuring the day to day running of the project is performed in a safe manner and that all employees and contractors adhere to all relevant regulations, policies and procedures identified in this Strategy; Environmental outcomes and compliance of the quarry expansion within the legislative framework including the Project Approval; Maintaining and auditing this Strategy and management plans in accordance with the relevant audit schedule and providing reports to interested parties where required; Ensuring that all works are performed in an manner consistent with the applicable regulations, this Strategy and the Project Approval; Ensuring regular checks are carried out to identify possible hazards and risks that may have arisen as a result of the works being performed; Notifying relevant bodies and authorities if any human remains and/or Aboriginal objects are discovered during the course of works and authority is given for stopping work if unacceptable impact is likely to occur; Ensure no work requiring a licence or permit is undertaken without the relevant up

	<ul style="list-style-type: none"> to date licence or permit; • Complete relevant environmental checklists; • Ensure appropriate environmental induction and training takes place and environmental induction and training materials are in place; • Liaise with appropriate government agencies and relevant stakeholders; • Responding to environmental incidents; • Managing environmental sub-consultants; • Overseeing the maintenance of environmental documents; and • Preparing reports on compliance. <p>Authority is given to order a stop work if unacceptable impact are likely to occur.</p>
Site Foreman	<p>The Site Foreman is responsible for:</p> <ul style="list-style-type: none"> • Ensuring the day to day running of the project is performed in a safe manner and that all employees and contractors adhere to all relevant regulations, policies and procedures identified in this Strategy; • Ensuring that all works are performed in an manner consistent with the applicable regulations, this Strategy and the Project Approval; • Ensuring regular checks are carried out to identify possible hazards and risks that may have arisen as a result of the works being performed; and • Ensuring all Employees, Contractors, Subcontractors and visitors are inducted with respect to the site prior to commencing any works.
Employees	<p>All employees are required to undertake their work within the requirements of the Project Approval, this Strategy and associated management plans. It is the responsibility of all employees to:</p> <ul style="list-style-type: none"> • Be aware of the Project Approval, this Strategy and associated management plans; • Not act or undertake activities in an unsafe manner; and • Notify management of any incident or accident that may potentially harm the environment or health.
Contractors	<p>All Contractors (and their employees) are responsible for safety and environment management at the at the work site will be involved in:</p> <ul style="list-style-type: none"> • Identifying the hazards; • Assessing the risks; and • Evaluating and monitoring controls.

6.1.1 CONSULTANTS

Environmental consultants such as acoustic engineers, ecologists, archaeologists, surveyors, air quality engineers, water quality experts, may be commissioned by the Proponent to provide specialist input and advice on environmental matters, undertake surveys, inspections, monitoring and preparing reports. Any consultant engaged by the Proponent will be required to undertake their activities in accordance with this Strategy.

6.1.2 CONTRACTOR AND SUBCONTRACTOR MANAGEMENT

Some construction activities and services may be required to be performed by Contractors and Subcontractors. The Proponent requires its Contractors and Subcontractors to demonstrate an understanding and management of their potential Environmental Impact.

Contractors and Subcontractors working on the Project will be required to:

- Observe sub-contract and statutory requirements relating to environmental protection and all relevant environmental law and follow instructions issued by the Proponent, its management and supervisory personnel;

- Nominate representatives to liaise with the Proponent, its management and supervisory personnel with respect to environmental requirements for the site activities;
- Cooperate fully with site emergency incident procedures and consultative arrangements; and
- Follow procedures, mitigation measures and relevant reporting requirements identified in this Strategy and associated monitoring programs and management plans.

Contractor and Subcontractor personnel will be included in the on-site induction process prior to accessing any site, procedure reviews and any pre-start talks.

The Proponent will ensure that work undertaken by Contractors and Subcontractors is monitored through the site inspection process. Regular site surveillance of Contractors and Subcontractors will be made by the Production Manager and/or Site Foreman to assess the effectiveness of the environmental protection measures being used by the Contractor and/or Subcontractor and to determine compliance with this Strategy.

6.2 TRAINING, AWARENESS AND COMPETENCE

6.2.1 TRAINING

The Proponent will provide environmental and safety training to its employees. The object of the training will be to provide a base level understanding of their individual role in maintaining this Strategy and safety requirements. Training will also be provided for specific tasks to ensure employees are competent to perform their required duties.

Re-training will also be undertaken if there are any changes in procedures, significant changes in this Strategy, or if non-conformance to procedures is noted by site inspection, monitoring, or by a regulatory authority or public complaint.

6.2.2 PROJECT INDUCTION

The Proponent will induct all employees, Contractors, Subcontractors and visitors prior to commencing works. As part of the induction process personnel will be made aware of key environmental risks relevant to their works, this Strategy and the Proponent's expectations regarding environmental performance and commitments.

6.2.3 DAILY PRE-START TALKS

At the commencement of each day's work a short discussion will be held with all personnel and the Production Manager and/or Site Foreman to discuss:

- The days quarrying activities;
- Likely weather and any influence it may have on environmental controls;
- Any visitors;
- Key health, safety and environmental risks and controls required to be implemented during quarrying activities throughout the day.

6.2.4 "TOOLBOX" TRAINING

Records may be kept of all tool box meetings on a meeting record and a copy kept at the off-site quarry office.

The frequency of these meetings are to be determined by the Production Manager and/or Site Foreman as required depending on the activity of the quarry.

6.2.5 PROJECT ENVIRONMENTAL ALERTS

Where required, project environmental alerts will be prepared to convey important information to the quarry operations and management team. This information can be triggered by a recent incident (either on site or off site in a similar operating environment, infringement notice, changes in acceptable work practices, good practices, significant weather changes, etc).

Project environmental alerts will be approved and issued by the Production Manager.

6.3 COMMUNICATION AND CONSULTATION

6.3.1 INTERNAL COMMUNICATION

Adequate records must be maintained to demonstrate conformance to specified environmental requirements. The records to be maintained may include, but are not limited to:

- Important email and telephone correspondence;
- Meeting notes/minutes;
- Monitoring and testing records;
- Training records;
- Audit records;
- Emergency procedures; and
- Incident reports and investigations.

To ensure the quarry operations and management team is effective and aware of Project issues relevant personnel will meet as required depending on the activity of the quarry. Typical meeting agenda items may include:

- Administration and resources;
- Incidents and monthly reporting;
- Environmental awareness (for example alerts and procedures);
- Environmental Aspects/project specific tasks;
- Upcoming business.

Any required action beyond the scope of normal quarrying activities will be noted and then notes will be distributed to personnel on an as needs basis.

6.3.2 EXTERNAL COMMUNICATION

General information regarding the environmental performance of the Project and contact details regarding complaints will be available at all times through the Champions Quarry website. In addition, a contact telephone number is displayed on signs at the entrance to the quarry.

The Secretary will also be kept informed regarding the environmental performance of the Project through the annual review (see Schedule 5 Condition 4 of the Project Approval).

Communication of Incidence Reporting

Any exceedance of criteria and/or performance measures will be reported in accordance with the requirements of Schedule 5 Condition 2(b) of the Project Approval. The Secretary and relevant agencies will also be notified in accordance with Schedule 5 Condition 7 of the Project Approval as follows:

- immediately to the Secretary and any other relevant agencies of the Incident; and
- within 7 days of the date of the Incident, provide the Secretary and any relevant agencies with a detailed report on the Incident, and such further reports as may be requested.

Community Consultative Committee

A CCC will be established in accordance with Schedule 5 Condition 6 of the Project Approval and the DoP Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects.

6.3.3 COMPLAINT MANAGEMENT AND RESPONSE

Complaints regarding Champions Quarry will be received through a complaints handling process that is to be established for the quarry. Complaints regarding the quarry, whether received via telephone, email or written communication will be entered into the complaints register by employees of the Proponent. Details that are to be logged include:

- Nature of complaint;
- Date and time complaint was received;
- The person or organisation the complaint was registered with;
- The complainants name;
- The subject of the complaint;
- The format of the complaint (ie telephone/email/facsimile/internet); and
- Any action taken;
- The date the complaint was passed onto the Site Foreman and/or Production Manager.

Details of the complaint will be passed on to the Production Manager within 24 hours of receiving the complaint. The Proponent commits to rectifying an activity that has caused a complaint on the same day, if reasonable and feasible. The Production Manager will respond to all complaints on the same day where reasonable and feasible and will identify and initiate appropriate action in response to the complaint and follow up contact with the complainant as soon as possible. A record of discussions will be kept. Problems and/or issues will be reviewed and procedures modified as appropriate. A copy of all complaints received are to be kept at the off-site quarry office.

All quarry staff are responsible for recording any complaints on the complaints register and the Production Manager is responsible for initiating follow-up action and contact with the complainant.

6.4 INCIDENT AND EMERGENCY PLANNING, PREPAREDNESS AND RESPONSE

The Proponent will ensure that all environmental incidents are promptly and effectively managed to minimise Environmental Impacts during the life of the quarry. In accordance with Schedule 5 Condition 2 of the Project Approval the Proponent will assess and manage Project related risks to ensure there are no exceedances of the criteria and/or performance measures set out in Schedule 3 of the Project Approval. In the event that there is an exceedance of the criteria and/or performance measures the Proponent will at the earliest opportunity attend to the following to the satisfaction of the Secretary:

- (a) Take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur; and
- (b) Consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) Implement remediation measures as directed by the Secretary.

An environmental incident is an event that has the potential to harm the environment. Examples include fuel spillage and excessive noise or dust generation. Procedures for handling environmental incidents include:

- Stop action(s) that cause the incident;
- Stop all work in the immediate vicinity of the incident until advised to continue by the Site Foreman or Production Manager;
- Inform nearby workers of the incident if appropriate;
- Notify the Site Foreman and/or Production Manager;
- If there is a fuel/oil spill – block flow paths or install temporary barriers or controls if necessary. Dispose of any contaminated spill containment materials to appropriately licensed landfill facility;
- The Site Foreman and/or Production Manager is to ensure the incident area is controlled, cleaned up, the problem rectified and prevention measures are put in place;
- Fire extinguishers are to be carried by machinery used onsite; and
- Immediate reporting of an incident causing or threatening harm to the environment.

All employees, Contractors and Subcontractors are responsible for their own actions in preventing incidents occurring, in containing spills etc. The Production Manager is responsible for investigations of incidents, notification and written reports to regulatory authorities as required. The Site Foreman and/or Production Manager are responsible for declaring an area safe after an incident.

7 EVALUATION OF COMPLIANCE

7.1 INSPECTIONS, MONITORING AND AUDITING

7.1.1 SITE INSPECTIONS

Weekly inspections of the Project site will be conducted by the Production Manager (or its representative) to monitor work practices and identify non-conforming areas and activities or work practices which could lead to potential environmental harm. It is noted that as the Project is a staged development and is also subject to environmental conditions (such as rain) accordingly there are expected periods of minimal or no resource extraction or processing at the site and therefore the regularity of inspections may need to be revised down.

The purpose of the inspection is to:

- Provide a surveillance tool to ensure safeguards are being implemented;
- Identify possible sources of problems or potential problems;
- Identify situations where sound environmental practices are not being implemented;
- Facilitate the identification of early resolution of problems.

Weekly (or revised down) inspections of the Project site provides an opportunity for the Production Manager (or its representative) to address issues raised by management, employees, consultants and Contractors and assist in the implementation of environmental controls. This style of leadership and support often leads to better ownership of environmental management and becomes a coaching exercise for field personnel to improve their skills in this specialised and complex discipline.

7.1.2 ENVIRONMENTAL MONITORING

Monitoring and measurement procedures are developed and implemented by the Proponent to confirm that all Project activities undertaken comply with relevant limits and standards, and that the Proponent is acting in accordance with this Strategies requirements.

The timing, frequency, applicable sampling standard, comparison data and criteria, locations and responsibility for any proposed environmental monitoring programs are specified in the relevant monitoring program and plans as identified in Table 1.2.

Monitoring that takes place within the monitoring programs and plans range from sample collection, testing and measurement to more qualitative assessments. All environmental monitoring equipment will be calibrated and maintained according to industry standards and/or manufacturers specifications.

Results from the testing conducted will be used objectively to identify potential or actual problems arising from the Project. Where non-compliance with nominated performance goals (which are identified in Table 5.1) is detected the following action will be taken as it is applicable to the scenario:

- An incident notice will be completed by the Site Foreman and/or Production Manager (and if the incident notice is completed by the Site Foreman, the Site Foreman will notify the Production Manager);

- The incident notice will be analysed by the Production Manager in light of the nominated performance goals (identified in Table 5.1) and determine possible causes for the non-conformance and whether any further action is required;
- A site inspection may be undertaken by the Production Manager (if determined to be necessary due to the specific circumstances);
- Relevant consultants, employees and Contractors will be contacted and advised of the identified problem and the proposed solution or required cause of action to remediate problem or reduce the likelihood of the problem arising again;
- Action will be implemented (where required) to rectify the problem; and
- Closing out of the incident notice by the Production Manager.

7.1.3 INDEPENDENT ENVIRONMENTAL AUDIT

An Independent Environmental Audit is to be undertaken within 1 year of the commencement of the development on site under the Project Approval and every 3 years thereafter unless the Secretary directs otherwise in accordance with Schedule 5 Condition 9 of the Project Approval. This audit must:

- (a) Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
- (b) Include consultation with the relevant agencies;
- (c) Assess the environmental performance of the Project and whether it is complying with the relevant requirements in the Project Approval and relevant EPL and/or Water Licence (including any assessment, plan or program required under the Project Approval);
- (d) Review the adequacy of any approved strategy, plan or program required under the Project Approval;
- (e) Recommend measures or actions to improve the environmental performance of the Project, and/or any assessment, plan or program required under the Project Approval; and
- (f) Be conducted and reported to the satisfaction of the Secretary.

In accordance with Schedule 5 Condition 10 of the Project Approval the Proponent will within 3 months of commissioning the Independent Environmental Audit (or such other time as agreed with the Secretary) submit a copy of the audit report to the Secretary together with the Proponents response to any recommendations contained in the Independent Audit Report, including a timetable for the implementation of any measures proposed to address the recommendations in the report.

7.2 EXTERNAL REPORTING

All external reporting required by the Project Approval or other obligations under the Project will be approved by the Production Manager and/or General Manager. This includes management planning documentation associated with this Strategy.

7.3 NOTIFICATION OF ENVIRONMENTAL AND RELATED INCIDENTS

All non-compliance will be reported in accordance with the requirements set out in Schedule 5 Conditions 2 and 7. Any exceedance of criteria and/or performance measures must be

reported in accordance with the requirements of Schedule 5 Condition 2(b) of the Project Approval. The Secretary and relevant agencies will also be notified in accordance with Schedule 5 Condition 7 of the Project Approval:

- immediately to the Secretary and any other relevant agencies of the Incident; and
- within 7 days of the date of the Incident, provide the Secretary and any relevant agencies with a detailed report on the Incident, and such further reports as may be requested.

7.4 DOCUMENT CONTROL AND RECORDS

7.4.1 GENERAL

Amendments to this Strategy will be prepared in conjunction with the Production Manager and Site Foreman and ultimately approved by the Production Manager and/or General Manager. Redundant copies of this Strategy will be removed from the Champions Quarry website and retained for future reference.

7.4.2 CONTROLLED COPY

The current version of this Strategy in electronic form is the controlled copy and will be available on the Champions Quarry Website. The Production Manager (or its representative) is responsible for updating and maintaining the distribution of this document.

7.4.3 UNCONTROLLED COPY

Any additional hard copies of this Strategy are uncontrolled copies and not controlled by the Proponent. Uncontrolled copies of this Strategy are not subject to automatic amendment and the holder of the uncontrolled copy is responsible for verifying its currency against the controlled copy.

7.4.4 AMENDMENTS

Amendments to this Strategy (as set out in Section 8 of this Strategy) will be prepared by the Proponent in conjunction with Production Manager and ultimately approved by the Production Manager and/or General Manager. Redundant copies will be removed and retained for future reference.

7.4.5 RECORDS

Records must be kept during the implementation and review of this Strategy with a copy of the current Strategy to be kept at the quarry site or in a suitable location and subsequently kept for 5 years after the completion of the Project.

8 REVIEW AND IMPROVEMENT OF ENVIRONMENTAL MANAGEMENT STRATEGY

The Proponent must submit a report to the Department by the end of March each year reviewing the environmental performance of the Project to the satisfaction of the Secretary in accordance with Schedule 5 Condition 4 of the Project Approval. The purpose of this review is to ensure that the system is meeting the requirements of the relevant legislation, standards, policies, licences, permits, approvals and objectives. As a result the Proponent and/or the Production Manager will be in a position to determine any potential areas requiring improvement. The review will:

- (a) Describe the development (including rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
- (b) Include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:
 - The relevant statutory requirements, limits or performance measures/criteria;
 - The monitoring results of the previous year; and
 - The relevant predictions of the EA ;
- (c) Identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- (d) Identify any trends in the monitoring data over the life of the Project;
- (e) Identify any discrepancies between the predicted and actual impacts of the Project: and
- (f) Describe what measures will be implemented over the current calendar year to improve the environmental performance of the Project.

Further in accordance with Schedule 5 Condition 5 of the Project Approval within 3 months of the submission of one of the following the Proponent must review and if necessary revise the strategies, plans and programs required under the Project Approval to the satisfaction of the Secretary:

- (a) Annual review under Schedule 5 Condition 4 of the Project Approval;
- (b) Incident report under Schedule 5 Condition 7 of the Project Approval;
- (c) Audit report Schedule 5 Condition 9 of the Project Approval; and
- (d) Any modifications to the Project Approval.

The Proponent in consultation with the Production Manager will implement any changes arising from reviews of the quarry strategies, plans and programs and/or this Strategy. Records of such reviews will be maintained. Details of any significant changes made to this Strategy and associated monitoring programs and monitoring plans will be forwarded to all relevant project personnel.

Annexure A – Draft Risk Assessment performed by ERM extracted from the Environmental Assessment Report dated 25 February 2010 (page 62 – 68 EA)

5 RISK ASSESSMENT

5.1 INTRODUCTION

This chapter provides an assessment of the key environmental issues and risks arising from the proposed development and recommends mitigation and management regimes to address these issues. The implications addressed are in accordance with the Director General's EARs issued on 22 June 2009.

5.2 GENERAL ENVIRONMENTAL RISK ANALYSIS

The following qualitative risk analysis was undertaken at the commencement of the assessment process in order to prioritise issues for assessment assist in formulating the assessment methodologies for the project. A risk analysis is an integral step in the Part 3A process whereby key issues identified within the preliminary environmental investigations and government and community consultation can be identified for a more focussed assessment process.

The risk analysis is presented in Table 5.1 and includes the identification of key aspects to be addressed within the EA report and the proposed assessment methodologies to complete the assessment. Detailed analysis of each aspect is provided within the following Environmental Interactions section of the EA report.

Table 5.1 General Environmental Risk Analysis

Aspect	Sub Topic	Level of Risk	Scope of Works	Justification
Ecology	Impacts to flora and fauna as a result of the Project	Low	A detailed Ecological site assessment is to be undertaken. This will include a desktop assessment and literature review of the State and Commonwealth threatened species registers to determine threatened species previously recorded or likely to occur at the site. A field survey will be undertaken targeted towards results from this desktop assessment.	The proposed level of assessment is considered adequate due to the largely cleared nature of the site. Management plans will be prepared should any threatened species or communities be identified.
Aboriginal Heritage	Aboriginal Relations	High	Develop and ensure ongoing communication with Aboriginal groups.	It was identified that further consultation with the Aboriginal community needed to take place.
	Aboriginal archaeological assessment	Low	The site has been subject to previous Aboriginal cultural heritage assessment and ERM understands that LALC determined that the site holds low cultural heritage values. Additional assessment is to be undertaken in accordance with the DECCW Guidelines for Aboriginal Heritage Surveys (National Parks and Wildlife Service 1997) and Interim Community Consultation Requirements.	Heritage sites that may be required to be destroyed will be identified. The property has experienced past disturbances due to grazing and quarrying activities and has been previously assessed to have low archaeological significance.
Noise and Vibration	Quarrying at Champions Quarry	Medium	A noise assessment will be undertaken based upon the DECCW's Industrial Noise Policy (INP). This will include attended and unattended ambient noise surveys at surrounding residential locations and passive recreational areas, noise modelling and site validation of the modelling results. Noise contours for the surrounding area and project specific limits will then be derived in accordance with the INP.	The proximity of a small number of sensitive receivers to the quarry necessitates undertaking a noise impact assessment. The operators of Champions Quarry will be provided with data to allow management of operational activities to minimize potential noise impacts upon these receivers. Determination of specific noise limits will allow for maximum flexibility of quarry operations within these limits.

Table 5.1 General Environmental Risk Analysis

Aspect	Sub Topic	Level of Risk	Scope of Works	Justification
Ecology	Impacts to flora and fauna as a result of the Project	Low	A detailed Ecological site assessment is to be undertaken. This will include a desktop assessment and literature review of the State and Commonwealth threatened species registers to determine threatened species previously recorded or likely to occur at the site. A field survey will be undertaken targeted towards results from this desktop assessment.	The proposed level of assessment is considered adequate due to the largely cleared nature of the site. Management plans will be prepared should any threatened species or communities be identified.
Aboriginal Heritage	Aboriginal Relations	High	Develop and ensure ongoing communication with Aboriginal groups.	It was identified that further consultation with the Aboriginal community needed to take place.
	Aboriginal archaeological assessment	Low	The site has been subject to previous Aboriginal cultural heritage assessment and ERM understands that LALC determined that the site holds low cultural heritage values. Additional assessment is to be undertaken in accordance with the DECCW Guidelines for Aboriginal Heritage Surveys (National Parks and Wildlife Service 1997) and interim Community Consultation Requirements.	Heritage sites that may be required to be destroyed will be identified. The property has experienced past disturbances due to grazing and quarrying activities and has been previously assessed to have low archaeological significance.
Noise and Vibration	Quarrying at Champions Quarry	Medium	A noise assessment will be undertaken based upon the DECCW's Industrial Noise Policy (INP). This will include attended and unattended ambient noise surveys at surrounding residential locations and passive recreational areas, noise modelling and site validation of the modelling results. Noise contours for the surrounding area and project specific limits will then be derived in accordance with the INP.	The proximity of a small number of sensitive receivers to the quarry necessitates undertaking a noise impact assessment. The operators of Champions Quarry will be provided with data to allow management of operational activities to minimize potential noise impacts upon these receivers. Determination of specific noise limits will allow for maximum flexibility of quarry operations within these limits.

Aspect	Sub Topic	Level of Risk	Scope of Works	Justification
Air Quality	Cumulative Noise	N/A – there are no other noise producing industries or activities located near the quarry.		
	Blasting	N/A – due to the soft nature of the material, no blasting will be required.		
	Air quality model and assessment	Medium – there are a number of rural residences located within a reasonably close proximity to the quarry.	The assessment will be based on the NSW DECCW's <i>Guideline on the use of Air Quality Models for Modelling Assessments</i> . The assessment will cover a range of operational scenarios including realistic initial production rates and 'worst case' operational scenarios. Modelling of the proposed and cumulative air emissions will be undertaken.	The operators of Champions Quarry will be provided with data to allow management of operational activities to minimize potential air emission impacts on the surrounding community.
	Cumulative assessment	N/A – There are no other industries or activities in close proximity to the quarry to cause cumulative air quality impacts.		
	Greenhouse Gas Assessment	Low	A comprehensive green house gas assessment will be undertaken, taking into account all potential sources.	Given the present policy position of the Federal government, it is considered necessary to undertake this level of assessment.

Aspect	Sub Topic	Level of Risk	Scope of Works	Justification
Soil and Water Management	Water balance	Medium	A desktop assessment will be undertaken to determine hydrological characteristics of the site. Bureau of Meteorology data will be sourced for review such that a water balance for the site can be determined.	The water balance is a critical component of any quarry and thus requires detailed consideration and calculations. A detailed Soil and Water Management Plan will provide guidance to the operators of Champions Quarry in this regard.
	Erosion and Sediment Control	Medium	Following determination of the water balance, a soil and water quality management regime will be developed to negate any potential adverse air and water quality impacts resulting from the proposed quarry expansion.	A detailed Soil and Water Management Plan will provide guidance to the operators of Champions Quarry in this regard.
	Groundwater	Low	Assessment of the hydrogeological properties of the property will be undertaken. This will consist of a desktop review of geological and hydrogeological information already available for the site. The contribution of groundwater to the water balance of the proposed quarry will also be undertaken.	This level of assessment will provide sufficient information to develop an understanding of groundwater conditions at the site and for determining the impacts of the quarry on the groundwater system.
Traffic	Vehicle movements generated by the project	Medium	An assessment of the proposed road transport network will be undertaken to define the likely impact. This will include an assessment of existing use levels and the maximum limits of the road and intersections along the nominated haulage routes.	Increased production from the proposed quarry will result in more truck movements along Wyrallah Road. This level of assessment is necessary to ensure that safe driveways and driving conditions can be maintained and/or implemented for all road users.

Aspect	Sub Topic	Level of Risk	Scope of Works	Justification
Visual	Rural residences within close proximity to the Project	Low	Views towards the site from sensitive visual receivers will be assessed to determine the likely visual impacts associated with the proposed quarry expansion. A site inspection of the quarry and surrounding area and an examination of aerial photographs and topographic information will be undertaken. Photo of the site when viewed from sensitive view points, taking into account the proposed expansion areas and any mitigation measures will also be provided.	A quarry of this size has the potential to visually impose itself on the landscape. A detailed visual impacts assessment is considered necessary to assess these potential impacts and develop appropriate mitigation measures.
Historical Heritage	European Archaeological Assessment	Low	A review of European heritage lists and archived plans will be undertaken.	This low level of assessment reflects the limited evidence for historic sites within the study area and therefore the low potential for subsurface archaeological sites to be present.
Socio economic considerations	<ul style="list-style-type: none"> Economic benefits to local and regional communities and government from the project; potential impacts to social values; and social benefits from quarrying. 	Medium	Documenting of the social and economic values provided by the quarry to the community. The existing amenity value will also be discussed.	Social values of the community typically relate to quality of life and the social amenity of the region. These values necessitate the need for an assessment of potential air quality, noise, traffic and visual amenity issues.

Aspect	Sub Topic	Level of Risk	Scope of Works	Justification
Waste	Identification of waste streams from quarrying activities	Low	<p>Opportunities for waste recycling and reuse will be identified, as well as methods of disposal for waste streams that cannot be effectively reused.</p> <p>The DECCW's Sustainability Programs Division is presently responsible for initiating waste avoidance and resource recovery strategies as a method of ensuring ecological sustainability. These strategies are the basis for the waste analysis and amelioration methods.</p>	<p>The production of numerous types of both liquid and non liquid waste necessitates mitigation measures to be formulated and implemented to minimize waste generated by the quarry.</p>
Utilities and Infrastructure	Demand on utilities and infrastructure	Low	<p>Should the water balance indicate that the quarry is able to extract and process resources without the need to import water onto the site, no connection to the water mains (as is potentially available) will be required. It is also proposed to install an onsite domestic waste water treatment system. Therefore no assessment of these services will be required.</p>	<p>It is considered that the site will be able to be entirely self sufficient with regards to sewer and water services. The impacts upon the road infrastructure is being undertaken as a separate traffic impact assessment.</p>

5.3

KEY ISSUES

The design and management of the proposed development has evolved in response to environmental, social and economic investigations and the recommended mitigation and management measures included in the supporting technical documents. Further information is contained in the technical reports submitted in *Part B* of this environmental assessment report.

In scoping the key issues arising from the proposed development, some issues were identified as being reasonably minor in this instance and area addressed in *Table 5.2*, with no further investigations required.

Table 5.2 *Issues Not Requiring Further Assessment*

Issue	Comment
European Heritage	Searches of the local, regional, State and Commonwealth heritage registers indicate that there are no European heritage items in close proximity to the site.
Utilities and Infrastructure	The proposed development will not place any demand upon sewer and water infrastructure. The proposed quarry expansion will impact upon the road network which is being assessed in a separate specialist study, provided by within the 'Traffic Impact Study' (RoadNet 2009) which is provided as <i>Appendix F</i> and summarized within Chapter 6.

Annexure B - Planning and Assessment Commission of NSW Conditions of Approval dated August 30, 2012 (incorporating the Statement of Commitments) as amended by Modification 3

Project Approval

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

As delegate of the Minister for Planning and Infrastructure, the Planning and Assessment Commission of NSW approves the project 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 ongoing environmental management of the project.

Commission Member

Commission Member

Sydney 30 August 2012

SCHEDULE 1

Application Number:	09_0080
Proponent:	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd
Approval Authority:	Minister for Planning and Infrastructure
Land:	Lot 5 DP 857530 Lot 1 DP 729118 Lot 4 DP 588125 Lot 183 DP 1013042 Lot 1 DP 127550 Lot 101 DP 755746
Project:	Champions Quarry Project

Red Type – October 2013 Modification
Blue Type – September 2016 Modification
Green Type – August 2017 Modification

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DEFINITIONS

Annual review	The review required by condition 3 of schedule 5
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the documents listed in condition 2(a) of Schedule 2, and shown in the figure in Appendix 6
CCC	Community Consultative Committee
Conditions of this approval	Conditions contained in schedules 1 to 5 inclusive
Council	Lismore City Council
CPI	Australian Bureau of Statistics Consumer Price Index
Department	Department of Planning and Environment
DPI (Agriculture)	Department of Primary Industries - Agriculture
DPI (Water)	Department of Primary Industries - Water
DRG	Division of Resources and Geoscience within the Department
EA	Environmental Assessment of the project titled <i>Champions Quarry Expansion, Environmental Assessment Report</i> , prepared by ERM Pty Limited and dated February 2010; the <i>Champions Quarry Response to Submissions</i> , prepared by ERM Pty Limited and dated September 2010 and containing the proposed Quarry Management Plan; and the Preferred Project Report titled <i>Champions Quarry Expansion, Preferred Project Report</i> , prepared by ERM Pty Limited and dated December 2011
EA (MOD 1)	Modification Application MP 09_0080 MOD 1 dated April 2013
EA (MOD 2)	Modification Application MP 09_0080 MOD 2 dated February 2016, the accompanying annexures A and B and the response to submissions dated April 2016
EA (MOD 3)	Modification Application MP 09_0080 MOD 3 dated February 2017, titled <i>Annexure A – Application pursuant to Section 75W of the Environmental Planning and Assessments Act 1979</i> , and the response to submissions dated July 2017
EEC	Endangered Ecological Community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EPA	NSW Environmental Protection Authority
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 under the <i>POEO Act</i>
Extraction Areas	The Central and Southern Extraction Areas, shown on Figure 3 in Appendix 2
Feasible	Feasible relates to engineering considerations and what is practical to build
Haulage routes	The three routes along which quarry product may be hauled from the site: <ul style="list-style-type: none"> • Route 1: north to Lismore via Wyrallah Road, Wyrallah Ferry Road, Coraki Road and Bruxner Highway; • Route 2: south along Wyrallah Road to the Pacific Highway at Woodburn; and • Route 3: south along Wyrallah Road and Broadwater Road to the Pacific Highway at Broadwater.
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes, or threatens to cause, material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this approval
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this approval where it is defined to mean 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
m AHD	metres Australian Height Datum
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial

Minister	Minister for Planning, or delegate
Negligible	Small and unimportant, such as to be not worth considering
OEH	Office of Environment and Heritage
Privately-owned land	Land that is not owned by a public agency or the Proponent (or its subsidiary)
POEO Act	Protection of the Environment Operations Act 1997
Project	The development as described in the documents listed in condition 2(a) of Schedule 2
Proponent	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, or any other person who seeks to carry out the development approved under this approval
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Quarrying operations	Includes the removal of overburden and extraction, processing, handling, storage and transportation of extractive materials on site
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
Rehabilitation	The restoration of land disturbed by the project to a good condition, ensuring that it is safe, stable and non-polluting and appropriately revegetated
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
Sound power testing	Measurement of the total power of sound that is emitted per unit time, measured in watts (W)
Subdivision certificate	Part 4A certificate under section 109D(1)(d) of the EP& A Act
Statement of commitments	The Proponent's commitments in Appendix 3
Site	The land listed under "Land" in schedule 1

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, the Proponent **must** implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent must carry out the development:
 - (a) generally in accordance with the EA, EA (MOD 1), EA (MOD 2) and EA (MOD 3); and
 - (b) in accordance with the Project Layout Plans, the Statement of Commitments and the conditions of this approval.

Notes:

- The Project Layout Plans are included in Appendix 2; and
- The Statement of Commitments is included in Appendix 3.

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 must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
 - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval (including any stages of these documents);
 - (b) any reviews, reports or audits commissioned by the Department regarding compliance with this approval; and
 - (c) the implementation of any actions or measures contained in these documents.

SUBDIVISION

5. The Proponent may subdivide the land on site in **general** accordance with the subdivision plan shown in Appendix 4. Prior to obtaining a subdivision certificate, the Proponent **must** prepare a final subdivision plan for the land to the satisfaction of the **Secretary**.

LIMITS ON APPROVAL

Quarrying Operations

6. The Proponent may carry out quarrying operations on the site until 31 December 2038.

*Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the **Secretary**. Consequently, this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those undertakings have been carried out to a satisfactory standard.*

Extractive Material Extraction

7. The Proponent must not extract extractive materials:
 - (a) outside of the Extraction Areas (other than as required for the approved construction or operation of the project);
 - (b) below a level of 12 m AHD in the Central Extraction Area; and
 - (c) below a level of 8 m AHD in the Southern Extraction Area.

Note: The Extraction Areas are shown in Figure 3 in Appendix 2.

8. The Proponent **must** not extract more than 250,000 tonnes of extractive materials from the site in any calendar year.

Extractive Material Transport

9. The Proponent **must** not:
- (a) transport more than 250,000 tonnes of extractive material from the site in any calendar year;
 - (b) dispatch more than 50 laden trucks from the site on any day; or
 - (c) dispatch more than 5 laden trucks from the site in any hour.
- Note: In this condition, 'per hour' means the 60 minutes following the change of hour.*
10. The Proponent **must** transport extractive material from the site on the designated haulage routes, except in circumstances where the final destination of the transported quarry products can only be accessed by other roads.

On-site Roads

11. With the exception of vehicle movements required to construct Bund A or movements of light vehicles used by quarry employees who live on Hazelmount Lane, quarry-related vehicles are not permitted to use the unsealed 'farm road' that connects the Central Extraction Area to Hazelmount Lane, or enter or exit the site from Hazelmount Lane.

SURRENDER OF CONSENTS

12. (Deleted)
13. By the end of December 2013, or as otherwise agreed by the **Secretary**, the Proponent **must** surrender the development consent (DA 2005/999) for existing operations on the site in accordance with Section 104A of the EP&A Act.

Note: The conditions or other requirements of this project approval do not prevent the continued carrying out of development which may be undertaken pursuant to DA 2005/999, prior to the surrender of that consent.

STRUCTURAL ADEQUACY

14. The Proponent **must** 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 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

15. The Proponent **must** ensure that all demolition work on site is carried out in accordance with AS 2601-2001: *The Demolition of Structures*, or its latest version.

PROTECTION OF PUBLIC INFRASTRUCTURE

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

Note: This condition does not apply to any damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 26 to Schedule 3 of this approval.

OPERATION OF PLANT AND EQUIPMENT

17. The Proponent **must** 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 manner.

STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM

18. With the approval of the [Secretary](#), the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.

Notes:

- *While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

PRODUCTION DATA

19. The Proponent [must](#):
- (a) provide annual quarry production data to [DRG](#) using the standard form for that purpose; and
 - (b) include a copy of this data in the Annual Review (see condition 4 of schedule 5).

COMPLIANCE

20. The Proponent must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION

1. Prior to carrying out quarrying operations under this approval, the Proponent **must**:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the Southern and Central Extraction Areas; and
 - (b) submit a survey plan of these boundaries to the **Secretary**.
2. While ever quarrying operations are being carried out, the Proponent **must** ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify the limits of extraction within the Southern and Central Extraction Areas.

NOISE

Bund Construction

3. The Proponent **must** construct:
 - Bund A prior to carrying out any quarrying operations on site under this approval;
 - Bund D prior to carrying out any quarrying operations within the Southern Extraction Area, and
 - Bund E prior to commissioning the sand washing plant within the Southern Extraction Area.
 to the satisfaction of the **Secretary**.

Note: Bund A, Bund D and Bund E are shown on the project layout plans in Appendix 2.

Noise Criteria – Project Construction

4. During periods in which Bunds A, C (stage 3 only) and D and the water re-use and water supply dams are being actively constructed, the Proponent **must** ensure that the noise generated on site does not exceed the criteria in Table 1 at any residence on privately-owned land.

Table 1: Noise Criteria - Construction

Receiver	$L_{Aeq} (15 \text{ min}) \text{ dB(A)}$
NAL 1, NAL 4 and NAL 5	45
NAL 2, NAL 2A, NAL 3 and privately-owned land along the southern end of Hazelmount Lane	42
All other receivers	40

Notes:

- Receiver locations are shown in Appendix 1.
- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

Noise Criteria

5. Except for times during which Bunds A, C (stage 3 only) and D and the water re-use and water supply dams are being actively constructed, the Proponent **must** ensure that the noise generated on site does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise Criteria

Receiver	$L_{Aeq} (15 \text{ min}) \text{ dB(A)}$
NAL 4 and NAL 5	38
NAL 2, NAL 2A, NAL 3 and privately-owned land along the southern end of Hazelmount Lane	37

NAL 1 and all other receivers	35
-------------------------------	----

Notes:

- Receiver locations are shown in [Appendix 2](#).
- Noise generated by the site is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Hours of Operation

6. The Proponent **must** comply with the operating hours in Table 3.

Table 3: Operating Hours

Day	Construction	Rock Hammer Operations	All Other Quarrying Operations (including on-site truck movements)
Monday – Friday	7 am to 6 pm	9 am to 12 pm and 2 pm to 4 pm	7 am to 6 pm
Saturday	8 am to 1 pm	None	8 am to 1 pm
Sundays and Public Holidays	None	None	None

Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residences.

- 6A. The following activities may be carried out outside the hours specified in Table 3:
- delivery or dispatch of materials as requested by Police or other public authorities; and
 - emergency work to avoid the loss of lives, property or to prevent environmental harm.

In such circumstances, the Proponent must notify the Secretary and affected residents prior to undertaking the activities, or as soon as is practical thereafter.

Blasting

7. The Proponent **must** not carry out any blasting on the site.

Operating Conditions

8. The Proponent **must**:
- implement best practice noise management to minimise the construction, operational and traffic noise of the project;
 - minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;
 - maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;
 - carry out noise monitoring to determine whether the project is complying with the relevant conditions of this approval; and**
 - regularly assess noise monitoring data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the [Secretary](#).

Noise Management Plan

9. The Proponent **must** prepare a Noise Management Plan for the project to the satisfaction of the [Secretary](#). This plan must:
- be prepared in consultation with the EPA, and submitted to the [Secretary](#) for approval prior to the construction of Bund A and/or Bund D;
 - describe the measures that would be implemented to ensure:
 - best management practice is being employed on site;

- the noise impacts of the project are minimised during any meteorological conditions when the noise limits in this approval do not apply; and
- compliance with the relevant conditions of this approval;
- (c) describe the proposed noise management system in detail; and
- (d) include a monitoring program that:
 - is capable of regularly evaluating the performance of the project, including individual items of plant such as the rock hammer and rock saw;
 - includes quarterly monitoring by a suitably qualified and experienced specialist, unless otherwise required by the Secretary;
 - includes annual sound power testing, unless otherwise agreed by the Secretary;
 - includes a protocol for determining exceedances of the relevant conditions in this approval; and
 - evaluates and reports on the effectiveness of the noise management system on site.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

AIR QUALITY

Air Quality Criteria

10. The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated on site do not exceed the criteria in Tables 4 to 6 at any residence on privately-owned land, or on more than 25% of any privately-owned land.

Table 4: Long-Term Impact Assessment Criteria for Particulate Matter

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

Table 5: Short Term Impact Assessment Criteria for Particulate Matter

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

Table 6: Long-Term Impact Assessment Criteria for Deposited Dust

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

Notes to Tables 4-6:

- ^a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- ^b Incremental impact (ie incremental increase in concentrations due to the project on its own);
- ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA.

Operating Conditions

11. The Proponent must:

- (a) implement best management practice to minimise the dust emissions of the project;
- (a1) carry out regular air quality monitoring to determine whether the project is complying with the relevant conditions of this approval;
- (b) regularly assess air quality monitoring data and relocate, modify, and/or stop operations on site as may be required to ensure compliance with the relevant conditions of this approval;
- (c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d to Tables 4-6 above);
- (d) minimise any visible off-site air pollution; and
- (e) minimise surface disturbance of the site, other than as permitted under this approval.

Air Quality Management Plan

12. The Proponent **must** prepare an Air Quality Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- (a) be prepared in consultation with the EPA, and submitted to the **Secretary** for approval prior to the construction of Bund A and/or Bund D;
 - (b) describes the measures that would be implemented to ensure:
 - best management practice is employed;
 - the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and
 - compliance with the relevant conditions of this approval;
 - (c) describes the proposed air quality management system; and
 - (d) includes an air quality monitoring program that:
 - is capable of evaluating the performance of the project;
 - includes a protocol for determining any exceedances of the relevant conditions of approval;
 - adequately supports the air quality management system; and
 - evaluates and reports on the adequacy of the air quality management system.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

SOIL & WATER

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

Surface Water Supply

13. The Proponent **must** ensure it has sufficient water during all stages of the project, and if necessary, adjust the scale of quarrying operations on site to match its available supply.

Surface Water Discharges

14. The Proponent **must** ensure that all surface water discharges from the site comply with the discharge limits in any EPL which regulates water discharges from the site, or with section 120 of the POEO Act.
- 14A. Prior to operating the sand washing plant, the Proponent must construct a sediment pond with capacity of at least one megalitre to receive all discharges from that plant.

On-Site Sewage Management

15. The Proponent **must** manage on-site sewage to the satisfaction of Council and the EPA. The facility must comply with the requirements of the *Environment and Health Protection Guidelines – On-site Sewage Management for Single Households (1998)*, or latest version.

Storage of Chemicals & Petroleum Products

16. The Proponent **must** ensure that all chemicals and/or petroleum products held on site in appropriately bunded areas with impervious flooring and of sufficient capacity to contain 110% of the largest container stored within the bund, and in accordance with Australian Standard AS1940-2004, *The Storage and Handling of Flammable and Combustible Liquids*. The flooring and bund(s) **must** be designed in accordance with:

- the requirements of relevant Australian Standards; and
- DECC's *Storing and Handling Liquids: Environmental Protection – Participants Manual*.

Water Management Plan

17. The Proponent **must** prepare a Water Management Plan for the project to the satisfaction of the **Secretary**. This plan must be prepared in consultation with the EPA and **DPI (Water)** by suitably qualified and experienced person/s whose appointment has been approved by the **Secretary**, and be submitted to the **Secretary** for approval prior to the construction of Bund A and/or Bund D.

In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include a:

- (a) Site Water Balance that:
 - includes details of:
 - sources and security of water supply, including contingency planning for future reporting periods;
 - water use on site;
 - water management on site;
 - reporting procedures, including comparisons of the site water balance each calendar year; and
 - describes the measures that would be implemented to minimise clean water use on site;
- (b) Surface Water Management Plan, that includes:
 - detailed baseline data on surface water flows and quality in the water-bodies that could be affected by the project;
 - a detailed description of the surface water management system on site, including the:
 - clean water diversion systems;
 - erosion and sediment controls; and
 - water storages;
 - a plan for extracting, handling, and emplacing any long-term potentially acid forming material identified on site;
 - detailed plans, including design objectives and performance criteria, for:
 - the water storage dams;
 - reinstatement of drainage lines on the rehabilitated areas of the site;
 - control of water pollution from rehabilitated areas of the site;
 - performance criteria, including trigger levels for investigating any potentially adverse impacts, for:
 - the water management system;
 - surface water quality of local water ways and the Tuckean Swamp and associated wetland; and
 - ecosystem health of local water ways and the Tuckean Swamp and associated wetland;
 - performance criteria for surface water quality attributes relevant to water quality impacts on biological diversity and aquatic ecological integrity, including salinity, heavy metals, sediment load, pH, hardness and biological oxygen demand;
 - a program to monitor:
 - the effectiveness of the water management system;
 - surface water flows and quality in local water ways and the Tuckean Swamp and associated wetland; and
 - ecosystem health of local water ways and the Tuckean Swamp and associated wetland;
 - a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and
- (c) Groundwater Management Plan, which includes:
 - detailed baseline data on groundwater levels, yield and quality in the area, that could be affected by the project;
 - a program to augment the baseline data of the Southern Extraction Area prior to the commencement of quarrying operations in the area;
 - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor:
 - groundwater inflows to the quarrying operations;

- the impacts of the project on:
 - the local alluvial aquifer;
 - any groundwater bores on privately-owned land that could be affected by the project; and
 - groundwater dependent ecosystems;
- seepage/leachate from water storages or backfilled voids on site;
- any interaction between water from the re-use dam and the local aquifer identified within nearby alluvial sediments; and
- a plan to respond to any exceedances of the groundwater assessment criteria.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

VISUAL

Establishment of Effective Vegetative Screens

18. The Proponent **must** vegetate (with grasses, native endemic shrubs and trees) bunds listed as A – F in the project layout plans in Appendix 2 as soon as practicable after the completion of the construction of the bunds, to the satisfaction of the Secretary.
19. The Proponent **must** not extract any material in the Southern Extraction Area beyond the area shown as Progression 1, as depicted in Figure 5 of Appendix 2, before:
- (a) bunds, listed as A to D in Figure 4 of Appendix 2, are established and vegetated (with grasses, native endemic shrubs and trees); and
 - (b) the vegetated screening of planted trees to the north of the access road is established,
- to the satisfaction of the Secretary.

Note: material to construct the bunds may be sourced from the proposed Extraction Areas.

Advertising Signage

20. The Proponent **must** not erect or display any advertising structure(s) or signs on the site without the written approval of the Secretary.

Note: This condition does not require approval for any business identification, traffic management, and/or safety or environmental signs.

Operating Conditions

21. The Proponent **must**:
- (a) implement all reasonable and feasible measures to minimise the visual impacts and any off-site lighting impacts of the project; and
 - (b) maintain and improve the effectiveness of the bunds, listed as A – F in the project layout plans in Appendix 2, and all associated and other vegetative screens, over the life of the project.

Additional Visual Impact Mitigation

22. Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the quarrying operations on site during the project, the Proponent **must** implement additional visual impact mitigation measures (such as landscaping treatments or vegetative screens) to reduce the visibility of these operations from the residence on the property.

These mitigation measures must be reasonable and feasible, and must be implemented as soon as practicable following the landowner's request.

If the Proponent and the landowner 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 Secretary for resolution.

Notes:

- The additional visual impact mitigation measures must be aimed at reducing the visibility of the quarrying operations on site from significantly affected residences, and are not required to be aimed at reducing the visibility of these operations from other locations on the affected properties; and
- The additional visual impact mitigation measures do not necessarily have to be located on the property itself.

TRANSPORT

Road Upgrades

23. Prior to carrying out quarrying operations under this approval, the Proponent **must** upgrade the following intersections in general accordance with the conceptual layout plans shown in the figures in Appendix 5:
- (a) Coraki Road/Wyrallah Ferry Road intersection to provide a sealed turning path for southbound quarry trucks and quarry trucks with trailers from Coraki Road into Wyrallah Ferry Road; and
 - (b) Wyrallah Road/Wyrallah Ferry Road intersection to provide a sealed left-turn lane for northbound quarry trucks and quarry trucks with trailers from Wyrallah Road into Wyrallah Ferry Road,
- to the satisfaction of Council.

Note: These intersection upgrades must be completed to the relevant Austroads standard.

24. Prior to carrying out any quarrying operations in the Southern Extraction Area, the Proponent **must**:
- (a) commission a suitably qualified expert approved by the **Secretary** to undertake a road safety audit of existing approved bus stops along the haulage routes;
 - (b) submit the report for approval to the **Secretary**; and
 - (c) implement any recommendations of the road safety audit to upgrade these bus stops, to the satisfaction of Council.

Note: "Approved bus stops" may be approved by either Council or RMS. Any upgrades must be completed to the relevant Austroads standard.

Road Signage

25. Prior to carrying out quarrying operations under this approval, the Proponent **must**:
- (a) clear roadside vegetation and install an intersection distance advisory sign on the approach to the Wyrallah Road/Wyrallah Ferry Road intersection to improve driver awareness of the intersection;
 - (b) install hinged "Trucks entering" warning signs 200 metres either side of the quarry entrance, and ensure that these signs are open during hours in which the quarry is operating (see condition 6 of schedule 3); and
 - (c) install Koala crossing signs along Wyrallah Road on either side of the quarry entrance, to the satisfaction of Council.

Road Maintenance

26. During the project, the Proponent **must** pay Council \$0.06442 per tonne per kilometre for every tonne of extractive materials in excess of 8,500 tonnes per annum transported from the site on roads for which Council is liable for road maintenance funding, in accordance with Council's *Section 94 Contributions Plan 2004* and relevant *Development Control Plan*. Each payment must be:
- (a) based on the quantity of extractive materials transported from the site recorded by either accredited scales fitted to front-end loaders or weighbridge records;
 - (b) paid by the date required by the invoice issued by Council; and
 - (c) increased over the life of the project in accordance with the annual CPI.

Note: This rate is in accordance with the rate of \$0.05/tonne/kilometre set out in Council's Section 94 Contributions Plan 2004, subject to CPI adjustments since December 2003, as required under that Plan.

Parking

27. The Proponent **must** provide sufficient parking on-site for all project-related traffic in accordance with Council's parking codes.

Operating Conditions

28. The Proponent **must** ensure that:
- (a) vehicles on site do not exceed a speed limit of 30 kilometres per hour;
 - (b) all loaded vehicles entering or leaving the site have their loads covered; and
 - (c) all loaded vehicles leaving the site are cleaned of sand and other materials before they leave the site, so as to avoid tracking dirt onto public roads.
29. During cane harvesting season (July to December), the Proponent **must** implement all reasonable and feasible measures to minimise project-related traffic delays and congestion at the Broadwater Road/Pacific Highway intersection.
30. The Proponent **must** implement all reasonable and feasible measures to minimise project-related heavy vehicle traffic on the haulage routes during hours in which school buses are operating on these routes, to the satisfaction of the **Secretary**.

Monitoring of Product Transport

- 30A. The Proponent **must** make, and retain for at least 3 years, records of the time of dispatch, weight of load and vehicle identification for each laden truck dispatched from the project. These records must be made available to the Department on request and a summary included in the Annual Review.

Transport Management Plan

31. The Proponent **must** prepare a Transport Management Plan for the project to the **Secretary**. This plan must:
- (a) be prepared in consultation with the RMS and Council, and submitted to the **Secretary** for approval prior to carrying out any quarrying operations;
 - (b) include a drivers' code of conduct for the project;
 - (c) describe the measures that would be implemented to ensure:
 - haulage is minimised or routes altered to avoid school buses;
 - a CB radio communication protocol is established with local bus companies, to improve driver awareness of quarry truck and school bus locations along haulage routes;
 - drivers of project-related vehicles comply with the drivers' code of conduct; and
 - compliance with the relevant conditions of this approval; and
 - (d) include a program to monitor the effectiveness of the implementation of these measures.

The Proponent **must** implement the approved management plan as approved from time to time by the **Secretary**.

WASTE

32. The Proponent **must**:
- (a) minimise the waste generated by the project; and
 - (b) ensure that the waste generated by the project is appropriately stored, handled, and disposed of,
- to the satisfaction of the **Secretary**.
33. The Proponent **must** prepare a Waste Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- (a) be prepared in consultation with EPA, and submitted to the **Secretary** for approval prior to the commencement of any processing of extracted materials;
 - (b) identify the various waste streams of the project;
 - (c) estimate the volumes of waste material that would be generated by the project;
 - (d) describe and justify the proposed strategy for disposing of this waste material; and
 - (e) include a program to monitor the effectiveness of these measures.

The Proponent **must** implement the approved management plan as approved from time to time by the **Secretary**.

ABORIGINAL HERITAGE

Human Remains

34. This approval does not allow the Proponent to disturb any human remains found on site.

Sub-Surface Investigations

35. Prior to causing any surface disturbance of the land in the sites for the:
- (a) Water Supply Dam;
 - (b) Water Reuse Dam; and
 - (c) Southern Extraction Area
- the Proponent **must** undertake targeted sub-surface archaeological investigations, in consultation with OEH and Aboriginal stakeholders, to the satisfaction of the **Secretary**.

Heritage Management Plan

36. The Proponent **must** prepare a Heritage Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- (a) be prepared in consultation with OEH and Aboriginal stakeholders;
 - (b) be submitted to the **Secretary** for approval prior to carrying out any development on site (other than the construction of bunds and vegetative screening) under this approval;
 - (c) include a detailed program for proposed targeted sub-surface archaeological investigations, including a strategic sampling methodology; and
 - (d) describe the measures that would be implemented for:
 - monitoring all new surface disturbance on site for unidentified Aboriginal objects;
 - managing the discovery of any human remains or previously unidentified Aboriginal objects on site; and
 - ensuring ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site.

The Proponent **must** implement the approved management plan as approved from time to time by the **Secretary**.

LANDSCAPE

37. (Deleted)

Tuckean Swamp & Wetland

38. The Proponent **must** ensure that the project has not greater than negligible environmental consequences on the Tuckean Swamp and associated wetland.

Koalas

39. The Proponent **must** ensure that the project has negligible environmental consequences for the local Koala population.

Biodiversity Offset Strategy

40. The Proponent **must** implement the Biodiversity Offset Strategy, as described in the documents listed in condition 2(a) of Schedule 2, summarised in Table 7 and as shown in the figure in Appendix 6, to the satisfaction of the **Secretary**.

Table 7: Biodiversity Offset Strategy

Area	Offset Type	Minimum Size (ha)
Area 1	Existing vegetation to be enhanced	1.71
Area 2	Existing vegetation to be enhanced	2.56
Area 3	Existing vegetation to be enhanced	2.14
Protected Revegetation Area	Vegetation to be established with the planting of native endemic flora species	1.5
TOTAL		7.91

Relocated Powerlines

41. The Proponent **must** ensure that any relocation of existing powerlines on site to facilitate implementation of the project has not greater than negligible environmental consequences on the approved Biodiversity Offset Strategy.

Long Term Security of Offsets

42. By the end of June 2017, unless the Secretary agrees otherwise, the Proponent **must** make suitable arrangements to provide appropriate long term security for all of the offset areas in the Biodiversity Offset Strategy as identified in Table 7, and as shown in the figure in Appendix 6, to the satisfaction of the Secretary.

Note: Mechanisms to provide appropriate long term security to the land must remain in force in perpetuity.

Rehabilitation Objectives

43. The Proponent **must** rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must be generally consistent with the proposed rehabilitation strategy in the EA, and comply with the objectives in Table 8.

Table 8: Rehabilitation Objectives

Feature	Objective
Site (as a whole)	Safe, stable & non-polluting
Surface Infrastructure	To be decommissioned and removed, unless the Secretary agrees otherwise
Benched Quarry Walls	Landscaped with native endemic flora species
Quarry Pit Floors	Suitable for grazing
Other land affected by the project	Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"> • native endemic species; and • a landform consistent with the surrounding environment

Progressive Rehabilitation

44. The Proponent **must** rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies **must** be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

Landscape Management Plan

45. The Proponent **must** prepare a Landscape Management Plan for the project to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, DRG, DPI (Agriculture) and Council;
 - be submitted to the Secretary for approval prior to carrying out any development on site (other than the construction of bunds and vegetative screening) under this approval;
 - describe how the implementation of the Biodiversity Offset Strategy would be integrated with the overall rehabilitation of the site;
 - describe the short, medium and long term measures that would be implemented to:
 - manage remnant vegetation and habitat on site;
 - implement the Biodiversity Offset Strategy; and
 - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
 - include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy and the rehabilitation of the site, including triggering remedial action (if necessary);

- (f) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - ensuring compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
 - enhancing the quality of remnant vegetation and fauna habitat;
 - restoring native endemic vegetation and fauna habitat within the biodiversity offset areas and rehabilitation area;
 - maximising the salvage of environmental resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
 - collecting and propagating seed;
 - ensuring negligible environmental consequences for the local Koala population;
 - minimising the impacts on native fauna on site, including undertaking appropriate pre-clearance surveys;
 - controlling weeds and feral pests;
 - controlling erosion;
 - managing grazing and agriculture on site;
 - controlling access; and
 - bushfire management;
- (g) include a consultation program regarding the potential removal of Bund A as part of the rehabilitation of the site. Receptors NAL 2 and 3, must be consulted as part of the program;
- (h) include a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
- (i) identify the potential risks to successful implementation of the Biodiversity Offset Strategy and rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (j) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

Conservation & Rehabilitation Bond

46. Within 6 months of the approval of the Landscape Management Plan, the Proponent **must** lodge a Conservation and Rehabilitation Bond with the Department to ensure that the Biodiversity Offset Strategy and the rehabilitation of the site is implemented in accordance with the performance and completion criteria set out in the Landscape Management Plan. The sum of the bond **must** be determined by:
- (a) calculating the full future cost of implementing the Biodiversity Offset Strategy;
 - (b) calculating the cost of rehabilitating the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and
 - (c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs;
- to the satisfaction of the Secretary.

Notes:

- If capital and other expenditure required by the Landscape Management Plan is largely complete, the Secretary may waive the requirement for lodgement of a bond in respect of the remaining expenditure.
- If the Biodiversity Offset Strategy and rehabilitation of the site area are completed to the satisfaction of the Secretary, the Secretary will release the bond. If the Biodiversity Offset Strategy and rehabilitation of the site are not completed to the satisfaction of the Secretary, the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works.

47. Within 3 months of the completion of each Independent Environmental Audit (see condition 9 of schedule 5), the Proponent **must** review, and if necessary revise, the sum of the Conservation and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:
- (a) effects of inflation;
 - (b) likely cost of implementing the Biodiversity Offset Strategy and rehabilitating the site (taking into account the likely surface disturbance over the next 3 years of the project); and

- (c) performance of the implementation of the Biodiversity Offset Strategy and rehabilitation of the site to date.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing an:
 - (a) exceedance of any relevant criteria in schedule 3, the Proponent **must** notify affected landowners in writing of the exceedance, and provide regular monitoring results to each of affected landowner until the project is again complying with the relevant criteria; and
 - (b) an exceedance of the relevant air quality criteria in schedule 3, the proponent **must** send a copy of the NSW Health fact sheet entitled “*Mine Dust and You*” (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants on land which is quarry-owned).

INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in schedule 3, then he/she may ask the **Secretary** in writing for an independent review of the impacts of the project on his/her land.

If the **Secretary** is satisfied that an independent review is warranted, then within 2 months of the **Secretary's** decision the Proponent **must**:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the **Secretary**, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the project is complying with the relevant criteria in schedule 3; and
 - if the project is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
 - (b) give the **Secretary** and landowner a copy of the independent review.
3. If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the **Secretary**.

If the independent review determines that the project is not complying with the relevant criteria in schedule 3, then the Proponent **must**:

 - (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or
 - (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the **Secretary**.

SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. If the Secretary requires, the Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:
 - (a) be submitted to the Secretary for approval prior to any development being carried out on the site under this approval;
 - (b) provide the strategic framework for environmental management of the project;
 - (c) identify the statutory approvals that apply to the project;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
 - (e) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance; and
 - respond to emergencies; and
 - (f) include:
 - copies of any strategies, plans and programs approved under the conditions of this approval; and
 - a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.

The Proponent must implement the approved management strategy as approved from time to time by the Secretary.

Evidence of Consultation

- 1A. Where consultation with any public authority is required by the conditions of this consent, the Applicant must:
 - (a) consult with the relevant public authority prior to submitting the required document to the Secretary for approval;
 - (b) submit evidence of this consultation as part of the relevant document;
 - (c) describe how matters raised by the authority have been addressed and any matters not resolved; and
 - (d) include details of any outstanding issues raised by the authority and an explanation of disagreement between any public authority and the Applicant.

Adaptive Management

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

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

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

Management Plan Requirements

3. The Proponent **must** ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:
- (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria; and
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - impacts and environmental performance of the project; and
 - effectiveness of any management measures (see (c) above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
 - (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan.

*Note: The **Secretary** may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*

Annual Review

4. By the end of March each year, the Proponent **must submit a report to the Department reviewing** the environmental performance of the project to the satisfaction of the Secretary. This review must:
- (a) describe the development (including rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the **documents listed in condition 2(a) of Schedule 2**;
 - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the project;
 - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

Revision of Strategies, Plans & Programs

5. Within 3 months of the submission of an:
- (a) annual review under condition 4 above;
 - (b) incident report under condition 7 below;
 - (c) audit report under condition 9 below; and
 - (d) any modifications to this approval,
- the Proponent **must** review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the **Secretary**. **Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.**

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.

Community Consultative Committee

6. The Proponent **must** establish and operate a CCC for the project to the satisfaction of the **Secretary**. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and be operating prior to any development being carried out on site under this approval.

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, recognised environmental groups and the local community.*

REPORTING

Incident Reporting

7. The Proponent **must** immediately notify the **Secretary** and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent **must** provide the **Secretary** and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

8. The Proponent **must** provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

INDEPENDENT ENVIRONMENTAL AUDIT

9. Within a year of the commencement of development on site under this approval, and every 3 years thereafter, unless the **Secretary** directs otherwise, the Proponent **must** commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the **Secretary**;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL and/or Water License (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of any approved strategy, plan or program required under the these approvals;
 - (e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; **and**
 - (f) **be conducted and reported to the satisfaction of the Secretary.**

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.

10. Within 3 months of commissioning this audit, or as otherwise agreed by the **Secretary**, the Proponent **must** submit a copy of the audit report to the **Secretary**, together with its response to any recommendations contained in the audit report, **including a timetable for the implementation of any measures proposed to address the recommendations in the report.**

ACCESS TO INFORMATION

11. Within 4 months of the date of this approval, the Proponent **must**:
- (a) make the following information publicly available on its website:
 - the EA;
 - current statutory approvals for the project;
 - approved strategies, plans or programs;
 - a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;

- a complaints register, updated on a quarterly basis;
 - minutes of CCC meetings;
 - copies of any annual reviews (over the last 5 years);
 - any independent environmental audit, and the Proponent's response to the recommendations in any audit; and
 - any other matter required by the [Secretary](#); and
- (b) keep this information up-to-date, to the satisfaction of the [Secretary](#).

APPENDIX 1

PROJECT SITE & LAND REFERENCE PLAN



Figure 1: Property Descriptions (Lot and DP)

APPENDIX 2 PROJECT LAYOUT PLANS



Figure 2: Project Site and Nearest Residential Receivers

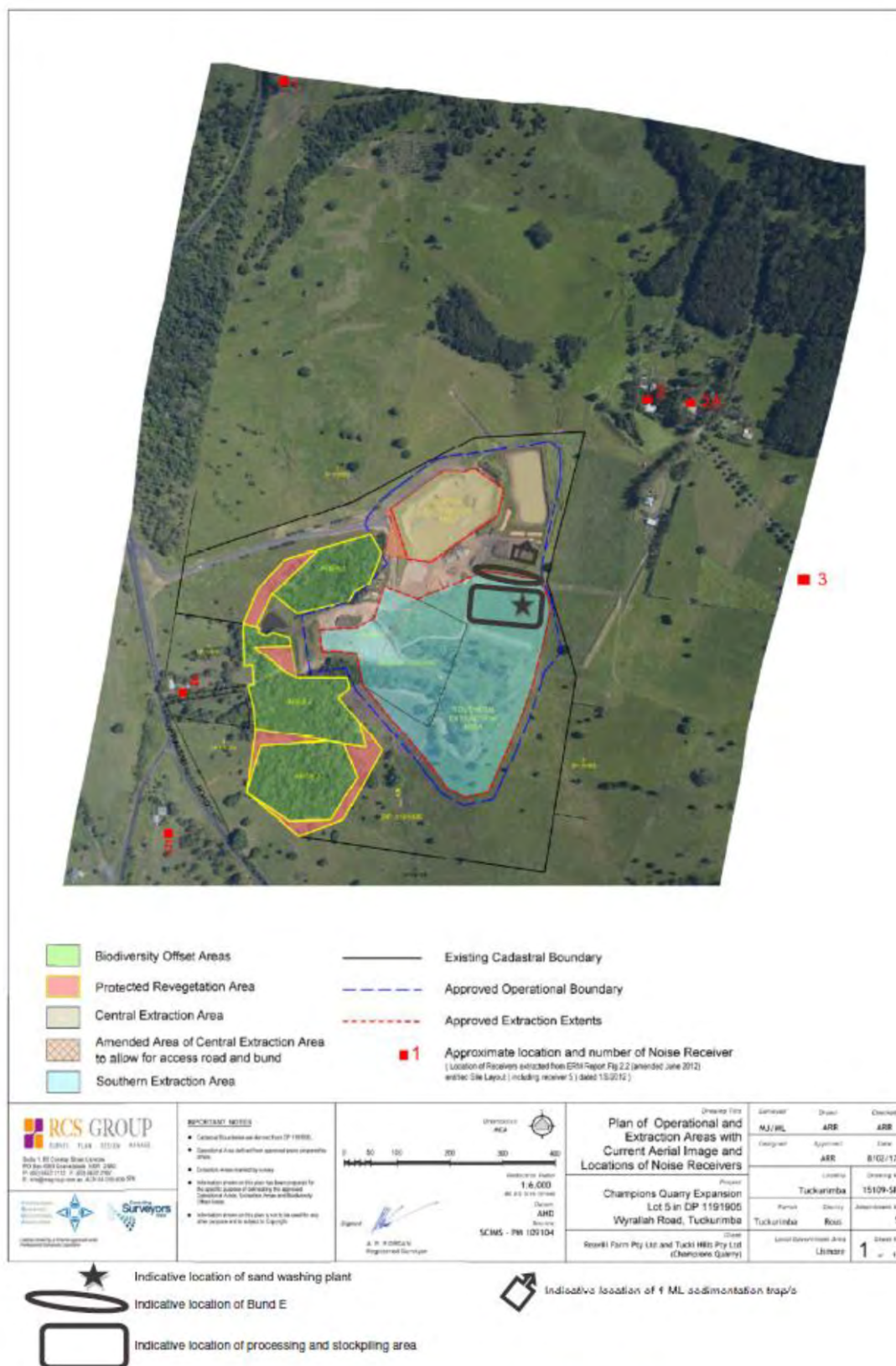


Figure 3: Site Features and Neighbouring Receivers

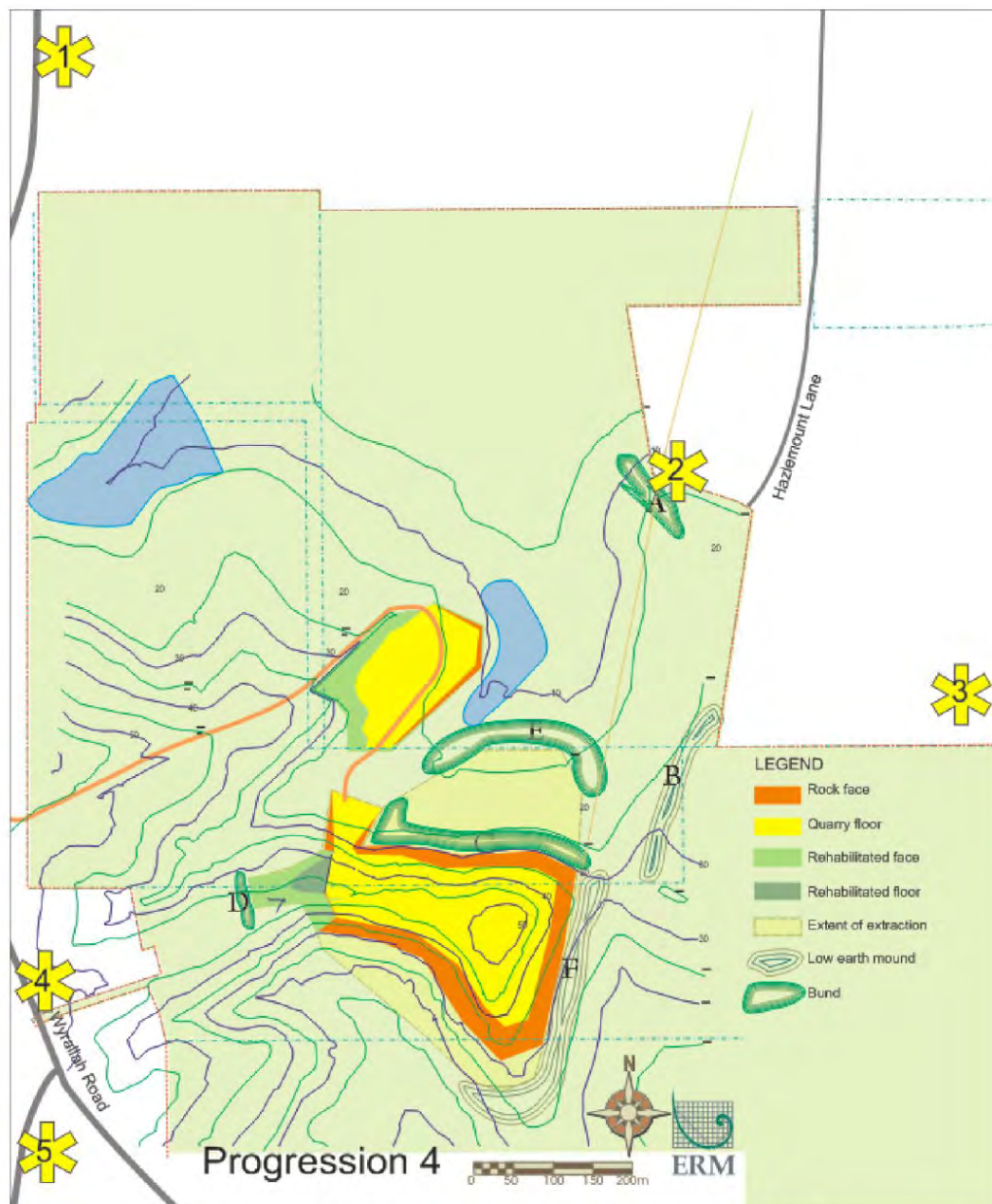


Figure 4: Indicative Locations of Bunds A – F, described in the EA

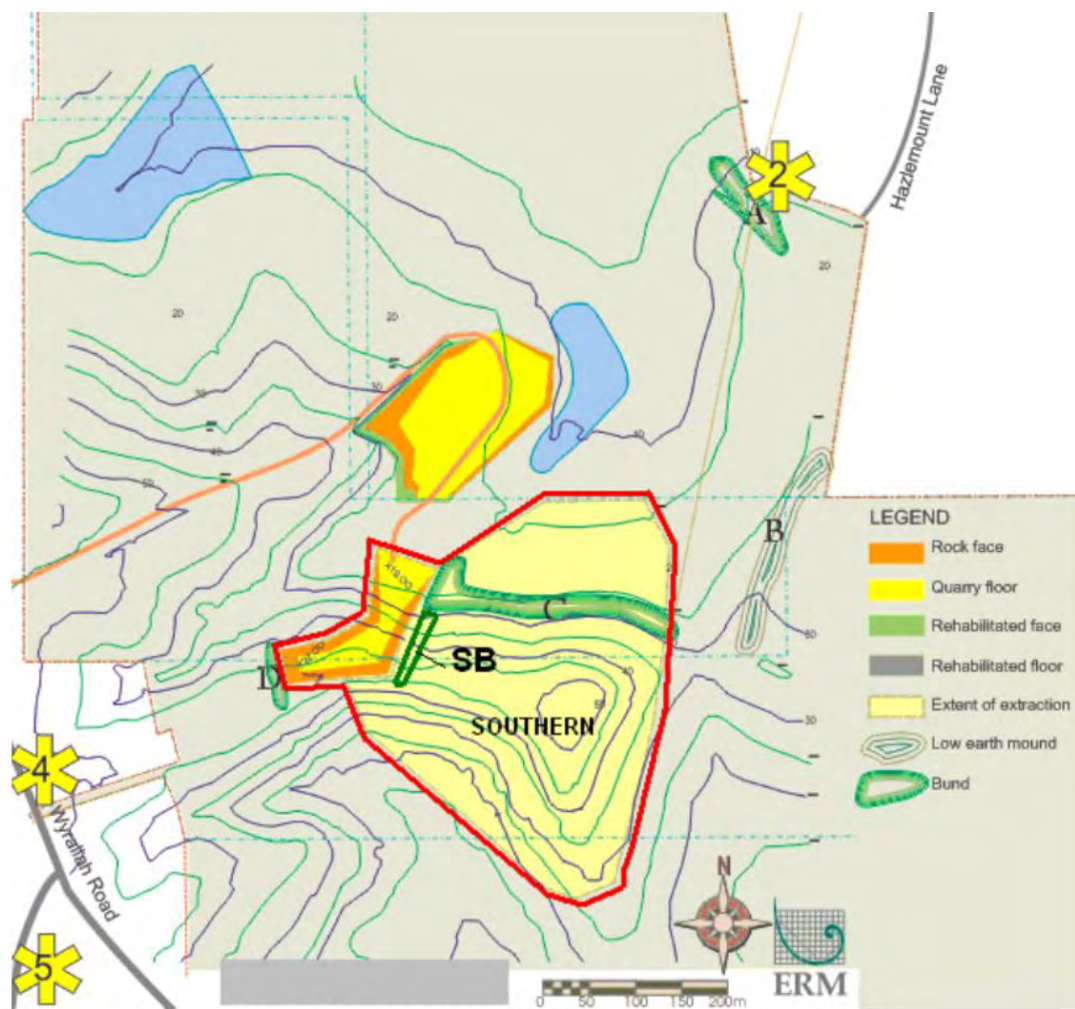


Figure 5: Initial Progression 1 within the Southern Extraction Area

APPENDIX 3 STATEMENT OF COMMITMENTS

Item Number	Item	Commitment	Responsibility	Timing
1	Scope of Development	<p>The development will be carried out as outlined in the documentation and plans listed below, except where amended by other items of this Statement of Commitments, and any conditions of approval issued by the Department of Planning and Infrastructure (DPI&I) or the Office of Environment and Heritage (OEH):</p> <ul style="list-style-type: none"> Environmental Assessment (EA) report, prepared by ERM, September 2009 and supporting reports; Additional Assessment provided with the Response to Submissions report and this Preferred Project Report. Quarry Plans (refer Figures 2.5 to 2.8 of the Response to Submissions report) Preferred Project Plans (refer Plans in Annex B of this report) 	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
2	Roads	<p>The primary route to and from Lismore to be via the Bruxner Highway, Coraki Road, Wyrallah Ferry Road and Wyrallah Road.</p> <p>The preferred route to and from the Pacific Highway to be Wyrallah Road or via Broadwater Road.</p> <p>The intersection of Wyrallah Road and Wyrallah Ferry Road be upgraded in the form of widening for the left turn in for heavy vehicles from Wyrallah Road (refer to Figure 18 in Appendix F)</p>	<p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd in consultation and cooperation with Lismore City Council</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Payment to Lismore City Council (as agreed in February 2009) 6 months prior to extraction commencing</p>

Item Number	Item	Commitment	Responsibility	Timing
		Coraki Road and Wyrallah Ferry Road intersection upgraded in the form of widening for the left turn in to cater for heavy vehicles from Coraki Road (refer to Figure 19 in Appendix F of EA (ERM, 2010)). The proposed design will require 90m ² of pavement widening in conjunction with a two coat seal.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd in consultation and cooperation with Lismore City Council	Payment to Lismore City Council (as agreed in February 2009) 6 months prior to extraction commencing
		Payment of road contributions to Lismore City Council.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Reduction of the speed limit on Wyrallah Road from 100km/hr to 80km/hr from Tuckurimba to Wyrallah.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd in consultation and cooperation with Lismore City Council	Pending Council approval.
		Vegetation be cleared that obscures the T-junction warning sign in Wyrallah Ferry Road on the approach to the Bridge.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd in consultation and cooperation with Lismore City Council	Prior to extraction commencing
		A '200m' distance plate be added to the above sign.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title in consultation with Lismore City Council and NSW RTA.	Prior to extraction commencing
		When the quarry has an increased truck volumes forecast for particular periods, this information to be forwarded onto the local bus companies.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title.	Ongoing
		A truck warning sign, W5-22, including a suggested distance of 200 metres should be provided on Wyrallah Road on each approach to the quarry access to be displayed during hours of operation.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Prior to extraction commencing

Item Number	Item	Commitment	Responsibility	Timing
3	Aboriginal Heritage	<p>All site employees/contractors will undergo site induction training that includes stop work procedure if archaeological sites are discovered.</p> <p>Information regarding heritage requirements will be made available on-site for employees/contractors.</p> <p>If an Aboriginal item is found on the Project Site all work will cease and the police (in the case of human remains), relevant Aboriginal community groups and a suitably qualified archaeologist contacted.</p> <p>Aboriginal Burial Management Plan to be in place prior to the commencement of works. This plan should be written in conjunction with the relevant stakeholder groups (such as Elders of the Bundjalung Elders Council).</p> <p>The Proponent commits to preparing and implementing an Aboriginal Cultural Heritage Management Plan (ACHMP) to the satisfaction of the Director-General following the approval of the proposed quarry expansion. This plan will:</p> <p>(1) be prepared in consultation with all relevant Aboriginal communities;</p> <p>(2) be submitted to the Director-General for approval; and</p> <p>(3) include a:</p> <ul style="list-style-type: none"> description of the measures that would be implemented to salvage any identified Aboriginal sites within the disturbance area; description of the measures that would be implemented to protect any Aboriginal sites outside the disturbance area; and description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project. 	<p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd</p> <p>As Above</p> <p>As Above</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd in consultation with relevant stakeholders and OEH</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd in consultation with relevant stakeholders and OEH</p>	<p>Ongoing</p> <p>As Above</p> <p>As Above</p> <p>Prior to extraction commencing</p> <p>Prior to extraction commencing and following approval of the quarry expansion</p>

Item Number	Item	Commitment	Responsibility	Timing
4	Ecological Considerations	<p>The biodiversity offset strategy shown in Figure 6.1 of the Response to Submissions will be implemented through a vegetation management plan developed in consultation with OEH and the DP&L. This will be aimed at retaining and managing areas of existing vegetation outside of the operational quarry area and includes revegetation in adjoining areas. In addition, the proponent will commit to the protection and management of the offset area secured through legal enforcement of the offset strategy via a voluntary conservation agreement under the National Parks and Wildlife Act 1974 or Section 88B-E covenant of the Conveyancing Act 1919 to be negotiated by the proponent and the DP&L and OEH.</p> <p>Pre-clearance inspection of each 'work cell' prior to the commencement of clearing works to identify potential fauna habitat (e.g. fallen hollow logs, and hollow-bearing trees) and identify appropriate measures. Measures to minimise impact on fauna during clearing operations will include modified clearance of hollow-bearing trees by clearing up to the tree, nudging the tree then leaving the tree to be cleared at a later period to allow any resident fauna to relocate;</p> <p>Where potential fauna habitat identified a suitably qualified wildlife handler would be present during clearing operations to supervise clearance and rescue any individuals where required;</p> <p>Pre-clearance inspection of any trees to be felled for presence of Koalas.</p> <p>Measures to minimise impact of traffic movement on fauna includes:</p> <ul style="list-style-type: none"> limiting traffic movement to approved hours; limiting the speed of haul trucks within the Project Site to 30km/h; and selection of shrub species and/or tree species that do not provide a foraging resource for Koalas in visual screening proposed along the haul road; and providing a break in the screening planting near the junction of the haul road and Wyrallah Road to discourage directing terrestrial fauna on to the road. 	<p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p> <p>Any truck drivers requiring access to the Project Site</p>	<p>Biodiversity Offset Strategy and Vegetation Management Plan to be developed prior to extraction commencing.</p> <p>Implementation of Plan of Management to be ongoing</p> <p>Prior to commencement of any clearing works.</p> <p>Ongoing</p>

Item Number	Item	Commitment	Responsibility	Timing
		In accordance with the relevant legislation, measures will be taken to control the growth and spread of existing Camphor Laurel and Lantana infestations in the <i>Project Site</i> .	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		The existing quarry has a Rehabilitation and Final Landscape Plan. The principals of this plan will be applied to the expanded quarry operation. Work cells will be progressively rehabilitated. A large part of the proposed quarry will be rehabilitated with pasture species to grazing land as currently characterises the <i>Project Site</i> . The benches would be shaped and rehabilitated with locally occurring native species. The rehabilitation will be monitored monthly to assess establishment of vegetation and progress documented by the Environmental Officer.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
5	Noise	Provision of bunding as shown in <i>Quarry Management Plan</i> , with the exception of <i>Bund A</i> which will be constructed per Plan titled <i>LA60/0268-SV26G</i> as provided in <i>Annex B</i> of this report.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Prior to extraction commencing
		The operating hours of the quarry are restricted to the following: <ul style="list-style-type: none"> 7am to 5.30pm Monday to Friday; 7.30 to 3pm Saturday; and no operations to occur on Sunday or public holiday. 	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Use of a rock hammer to be limited to the following times: <ul style="list-style-type: none"> 9am–12pm and 2pm–4pm (Monday to Friday); not to be used on weekends or public holidays. 	All personnel associated with extraction, processing and transportation operations Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title All personnel responsible for	Ongoing

Item Number	Item	Commitment	Responsibility	Timing																	
		operating the rock hammer																			
		'Broadband' reversing beepers or alternative non noise emitting reverse warning arrangements (i.e. communications based) will be used on all key plant rather than single frequency reversing beepers.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing																	
		The Project Specific Noise Levels (PSNL) as per the following table should be the appropriate noise limit for the project in any subsequent approval granted by the DP&L.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing																	
		<table><tr><th>Location</th><th>Period</th><th>Intrusiveness Criteria LAeq(15 minute)</th><th>Amenity Criteria LAeq(Period)</th></tr><tr><td>NAL 1</td><td rowspan="4">Day</td><td>35</td><td>50</td></tr><tr><td>NAL 2</td><td>37</td><td>50</td></tr><tr><td>NAL 3</td><td>37</td><td>50</td></tr><tr><td>NAL 4</td><td>39</td><td>50</td></tr></table>	Location	Period	Intrusiveness Criteria LAeq(15 minute)	Amenity Criteria LAeq(Period)	NAL 1	Day	35	50	NAL 2	37	50	NAL 3	37	50	NAL 4	39	50		
Location	Period	Intrusiveness Criteria LAeq(15 minute)	Amenity Criteria LAeq(Period)																		
NAL 1	Day	35	50																		
NAL 2		37	50																		
NAL 3		37	50																		
NAL 4		39	50																		
		The proponent will conduct noise compliance monitoring at sensitive receiver locations to demonstrate compliance of the quarrying operations. This monitoring program will form part of a detailed Noise Monitoring Program to be prepared to the satisfaction of the Director General of the DP&L.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Within one month of commencing expanded quarrying operations																	

Item Number	Item	Commitment	Responsibility	Timing
		The rock hammer will only be used on-site in isolation from all other quarrying extraction and processing operations.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Road traffic noise created by the haul trucks accessing the site speed limited to 30km/h and prohibiting haul trucks from using compression braking on-site.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Effective placement and stockpiling of product so that where possible, plant equipment can be working behind stockpiles.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Construction of a 5m earth bund as a barrier to operational plant that is not shielded by permanent bunding or leading quarry walls.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Modern, well maintained industrial equipment will be used.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Plant operations personnel will undergo induction training into quarry operations (i.e. lean manufacturing training), the benefits of which help to minimise unnecessary noise emissions from plant equipment.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Prior to any works commencing on site
		All personnel associated with extraction, processing and transportation operations		
		For compliance purposes, attended noise monitoring (at established permanent noise assessment locations) and plant equipment audits will be undertaken on an annual basis.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing

Item Number	Item	Commitment	Responsibility	Timing
		Sealing of the main access road from the site entrance intersection to the <i>Central Section</i> pit.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Prior to expansion of extraction activities commencing on site
6	Air Quality	Any unsealed quarry roads on the <i>Project Site</i> will be watered at a rate of 2 L/m ² /minute as required.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Water sprays will be used on all mobile processing equipment and stockpiles to minimize airborne particulate matter.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		All trucks leaving the <i>Project Site</i> to have covers in place prior to leaving the operational area.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
		Stockpiles of overburden and topsoil being stored for utilization in rehabilitation activities to be seeded to minimize the potential for fugitive dust.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Ongoing
7	Soil and Surface Water Management	The soil and water management regime developed in accordance with the Soil and Water Management Plan provided as an <i>Appendix of the EA</i> and accounting for the revised sediment dam calculations provided as <i>Annex B of the Response to Submissions Report</i> (ERM, 2010).	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	All water and soil water management devices to be put in place prior to construction commencing Management of water and soil to be ongoing.

Item Number	Item	Commitment	Responsibility	Timing
		<p>The Environmental Management Plan (EMP) to be developed by the proponent will include detailed information to justify the upstream/background monitoring locations/results and clearly quantify and justify any departure from the pH limit range of 6.5-8.5. This will include a detailed surface water monitoring and review program to establish a case for any departure from the commonly prescribed range. Until such time as the case is made, and approved by the OEH and/or Director General of the DP&I, any water discharged from the site will be required to fall within the pH limit range of 6.5-8.5</p> <p>All tail water is to be collected in the sediment basins and/or in the waste water reuse dam.</p>	<p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p>	<p>Prior to any works commencing on site and ongoing</p> <p>The quarry is to be designed and infrastructure installed to recapture all tail water before the commencement of works within the expanded quarry. The infrastructure will be progressively developed with the continued quarry expansion</p>
8	Quarry Rehabilitation	<p>The progressive rehabilitation approach developed within the Vegetation Management Plan, Visual Analysis and Quarry Management Plan provided as Annexure to the <i>Response to Submissions Report</i> (ERM, 2010) to be implemented.</p> <p>The rehabilitation program will aim to return as much of the disturbed areas to their class 3 and class 4 classifications where possible to assist in achieving the LEP zone objectives and providing opportunities for sustainable grazing in the longer term. Benching may be part of this program as is proposed.</p>	<p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p> <p>Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title</p>	<p>Ongoing</p> <p>Progressively where possible, but predominately upon quarry closure.</p>

Item Number	Item	Commitment	Responsibility	Timing
9	Quarry Operation	The proponent commits to completing Department of Industry and Investment – Mineral Resources forms for data collection relating to quantity and value of construction materials on annual basis.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	The forms are provided to all operating quarries at the end of each financial year.
10	Visual	The noise control bund (<i>Bund A</i>) proposed in the north eastern section of the Project Site will be relocated approximately 60m to the southwest of <i>Receiver 2</i> , and beyond the existing landscape bunds in order to reduce construction noise impacts and mitigate visual impacts to the receiver.	Reavill Farm Pty Ltd and Tucki Hills Pty Ltd, and/or its successors in title	Initial construction phase.

APPENDIX 4 SUBDIVISION OF LAND

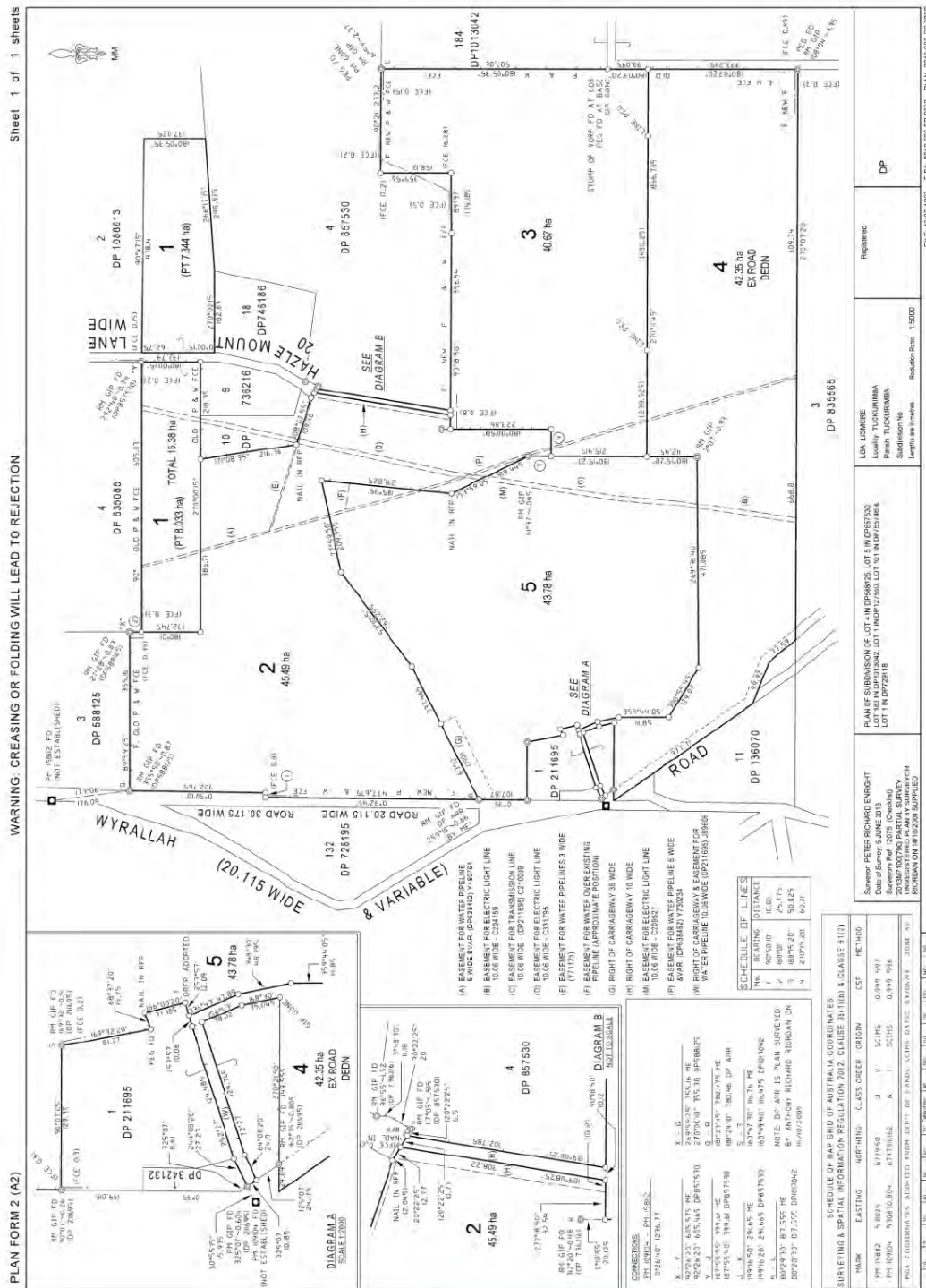


Figure 6: Lands to be Subdivided

APPENDIX 5 CONCEPTUAL LAYOUT OF INTERSECTION UPGRADES

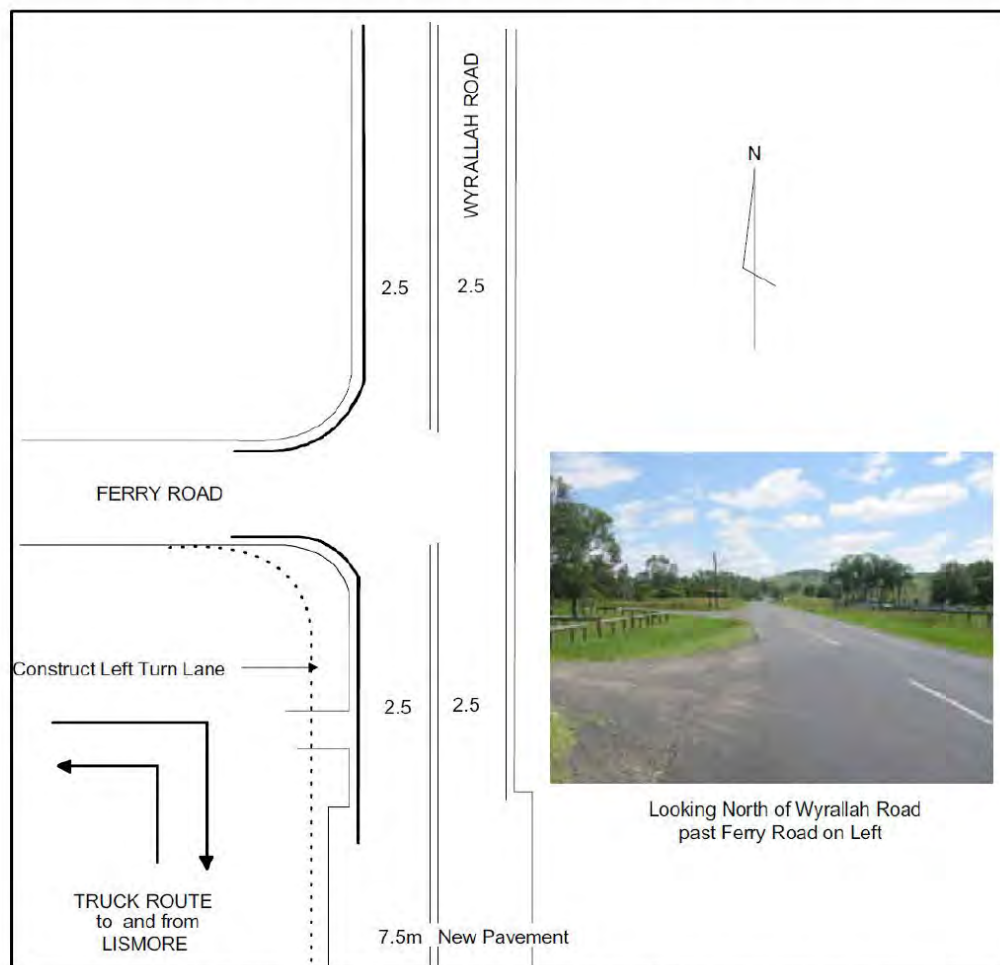


Figure 7: Wyrallah Road / Wyrallah Ferry Road Intersection Upgrade

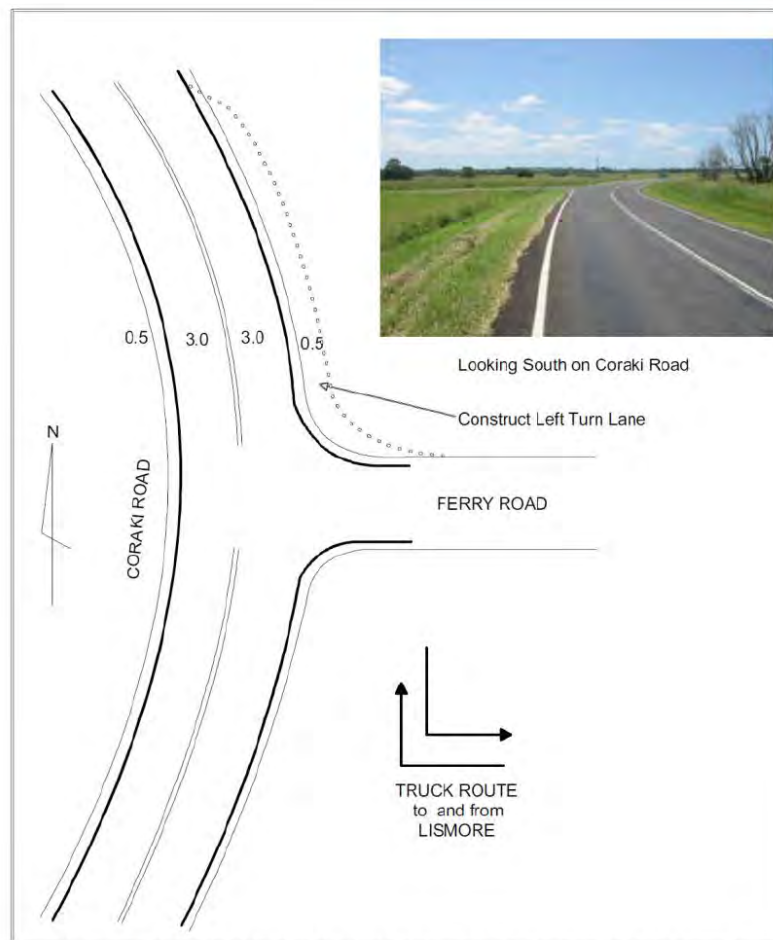


Figure 8: Coraki Road / Wyrallah Ferry Road Intersection Upgrade

APPENDIX 6 BIODIVERSITY OFFSET STRATEGY



Figure 9: Biodiversity Offset Areas and Protected Revegetation Area

Notice of Modification

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

As delegate for the Minister for Planning and Infrastructure, I modify the project approval referred to in Schedule 1, as set out in Schedule 2.

David Kitto
Director, Mining and Industry Projects

Sydney, 29 OCTOBER 2013

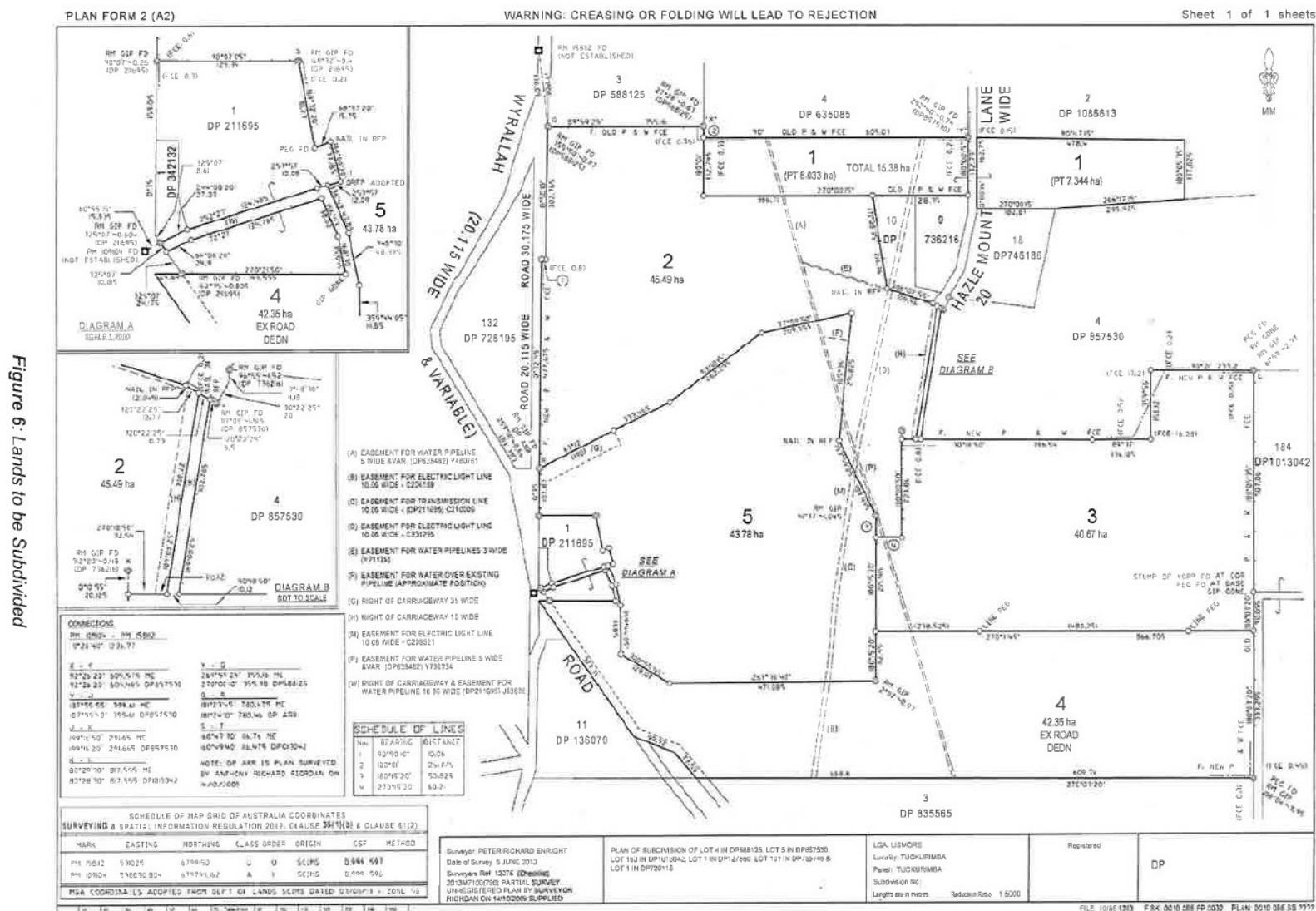
SCHEDULE 1

The project approval (09_0080) for the Champions Quarry Project, granted by the Planning Assessment Commission as delegate for the Minister for Planning and Infrastructure on 30 August 2012.

SCHEDULE 2

1. In condition 2 of Schedule 2, delete all words after "statement of commitments;" (except the notes) and insert the following:
 - (c) modification application (09_0080 Mod 1) and supporting correspondence dated 18, 22 and 25 March 2013; and
 - (d) conditions of this approval.
2. In condition 5 of Schedule 2, insert the word 'general' before the word 'accordance':
3. In condition 9 of Schedule 2, after paragraph (a) insert the following:
 - (a1) transport more than 100,000 tonnes of extractive material from the site in any calendar year without having first installed a weighbridge;
4. Delete condition 26(a) of Schedule 3 and replace with:
 - (a) based on the quantity of extractive materials transported from the site recorded by either accredited scales fitted to front-end loaders or weighbridge records until the end of December 2015, and thereafter based on weighbridge records only;
5. Delete condition 42 of Schedule 3 and replace with:
 42. By the end of March 2014, unless the Director General agrees otherwise, the Proponent shall make suitable arrangements to provide appropriate long term security for all of the offset areas in the Biodiversity Offset Strategy (apart from the tree screening on the northern side of the quarry access road) as identified in Table 7, and shown conceptually in the figure in Appendix 6, to the satisfaction of the Director General.

Note: Mechanisms to provide appropriate long term security to the land must remain in force in perpetuity.
6. Delete the Figure 6 in Appendix 4 and replace with the following figure:



Notice of Modification

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

As delegate of the Minister for Planning, I modify the project approval referred to in Schedule 1, as set out in Schedule 2.



Howard Reed
A/Executive Director
Resource Assessments and Compliance

Sydney

16 September

2016

SCHEDULE 1

The project approval (09_0080) for the Champions Quarry Project, granted by the Planning Assessment Commission as delegate of the Minister for Planning and Infrastructure on 30 August 2012.

SCHEDULE 2

1. In the list of Definitions, delete the following definitions: "Biodiversity offset strategy", "Department", "Director-General", "DPI (Agriculture)", "DRE", "Extraction Areas", "Minister", "NOW", "OEH" and "Project" and insert the following definitions in alphabetical order:

Biodiversity offset strategy	The conservation and enhancement strategy described in the documents listed in condition 2(a) of Schedule 2, and shown in the figure in Appendix 6
Department	Department of Planning and Environment
DPI (Agriculture)	Department of Primary Industries - Agriculture
DPI (Water)	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the NSW Department of Industry
EA (MOD 1)	Modification Application MP 09_0080 MOD 1 dated April 2013
EA (MOD 2)	Modification Application MP 09_0080 MOD 2 dated February 2016, the accompanying annexures A and B and the response to submissions dated April 2016
Extraction Areas	The Central and Southern Extraction Areas, shown on Figure 3 in Appendix 2
Incident	A set of circumstances that: <ul style="list-style-type: none">causes, or threatens to cause, material harm to the environment; and/orbreaches or exceeds the limits or performance measures/criteria in this approval
Minister	Minister for Planning, or delegate
OEH	Office of Environment and Heritage
Project	The development as described in the documents listed in condition 2(a) of Schedule 2
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Secretary	Secretary of the Department, or nominee

2. Delete all references to "Director-General" and replace with "Secretary".
3. Delete all references to "NOW" and replace with "DPI (Water)".

4. Delete all references to “shall” and replace with “must”, with the exception of references contained in condition 3 of Schedule 2.
5. Delete condition 2 of Schedule 2, and replace with:
 2. The Proponent must carry out the development:
 - (a) generally in accordance with the EA, EA (MOD 1) and EA (MOD 2); and
 - (b) in accordance with the Project Layout Plans, the Statement of Commitments and the conditions of this approval.

Notes:

- The Project Layout Plans are included in Appendix 2; and
- The Statement of Commitments is included in Appendix 3.

6. Delete condition 4 of Schedule 2, and replace with:
 4. The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
 - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval (including any stages of these documents);
 - (b) any reviews, reports or audits commissioned by the Department regarding compliance with this approval; and
 - (c) the implementation of any actions or measures contained in these documents.
7. Delete condition 7 of Schedule 2, and replace with:
 7. The Proponent must not extract extractive materials:
 - (a) outside of the Extraction Areas (other than as required for the approved construction or operation of the project);
 - (b) below a level of 12 m AHD in the Central Extraction Area; and
 - (c) below a level of 8 m AHD in the Southern Extraction Area.

Note: The Extraction Areas are shown in Figure 3 in Appendix 2.

8. In condition 9 of Schedule 2:
 - a) delete paragraph (a1); and
 - b) after paragraph (c), insert the following note:

Note: In this condition, ‘per hour’ means the 60 minutes following the change of hour.

9. In condition 10 of Schedule 2, replace “may only” with “must”.

10. Delete condition 12 of Schedule 2.

11. In condition 16 of Schedule 2, after paragraph (b), insert the following note:

Note: This condition does not apply to any damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 26 to Schedule 3 of this approval.

12. In condition 5 of Schedule 3, in the ‘Notes’, delete the words “Appendix 1” and replace with “Appendix 2”.

13. In condition 8 of Schedule 3, at the end of paragraph (c):
 - a) delete the word “and”; and
 - b) insert the following:

“(c1) carry out noise monitoring to determine whether the project is complying with the relevant conditions of this approval; and”.

14. In conditions 9, 12, 17, 31, 33, 36 and 45 of Schedule 3, in each condition:
 - a) delete the words “and implement” after the words “shall prepare”; and
 - b) after the last paragraph, insert the following:

“The Proponent must implement the approved management plan as approved from time to time by the Secretary.”

15. In condition 11 of Schedule 3, after paragraph (a), insert the following:

- “(a1) carry out regular air quality monitoring to determine whether the project is complying with the relevant conditions of this approval;”.
16. In condition 26(a) of Schedule 3, delete the words “until the end of December 2015, and thereafter based on weighbridge records only”.
17. After condition 30 of Schedule 3, insert the following:
- Monitoring of Product Transport**
- 30A. The Proponent must make, and retain for at least 3 years, records of the time of dispatch, weight of load and vehicle identification for each laden truck dispatched from the project. These records must be made available to the Department on request and a summary included in the Annual Review.
18. Delete condition 37 of Schedule 3, including the heading.
19. In condition 40 of Schedule 3:
- a) delete the word “EA” and replace with “documents listed in condition 2(a) of Schedule 2”; and
 - b) delete the word “conceptually” after the words “as shown”.
20. In condition 42 of Schedule 3:
- a) delete the words “March 2014” and replace with “June 2017”;
 - b) delete the words “(apart from the tree screening on the northern side of the quarry access road)”; and
 - c) delete the word “conceptually” after the words “as shown”.
21. In condition 47 of Schedule 3, after the words “Within 3 months of”, insert the words “the completion of”.
22. In condition 1 of Schedule 4, after the words “tenants of the land”, insert the words “(including the tenants on land which is quarry-owned)”.
23. In condition 1 of Schedule 5:
- a) delete the words “The Proponent shall prepare and implement” and replace with “If the Secretary requires, the Proponent must prepare”; and
 - b) after the last paragraph, insert the following:

“The Proponent must implement the approved strategy as approved from time to time by the Secretary.”
24. In condition 4 of Schedule 5:
- a) delete the word “review”, and insert “submit a report to the Department reviewing”; and
 - b) delete the word “EA”, and insert “documents listed in condition 2(a) of Schedule 2”.
25. In condition 5 of Schedule 5, after the last paragraph, insert the following: “Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.”.
26. Delete condition 7 of Schedule 5, and replace with:
- 7. The Proponent must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.
27. In condition 9 of Schedule 5:
- a) at the end of paragraph (d), delete the word “and”; and
 - b) at the end of paragraph (e), delete the full stop and insert:

“; and
 - (f) be conducted and reported to the satisfaction of the Secretary.”
28. In condition 10 of Schedule 5, after the words “the audit report”, insert the words “, including a timetable for the implementation of any measures proposed to address the recommendations in the report”.
29. In Appendix 2 – Project Layout Plans, delete Figure 3 and replace with the following:



Figure 3: Extraction Area Dimensions and Site Features

30. In Appendix 3 – Statement of Commitments, item number 4, delete:

- a) "Buffer distance of at least 50m between the quarry extraction area and the adjacent native vegetation and habitat – specifically the rainforest community in Area 1. These will be clearly marked prior to the commencement of expanded quarrying operations.";
- b) "Reavill Farm Pty Ltd and Tucki Hills, and/or its successors in title"; and
- c) "Prior to commencement of any clearing works."

31. Delete Figure 9 in Appendix 6 and replace with the following:



Figure 9: Biodiversity Offset Areas and Protected Revegetation Area

Notice of Modification

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

As delegate of the Minister for Planning, I modify the project approval referred to in Schedule 1, as set out in Schedule 2.



Howard Reed
Director
Resource Assessments

Sydney

09 August

2017

SCHEDULE 1

The project approval (09_0080) for the Champions Quarry Project, granted by the Planning Assessment Commission as delegate of the Minister for Planning and Infrastructure on 30 August 2012.

SCHEDULE 2

1. In the list of Definitions, delete the word "DRE" and its definition and insert the following in alphabetical order:

DRG EA (MOD 3)	Division of Resources and Geoscience within the Department Modification Application MP 09_0080 MOD 3 dated February 2017, titled <i>Annexure A – Application pursuant to Section 75W of the Environmental Planning and Assessments Act 1979</i> , and the response to submissions dated July 2017
Sound power testing	Measurement of the total power of sound that is emitted per unit time, measured in watts (W)
2. In sub-paragraph (a) of condition 2 of Schedule 2, delete the words "and EA (MOD 2)" and insert the words ", EA (MOD 2) and EA (MOD 3)".
3. Delete all references to "DRE" and replace with "DRG".
4. After condition 19 of Schedule 2, insert the following:

COMPLIANCE

20. The Proponent must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.
5. In condition 3 of Schedule 3:
 - (a) delete the word "and" at the end of the first bullet point;
 - (b) insert the word "and" at the end of the second bullet point; and
 - (c) after the words "Southern Extraction Area", insert the following:
 - Bund E prior to commissioning the sand washing plant within the Southern Extraction Area.
 - (d) in the note, delete the words "and Bund D" and insert the words ", Bund D and Bund E".
6. After condition 6 of Schedule 3, insert the following:
 - 6A. The following activities may be carried out outside the hours specified in Table 3:

- (a) delivery or dispatch of materials as requested by Police or other public authorities; and
- (b) emergency work to avoid the loss of lives, property or to prevent environmental harm.

In such circumstances, the Proponent must notify the Secretary and affected residents prior to undertaking the activities, or as soon as is practical thereafter.

7. In sub-paragraph (d) of condition 9 of Schedule 3, after the words “rock hammer and rock saw,”, insert the following:
 - includes quarterly monitoring by a suitably qualified and experienced specialist, unless otherwise required by the Secretary;
 - includes annual sound power testing, unless otherwise agreed by the Secretary;
8. After condition 14 of Schedule 3, insert the following:

14A. Prior to operating the sand washing plant, the Proponent must construct a sediment pond with capacity of at least one megalitre to receive all discharges from that plant.
9. In condition 47 of Schedule 3, delete the number “8” and replace with the number “9”.
10. After condition 1 of Schedule 5, insert the following:

1A. Where consultation with any public authority is required by the conditions of this consent, the Applicant must:

 - (a) consult with the relevant public authority prior to submitting the required document to the Secretary for approval;
 - (b) submit evidence of this consultation as part of the relevant document;
 - (c) describe how matters raised by the authority have been addressed and any matters not resolved; and
 - (d) include details of any outstanding issues raised by the authority and an explanation of disagreement between any public authority and the Applicant.
11. In Appendix 2 – Project Layout Plans, delete Figure 3 and replace with the following:

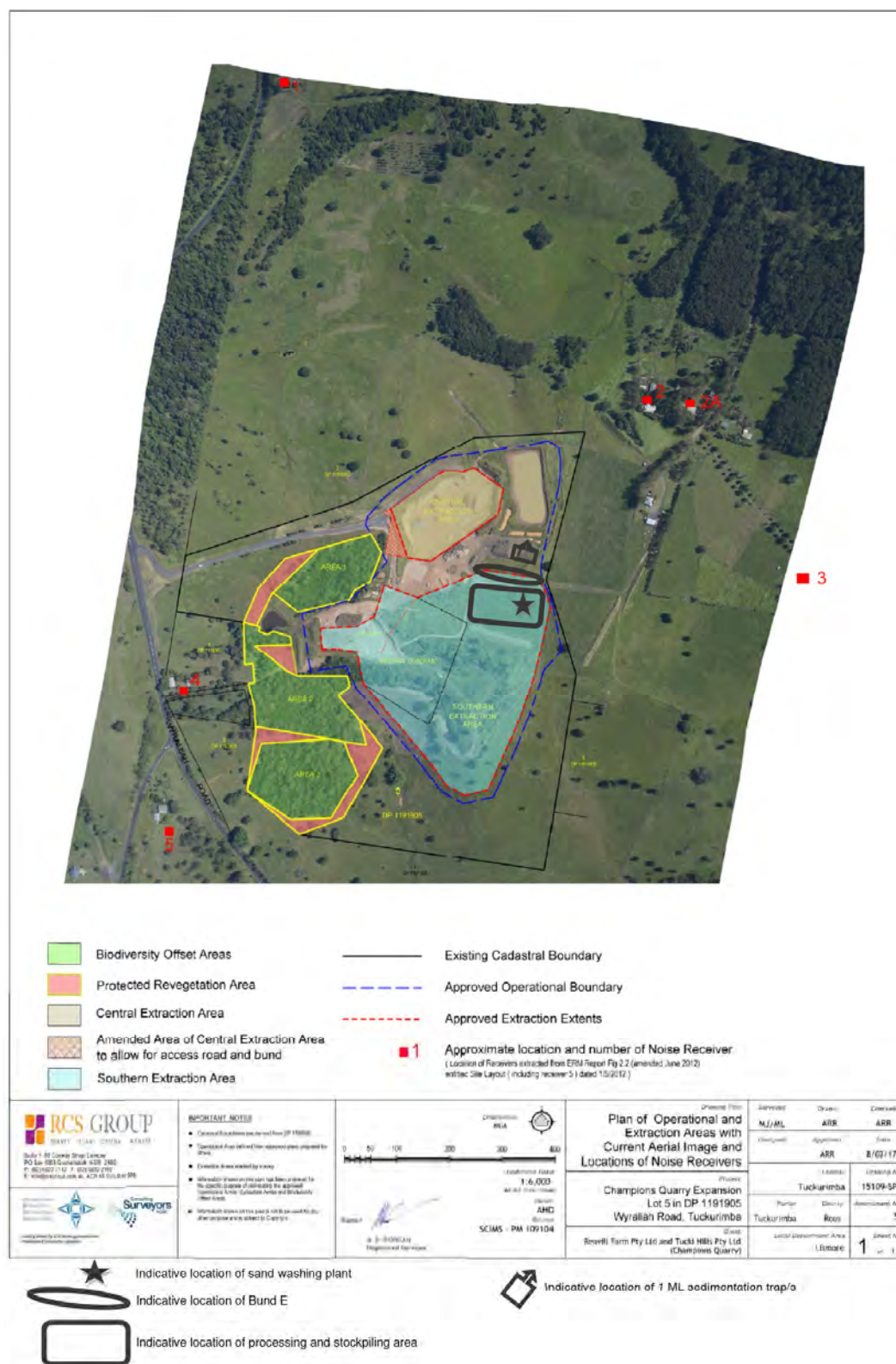


Figure 3: Site Features and Neighbouring Receivers

12. Update the Table of Contents, as required, to reflect the above changes.

REFERENCES

- The Guideline for Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004);
- EA – Champions Quarry Expansion, Environmental Assessment Report prepared by ERM Pty Limited and dated February 2010;
- Response to Submissions - Champions Quarry Response to Submissions, prepared by ERM Pty Limited and dated September 2010 and containing the Proposed Quarry Management Plan;
- Preferred Project Report - Champions Quarry Expansion, Preferred Project Report prepared by ERM Pty Limited and dated December 2011;
- Planning and Assessment Commission of NSW Conditions of Approval dated August 30, 2012;
- Minister for Planning and Infrastructure - Notice of Modification dated October 29, 2013; and
- Minister for Planning - Notice of Modification dated September 16, 2016.