

Gunlake Quarry



Environmental Management Strategy

March 2020

Document Control Details

Document Control Details					
DOCUMENT DETAILS	Name:		Environmental Management Strategy		
	Author:		Kirsty Nielsen		
	Reference:				
	Revision No.:		5		
	Document Status		Operational		
Revision Details					
REVISION DETAILS	Revision No.	Date	Details of Revision	Reviewed By	Approved By
	1	11/8/08	Final for issue	Ed O'Neil	Ed O'Neil
	2	27/8/15	Management Review	Ed O'Neil	Ed O'Neil
	3	31/8/15	Final for issue	Ed O'Neil	Ed O'Neil
	4	20/9/18	Update with SSD	K Nielsen	D Kelly
	5	27/3/20	Review following 2019 Independent Environmental Audit	K Nielsen	D Kelly
Circulation Details					
CIRCULATION DETAILS	Date		Department/Organisation		
	11/8/08		Department of Planning		
	27/8/15		Ed O'Neil Managing Director Gunlake Quarry		
	31/8/15		Department of Planning		

Table of Contents

1. Introduction	1
1.1 Purpose	1
1.2 Objectives of the Strategy	1
1.3 Specific Management Plans which form the EMS	1
1.4 Roles and Responsibilities	2
1.5 Legislative Requirements	2
1.6 Statutory Environmental Approvals	4
1.6.1 Development Consent	4
1.6.2 Environment Protection Licence	5
2. Strategic Framework	6
2.1 Management Structure	6
2.1.1 Responsibilities and Authorities	6
2.2 Managing Environmental Aspects	7
2.3 Management Plans	7
2.4 Environmental Audits	7
2.5 Industry Initiative and Benchmarks	8
2.6 Environmental Training	8
3. Environmental Issues Management	9
3.1 Operation Overview	9
3.2 Environmental Management System Components	9
3.2.1 Erosion and Sedimentation Management	9
3.2.2 Air Quality and Dust Management	10
3.2.3 Noise and Blasting Management	10
3.2.4 Water Management Plan	10
3.2.5 Traffic Management	11
3.2.6 Flora and Fauna Management	11
3.2.7 Aboriginal Heritage Management	12
4. Stakeholder Communication	13
4.1 Community Consultation	13
4.2 Community Complaints	13
4.3 Government Liaison	13
4.4 Public Access to Information	14
4.4.1 Notification of Landowners	14
4.4.2 Independent Review	14
4.4.3 Dispute Resolution	14
5. Verification and Corrective Action	16

5.1	Environmental Monitoring	16
5.2	Reporting Procedures	16
5.3	Non-Conformance, Corrective Action and Adaptive Management	17
5.4	Preventative Action Procedures	17
5.5	Record Keeping	17
5.6	Auditing Procedures	17
5.7	Management Review	18
5.8	Continuous Improvements	18
5.9	Emergency Procedures	18

Appendices

Appendix A - Figures

Appendix B – Development Consent

List of Figures

- Figure 1 Site Location
Figure 2 Environmental Monitoring Locations
-

1. Introduction

1.1 Purpose

This Environmental Management Strategy (EMS) describes the management and control of environmental issues at Gunlake Quarry. This EMS is issued with the authority of the Gunlake Quarries Pty Ltd Director responsible for the operation of the Quarry. All changes to the EMS are reviewed and authorised by the Director.

The intention of the EMS is to provide a road map on the requirements of managing environmental aspects at the Gunlake Quarry. This version 5 of the EMS has been updated following the completion of the 2019 Independent Environmental Audit and satisfies Condition 1 of Schedule 5 of the State Significant Development consent LEC2017/108663.

1.2 Objectives of the Strategy

Commitment to high quality environmental management of the site by Gunlake Quarries management is demonstrated by:

- ❑ Effective communication of environmental issues and responsibilities to the workforce through mechanisms such as induction, display on Notice Boards and at Quarry meetings,
- ❑ Provision of adequate resources to implement and maintain good environmental management, and,
- ❑ Establishment of measurable objectives and regular reviews to ensure the suitability and effectiveness of environmental management activities.

All Quarry personnel involved with environmental aspects will remain familiar with this EMS. The key environmental objectives of Gunlake Quarries are:

- ❑ To satisfy all statutory requirements,
- ❑ To be recognised as a company that operates the Gunlake Quarry in an environmentally responsible manner with due consideration for its role and responsibilities in the community, and,
- ❑ To ensure the provision of a consistent and uniform approach to environmental management, including high standards of environmental protection.

This EMS provides a road map of the systems and practices to be implemented to help achieve these objectives.

1.3 Specific Management Plans which form the EMS

Gunlake Quarry operates in accordance with a suite of operational environmental management plans. These plans have been in place in various forms since the commencement of the quarry operation. The plans are updated in response to changes in

approvals, operating conditions or external audits. The key environmental management plans which form part of this EMS:

- ❑ Air Quality Management Plan;
- ❑ Noise and Blast Management Plan;
- ❑ Traffic Management Plan;
- ❑ Aboriginal Heritage Management Plan;
- ❑ Water Management Plan, incorporating surface, groundwater, pasture irrigation and overall site water balance; and,
- ❑ Rehabilitation and Biodiversity Offset Management Plan.

These individual management plans include provisions for environmental monitoring, reporting and communication strategies relevant to each specific plan. This EMS provides an overarching framework under which these plans operate on site. Gunlake also has several separate policies and procedure documents covering Work Health and Safety, Emergency and Hazards Management and a Truck Driver Code of Conduct which have been incorporated into these plans where relevant.

This EMS also reflects the change in key environmental issues relating to the ongoing quarry operation. Now that the quarry is well established and community expectations have been confirmed through the establishment of the Community Consultative Committee (CCC), the primary issues of concern relate to traffic, noise and dust management. In addition to these issues, ongoing liaison with government stakeholders has identified biodiversity and Aboriginal heritage issues as being important. These concerns have been reflected in the component management plans described in Section 3 of this EMS.

1.4 Roles and Responsibilities

Key management personnel responsible for the implementation of this EMS are listed in the following table.

Table 1.1 – Roles and Responsibilities

Personnel	Role	Responsibility
Ed O'Neil	Director	Overall management of the quarry operation including environmental management
David Kelly	Head of Development	Responsible for meeting consent conditions
Vince Matthews	Quarry Manager	Implementation of environmental works
Kirsty Nielsen	Consultant	Collection of environmental monitoring data and management

1.5 Legislative Requirements

The Gunlake Quarry operates under the following legislation:

- ❑ **Environmental Planning and Assessment Act 1979.** Provides the primary approval path for mining projects and sets environmental management and reporting conditions

as part of the approval. Gunlake holds State Significant Development (SSD) consent LEC 2017/108663.

- ❑ **Protection of the Environment Operations Act 1997 (POEO Act)** - The objectives of the Protection of Environment Operations Act 1997 (PoEO Act) are to protect, restore and enhance the quality of the environment. The POEO Act is administered by the EPA and Gunlake Quarry has been issued with an Environment Protection Licence (EPL 13012) under Section 47 of this Act.

- ❑ **Protection of the Environment Legislation Amendment Act 2011** – The POELA Act requires the preparation and implementation of a pollution incident response management plan. This has been prepared and implemented at Gunlake Quarry.

- ❑ **Roads Act 1993** - An approval under Section 75 of this Act has been obtained by Gunlake Quarry for works associated with State roads. In addition, an approval from Goulburn Mulwaree Council has been obtained under Section 133 of this same Act to create, modify or improve Council managed roads. These approvals relate to the Bypass Road and intersection upgrades.

- ❑ **Water Act 1912 and Water Management Act 2000.** These Acts regulate the extraction of surface and ground water. Water access licence WAL42340 was issued to Gunlake on 26th April 2019 which allows for 37ML annual extraction from the Goulburn Fractured Rock Groundwater Source in the Greater Metropolitan Region Groundwater Source Water Sharing Plan.

- ❑ **Commonwealth Environment Protection and Biodiversity Conservation Act 1999** Prior to its approval, the Gunlake Extension Project was referred to the Federal Department of the Environment and Energy and it was determined that the project comprised a controlled action with impact to threatened species and communities listed under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The controlled action was subsequently approved under the EPBC Act on 17th November 2017 (EPBC 2015/7557).

In addition to the above key statutes, there are other legislative requirements covering the operation. These include:

- ❑ State Environmental Planning Policy (SEPP) Major Projects 2005.
- ❑ SEPP (Mining Petroleum Production and Extractive Industries) 2007.
- ❑ SEPP 33 Hazardous and Offensive Development.
- ❑ SEPP 44 Koala Habitat Protection.
- ❑ SEPP 55 Remediation of Land.
- ❑ Regional Environmental Plan (REP) No. 1 2007. Drinking Water Catchments.
- ❑ Goulburn Mulwaree Development Control Plan (DCP) 2009.

1.6 Statutory Environmental Approvals

The Quarry is controlled by two main statutory environmental approvals;

- Development Consent 2017/108663; and
- EPA Environment Protection Licence EPL 13012

1.6.1 Development Consent

The requirements for this EMS are listed in Condition 1, Schedule 5 of Development Consent 2017/108663. These are provided in Table 1.2 below.

Table 1.2 – Development Consent Conditions: Environmental Management Strategy

Condition	Requirement	Where Addressed
Schedule 5:	Environmental Management, Monitoring, Reporting and Auditing	
1	<p>Environmental Management Strategy If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:</p>	Noted
	(a) Be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation the strategy by notice to the Applicant	
	(b) Provide the strategic framework for environmental management of the development;	Chapter 2
	(c) identify the statutory approvals that apply to the development;	Section 1.5
	(d) Describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development	
	<p>(e) Describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Keep the local community and relevant agencies informed about the operation and environmental performance of the development; <input type="checkbox"/> Receive, record, handle, and respond to complaints; <input type="checkbox"/> Resolve any disputes that may arise during the life of the development; <input type="checkbox"/> Respond to any non-compliance; <input type="checkbox"/> Respond to emergencies; 	<p>Chapter 4</p> <p>Section 4.2</p> <p>Section 4.4.3</p> <p>Section 5.3</p> <p>Section 5.9</p>
	<p>(f) Include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> copies of any strategies, plans and programs approved under the conditions of this consent; and <input type="checkbox"/> a clear plan depicting all the monitoring to be carried out under the conditions of this consent. 	<p>Component Management Plans</p> <p>Figure 2 Appendix A</p>

1.6.2 Environment Protection Licence

Gunlake Quarries hold Environment Protection Licence (EPL) 13012 issued under the requirements of the Protection of the Environment Operation Act 1997 (POEA). The EPL expands on the conditions of the Development Consent and details the environmental criteria for the development, and defines monitoring locations and methodology. The EPL requires an annual compliance report that includes:

- ❑ A Monitoring and Complaints Summary
- ❑ A signed Statement of Compliance with the conditions of the EPL; and
- ❑ An explanation of any non-compliances.

2. Strategic Framework

2.1 Management Structure

Gunlake has established the following Management Structure to ensure that the objectives of this EMS are met:

- ❑ The Gunlake Quarries Director is responsible for all matters relating to Environmental Management at the Gunlake Quarry.
- ❑ The Gunlake Quarries Head of Development has the day to day responsibility of ensuring that all site activities are undertaken in accordance with this EMS.
- ❑ The Environmental Consultant appointed by the Gunlake Quarries Director is responsible for giving advice and recommendations to the Director and undertaking internal auditing/inspections and consulting role as required.

Every three years, as defined by the Development Consent Schedule 5, Condition 7, the Quarry Manager will organise a suitably qualified Consultancy to undertake an independent environmental audit and subsequent report. The first audit was prepared and lodged with the Department of Planning, Industry and Environment (DPIE) in November 2019.

2.1.1 Responsibilities and Authorities

Gunlake Quarries Director

The Director is responsible for:

- ❑ Reviewing and authorising the EMS,
- ❑ Assigning environment responsibilities to the Quarry Manager,
- ❑ Continually monitoring environmental performance to ensure compatibility and continued effectiveness with the objectives,
- ❑ Ensuring effective communications with Government Agencies and the local community. This includes establishing and ensuring the facilitation of the Community Consultative Committee as required in Development Consent Schedule 5, Condition 8, and,
- ❑ Providing sufficient resources to ensure the EMS practices are implemented.

Head of Development

The Head of Development is responsible for compliance with the development consent and other legislative requirements covering the quarry operation.

Quarry Manager

The Quarry Manager is responsible for:

-
-
- ❑ Ensuring all quarry personnel are suitably trained, and possess the necessary skills to undertake their designated activities with due consideration of environmental considerations, and,
 - ❑ Ensuring day to day operations are undertaken in accordance with this EMS and its supporting plans, documents, policies, strategies and procedures.

Environmental Consultant

The Environmental Consultant is responsible for:

- ❑ Liaising with the Director and the Quarry Manager, in order to be aware of the effectiveness of monitoring and implementation of environmental controls.
- ❑ Attending meetings called to discuss environment aspects.
- ❑ Identifying and documenting any improvement opportunities for the system.
- ❑ Assisting with the updating of the EMS.
- ❑ Performing environment inspections as requested by the Gunlake Quarries Director, and,
- ❑ Identifying and reporting environmental non-conformance and notifying the Gunlake Quarries Director of the suspected non-conformance.

2.2 Managing Environmental Aspects

Gunlake manage the environmental aspects of the operations by ensuring that appropriate management plans have been prepared in accordance with statutory requirements and that these plans are effectively implemented.

2.3 Management Plans

Environmental management plans have been prepared and updated as required for each aspect of environmental management, namely air quality, noise and vibration, surface and groundwater, heritage, traffic, ecology and rehabilitation. The Annual Review prepared for the Quarry provides a summary of environmental monitoring data and outcomes of the management process, and is provided to the Department of Planning, Industry and Environment (DPIE) and made available on the Gunlake website.

The Annual Review describes the overall management systems for the Quarry and specifically reports on the progress made in implementing any specific initiatives noted in the various Environmental Management Plans, previous Annual Reviews or matters raised by government agencies. The Annual Review also sets out the program for the coming reporting period, results of environmental monitoring undertaken and assesses the environmental performance of the operation.

2.4 Environmental Audits

Independent Environmental Audits are required by the development consent. The first audit under the current consent was prepared in November 2019. Matters raised in the

audit have been reviewed and the component environmental management plans under this EMS have been modified as necessary.

2.5 Industry Initiative and Benchmarks

The Development Consent requires Gunlake to seek to implement current best practice management. This EMS requires key Gunlake management personal to remain fully informed of industry trends in environmental issues and where necessary, these will be incorporated into the EMS and relevant component Environmental Management Plans. Gunlake is actively involved in industry forums, conferences, and organisations and maintains an understanding of other hardrock quarry operations in NSW.

2.6 Environmental Training

The Gunlake Quarries Director ensures that resources are available to implement this EMS and to train employees and contractors.

The EMS requires that all employees and contractors at Gunlake receive an appropriate level of environmental awareness training. This training is tailored to suite the Quarry and the specific jobs being undertaken.

General surface workforce are trained in specific site procedures and management of pollution control systems while all employees are made aware of the Gunlake's environmental obligations and statutory requirements.

3. Environmental Issues Management

3.1 Operation Overview

Gunlake Quarry is a hard rock quarry operated by Gunlake Quarries Pty Ltd (Gunlake), which provides aggregates for Gunlake's operations in Sydney as well as other markets in the region. The Quarry produces material suitable for use in a full range of quarry products including concrete and sealing aggregates, rail ballast and road base, and provides these markets with secure, long-term supplies of aggregates and manufactured sand. All product is transported from site by road.

The hard rock resource is first exposed by the removal of topsoil and overburden. The topsoil is separated for later use in rehabilitation while the overburn is transported to designated emplacement areas. The rock is extracted primarily by drill and blast methods and transported by 50t dump trucks from the extraction area to the primary and secondary crushers and screens. Product is then conveyed to the tertiary and quaternary crushers and screens for further crushing, screening and shaping. A front end loader is used to load various products into road registered trucks for transport to various market destinations.

3.2 Environmental Management System Components

The key environmental issues for the Gunlake Quarry are:

- Traffic Management,
- Erosion and Sedimentation Management,
- Stormwater and Waste Water Discharge,
- Groundwater Management,
- Air Quality and Dust Control,
- Noise Control,
- Blasting;
- Flora and Fauna
- Archaeological and Heritage Management
- Waste Management and Minimisation,
- Community, and
- Site Inductions and Training

These key environmental issues have been the subject of separate and specific environmental management plans covering the operation. These are discussed in more detail in the following sections.

3.2.1 Erosion and Sedimentation Management

Erosion control structures have been installed around the site with the principle aim of containing sediment at its source in line with current best practice. All runoff is contained in the main pollution control ponds. The erosion control measures are to increase batter and bench stability prior to establishment of permanent rehabilitation measures. Erosion control structures are inspected regularly, particularly after heavy rainfall, and upgraded or repaired where necessary.

Erosion and sedimentation management for the Gunlake Quarry was initially undertaken in accordance with the Soil and Water Management Plan (SWMP) prepared by SEEC Morse McVey. This plan was updated as part of the Water Management Plan and will continue to be revised during the life of the quarry.

3.2.2 Air Quality and Dust Management

Gunlake Quarry operates in accordance with an Air Quality Management Plan which commits the operation to:

- ❑ Employ all necessary dust controls on fixed and mobile plant as deemed necessary;
- ❑ Verify achievement of the stated criteria through effective monitoring; and
- ❑ Identify areas of non-compliance and effective measures to achieve continual improvement in line with current best practice.

The AQMP details the adopted assessment criteria for the quarry contained in the development consent and Environment Protection Licence and specific measures to be undertaken to achieve these criteria. Monitoring locations, procedures, reporting protocol and a process for identifying and correcting non-compliance are also documented.

3.2.3 Noise and Blasting Management

The Noise and Blasting Management Plan (NBMP) provides procedures and management initiatives as a result of monitoring data since the quarry commenced. The current NBMP commits Gunlake Quarry to:

- ❑ Implement best practice management to minimise the operational and road transportation noise of the quarry;
- ❑ Minimise the noise impacts from the quarry;
- ❑ Carry out regular monitoring to determine whether the quarry is complying with the relevant conditions of the Development Consent;
- ❑ Regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of the development consent; and
- ❑ Ensure all reasonable and feasible measures are employed to reduce noise from the tertiary crusher at night.

The NBMP details the adopted assessment criteria for the quarry contained in the development consent and Environment Protection Licence and specific measures to be undertaken to achieve these criteria. Monitoring locations, procedures, reporting protocol and a process for identifying and correcting non-compliance are also documented.

3.2.4 Water Management Plan

The Water Management Plan for the site incorporates surface water, groundwater and water balance. The plan commits Gunlake to:

- ❑ Comply with Section 120 of the Protection of the Environment Operations Act 1997 in relation to any discharges from the site should this be considered necessary;

-
-
- ❑ Ensure that Water Quality Control Ponds are designed, constructed and operated to capture and treat polluted waters from storm events.
 - ❑ Seek to ensure that the quarry has sufficient water for processing and dust suppression activities.
 - ❑ Ensure that the design and implementation of erosion and sediment controls are integral components of any new areas of disturbance associated with the ongoing quarry operation.
 - ❑ Ensure that adequate surface and groundwater monitoring is conducted in order to verify the impact predictions made in the various environmental assessments associated with the quarry operation.

An overriding consideration in the ongoing management of water on site is that the site has been designed as nil discharge. Water management consists predominantly of containing and recycling of water on site within existing water storages. Changes to the Water Management Plan will occur in light of this ongoing monitoring and verification process.

3.2.5 Traffic Management

The Traffic Management Plan (TMP) for the operation incorporates the additional road and intersection upgrades and provides limits on trucking hours and intensity of truck movements. The TMP commits Gunlake to:

- ❑ minimise the potential for traffic conflict resulting from product transport;
- ❑ minimise the potential noise impacts associated with product transport;
- ❑ promotion of employee and community road safety awareness to ensure a road environment where all road users feel safe from traffic movements associated with the ongoing operations of the site;
- ❑ compliance with development consent conditions and undertakings;
- ❑ compliance with traffic management policies in accordance with requirements of Transport NSW and Goulburn Mulwaree Council;
- ❑ compliance with occupational health and safety standards in accordance with the Work Health & Safety Act 2011 (the WHS Act); and
- ❑ establish, maintain and ensure compliance with a Truck Driver Code of Conduct.

Traffic and transport are key environmental issues for the ongoing operation and therefore Gunlake has is committed to ensuring that the objectives of the TMP are implemented, monitored and communicated to community stakeholders.

3.2.6 Flora and Fauna Management

The Biodiversity and Rehabilitation Management Plan (BRMP) commits Gunlake Quarry to manage the existing vegetation resources of the property in the following manner:

- ❑ Minimise land disturbance to only that necessary to operate the quarry.
- ❑ Progressively rehabilitate the out of pit overburden emplacement.
- ❑ Implement vegetation offsets areas to compensate for the vegetation clearing.

-
-
- ❑ Enhance offset areas on site to improve habitat value, riparian zones and vegetation community function.
 - ❑ Maintain agricultural resources in areas suitable for ongoing agricultural activities during and after quarry activities are completed.

The primary mechanism used to compensate for the initial loss of disturbed woodland has been the dedication of biodiversity offset areas on site. This mechanism may be enhanced in future by utilising a BioBanking Agreement.

3.2.7 Aboriginal Heritage Management

The Aboriginal Heritage Management Plan (AHMP) covers all areas of disturbance associated with Gunlake Quarry. The plan covers the salvage and relocation of identified Archaeological sites. The plan was updated to include the disturbed area associated with the Extension Project.

Gunlake seeks to meet all its statutory obligations in relation to cultural heritage and to maintain ongoing consultation activities with the local registered Aboriginal community stakeholders. The key aim is to ensure that archaeological sites are effectively managed.

4. Stakeholder Communication

Effective communication with government agencies, the workforce and the community are important features of the overall Environmental Management Strategy for Gunlake Quarry and a key component of each Environmental Management Plan.

Reporting requirements are defined in Conditions 3 and 4 of Schedule 5 in the Development Consent. Each separate management plan under this EMS discusses specific communication and reporting requirements. The follow sections summaries these.

4.1 Community Consultation

The primary form of communication with the community is through the Community Consultative Committee (CCC). The CCC includes a representative of the Goulburn Mulwaree Shire Council which represents the wider community. Information is regularly provided to the CCC including monitoring data and discussion of environmental issues relating to the ongoing quarry operation. Feedback from the CCC is then used as necessary to improve the management provisions of environmental aspects of the operation.

4.2 Community Complaints

Gunlake maintains a community complaints register that identifies actions required to resolve community issues. The main phone line is listed in the white pages, the property sign at the main entrance, as well the company website. The complaints register records the following details:

- Complainant name and contact details;
- Nature of the complaint (noise, dust, traffic etc);
- Time and date of the complaint; and
- Specifics of the complaint.

4.3 Government Liaison

Government authority consultation has formed an integral component of the original EA studies as well as the successive modifications. The consultation process has included the following stakeholders:

- Department of Planning, Industry and Environment;
- National Parks and Wildlife Service
- Office of Environment and Heritage;
- Goulburn Mulwaree Shire Council;
- NSW Water (Sydney Catchment Authority);
- Transport NSW;
- NSW Department of Primary Industries and
- NSW Water (Office of Water).

The consultation process has included on site meetings and correspondence which has included input into the various environmental management plans as required.

4.4 Public Access to Information

Gunlake provide updated environmental monitoring data on the company's web page as required by the Development Consent. Information provided includes dust monitoring data in accordance with the Environment Protection Licence. Monitoring data is also made available to the CCC.

4.4.1 Notification of Landowners

Should monitoring results identify an exceedence of any relevant impact assessment criteria detailed in this Plan, Gunlake will promptly notify the Secretary and the affected landowners and/ or tenants accordingly.

4.4.2 Independent Review

If an owner of privately-owned land considers the quarry to be exceeding the relevant impact assessment criteria detailed in this Plan, he or she may ask the Director-General in writing for an independent review of the impacts of the quarry on his/her land, as per Condition 2 of Schedule 4. If the Secretary advises that an independent review is warranted, within three months Gunlake will:

- (a) consult with the landowner to determine his/her concerns;
- (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct monitoring on the land, to determine whether the quarry is complying with the relevant criteria in Schedule 3; and
- (c) give the Secretary and landowner a copy of the independent review.

Gunlake will comply with the outcomes of any Independent Review.

4.4.3 Dispute Resolution

To date there have been no unresolved disputes against Gunlake Quarry. The primary mechanism for dispute resolution is the Community Complaints procedure. This involves documenting the nature of the complaint and actions taken to resolve the complaint as well as confirmation that the complaint has been resolved. As the quarry continues to operate, there may from time to time be issues raised by community members which are not readily resolved within the complaints register system.

Gunlake's approach to resolving more difficult disputes should they arise is to first gather the facts. This may include discussions with the relevant parties, environmental data or circumstances surrounding the issue. The second is to agree on a process of dispute resolution, which may involve additional investigations and seeking expert advice. Should the dispute still not be resolved and relates to the environmental compliance of the quarry, the matter will be raised with the Department of Planning and Environment or other relevant government agencies.

All disputes will be handled sensitively and where appropriate resolved in a confidential context in order to minimise the effect on the disputing party. The process will however be transparent so that the disputing party understands the process and resolution procedures.

5. Verification and Corrective Action

An essential component of this EMS is verification and implementation of corrective actions as required to achieve compliance with the requirements of the Development Consent and Environment Protection Licence.

5.1 Environmental Monitoring

Gunlake Quarry has established and documented procedures to monitor and measure on a regular basis the environmental impact of its operations. Records of all environmental monitoring and results are kept on site and made readily available. Environmental monitoring is used to check the performance of the operation with regulatory standards and planning initiatives.

The type, location and frequency of monitoring is determined largely by the statutory monitoring required under the Environment Protection Licence and Development Consent, however additional monitoring is undertaken as part of specific projects or as part of compliance auditing. Details of the environmental monitoring program are provided in component Environmental Management Plans. An important consideration in the environmental monitoring program is to manage cumulative impacts. This will be achieved by determining the contribution of the quarry operation within the ambient levels measured as well as maintaining the measured impacts to within the assessment criteria established for the operation.

5.2 Reporting Procedures

Gunlake collects a range of environmental data as required by the component Environmental Management Plans. This data is collated in the Annual Review which is provided to the DPIE each year. The Annual Review is also submitted to the Community Consultative Committee and relevant agencies.

The Annual Review must:

- describe the project (including rehabilitation) that was carried out in the previous financial year, and the project that is proposed to be carried out over the current financial year;
- 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 EIS;
- identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- identify any trends in the monitoring data over the life of the quarry;

-
-
- ❑ identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
 - ❑ describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

The Development Consent also requires Gunlake to report any exceedance of the goals/limits/performance criteria or an incident causing (or threatening to cause) material harm to the environment. This report must be submitted with the DPIE within 7 days of the exceedances or incident.

5.3 Non-Conformance, Corrective Action and Adaptive Management

Responsibility for identifying non-conformances rests with a number of personnel on site to ensure that any non-conformances are identified as soon as possible. Primary responsibility rests with the Director responsible for Gunlake Quarry. All non-conformances are reported to the Quarry Manager in the first instance who then directs other key personnel as required.

Corrective actions are implemented as soon as practicable on identification of any non-conformances, and records of such are to be maintained. Corrective actions form part of the adaptive management process where any exceedance of the criteria and/or performance measures has occurred.

5.4 Preventative Action Procedures

Preventative action procedures operating at Gunlake Quarry include:

- ❑ Regular inspections of the site undertaken by the Quarry Manager and Environmental Consultant. These inspections are to include actions listed in individual Environmental Management Plans.
- ❑ Each management plan is to be reviewed each year at the time of the Annual Review.

5.5 Record Keeping

Records are kept of all environmental monitoring, audits and actions taken under the EMS. Records must be legible and stored and maintained so that they are readily retrievable and protected against damage, deterioration or loss.

5.6 Auditing Procedures

As required by the Development Consent, within 12 months of the date of the commencement of the quarry, and every 3 years thereafter, unless the Secretary directs otherwise, Gunlake Quarries shall commission and pay the full cost of an Independent Environmental Audit of the quarry operation. This audit shall:

-
-
- ❑ be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Secretary;
 - ❑ include consultation with the relevant agencies;
 - ❑ assess the environmental performance of the project, and whether it is complying with the relevant requirements in this approval and any relevant EPL (including any assessment, plan or program required under these approvals);
 - ❑ review the adequacy of any strategy/plan/program required under these approvals, and
 - ❑ recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under these approvals.

The first Independent Environmental Audit was completed in November 2019 and lodged with DPIE who subsequently confirmed the adequacy of the audit. Gunlake subsequently responded to the audit within the required 6 weeks as well as committed to implementing the audit recommendations. Audits will continue to be completed every three years.

5.7 Management Review

The purpose of management review of the EMS is to identify any weaknesses or out of date procedures. The aim is to maintain the EMS in line with current industry and Australian standards and changes to environmental legislation.

Management review the EMS on an annual basis. The management review process ensures that the necessary information is collected to allow management to carry out this evaluation and the review document.

The management review addresses the possible need for changes to policy, objectives and other elements of the environmental management system, in light of environmental management system audit results, changing circumstances and the commitment to continual improvement.

5.8 Continuous Improvements

A key component of the environmental management of Gunlake Quarry is the commitment to continuous improvement. This is measured by formal and informal criteria. Formal measures include monitoring data, internal and external inspection and action plans. This information is used to establish trends in non-compliance and environmental performance. The level of non-compliance with both statutory and company standards is then summarised in the Annual Review.

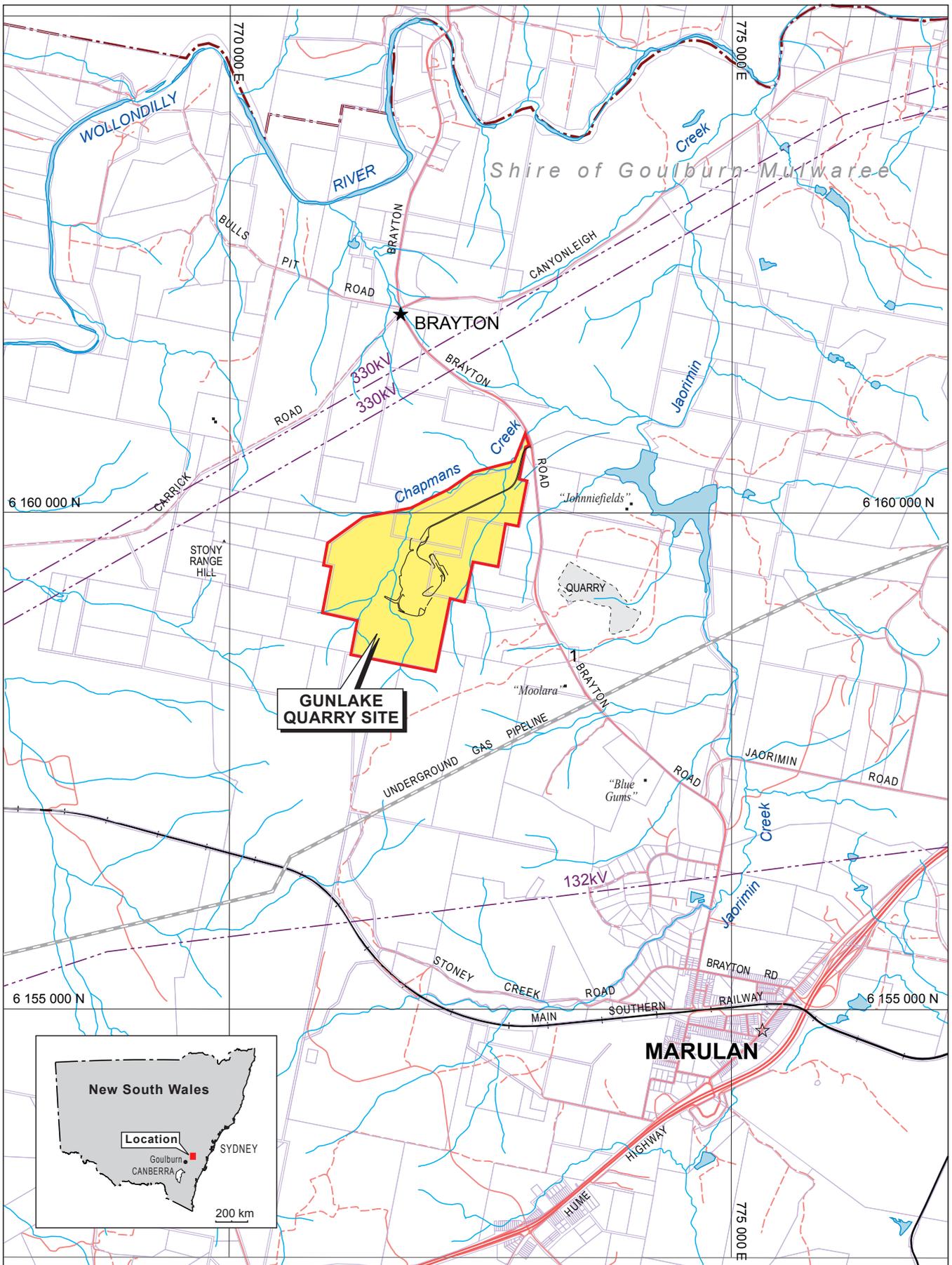
5.9 Emergency Procedures

Gunlake has prepared and implemented a Pollution Incident Response Management Plan (PIRMP) which details the notification procedures in the event of an environmental incident on site. The plan includes a list of authorities to be notified and relevant contact details and the type of information to be provided. This information includes:

-
-
- ❑ Time, date, nature, duration and location of the incident;
 - ❑ Location of the place where pollution is occurring or is likely to occur;
 - ❑ Nature and estimated quantity and quality of any pollutants;
 - ❑ Action being taken or proposed to be taken to deal with the incident and any resultant pollution or threatened pollution.

The PIRMP will be tested and revised on a regular basis in accordance with the requirements of the Pollution of the Environment Operations Act Regulations.

Appendix A - Plans



Datum: GDA
MGA Zone 55

Map Source: © Department of Lands, NSW

- | | | | | | |
|--|----------------|--|--------------------------|--|-----------|
| | Dam | | Gas pipeline | | Main road |
| | River or creek | | Electricity transmission | | Railway |

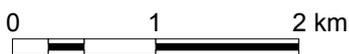
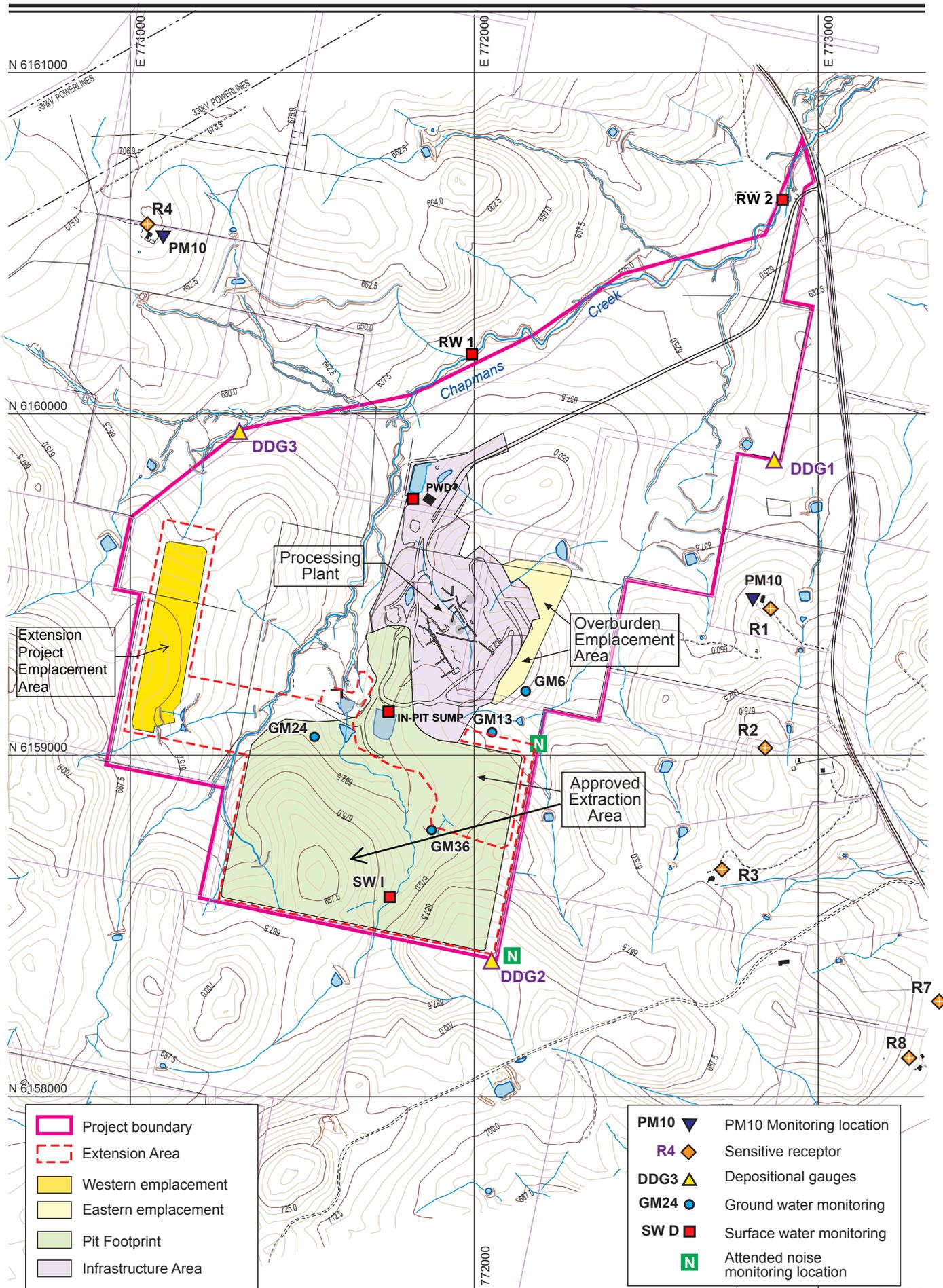


FIGURE 1
Gunlake Quarry
Regional Location



	Project boundary
	Extension Area
	Western emplacement
	Eastern emplacement
	Pit Footprint
	Infrastructure Area

	PM10	PM10 Monitoring location
	R4	Sensitive receptor
	DDG3	Depositional gauges
	GM24	Ground water monitoring
	SW D	Surface water monitoring
	N	Attended noise monitoring location



FIGURE 2
Gunlake Quarry
Environmental Monitoring Sites

Appendix B – Development Consent

ANNEXURE 'A'
OF S34 AGREEMENT FILED 30 JUNE 2017
IN PROCEEDINGS NO: 108663 OF 2017

CONDITIONS OF CONSENT

TABLE OF CONTENTS

DEFINITIONS	3
ADMINISTRATIVE CONDITIONS	5
Obligation to Minimise Harm to the Environment	5
Terms of Consent	5
Limits on Consent	5
Notification of Commencement	6
Surrender of Existing Approval Demolition	6
Protection of Public Infrastructure	6
Operation of Plant and Equipment	6
Production Data	6
Identification of Approved Extraction Limits	6
Contributions to Council	7
ENVIRONMENTAL PERFORMANCE CONDITIONS	8
Noise	8
Blasting	10
Air Quality	11
Soil and Water	12
Transport	13
Aboriginal Heritage	14
Biodiversity and Rehabilitation	15
Visual	18
Waste	18
Liquid Storage	18
Dangerous Goods	18
Bushfire	18
ADDITIONAL PROCEDURES	19
Notification of Landowners/Tenants	19
Independent Review	19
Land Acquisition	19
ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING	21
Environmental Management	21
Community Consultative Committee	22
Reporting	22
Independent Environmental Audit	23
Access to Information	23
APPENDIX 1: DEVELOPMENT LAYOUT	24
APPENDIX 2: STATEMENT OF COMMITMENTS	25
APPENDIX 3: NOISE RECEIVER LOCATIONS	31
APPENDIX 4: NOISE COMPLIANCE ASSESSMENT	32
APPENDIX 5: BIODIVERSITY AREAS	33
APPENDIX 6: CHAPMANS CREEK RIPARIAN BUFFER	34

DEFINITIONS

Aboriginal item or object	Any item or object that provides evidence of the use of an area by Aboriginal people, as defined under the <i>National Parks and Wildlife Act 1974</i>
AHD	Australian Height Datum
Annual Review	The review required by condition 10 of Schedule 5
Applicant	Gunlake Quarries Pty Ltd, or any other person/s who rely on this consent to carry out the development that is subject to this consent
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EIS
Calendar Month	The first day of the month until the last day of the month
CCC	Community Consultative Committee
Conditions of consent	Conditions contained in Schedules 2 to 5 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
Council	Goulburn Mulwaree Council
Cured concrete waste	Cured concrete waste from a batch plant as defined in clause 49, Definitions of waste classifications, in Schedule 1 of the <i>POEO Act</i> , as in force from time to time
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development as described in the documents listed in condition 2(a) of Schedule 2
DPI Water	Department of Primary Industries – Water
DPI Fisheries	Department of Primary Industries – Fisheries
DRG	Division of Resources and Geosciences within the Department
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement titled <i>Gunlake Quarry Extension Project</i> , dated April 2016 and prepared by EMM, and the Response to Submissions report titled <i>Gunlake Quarry Extension Project Response to Submissions</i> , dated September 2016 and prepared by EMM
EPA	NSW Environment 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>
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build
GPS	Global Positioning System
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 consent
INP	<i>NSW Industrial Noise Policy</i> (NSW EPA, 2000)
Laden trucks	Trucks transporting quarry products from the site and/or trucks transporting cured concrete waste to the site
Land	As defined in the EP&A Act, except where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this consent, where it is defined as 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 consent
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
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
OEH	Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Primary transport route	Route from the site along Brayton Road, Ambrose Road and Red Hills Road
Privately-owned land	Land that is not owned by a public agency, the Applicant (or its subsidiary) or another quarry-owning company
Public infrastructure	Linear and other infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Quarrying operations	The extraction, processing, stockpiling and transportation of extractive materials carried out on the site, the associated removal of vegetation, topsoil and overburden, and the associated emplacement of overburden
Quarry products	Includes all saleable quarry products, but excludes tailings and other wastes
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 development to a good condition and for the purpose of establishing a safe, stable and non-polluting environment

RMS	Roads and Maritime Services
Secondary transport route	Route from the site to the Marulan interchange on the Hume Highway, along Brayton Road, across George Street, and under the Hume Highway
Secretary	Secretary of the Department, or nominee
Site	The land identified in Schedule 1
Truck movements	Truck movements mean heavy vehicle one-way trips, either entering or leaving the site

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance measures and criteria established under this consent, the Applicant 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 development.

TERMS OF CONSENT

2. The Applicant must carry out the development:
 - (a) generally in accordance with the EIS; and
 - (b) in accordance with the conditions of this consent, the Development Layout Plan and the Statement of Commitments.

*Notes: The Development Layout Plan is included in Appendix 1
The Statement of Commitments is included in Appendix 2*

3. If there is any inconsistency between the documents in condition 2(a), the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail over all documents in condition 2(a) to the extent of any inconsistency.
4. The Applicant must comply with any 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 consent (including any stages of these documents);
 - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this consent; and
 - (c) the implementation of any actions or measures contained in these documents.

LIMITS ON CONSENT

Quarrying Operations

5. The Applicant may carry out quarrying operations on the site for 25 years from the date of notification, as stipulated under Condition 10(a), Schedule 2.

Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary. Consequently, this consent 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.

6. The Applicant must not undertake quarrying operations below a level of 572 m AHD.
7. The Applicant must not transport more than 2 million tonnes of quarry products from the site in any calendar year.
8. The Applicant must not receive more than 30,000 tonnes of cured concrete waste on the site in any calendar year. The volume of cured concrete waste held on site at any one time must not exceed 2,500 tonnes. No other material classified as waste under the *EPA Waste Classification Guidelines 2014* (or its latest version) may be received on site.

Quarry Product Transport

9. The Applicant must limit laden and unladen truck movements, taken together, as follows:
 - (a) where road works required by condition 26 of Schedule 3 of this consent have not been completed to the satisfaction of the relevant roads authorities:
 - i. no more than 164, including no more than 25 outbound laden movements on the secondary transport route, per working day (averaged over the working days in each calendar month); and
 - ii. a maximum of 320, including a maximum of 38 outbound laden truck movements on the secondary transport route, on any working day;
 - (b) until annual quarry production exceeds 1 million tonnes:
 - i. no more than 196, including no more than 25 outbound laden movements on the secondary transport route, per working day (averaged over the working days in each calendar month); and
 - ii. a maximum of 440, including a maximum of 38 outbound laden truck movements on the secondary transport route, on any working day;

- (c) after annual quarry production exceeds 1 million tonnes and until annual quarry production exceeds 1.5 million tonnes:
- i. no more than 292, including no more than 25 outbound laden movements on the secondary transport route, per working day (averaged over the working days in each calendar month); and
 - ii. a maximum of 470, including a maximum of 38 outbound laden truck movements on the secondary transport route, on any working day; and
- (d) after annual quarry production exceeds 1.5 million tonnes and until and whilever annual quarry production is 2 million tonnes:
- i. no more than 370, including no more than 25 outbound laden movements on the secondary transport route, per working day (averaged over the working days in each calendar month, except for the 2-monthly periods of November/December and January/February, during which it may be averaged over the working days in the relevant 2-monthly period); and
 - ii. a maximum of 490, including a maximum of 38 outbound laden truck movements on the secondary transport route, on any working day.

The Applicant must advise the Secretary in writing of the satisfaction of the relevant roads authorities under paragraph (a) above and its intention to undertake truck movements in accordance with the production limits specified in paragraphs (b), (c) or (d) above.

Note: In this condition:

'working day' means any day on which the Applicant may load and despatch trucks (see condition 4 of Schedule 3);

'annual quarry production' means annual quarry production as shown in the production data report to be provided to DRG and the Secretary in condition 17 of schedule 2.

NOTIFICATION OF COMMENCEMENT

10. The Applicant must notify the Department in writing of the date on which it will commence:
- (a) development permitted under this consent, at least 14 days prior to commencing that development; and
 - (b) quarrying operations under this consent, at least 14 days prior to commencing those operations.

SURRENDER OF EXISTING DEVELOPMENT CONSENTS

11. Within six months of commencing development under this consent, or as otherwise agreed by the Secretary, the Applicant must surrender the project approval MP 07_0074 for the Gunlake Quarry granted on 24 September 2008, in accordance with the EP&A Regulation.

Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. The surrender of the project approval should not be understood as implying that works legally constructed can no longer be legally maintained or used.

12. Following the commencement of development under this consent, the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of project approval MP 07_0074.

STRUCTURAL ADEQUACY

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

Notes:

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

DEMOLITION

14. The Applicant must ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

PROTECTION OF PUBLIC INFRASTRUCTURE

15. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and

- (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Note: This condition does not apply to damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 21 of Schedule 2.

OPERATION OF PLANT AND EQUIPMENT

- 16. The Applicant must ensure that all the 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.

PRODUCTION DATA

- 17. The Applicant must:
 - (a) provide annual quarry production data to DRG and the Secretary using the standard form for that purpose; and
 - (b) include a copy of this data in the Annual Review.

IDENTIFICATION OF APPROVED EXTRACTION LIMITS

- 18. Prior to commencing quarrying operations under this consent, the Applicant must:
 - (a) engage a registered surveyor to mark out the boundaries of the approved disturbance area; and
 - (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.
- 19. While quarrying operations are being carried out, the Applicant must ensure that the boundaries of the approved disturbance areas are clearly marked at all times in a manner that allows operating staff to clearly identify these approved limits.
- 20. The Applicant must ensure that:
 - (a) no quarrying operations take place outside the approved disturbance area; and
 - (b) the haul road between the extraction area and western overburden emplacement area is clearly marked at all times, has the minimum width required for safe hauling operations, and includes erosion and sedimentation measures to minimise impacts from the use of the road on Chapmans Creek.

Note: The approved disturbance area includes the extraction area, the overburden emplacement areas, the infrastructure area, haul roads and ancillary areas required to carry out the development.

CONTRIBUTIONS TO COUNCIL

- 21. The Applicant must pay to Council an annual financial contribution toward the maintenance of Council-owned roads along its primary and secondary transport routes. The contribution must be determined in accordance with the *Goulburn Mulwaree s94 Development Contributions Plan 2009*, or any subsequent relevant contributions plan adopted by Council.
- 22. Following commencement of development under this consent, the contribution must be paid to Council within one month of the anniversary of the date of this consent each year and reported in the Annual Review.

**SCHEDULE 3
ENVIRONMENTAL PERFORMANCE CONDITIONS**

NOISE**Acquisition upon Request**

- Upon receiving a written request from the owner of the land listed in Table 1, the Applicant must acquire the land in accordance with condition 5 of Schedule 4.

Table 1: Land subject to acquisition upon request

Acquisition Basis	Land
Noise	R2

Note: The location of the residence referred to in Table 1 is shown on the figure in Appendix 3.

Additional Mitigation upon Request

- Upon receiving a written request from the owner of any residence listed in Table 2, the Applicant must implement additional mitigation measures at the residence, in consultation with the landowner.

Table 2: Land subject to additional mitigation upon request

Mitigation Basis	Residence
Noise	R2, R7

Note: The location of the residences referred to in Table 2 is shown on the figure in Appendix 3.

These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the development on the residence. Mitigation may include measures such as double-glazing, insulation and/or air conditioning.

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

Enclosure of Primary Crusher

- The Applicant must achieve at least a 5 dB(A) reduction in the measured sound power level of the primary crusher by enclosing the primary crusher within two months of commencing development under this consent and prior to operating the primary crusher outside the hours of 7 am to 6 pm Monday to Saturday.

The Applicant must engage a suitably qualified and experienced acoustical practitioner to measure the sound power level of the primary crusher before and after constructing the enclosure to demonstrate that the enclosure has resulted in a 5 dB(A) sound power level reduction. A report from the acoustical practitioner must be provided to the Secretary within 30 days of constructing the enclosure.

Hours of Operation

- The Applicant must comply with the operating hours set out in Table 3.

Table 3: Operating Hours

Activity	Permissible Hours
Construction	<ul style="list-style-type: none"> • 7 am to 6 pm Monday to Friday • 8 am to 1 pm Saturday • At no time on Sunday or public holidays
Blasting	<ul style="list-style-type: none"> • 9 am to 5 pm Monday to Friday • At no time on Saturday, Sunday or public holidays
Quarrying operations (excluding overburden removal/emplacement and drilling)	<ul style="list-style-type: none"> • 24 hours a day but not between 6 pm Saturday and 2 am Monday • At no time on Sunday or public holidays
Overburden removal/emplacement and drilling	<ul style="list-style-type: none"> • 7 am to 6 pm Monday to Saturday • At no time on Sunday or public holidays
Loading and dispatching	<ul style="list-style-type: none"> • 24 hours a day but not between 6 pm Saturday and 2

	<ul style="list-style-type: none"> am Monday At no time on Sunday or public holidays
Transportation on the primary transport route	<ul style="list-style-type: none"> 24 hours a day but not between 6 pm Saturday and 2 am Monday At no time on Sunday or public holidays
Transportation on the secondary transport route	<ul style="list-style-type: none"> 6 am to 7 pm Monday to Saturday At no time on Sunday or public holidays
Maintenance	<ul style="list-style-type: none"> At any time provided that the activity is not audible at any privately-owned residence

5. The following activities may be carried out on the site outside the hours specified in condition 4:
- delivery or dispatch of materials as requested by Police or other authorities; and
 - emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

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

Noise Impact Assessment Criteria

6. The Applicant must ensure that operational noise generated by the development does not exceed the criteria in Table 4 at any residence on privately-owned land.

Table 4: Noise criteria dB(A)

Receiver	Day $L_{Aeq} (15 \text{ minute})$	Evening $L_{Aeq} (15 \text{ minute})$	Night	
			$L_{Aeq} (15 \text{ minute})$	$LA1 (1 \text{ minute})$
R7	38	38	38	45
R8	37	37	37	45
All other privately-owned residences	35	35	35	45

Note: Receiver locations referred to in Table 4 are shown on the figure in Appendix 3

Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Industrial Noise Policy*. Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, the noise criteria in Table 4 do not apply if the Applicant has an agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Operating Conditions

7. The Applicant must:
- implement best practice management to minimise the construction, operational and road transportation noise of the development, particularly during the evening and night periods;
 - minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 4);
 - carry out quarterly attended noise monitoring, unless otherwise agreed by the Secretary, to determine whether the development is complying with the relevant conditions of this consent; and
 - regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent, to the satisfaction of the Secretary.

Note: Required frequency of noise monitoring may be reduced if approved by the Secretary.

Noise Management Plan

8. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA;
 - be submitted to the Secretary within six months of commencing development under this consent and prior to commencing quarrying operations under this consent;
 - describe the measures that would be implemented to ensure:
 - compliance with the noise criteria in this consent;
 - best practice noise management is being employed;

- noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 4); and
 - best practice management is being employed to minimise the noise impacts on the primary transport route and the secondary transport route;
- (d) describe the proposed noise management system; and
- (e) include a monitoring program to be implemented to measure noise from the development against the noise criteria in Table 4, and which evaluates and reports on the effectiveness of the noise management system on site.

The Applicant must implement the Noise Management Plan as approved by the Secretary.

Traffic Noise Compliance Assessment

9. A noise compliance assessment of the traffic noise impacts of the project must be undertaken within two months of annual dispatches of quarry products exceeding 1 million, 1.5 million and 1.9 million tonnes. The assessment must be conducted by a suitably qualified and experienced acoustical practitioner and must assess compliance of the traffic noise impacts against the predictions in the EIS and relevant road noise criteria. The traffic noise compliance assessment reports must be provided to the Department within 1 month of each assessment.

BLASTING

Blasting Impact Assessment Criteria

10. The Applicant must ensure that blasting on site does not cause any exceedance of the criteria in Table 5.

Table 5: Blasting Criteria

Receiver	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Any residence on privately-owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months

However, these criteria do not apply if the Applicant has a written agreement with the relevant owner to exceed the limits in Table 3, and the Applicant has advised the Department in writing of the terms of this agreement.

Blasting Frequency

11. The Applicant may carry out a maximum of 2 blasts per week, unless an additional blast is required following a blast misfire. This condition does not apply to blasts required to ensure the safety of the quarry or workers on site.

Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the quarry.

Operating Conditions

12. During blasting operations, the Applicant must:
- (a) implement best practice management to:
 - protect the safety of people and livestock in the areas surrounding blasting operations;
 - protect public or private infrastructure/property in the surrounding area from damage from blasting operations and
 - minimise the dust and fume emissions of blasting;
 - (b) operate a suitable system to enable the local community to get up-to-date information on the proposed blasting schedule on site;
 - (c) co-ordinate the timing of blasting on site with the timing of blasting at Johnniefields quarry and Lynwood quarry to minimise potential cumulative blasting impacts of the three quarries; and
 - (d) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.

Blast Management Plan

13. The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:

- (a) be submitted to the Secretary for approval within six months of commencing development under this consent and prior to commencing quarrying operations under this consent;
- (b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;
- (c) include measures to manage flyrock;
- (d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria in this consent;
- (e) include a protocol for investigating and responding to complaints; and.
- (f) include community notification procedures for blasting, which includes:
 - (i) a notification process to alert any resident who registers an interest in the blasting schedule to be notified at least 24 hours in advance of each blast;
 - (ii) a blasting hotline, or alternative system agreed to by the Secretary, to enable the public to obtain up-to-date information on blasting operations; and
 - (iii) information on how the public will be kept informed of the hotline, or any alternative system.

The Applicant must implement the Blast Management Plan as approved by the Secretary.

AIR QUALITY

Air Quality Impact Assessment Criteria

14. The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 6 at any residence on privately-owned land.

Table 6: Air quality criteria

Pollutant	Averaging Period	Criterion
Particulate matter < 10 µm (PM ₁₀)	Annual	a,d 30 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	24 hour	b 50 µg/m ³
Total suspended particulates (TSP)	Annual	a,d 90 µg/m ³
^c Deposited dust	Annual	b 2 g/m ² /month a,d 4 g/m ² /month

Notes to Table 6:

a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).

b Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).

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 or any other activity agreed by the Secretary.

e "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 14, 15 and 16 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Operating Conditions

15. The Applicant must:
- (a) implement best practice management to minimise the dust emissions of the development;
 - (b) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;
 - (c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d under Table 6);
 - (d) monitor and report on compliance with the relevant air quality conditions in this consent; and
 - (e) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.

Air Quality Management Plan

16. The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA;

- (b) be submitted to the Secretary for approval within six months of commencing development under this consent and prior to commencing quarrying operations under this consent;
- (c) describe the measures that would be implemented to ensure:
 - compliance with the relevant conditions of this consent;
 - best practice management is being employed; and
 - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
- (d) describe the proposed air quality management system, including a minimum of two High Volume Air Samplers in locations agreed to by the EPA;
- (e) include an air quality monitoring program that:
 - is capable of evaluating the performance of the development;
 - includes a protocol for determining any exceedances of the relevant conditions of consent;
 - effectively supports the air quality management system; and
 - evaluates and reports on the adequacy of the air quality management system.

The Applicant must implement the Air Quality Management Plan as approved by the Secretary.

Quarry-owned Land

17. The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 6 at any occupied residence on quarry-owned land unless:
- (a) the tenant has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this consent; and
 - (b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice, to the satisfaction of the Secretary.

Meteorological Monitoring

18. For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

Greenhouse Gas Emissions

19. The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.

SOIL AND WATER

Water Supply

20. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply, to the satisfaction of the Secretary.

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain all necessary water licences for the development.

Water Discharges

21. The Applicant must comply with the discharge limits in any EPL, or with section 120 of the POEO Act.

Soil and Water Management Plan

22. The Applicant must prepare a Soil and Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified and experienced person/s approved by the Secretary;
 - (b) be prepared in consultation with the EPA, WaterNSW and DPI Water;
 - (c) be submitted to the Secretary for approval within six months of commencing development under this consent and prior to commencing quarrying operations under this consent;
 - (d) include a:
 - (i) Site Water Balance that includes:
 - details of:
 - sources and security of water supply;
 - water use and management on site;

- any off-site water transfers; and
- reporting procedures; and
- measures that would be implemented to minimise clean water use on site;
- (ii) Erosion and Sediment Control Plan that:
 - is consistent with the requirements of the Landcom's *Managing Urban Stormwater: Soils and Construction* manual;
 - identifies activities that could cause soil erosion and generate sediment;
 - describes measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, including for the haul road between the extraction area and the western emplacement area;
 - describes the location, function, and capacity of erosion and sediment control structures, including for the haul road between the extraction area and the western emplacement area; and
 - describes what measures would be implemented to maintain (and if necessary decommission) the structures over time.
- (iii) Surface Water Management Plan, that includes:
 - detailed baseline data on surface water flows and quality in water bodies that could potentially be affected by the development;
 - surface water impact assessment criteria;
 - a protocol for managing any exceedances of the surface water impact assessment criteria;
 - a detailed description of the surface water management system on site including the:
 - clean water diversion system;
 - dirty water management system;
 - water storages, including their capacity to contain dirty water during flood events;
 - irrigation areas; and
 - design of creek and stream crossings; and
 - a program to monitor and report on:
 - the effectiveness of the water management system in ensuring that the development has a neutral or beneficial effect on downstream receiving waters;
 - channel stability of the watercourses on the site;
 - surface water flows and quality in watercourses on the site;
 - surface water discharges from the site, including provisions for sampling of water quality during discharge events;
 - the impact of the irrigation areas on water quality;
 - details of the on-site waste water management system, including the effluent disposal area, that demonstrates there is adequate capacity for the wastewater loads generated by the development;
- (iv) Groundwater Management Plan that includes:
 - detailed baseline data on groundwater levels, flows and quality in the region;
 - groundwater impact assessment criteria for monitoring bores;
 - a program to monitor:
 - groundwater levels and quality on the site;
 - the impacts of the development on any groundwater dependent ecosystems;
 - the impacts of the development on any groundwater bores, springs and seeps on privately-owned land; and
 - a protocol for the investigation of identified exceedances of the groundwater impact assessment criteria.

The Applicant must implement the Soil and Water Management Plan as approved by the Secretary.

TRANSPORT

Monitoring of Product Transport

23. The Applicant must keep accurate records of all truck movements to and from the site (including time of arrival and dispatch) and publish a summary of records, which includes daily maximum and calendar month averages, on its website every 6 months.

Note: See condition 9 of Schedule 2 for the relevant daily maximum and monthly averages.

Operating Conditions

24. The Applicant must:
- (a) ensure that all laden trucks entering or exiting the site have their loads covered, with the exception of loads consisting solely of boulders greater than one tonne in weight;

- (b) ensure that all laden trucks exiting the site are cleaned of material that may fall on the road, before leaving the site; and
- (c) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport quarry product from the development so they can be easily identified by road users.

Traffic Management Plan

25. The Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the RMS and Council;
 - (b) be submitted to the Secretary for approval within six months of commencing development under this consent and prior to commencing quarrying operations under this consent;
 - (c) describe the measure that would be implemented to avoid dispatching and/or receiving large groups or convoys of laden trucks from the site onto public roads;
 - (d) include a Drivers' Code of Conduct as required under condition 28 of Schedule 3;
 - (e) describe the measures that would be put in place to ensure compliance with the Drivers' Code of Conduct; and
 - (f) include measures to minimise the transmission of dust and tracking of material onto the surface of the public road from vehicles leaving the quarry.

The Applicant must implement the Traffic Management Plan as approved by the Secretary.

Primary Transport Route

26. Prior to transporting more than 62,500 tonnes per calendar month of quarry products from the site, either under this consent or under this consent in combination with MP 07_0074 (while ever it has not been surrendered), the Applicant must implement and complete:
- (a) **Red Hills Road and Hume Highway intersection works** - construct an additional 500m long (including taper) left turn northbound acceleration lane at the intersection of Red Hills Road and the Hume Highway in accordance with the relevant Austroads intersection design requirements and to the satisfaction of the Secretary and RMS; and
 - (b) **Brayton Road and Quarry Access Road intersection works** - upgrade the intersection of the quarry access road with Brayton Road in accordance with Austroads intersection design requirements, to the satisfaction of the local roads authority including carrying out the following:
 - (i) laying asphalt; and
 - (ii) constructing an acceleration lane on Brayton Road for truck traffic turning right from the Quarry Access Road onto Brayton Road, to be located south of the quarry intersection, and starting at the intersection.
 - (c) **General Road Upgrade Works**- the primary transport route shall be upgraded such that it conforms with current Austroads standards and is generally in accordance with the plans entitled Primary Transport Route Road Upgrade Plans prepared by EMM dated 29 June 2017, Map 1 - 39. Detailed road works plans, including relevant supportive calculations and modelling, shall be submitted to the local roads authority for approval, which outlines the extent of works to be undertaken. The applicant must:
 - (i) Obtain a survey of the primary transport route from a registered surveyor of the entire road corridor. This should show road corridor boundaries, sealed and unsealed pavement extents, line markings, signage, hazards, driveways and intersections, shoulders and any significant vegetation within the corridor that would be affected by the road upgrade works. The survey shall include sufficient detail to indicate the levels and grades of existing pavement, shoulder and clear zone areas.
 - (ii) The design plans shall show the full extent of works, including at a minimum, earthworks, road widening, shoulders and clear zones, stopping areas, bus bays, drainage, line marking, pavement upgrades, signage and vegetation to be removed or retained. The design plans shall include long-sections of roads and the drainage system, and representative road cross-sections which identify the extent of upgrade works.
 - (iii) The design plans shall demonstrate that 3.1 m wide lanes are provided along the primary transport route.
 - (iv) The design plans shall demonstrate that 1.5 m wide shoulders, with 0.5 m width being sealed, are provided along the primary transport route. Where this is not achieved, alternative measures are to be provided, and justification is to be given which

- demonstrates that the non-compliance does not result in an unacceptable road safety outcome.
- (v) The design plans shall demonstrate that 3.0 m wide clear zones are provided along the primary transport route. Where this is not achieved, alternative measures are to be provided generally in accordance with the plans entitled Primary Transport Route Road Upgrade Plans prepared by EMM dated 29 June 2017, Map 1 - 39.
 - (vi) The design plans must identify all trees and native vegetation that need to be removed as a part of the works. Lawful approval for any vegetation removal must be provided to the local roads authority prior to the removal of any vegetation in association with the road works.
 - (vii) A geotechnical report shall be provided to the local roads authority in respect of existing road pavement conditions, pavement carrying capacity, and requirements to upgrade the pavement to accommodate the increase in truck traffic. The geotechnical report shall document the existing pavement by way of borehole and strength testing, at a sampling frequency that will adequately characterise the existing pavement.
 - (viii) A drainage design shall be submitted as a part of the road works plans. This will include relevant calculations and modelling of the road drainage system, and document the extent of drainage works required for the works. The drainage design shall be undertaken such that there will be no detrimental impact on the drainage system within the road corridor, on adjoining properties, or local vegetation.
 - (ix) The design plans shall be certified by suitably qualified civil engineer to be compliant with Austroads standards.
- (d) **In addition to the matters specified in (c) above, in respect of the primary transport route** - carry out road safety upgrades generally in accordance with the plans entitled Primary Transport Route Road Upgrade Plans prepared by EMM dated 29 June 2017, Map 1 – 39, and subject to any requirements or variations requested by Council as the roads authority including:
- (i) line-marking and signage along the primary transport route, including by:
 - marking hidden driveways;
 - upgrade line markings and increase signage; and
 - following discussions and agreement with Council, any upgrades required to improve school bus stop safety.
 - (ii) installing centre double white line-marking with retroreflective pavement markers along the full length (or along such sections as are otherwise required by Council) of the primary transport route, to prevent overtaking;
 - (iii) installing edge line-marking on pavement edges with retroreflective pavement markers along the full length (or along such sections as are otherwise required by the Council) of the primary transport route;
 - (iv) carrying out an analysis of the frequency of heavy fogs on the primary transport route within a 1 month period and in consultation with the Council;
 - (v) installing guide posts and spacings along appropriate sections of the primary transport route in consultation with the Council. The guide post spacing is to be determined on the basis of the analysis of the frequency of heavy fogs to be prepared by the Applicant as per condition (d)(iv).
- (e) Any application to Council under s138 of the Roads Act 1993 for the Primary Transport Route upgrade works is to be in accordance with the plans entitled Primary Transport Route Road Upgrade Plans prepared by EMM dated 29 June 2017, Map 1 – 39, and a copy of such application is to be provided to the Secretary no later than 2 working days after its lodgement with Council.

Note: 62,500 tonnes per calendar month is the monthly equivalent of 750,000 tonnes per annum, the consented limit under project approval MP 07_0074.

27. The Applicant must install and operate a video camera at the intersection of Red Hills Road and the Hume Highway, to the satisfaction of the Secretary. The Applicant must install the camera prior to commencing quarrying operations under this consent and operate the camera until the Hume Highway intersection acceleration lane is constructed and fully operational. The camera must be located in a fixed position with a field of view that accurately records heavy vehicles (including truck identification numbers) merging from Red Hills Road to travel north along the Hume Highway. Recordings from the camera must be examined weekly by the Applicant to ensure safe merging practices at the intersection, securely stored for at least 60 days and made available to the Department and RMS on request.

Truck Driver Code of Conduct

28. Prior to transporting more than 62,500 tonnes per calendar month of quarry products from the site, the Applicant must prepare a Truck Driver Code of Conduct and submit it to the Secretary for approval. The Truck Driver Code of Conduct is to:
- (a) require induction of all truck drivers, including a requirement to read the Truck Driver Code of Conduct and sign a Truck Driver Induction Form, prior to commencing truck driving duties to and from the site;
 - (b) include all speed restrictions for the primary transport route and secondary transport route in the Truck Driver Induction Forms;
 - (c) incorporate provisions regarding anti-social behaviour and anti-littering practices;
 - (d) incorporate details of the safe and quiet driving practices that must be used by drivers transporting products to and from the quarry (particularly on the primary and secondary transport routes) and on safe merging practices at the intersection of Red Hills Road and the Hume Highway;
 - (e) incorporate provisions prohibiting overtaking moving vehicles on the primary transport route and secondary transport route;
 - (f) incorporate provisions prohibiting the use of air brakes by in-bound trucks at the Red Hills and Hume Highway intersection (except in the case of emergencies) and include provisions for truck drivers to be educated regarding the acceptable use of air brakes on local roads;
 - (g) include a copy of the Applicant's drug and alcohol policy; and
 - (h) incorporate mechanisms for ensuring compliance with the Truck Driver Code of Conduct including a mechanism for the Applicant's onsite manager to conduct random compliance checks (no less than once per quarter) of driver behaviour along the primary transport route and secondary transport route.

Transport Options Review

29. Within 10 years of commencing development under this consent, and every 10 years thereafter, the Applicant must commission, commence and pay the full cost of a Transport Options Review for the development. This review must:
- (a) be conducted by a suitably qualified, experienced and independent expert/s whose appointment has been endorsed by the Secretary;
 - (b) include detailed consultation with Transport for NSW, RMS and Council;
 - (c) review the economic, social and environmental costs and benefits of all reasonable and feasible options for the transport of quarry products from the site (including by rail and including trucks movements currently permitted by this consent);
 - (d) recommend any appropriate measures or actions to reduce the economic, social and environmental costs associated with transport of quarry products from the site, and
 - (e) be conducted and reported to the satisfaction of the Secretary.

Within 12 weeks of commencing this review or as otherwise agreed by the Secretary, the Applicant must submit a copy of the review report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the review report.

ABORIGINAL HERITAGE

Aboriginal Heritage Management Plan

30. The Applicant must prepare an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary. The plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
 - (b) be prepared in consultation with OEH and the Registered Aboriginal Parties;
 - (c) be submitted to the Secretary for approval within six months of commencing development under this consent and prior to commencing quarrying operations under this consent; and
 - (d) include a description of the measures that would be implemented to:
 - (i) protect, monitor and manage known sites of archaeological significance;
 - (ii) manage any new Aboriginal objects or relics that are discovered;
 - (iii) store Aboriginal heritage items salvaged on site; and
 - (iv) ensure ongoing consultation and involvement of the Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site.

BIODIVERSITY AND REHABILITATION

Biodiversity Offset Strategy

31. The Applicant must implement the Biodiversity Offset Strategy, including:

- (a) protecting, enhancing and maintaining the Biodiversity Areas identified in condition 32 of Schedule 3; and
- (b) retiring the biodiversity credits identified in condition 34 of Schedule 3, in accordance with the *Framework for Biodiversity Assessment - NSW Biodiversity Offsets Policy for Major Projects*; to the satisfaction of the Secretary and OEH.

Biodiversity Areas

32. The Applicant must protect, enhance and maintain the Biodiversity Areas described in Table 7 and shown conceptually on the plan in Appendix 5, to achieve the objectives in Table 7 to the satisfaction of the Secretary and OEH.

Table 7: Biodiversity Areas

Biodiversity Area	Objective	Minimum Size (ha)
White Box-Yellow Box Blakely's Red Gum Woodland Endangered Ecological Community (Box Gum Woodland EEC)	Protect, maintain and enhance, including through assisted regeneration, Box Gum Woodland EEC on the site	32.66
Cleared land	Regenerate and/or replant cleared land on site with native vegetation representative of Box Gum Woodland EEC	46.16
Total		78.82

Security of Biodiversity Areas

33. Prior to commencing quarrying operations under this consent, unless otherwise agreed with the Secretary, the Applicant must make suitable arrangements to provide long-term security and funding for the Biodiversity Areas identified in condition 32 of Schedule 3, to the satisfaction of the Secretary and OEH.

Note: Mechanisms to provide appropriate long-term security to the Biodiversity Area include a BioBanking Agreement, under the Threatened Species Conservation Act 1995, a Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome. Any mechanism must remain in force in perpetuity.

Biodiversity Offsets

34. The Applicant must retire the biodiversity credits set out in Table 8, in accordance with the *Framework for Biodiversity Assessment - NSW Biodiversity Offsets Policy for Major Projects* to the satisfaction of the Secretary and OEH. The credits identified in Table 8 include credits arising from the carrying out of the primary transport route upgrade works referred to in condition 26. If the vegetation to be removed is less than anticipated at the date of this consent the credits arising from these upgrade works may be reduced if approved by the Secretary provided the number of credits does not fall below the minimum number identified in column 2 of the table.

Table 8: Biodiversity credits to be retired

Credit type	Number of Credits	Additional Credits resulting from Primary Transport Route Upgrade Works
Ecosystem Credits		
Yellow Box - Blakely's Red Gum Grassy Woodland (PCT1330)	373	13
Yellow Box - Blakely's Red Gum Grassy Woodland Derived Native Grassland (PCT1330)	185	
Broad-leaved Peppermint - Red Stringybark grassy open forest (PCT734)	160	23
Broad-leaved Peppermint - Red	662	

Stringybark grassy open forest Derived Native Grassland (PCT734)		
Total	1,380	36

Security of Offsets

35. Within eighteen months of commencing development under this consent, unless otherwise agreed with the Secretary, the Applicant must make suitable arrangements to provide long-term security and funding for the Biodiversity Offset Areas used to retire the credits identified in condition 34 of Schedule 3, through a Biobanking Agreement under the *Threatened Species Conservation Act 1995*, to the satisfaction of OEH.

Rehabilitation Objectives

36. The Applicant must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must be generally consistent with the rehabilitation strategy in the EIS and must comply with the objectives in Table 9.

Table 9: Rehabilitation Objectives

Feature	Objective
Site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Final landform integrated with surrounding natural landforms as far as is reasonable and feasible • Final landform has minimal visual impact when viewed from surrounding land
Surface Infrastructure	<ul style="list-style-type: none"> • Decommissioned and removed, unless otherwise agreed by the Secretary
Land identified as the Biodiversity Area	<ul style="list-style-type: none"> • Conserved and enhanced with native, endemic vegetation consistent with the objectives shown in Table 7
Riparian corridors along Chapman Creek and its tributaries	<ul style="list-style-type: none"> • Stabilised and vegetated
Quarry benches	<ul style="list-style-type: none"> • Landscaped and vegetated using native tree and understorey species
Final Void	<ul style="list-style-type: none"> • Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void

Progressive Rehabilitation

37. The Applicant 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 stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.

Biodiversity and Rehabilitation Management Plan

38. The Applicant must prepare a Biodiversity and Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, DPI Fisheries and Council;
 - be submitted to the Secretary within twelve months of commencing development under this consent and prior to commencing quarrying operations under this consent unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated land uses for the site;
 - describe how the implementation of condition 31 of Schedule 3 would be integrated with the overall rehabilitation of the site;
 - include detailed performance and completion criteria for evaluating performance under condition 31 of Schedule 3 and rehabilitation of the site, including triggers for any necessary remedial action;
 - describe the short, medium and long term measures that would be implemented to:
 - manage remnant vegetation and habitat, including within the Biodiversity Areas and any areas that would be used to offset the biodiversity credits identified in condition 34 of Schedule 3; and

- ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;
- (g) include a detailed description of the measures that would be implemented over the next 3 years (to be updated for each 3 year period following initial approval of the plan) including the procedures to be implemented for:
- maximising the salvage of environmental resources within the approved disturbance area, including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation;
 - restoring and enhancing the quality of native vegetation and fauna habitat in the biodiversity offset and rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features;
 - protecting vegetation and fauna habitat outside the approved disturbance area on-site;
 - protecting the Chapmans Creek riparian buffer area shown on the figure in Appendix 6 in accordance with the *Policy and Guidelines for Fish Habitat Conservation and Management*;
 - minimising the impacts on native fauna, including undertaking pre-clearance surveys;
 - establishing vegetation screening to minimise the visual impacts of the site on surrounding receivers;
 - ensuring minimal environmental consequences for threatened species, populations and habitats;
 - collecting and propagating seed;
 - controlling weeds and feral pests;
 - controlling erosion; and
 - managing bushfire risk;
- (h) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;
- (i) identify the potential risks to the successful implementation of condition 31 of Schedule 3, and include a description of the contingency measures that would be implemented to mitigate these risks; and
- (j) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Applicant must implement the Biodiversity and Rehabilitation Management Plan as approved by the Secretary.

Biodiversity and Rehabilitation Bond

39. Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Applicant must lodge a Biodiversity and Rehabilitation Bond with the Department to ensure that the Biodiversity Offset Strategy and rehabilitation of the site are implemented in accordance with the performance and completion criteria set out in the plan and the relevant conditions of this consent. The sum of the bond must be determined by:
- (a) calculating the cost of implementing the Biodiversity Offset Strategy over the next 3 years for the Biodiversity Areas identified in condition 32 of Schedule 3;
 - (b) calculating the cost of rehabilitating all disturbed areas of 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, or by using the Rehabilitation Cost Estimate spreadsheet tool (RCE) issued by DRG.
- to the satisfaction of the Secretary.

Notes:

- *Alternative funding arrangements for long term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a BioBanking Agreement, or transfer to conservation reserve estate can be used to reduce the liability of the Biodiversity and Rehabilitation Bond.*
- *If capital and other expenditure required by the Biodiversity and Rehabilitation 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/or rehabilitation of the site area are completed (or partially completed) to the satisfaction of the Secretary, then the Secretary will release the bond (or relevant part of the bond). If the Biodiversity Offset Strategy and rehabilitation of the site are not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works.*

40. Within 3 months of each Independent Environmental Audit (see condition 11 of Schedule 5), the Applicant must review, and if necessary revise, the sum of the Biodiversity 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 all disturbed areas of the site (taking into account the likely surface disturbance over the next 3 years of the development); and

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

VISUAL

- 41. The Applicant must implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development to the satisfaction of the Secretary.

WASTE

- 42. The Applicant must:
 - (a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Council;
 - (b) minimise the waste generated by the development;
 - (c) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and
 - (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.
- 43. Except as expressly permitted in an EPL, the Applicant must not receive waste (with the exception of the cured concrete transported to the site in accordance with condition 8 of Schedule 2) at the site for storage, treatment, processing, reprocessing or disposal.

LIQUID STORAGE

- 44. The Applicant must ensure that all tanks and similar storage facilities (other than for water) are protected by appropriate bunding or other containment, in accordance with the relevant Australian Standards.

DANGEROUS GOODS

45. The Applicant must ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

BUSHFIRE

46. The Applicant must:
- (a) ensure that the development is suitably equipped to respond to any fires on site; and
 - (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. Within 2 months of the commencement of development under this consent, the Applicant must notify in writing the owner of:
 - (a) the residences listed in Table 2 of Schedule 3 that they are entitled to ask the Applicant to install additional noise mitigation measures at the residences; and
 - (b) notify any tenants of quarry-owned land of their rights under this consent.
2. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, the Applicant must:
 - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
 - (b) advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Secretary.
3. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in Schedule 3, the Applicant must notify the affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and
 - (b) an exceedance of any relevant air quality criteria in Schedule 3, the Applicant 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 current tenants of the land (including the tenants of land which is not privately-owned).

INDEPENDENT REVIEW

4. If an owner of privately-owned land considers the development 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 development 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 Applicant must:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3; and
 - if the development is not complying with these criteria, then identify 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.

LAND ACQUISITION

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:
 - (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in condition 2 of Schedule 3;
 - (b) the reasonable costs associated with:
 - relocating within the Goulburn Mulwaree local government area, or to any other local government area determined by the Secretary; and
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
 - (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.

Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

- consider submissions from both parties;
- determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
- prepare a detailed report setting out the reasons for any determination; and
- provide a copy of the report to both parties.

Within 14 days of receiving the independent valuer's report, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this determination, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

If the landowner refuses to accept the Applicant's binding written offer under this condition within six months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.

The Applicant must pay all reasonable costs associated with the land acquisition process described in this condition, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

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

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
 - (a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant;
 - (b) provide the strategic framework for environmental management of the development;
 - (c) identify the statutory approvals that apply to the development;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (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 development;
 - receive, record, handle and respond to complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance;
 - respond to emergencies; and
 - (f) include:
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out under the conditions of this consent.

The Applicant must implement any Environmental Management Strategy as approved by the Secretary.

Management Plan Requirements

2. The Applicant must ensure that the management plans required under this consent 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 development 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 development; and
 - effectiveness of any management measures (see (c) above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
 - (f) a program to investigate and implement ways to improve the environmental performance of the development 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.

Application of Existing Management Plans

3. Prior to the approval of management plans under this consent, the Applicant shall manage development undertaken pursuant to this consent in accordance with any equivalent or similar management plan/s required under project approval MP 07_0074.

Revision of Strategies, Plans & Programs

4. Within 3 months of the:
- submission of an Annual Review;
 - submission of an incident report under condition 8 below;
 - submission of an audit report under condition 11 below; and
 - approval of any modifications to this consent,
- the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Within 4 weeks of conducting any such review, the Applicant must advise the Secretary of the outcomes of the review, and provide any revised documents to the Secretary for review and approval.

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

Updating and Staging of Strategies, Plans or Programs

5. To ensure that strategies, plans or programs required under this consent are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

With the agreement of the Secretary, the Applicant may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

Notes:

- *While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the operations associated with the development are covered by suitable strategies, plans or programs at all times.*
- *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/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.*

Adaptive Management

6. The Applicant must assess and manage development-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 consent 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 Applicant must, at the earliest opportunity:

- take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur;
 - 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
 - implement remediation measures as directed by the Secretary;
- to the satisfaction of the Secretary.

COMMUNITY CONSULTATIVE COMMITTEE

7. The Applicant must establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. The CCC must be operated in general accordance with the Department's *Community Consultative Committee Guidelines for State Significant Projects* (November 2016, or its latest version).

Note:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*

REPORTING

Incident Reporting

8. The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant 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

9. The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

Annual Review

10. By the end of September each year, or other timing as may be agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:
- describe the development (including any rehabilitation) that was carried out in the previous financial year, and the development that is proposed to be carried out over the current financial year;
 - include a comprehensive review of the monitoring results and complaints records of the development over the previous financial year, which includes a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - requirements of any plan or program required under this consent;
 - monitoring results of previous years; and
 - relevant predictions in the documents listed in condition 2(a) of Schedule 2;
 - identify any non-compliance over the past financial year, and describe what actions were (or are being) taken to ensure compliance;
 - identify any trends in the monitoring data over the life of the development;
 - identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
 - describe what measures will be implemented over the current financial year to improve the environmental performance of the development.

The Applicant must ensure that copies of the Annual Review are submitted to Council and the EPA and are available to the Community Consultative Committee (see condition 7 of Schedule 5) and any interested person upon request.

INDEPENDENT ENVIRONMENTAL AUDIT

11. Within a year of commencing development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:
- be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - include consultation with the relevant agencies;
 - assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);
 - review the adequacy of strategies, plans or programs required under the abovementioned approvals;
 - recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
 - 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.

12. Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

13. Within 6 months of the commencement of development under this consent, the Applicant must:
- make the following information publicly available on its website:

- the documents listed in condition 2(a) of Schedule 2;
 - current statutory approvals for the development, including any environmental protection licence and any permits or approvals under the Roads Act 1993 relating to road upgrades, etc;
 - all approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, updated monthly;
 - the annual reviews of the development;
 - any independent environmental audit, and the Applicant'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
DEVELOPMENT LAYOUT**

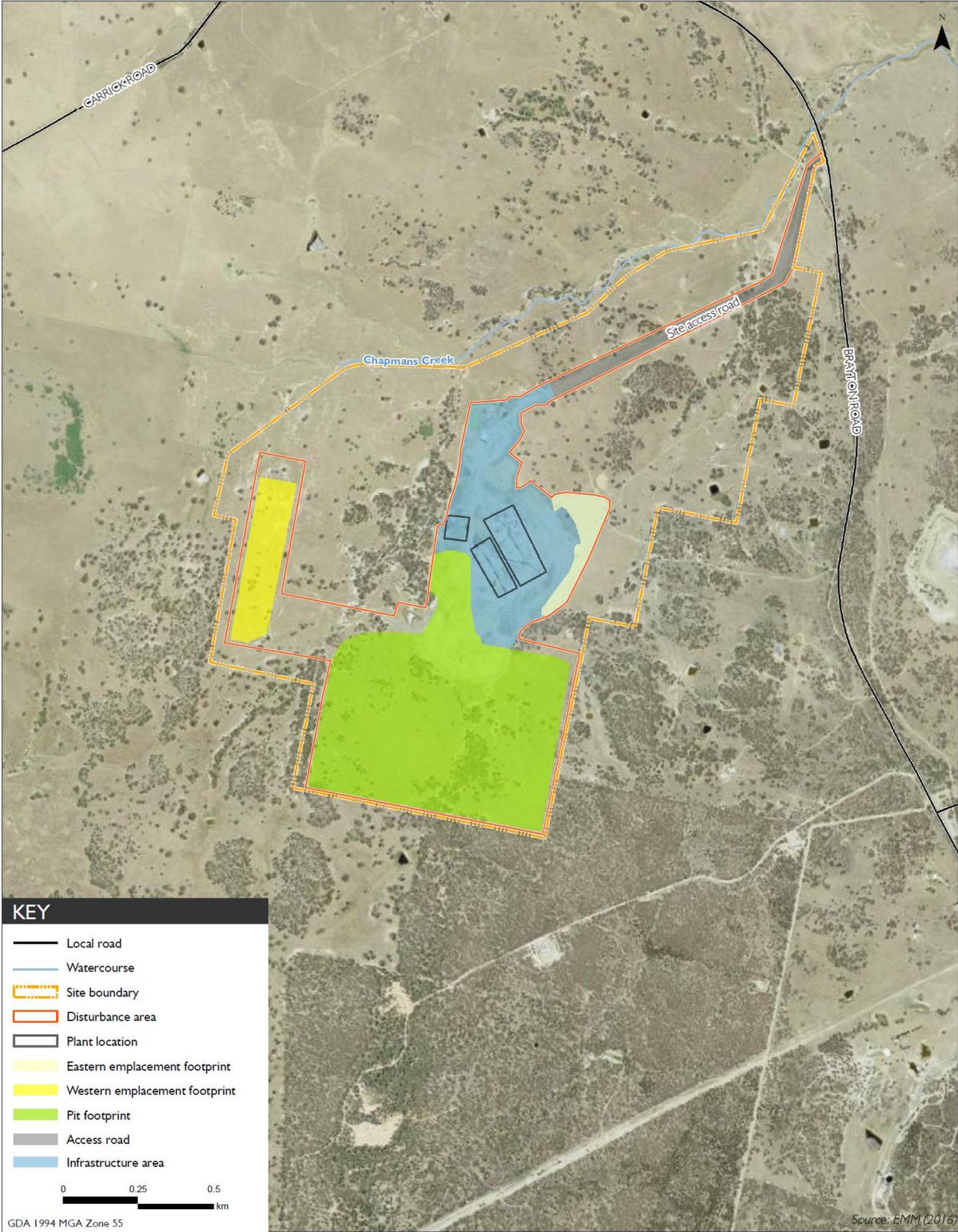


Figure: Development Layout

**APPENDIX 2
STATEMENT OF COMMITMENTS**

Aspect	Commitment
Noise and vibration	<p><i>Voluntary land acquisition and mitigation</i></p> <ul style="list-style-type: none"> • Voluntarily acquisition rights will be offered to receiver R2 in accordance with the VLAMP. • Voluntarily mitigation rights will be offered to receiver R2 and R7 in accordance with the VLAMP. <p><i>Primary crusher noise attenuation</i></p> <ul style="list-style-type: none"> • The primary crusher will be enclosed as part of the extension project within four months of approval. • The primary crusher will not be operated at night until it is enclosed. <p><i>Overburden emplacement</i></p> <ul style="list-style-type: none"> • The overburden emplacement east of the infrastructure area will be extended to the north and south as shown in the general site layout. <p><i>Evening and night operation of mobile fleet</i></p> <ul style="list-style-type: none"> • The mobile fleet operations will be reduced during the evening and night periods, as represented in the noise model. <p><i>Noise and Blast Management Plan</i></p> <ul style="list-style-type: none"> • An updated Noise and Blast Management Plan will be submitted to DPE within six months of commencing development under the consent.
Air quality	<p><i>Air quality monitoring</i></p> <ul style="list-style-type: none"> • The existing air quality monitoring network will continue under the extension project. Monitoring results will be reviewed on an annual basis against the Environment Protection Licence (EPL) and approval conditions to determine if additional monitoring is required due to production increases. <p><i>Air quality management</i></p> <ul style="list-style-type: none"> • The following additional management measures will be implemented to enable Gunlake to continue to manage potential air quality impacts effectively: <ul style="list-style-type: none"> - compliance with the USA-EPA Tier 3 or Tier 4 emissions standards, where practicable, for any new plant acquired by Gunlake; and - consideration of the following factors during blast design: <ul style="list-style-type: none"> ▪ delaying blasting to avoid unfavourable weather conditions that are likely to cause or spread a blast fume; ▪ selecting an explosive product that is correct for the conditions; ▪ monitoring the amount of hydrocarbon (diesel) in the product; ▪ preventing water ingress into blast holes; ▪ dewatering holes before loading; ▪ keeping sleep time (the amount of time between charging and firing of a blast) to a minimum, well within manufacturer recommended times; ▪ providing effective stemming; and ▪ loading the product using the appropriate techniques.

Aspect	Commitment
Biodiversity	<p data-bbox="491 230 1310 286"><i>Rehabilitation and Biodiversity Offsets Management Plan [previously the Landscape Management Plan]</i></p> <ul data-bbox="491 297 1460 819" style="list-style-type: none"> <li data-bbox="491 297 1460 409">• The Rehabilitation and Biodiversity Offsets Management Plan (RBOMP) will be updated to include details on biodiversity management and rehabilitation for the extension project. The plan will be completed and implemented within 12 months of commencing development under the consent. <li data-bbox="491 421 1460 752">• The RBOMP will include procedures to be applied for the management of the offset properties, the arrangements for conservation in perpetuity and regeneration works to be undertaken. This will include the procedures for: <ul data-bbox="568 521 1460 752" style="list-style-type: none"> <li data-bbox="568 521 1460 600">- assisting the revegetation and regeneration in the offset areas, including establishment of canopy, understorey and groundcover in areas of native pasture where required; <li data-bbox="568 611 975 633">- controlling weeds and feral pests; <li data-bbox="568 645 975 667">- fencing and access arrangements; <li data-bbox="568 678 842 701">- erosion control; and <li data-bbox="568 712 866 734">- bushfire management. <li data-bbox="491 763 1460 819">• An offset monitoring program will also be included within the RBOMP to monitor any changes to the condition of the offset areas. <p data-bbox="478 842 549 864"><i>Offsets</i></p> <ul data-bbox="478 875 1460 1032" style="list-style-type: none"> <li data-bbox="478 875 1460 931">• Biodiversity Areas of 78.82 ha will be provided to compensate for the biodiversity impacts of the original approval, as modified. <li data-bbox="478 943 1460 999">• An offset package with 1,380 ha of biodiversity credits will be provided under a BioBanking agreement to compensate for the additional biodiversity impacts of the extension project. <li data-bbox="478 1010 1161 1032">• The offset areas will be managed in accordance with the RBOMP.
Groundwater	<p data-bbox="478 1111 727 1133"><i>Water management plan</i></p> <p data-bbox="478 1144 1406 1223">The Water Management (WMP) Plan will be updated to provide details of the surface water management system, surface water management and monitoring for the extended quarry and will be submitted to DPE within six months of commencing development under the consent.</p> <p data-bbox="478 1234 1114 1256">The Gunlake water management plan will be updated to include:</p> <ul data-bbox="478 1279 1460 1648" style="list-style-type: none"> <li data-bbox="478 1279 1305 1335">• triggers values to facilitate the identification of groundwater impacts outside of predictions; <li data-bbox="478 1346 1406 1368">• the use of monitoring data to calibrate and update the model at significant project stages; <li data-bbox="478 1379 1406 1435">• quarterly groundwater quality and level monitoring to facilitate the early identification of adverse impacts and test model predictions; <li data-bbox="478 1447 1406 1503">• monitoring of spring flow in conjunction with the quarterly groundwater level and quality program; <li data-bbox="478 1514 1015 1536">• monitoring mapped areas of Box Gum Woodland; <li data-bbox="478 1547 954 1570">• procedures for the re-use of site water; and <li data-bbox="478 1581 1460 1648">• response protocols and contingency mitigation measures to be implemented in the event of an unpredicted adverse impact. <p data-bbox="478 1659 699 1682"><i>Groundwater licensing</i></p> <ul data-bbox="478 1693 1460 1794" style="list-style-type: none"> <li data-bbox="478 1693 1460 1749">• Gunlake Quarry will obtain a WAL(s) for the predicted groundwater take over the lifespan of extension project (up to 37 ML/year). <li data-bbox="478 1760 1217 1783">• Groundwater monitoring bores will be registered under the Water Act.
Surface water	<p data-bbox="478 1816 703 1839"><i>Surface water licensing</i></p> <ul data-bbox="478 1850 1382 1904" style="list-style-type: none"> <li data-bbox="478 1850 1382 1904">• Gunlake will seek any required water licences should water need to be imported during extended dry periods.

Aspect	Commitment
Aboriginal heritage	<p data-bbox="475 226 727 248"><i>Surface water monitoring</i></p> <ul data-bbox="475 259 1414 510" style="list-style-type: none"> <li data-bbox="475 259 1414 360">• The current surface water monitoring program will be modified to include monitoring at: <ul data-bbox="523 300 1337 360" style="list-style-type: none"> <li data-bbox="523 300 1337 322">- two receiving water sites on Chapmans Creek, downstream of the quarry; and <li data-bbox="523 333 1054 360">- the Process Water Dam and Pit Dewatering Dam. <li data-bbox="475 371 1414 450">• Should the monitoring program indicate that the quarry is potentially adversely affecting water quality in Chapmans Creek, Gunlake will undertake an investigation to establish the likely cause and will implement necessary mitigation measures. <li data-bbox="475 461 1414 510">• The updated Soil and Water Management Plan will include the site water balance and measures to manage water excesses and deficits. <hr/> <p data-bbox="475 521 855 544"><i>Aboriginal Heritage Management Plan</i></p> <ul data-bbox="475 555 1414 965" style="list-style-type: none"> <li data-bbox="475 555 1414 633">• An updated Aboriginal Heritage Management Plan, prepared in consultation with OEH and Registered Aboriginal Parties, will be submitted to DPE within six months of commencing development under the consent <li data-bbox="475 645 1414 965">• The Gunlake Quarry Aboriginal Heritage Management Plan (AHMP) will be updated and provide details of: <ul data-bbox="523 723 1286 965" style="list-style-type: none"> <li data-bbox="523 723 1286 779">- all Aboriginal sites identified for the project and those previously recorded in the broader project site boundary; <li data-bbox="523 790 1193 813">- management measures and their progress towards completion; <li data-bbox="523 824 1286 846">- continuing consultation and involvement of registered Aboriginal parties; <li data-bbox="523 857 914 880">- protocols for newly identified sites; <li data-bbox="523 891 1090 913">- protocols for suspected human skeletal material; and <li data-bbox="523 925 1038 965">- provisions for review and updates of the AHMP. <p data-bbox="475 976 632 999"><i>Aboriginal sites</i></p> <ul data-bbox="475 1010 1414 1290" style="list-style-type: none"> <li data-bbox="475 1010 1414 1088">• All Aboriginal sites in the project disturbance footprint will be collected by a qualified archaeologist and members of the RAPs and relocated to the same area as previously collected artefacts at the site. <li data-bbox="475 1099 1414 1223">• If new Aboriginal sites are discovered outside of known site areas, all work will halt and an archaeologist and members of the RAPs be contacted to determine the significance of the objects. Objects will be managed based on their sensitivity in a manner consistent with the management measures outlined above, including appropriate forms of salvage for the items. <li data-bbox="475 1234 1414 1290">• In the event that known or suspected human skeletal remains are encountered during the activity, the procedures detailed in Appendix M of the EIS will be followed. <p data-bbox="475 1301 719 1323"><i>Avoiding Aboriginal sites</i></p> <ul data-bbox="475 1335 1414 1368" style="list-style-type: none"> <li data-bbox="475 1335 1414 1368">• The Aboriginal sites, GL4, GL12, GL13 and GL15, will be fenced and avoided by the project.
Social	<p data-bbox="475 1379 919 1402"><i>Local employment, training and engagement</i></p> <ul data-bbox="475 1413 1414 1603" style="list-style-type: none"> <li data-bbox="475 1413 1414 1469">• Gunlake will ensure that preference is given to local employees. Gunlake will use local or regional contractors and suppliers where this presents a cost effective and feasible option. <li data-bbox="475 1480 1414 1536">• Gunlake will provide ongoing training and certification opportunities for local community members to ensure they have the necessary skills to work in extractive industries. <li data-bbox="475 1547 1414 1603">• Gunlake will continue to actively engage with the local community and affected individuals and groups and address any complaints and feedback on quarry operations.
Soils and rehabilitation	<p data-bbox="475 1615 727 1637"><i>Rehabilitation scheduling</i></p> <ul data-bbox="475 1648 1463 1771" style="list-style-type: none"> <li data-bbox="475 1648 1463 1771">• Rehabilitation will be progressively staged as soon as possible after final completion of works is determined. Staging of rehabilitation activities will require identification of timelines for decommissioning of pits, buildings and other supporting infrastructure. A more detailed schedule of works will be developed 12 to 24 months prior to the confirmed closure. <p data-bbox="475 1783 767 1805"><i>Erosion and sediment control</i></p> <ul data-bbox="475 1816 1463 1872" style="list-style-type: none"> <li data-bbox="475 1816 1463 1872">• Erosion and sediment control measures will be defined in an Erosion and Sediment Control Plan to be implemented throughout the life of the project. <p data-bbox="475 1883 544 1906"><i>Weeds</i></p> <ul data-bbox="475 1917 1463 1975" style="list-style-type: none"> <li data-bbox="475 1917 1463 1975">• Gunlake will take the necessary precautions to prevent excessive development of weeds within rehabilitated areas.

Aspect	Commitment
Visual	<p data-bbox="475 230 730 257"><i>Rehabilitation monitoring</i></p> <ul data-bbox="475 271 1420 510" style="list-style-type: none"> <li data-bbox="475 271 1420 353">• Gunlake will undertake an ongoing monitoring program throughout and beyond the operation of the project. Areas being rehabilitated will regularly be inspected and assessed against the short and long-term rehabilitation objectives outlined in EIS Section 6.4.1. <li data-bbox="475 367 1420 510">• It is envisaged that rehabilitation monitoring will be undertaken for at least 2 years following the completion of all rehabilitation. The exact period would reflect seasonal conditions during that period. In any event, maintenance will continue until such time as the objectives have been achieved. The monitoring criteria will be reviewed and finalised with Goulburn Mulwaree Council at the time of submitting a final rehabilitation plan.
Historic heritage	<p data-bbox="475 521 625 548"><i>Visual amenity</i></p> <ul data-bbox="475 562 1455 645" style="list-style-type: none"> <li data-bbox="475 562 1455 645">• Gunlake will continue to consult with surrounding landowners regarding the visual amenity of the quarry and will implement any reasonable additional controls to further reduce their visual impact, if necessary. <p data-bbox="475 656 651 683"><i>Unexpected finds</i></p> <ul data-bbox="475 696 1455 754" style="list-style-type: none"> <li data-bbox="475 696 1455 754">• Gunlake will include an unexpected finds protocol in relation to historic heritage as part of the EMS for the quarry.

APPENDIX 3 NOISE RECEIVER LOCATIONS

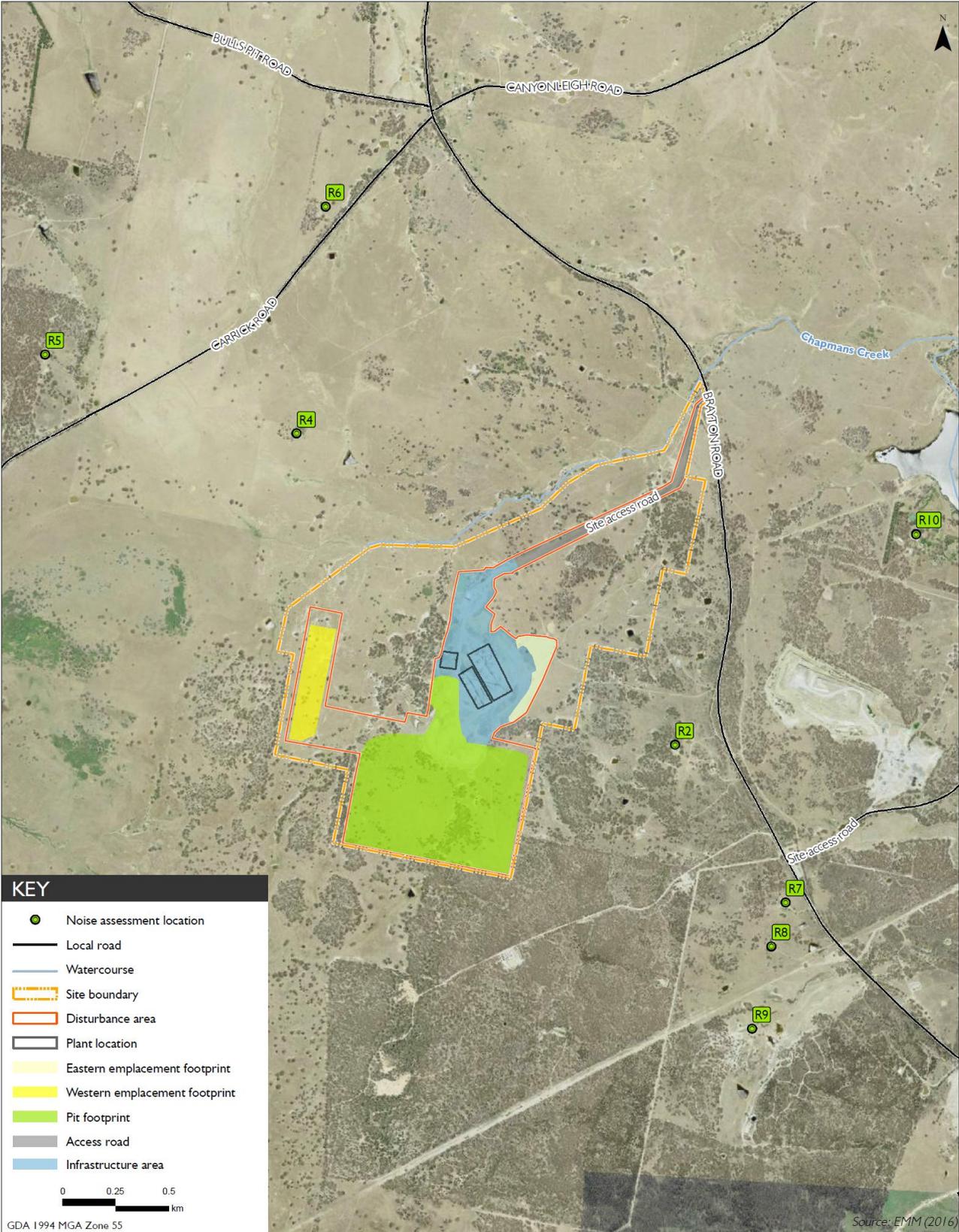


Figure: Noise Assessment Locations

APPENDIX 4 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 2 are to apply under all meteorological conditions except the following:
 - (a) wind speeds greater than 3 m/s at 10 m above ground level; or
 - (b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
 - (c) temperature inversion conditions greater than 3°C/100 m.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station required under condition 18 of Schedule 3.

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.
4. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

APPENDIX 5 BIODIVERSITY AREAS

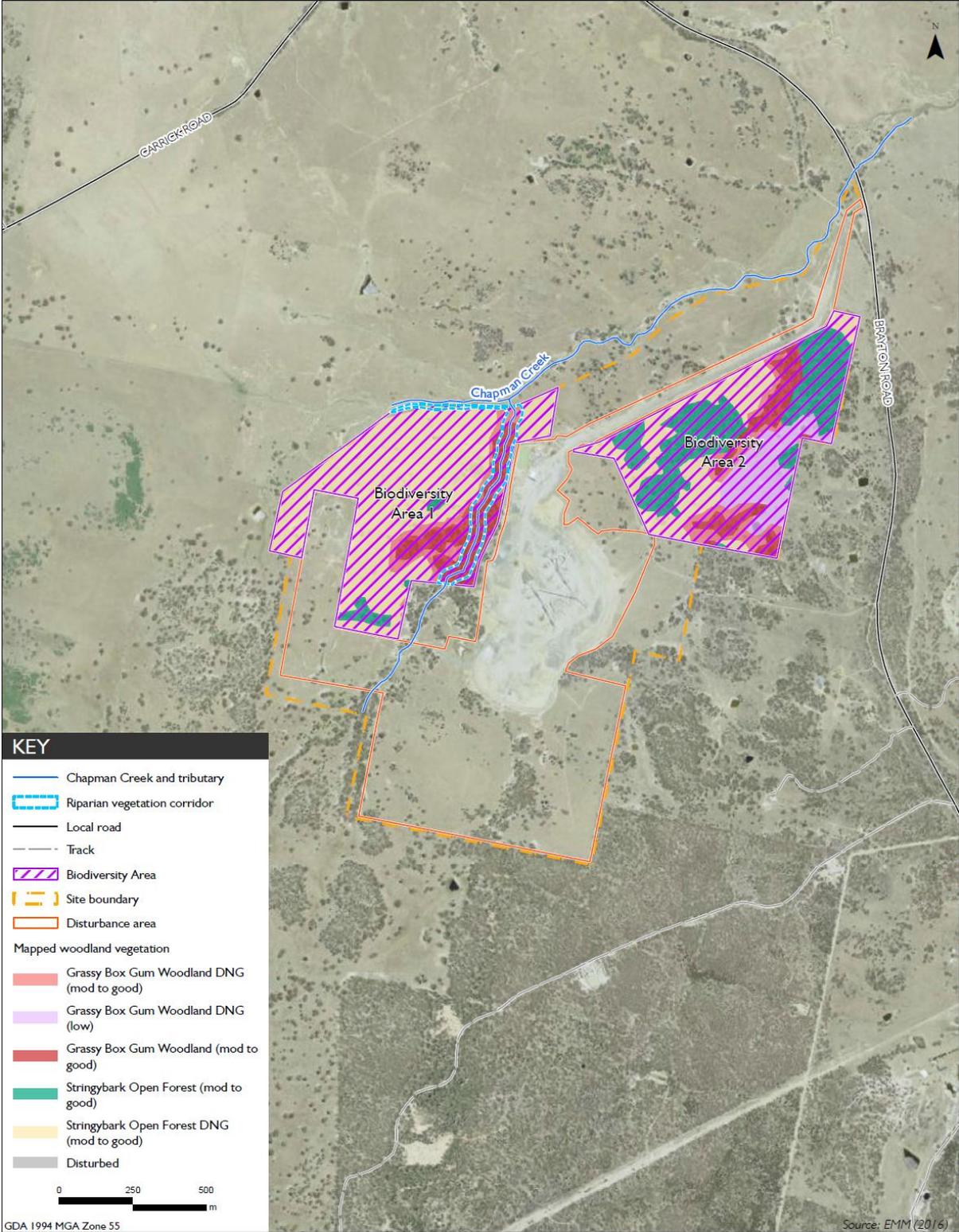


Figure: Location of Biodiversity Areas

**APPENDIX 6
CHAPMANS CREEK RIPARIAN BUFFER**

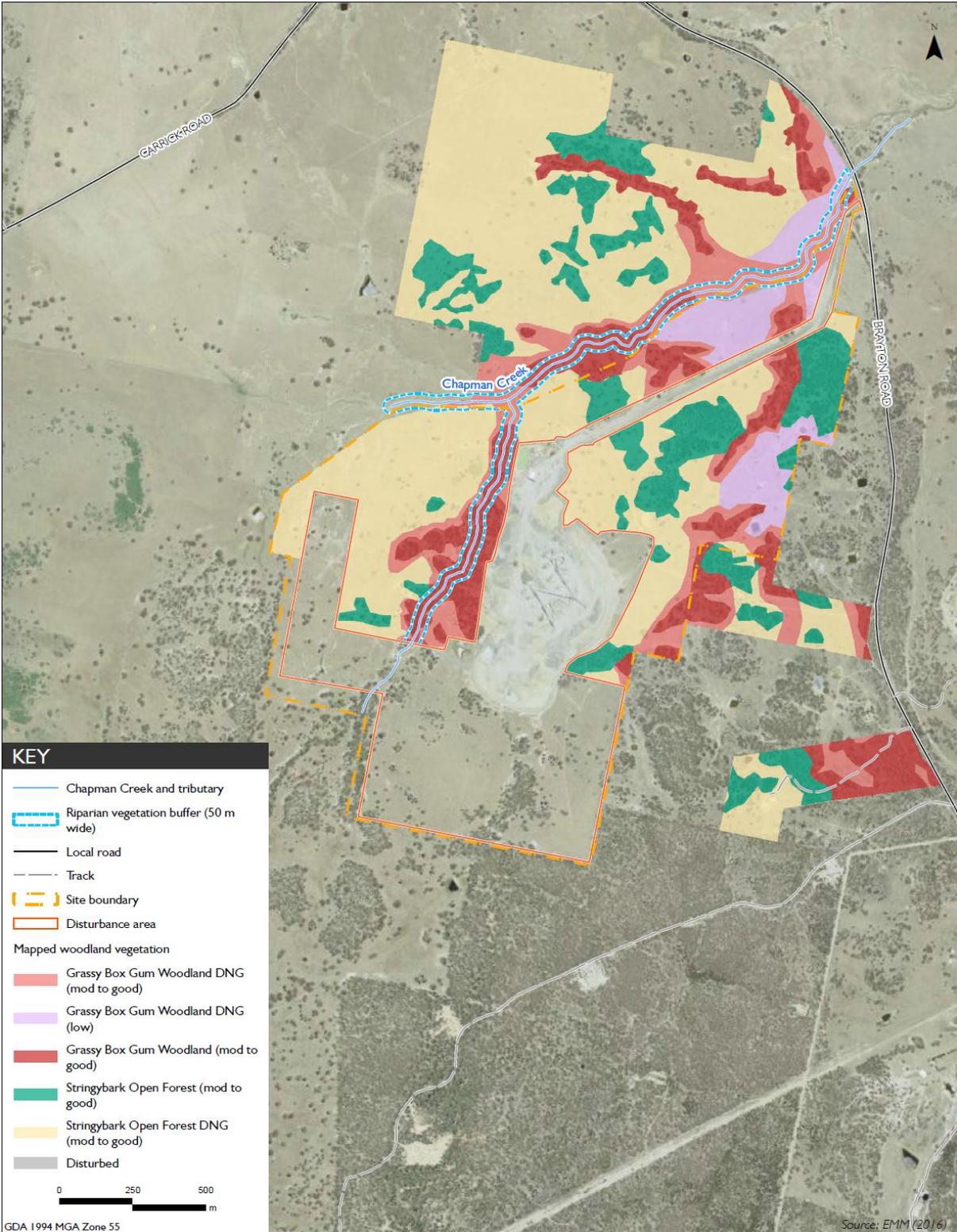


Figure: Chapman's Creek Riparian Buffer