

Gunlake Quarry Continuation Project

Scoping Report

Prepared for Gunlake Quarries Pty Ltd
December 2020



Gunlake Quarry Continuation Project

Scoping Report

Report Number

J190263 RP#5

Client

Gunlake Quarries Pty Ltd

Date

18 December 2020

Version

v1 Final

Approved by



Dr Philip Towler
Associate Director
18 December 2020

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

© Reproduction of this report for educational or other non-commercial purposes is authorised without prior written permission from EMM provided the source is fully acknowledged. Reproduction of this report for resale or other commercial purposes is prohibited without EMM's prior written permission.

Executive Summary

ES1 Introduction

Gunlake Quarries Pty Ltd (Gunlake) operates a hard rock quarry (the 'Quarry') located at 715 Brayton Road, Marulan NSW. The Quarry is approximately 7 kilometres (km) north-west of the centre of Marulan in the Goulburn Mulwaree local government area (Figure 1.1). The land surrounding the Quarry is rural land with a low population density.

Since the Quarry received its most recent approval in 2017, the tonnage of product dispatched by the Quarry has steadily increased and, with an infrastructure boom in the Greater Sydney region, Gunlake forecast that demand for products from the Quarry (dispatched by road along the primary transport route) will continue to increase further as a result of the extensive infrastructure construction projects in NSW, that are funded by the NSW and Commonwealth governments, in part in response to the economic downturn caused by the COVID-19 pandemic. It is forecast that the Quarry will not be able to meet this demand within the limits of the current Extension Project Approval. If approved, the Continuation Project will allow the Quarry to meet this demand once approved.

ES2 Gunlake Quarry Continuation Project

It is proposed to increase the tonnage of product dispatched from the Quarry, in response to the increased demand. This will require more truck movement limits than currently approved. The ignimbrite hard-rock resource will continue to be extracted and processed using the methods currently employed at the Quarry. These proposed changes are known as the Gunlake Quarry Continuation Project (the 'Continuation Project'). Gunlake propose to lodge a new state significant (SSD) application and environmental impact statement (EIS) for the Continuation Project.

As part of the original quarry development, Gunlake financed the construction of the bypass road (Ambrose Road) that connects Brayton Road to Red Hills Road, allowing trucks to bypass Marulan. As part of the Gunlake Quarry Extension Project, Gunlake financed the upgrade of the Primary Transport Route in accordance with the Austroads Guidelines for rural roads with 1,000 to 3,000 average vehicle movements per day (Austroads 2020) – the upgrades exceed the requirements of the Extension Project Approval conditions. These upgrades enable increased truck movements, the primary component of the Continuation Project, while maintaining the safety of these public roads.

The Continuation Project operations would remain similar to the currently approved Extension Project operations with the following proposed changes:

- Daily truck movements:
 - from an average of 185 inbound and 185 outbound movements (approved) to an average of 345 inbound and 345 outbound movements;
 - from a maximum of 245 inbound and 245 outbound movements (approved) to a maximum of 375 inbound and 375 outbound movements.
- Truck movements averaging period changed from "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" to be averaged over the working days in a year.
- Remove the fixed annual tonnage limit so that the transport of saleable product is restricted by the approved truck movements only.

- Scale extraction and processing to meet product dispatch within the current approved hours.
- Quarry life to 30 years from the date of approval.
- Rectify the disturbance boundary to include areas cleared under Project Approval 07-0074 but which are outside of the Extension Project disturbance boundary (see below).

These changes will require an increased quarry and transport workforce.

Prior to surrendering the original approval for the Quarry (Project Approval 07-0074) on 1 August 2018, the eastern overburden emplacement was extended and the haul road into the pit was completed, both within the footprint approved by Project Approval 07-0074. Biodiversity offsets have been provided for vegetation clearance within these areas. By oversight, these areas were omitted from the Extension Project disturbance area. It is proposed to rectify this as part of the Continuation Project.

The application will seek to maintain all existing Quarry components and activities as well as the increased product transport.

The following aspects of the Quarry's operations are **not** proposed to be changed:

- the average and maximum number of approved truck movements along the Secondary Transport Route;
- the Quarry operation hours, and the hours that the Primary and Secondary Transport Routes are used;
- the footprint and the maximum depth (572 m AHD) of the Quarry pit; or
- the hours and frequency of blasting.

ES3 Engagement

Gunlake has been actively engaging with the Quarry's stakeholders since 2008, including through the Gunlake Quarry Community Consultative Committee (CCC), Gunlake's website, newsletters, briefings, and the Quarry's community telephone line and email address. As part of the local community, Gunlake support numerous local community programs.

Gunlake has undertaken early engagement for the Continuation Project including briefings, sending letters to residents along the transport routes, briefing the CCC and holding a community information session on 4 December 2020. The key matters raised during this recent consultation include transport (eg speed limits, truck driver behaviour, truck noise and emissions), other environmental matters (eg quarry noise, dust and production limits); social benefits (eg quarries in the local economy and community contributions) and consultation (eg advertising of the community information session and the importance of the CCC). Ongoing consultation in regards to the Continuation Project has also highlighted that, while there are some concerns, the Quarry and the Continuation Project have support from many stakeholders.

Gunlake will continue its stakeholder engagement program to ensure matters raised by the community and other stakeholders are understood and addressed appropriately.

ES4 Environmental impact assessment

Preliminary environmental investigations have been carried out to identify the relevant matters to be addressed in the EIS and the required level of assessment. The preliminary impact identification and assessment has been

informed by the draft *Preparing a Scoping Report – Guidance for State Significant Projects* (DPE 2019a). The process included:

- consultation with DPIE and key stakeholders as noted above;
- identifying and characterising relevant matters for assessment, including appraisal of likely environmental and social impacts using the social impact assessment scoping worksheets; and
- reporting the outcomes of that assessment in this scoping report.

Based on these findings, issues have been defined as either key or other issues requiring a standard (ie generally within the body of the EIS) or a project-specific level of assessment (ie generally within a technical assessment appended to the main EIS).

The full list of matters considered in the scoping assessment is provided in the Scoping Worksheet provided in Appendix A. The matters identified in the Scoping Worksheet as requiring project-specific assessments are:

- traffic (including road safety);
- air quality and greenhouse gases;
- noise;
- surface water;
- groundwater;
- social impact; and
- economics.

It is proposed that site-specific technical assessments will be prepared for each of these aspects as part of the Continuation Project EIS.

ES5 Project benefits

The Extension Project Approval was obtained with the expectation that virtually all saleable Quarry products would require beneficiation and processing. The Continuation Project will allow for an increase in production efficiency through the utilisation of by-products to supply market demand. This will allow more efficient and sustainable use of the finite ignimbrite resource.

The Quarry currently employs about 52 people full-time and about 20 contractors and this would rise to 70 full-time positions for the Continuation Project and ongoing opportunities for the contractors.

In addition, around 200 contract truck drivers deliver products from the Quarry, on either a full-time or part-time basis. The proposed projects will provide further work for these drivers and opportunities for more drivers.

There will also be a significant public benefit to the local and regional areas as well the State with an increase in low-cost supply of construction materials into the market.

Table of Contents

Executive Summary	ES.1
1 Introduction	1
1.1 Overview	1
1.2 The Applicant	1
1.3 Approved Gunlake Quarry operations	2
1.4 Gunlake Quarry Extension Project modifications applications	6
1.5 The purpose of this report	6
2 Gunlake Quarry Continuation Project	7
2.1 The site	7
2.2 Continuation Project description	7
2.3 Product transport	8
2.3.1 Road upgrades prior to the Extension Project	8
2.3.2 Extension Project road upgrades	10
2.3.3 Transport route maintenance	13
2.4 Project rationale	13
2.4.1 Need for product	13
2.4.2 Transport benefit	13
2.4.3 Economic and social benefit	14
3 Statutory context	15
3.1 Approvals history	15
3.2 Continuation Project approvals	15
4 Engagement	17
4.1 Gunlake engagement program	17
4.1.1 Community Consultative Committee	17
4.1.2 Website	17
4.1.3 Community programs	17
4.1.4 Newsletters	18
4.1.5 Community telephone line/email	18
4.2 Continuation Project engagement	18
4.2.1 Early engagement	18

4.2.2	Community Consultative Committee	19
4.2.3	Community Information Session	19
4.2.4	Matters raised	19
4.2.5	Government agencies and Goulburn Mulwaree Council	20
4.3	Proposed consultation	20
5	Proposed assessment	22
5.1	Transport	22
5.2	Noise	23
5.3	Air quality and greenhouse gases	23
5.4	Water	24
5.5	Social impacts	24
5.5.1	Social impact assessment scoping	24
5.5.2	Assessment methods	25
5.5.3	Socio-economic community profile	26
5.5.4	Anticipated social impacts	28
5.6	Economics	28
5.7	Visual	29
5.8	Heritage	29
5.9	Biodiversity	30
5.10	Soil, land capability and rehabilitation	30
5.11	Waste	31
6	Conclusion	32
6.1	Environmental impact statement	32
6.2	Project benefits	32
	References	34
Appendices		
	Appendix A Scoping worksheets	A.1
	Appendix B Community engagement strategy	B.1
	Appendix C Gunlake Quarry Community Consultative Committee meeting minutes – 23 October 2020	C.1
	Appendix D Gunlake letter to residents (30 October 2020)	D.1
	Appendix E Gunlake Quarry Newsletter (December 2020)	E.1

Tables

Table 3.1	Legislation relevant to the development	15
Table 4.1	Key stakeholder engagement scheduled activities	21
Table 5.1	Demographic data summary	26
Table 5.2	Top industries of employment	27
Table 5.3	Identified potential positive and negative impacts	28

Figures

Figure 1.1	Regional context	3
Figure 1.2	Local context	4
Figure 1.3	Transport routes	5
Figure 2.1	Proposed Continuation Project layout	9

Photographs

Photograph 2.1	Ambrose Road – looking west (July 2017)	10
Photograph 2.2	Ambrose Road – looking west (December 2020)	11
Photograph 2.3	Quarry intersection – looking north (September 2020)	12
Photograph 2.4	Trucks passing on Brayton Road – wide centreline treatment increasing the separation distance (November 2020)	12
Photograph 2.5	Red Hill Road with safety barrier	13

1 Introduction

1.1 Overview

Gunlake Quarries Pty Ltd (Gunlake) operates a hard rock quarry (the 'Quarry') located at 715 Brayton Road, Marulan NSW. The Quarry is approximately 7 kilometres (km) north-west of the centre of Marulan in the Goulburn Mulwaree local government area (Figure 1.1). The land surrounding the Quarry is rural land with a low population density.

Since the Quarry received its most recent approval in 2017, the tonnage of product dispatched by the Quarry has steadily increased and, with an infrastructure boom in the Greater Sydney region, Gunlake forecast that demand for products from the Quarry (dispatched by road along the primary transport route) will continue to increase. It is proposed to increase the tonnage of product dispatched from the Quarry, in response to this increased demand. This will require higher truck movement limits than currently approved. The ignimbrite hard-rock resource will continue to be extracted and processed using the methods currently employed at the Quarry. These proposed changes are known as the Gunlake Quarry Continuation Project (the 'Continuation Project').

Gunlake propose to lodge a new state significant (SSD) application and environmental impact statement (EIS) for the Continuation Project.

1.2 The Applicant

The Gunlake Group, consisting of Gunlake Concrete and Gunlake Quarries, is an Australian family-owned business that is rapidly expanding to meet customer and market demands, particularly across the Greater Sydney area, Southern Highlands and Tablelands.

The Gunlake Group currently owns and operates five concrete plants in Sydney, a National Association of Testing Authorities (NATA) accredited material testing laboratory, a cement import and distribution terminal at Port Kembla and the Gunlake Quarry. The group has other sites in the planning and development stages. Across its operations, Gunlake currently employs over 200 staff, numerous contractors and is the largest independent quarry and concrete production company in NSW.

The Applicant is:

Edward O'Neil
Managing Director
Gunlake Quarries Pty Ltd
ABN: 55118686963
Level 2, 53 Cross Street Double Bay
NSW 2025

Gunlake's nominated contact is:

David Kelly
Head of Development
Gunlake Quarries Pty Ltd
Email: davidkelly@gunlake.com.au

This scoping report was prepared by:

Philip Towler PhD, BSc (hons)
Associate Director
EMM Consulting Pty Limited
Email: ptowler@emmconsulting.com.au

1.3 Approved Gunlake Quarry operations

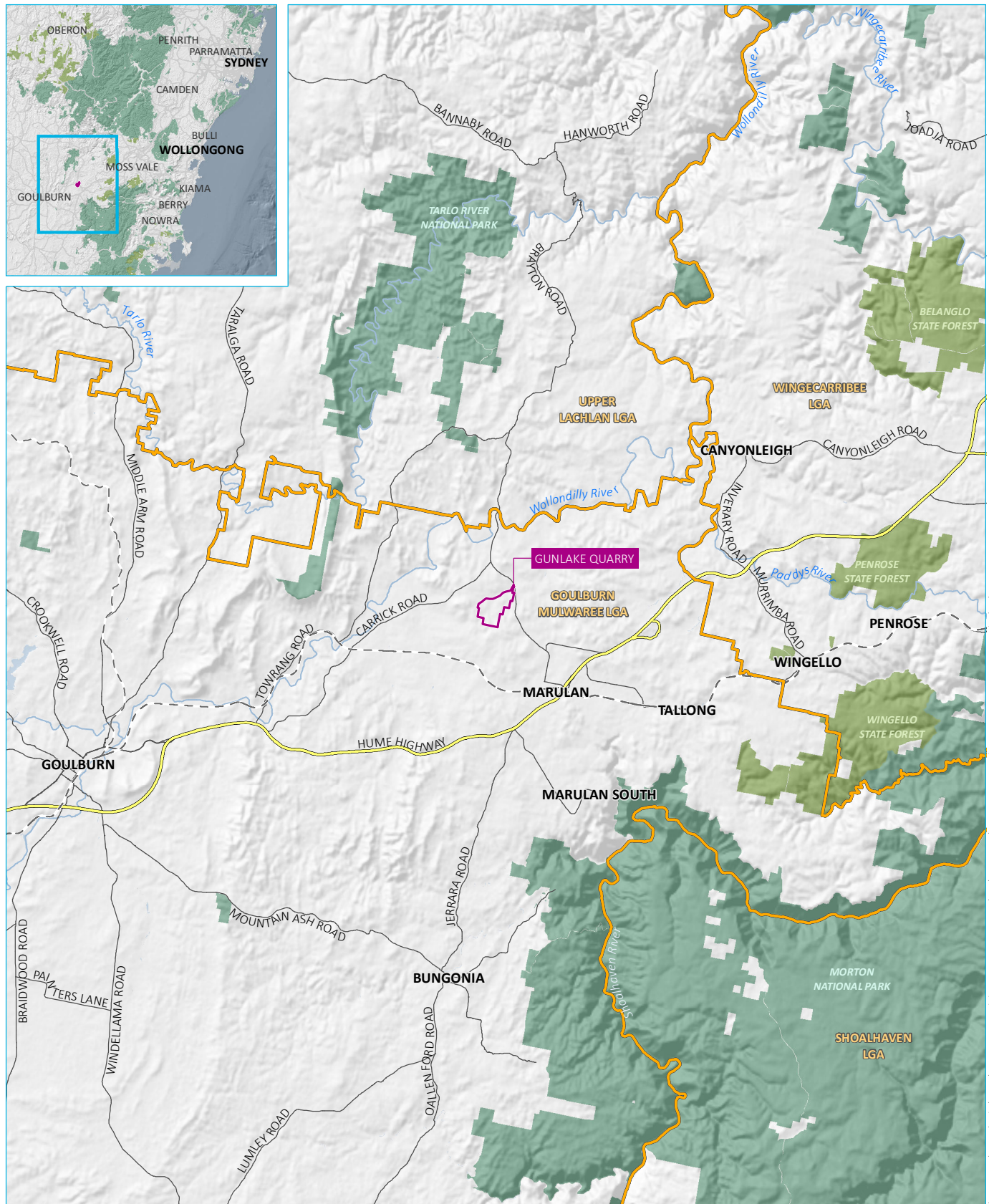
The Quarry was originally approved in 2008 (Project Approval 07-0074) under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Gunlake Quarry Extension Project (the 'Extension Project') is approved by State Significant Development (SSD) 7090 NSW Land and Environment Court (LEC) Approval 2017/108663 granted by the LEC in 2017 (the 'Extension Project Approval'). Project Approval 07-0074 was surrendered in 2018.

The Extension Project Approval includes approval to:

- extract hard rock;
- undertake most quarrying operations 24 hours per day;
- transport product via the Primary Transport Route to access the northbound Hume Motorway and via the Secondary Transport Route to deliver materials to customers south of the quarry with the total amount of product be transported annually limited to 2 Mtpa;
- dispatch up to an average of 185 outbound movements and 185 inbound movements, with a maximum of 245 inbound movements and 245 outbound movements per day; and
- carry out operations until 30 June 2042.

The Transport Routes are shown in Figure 1.3.

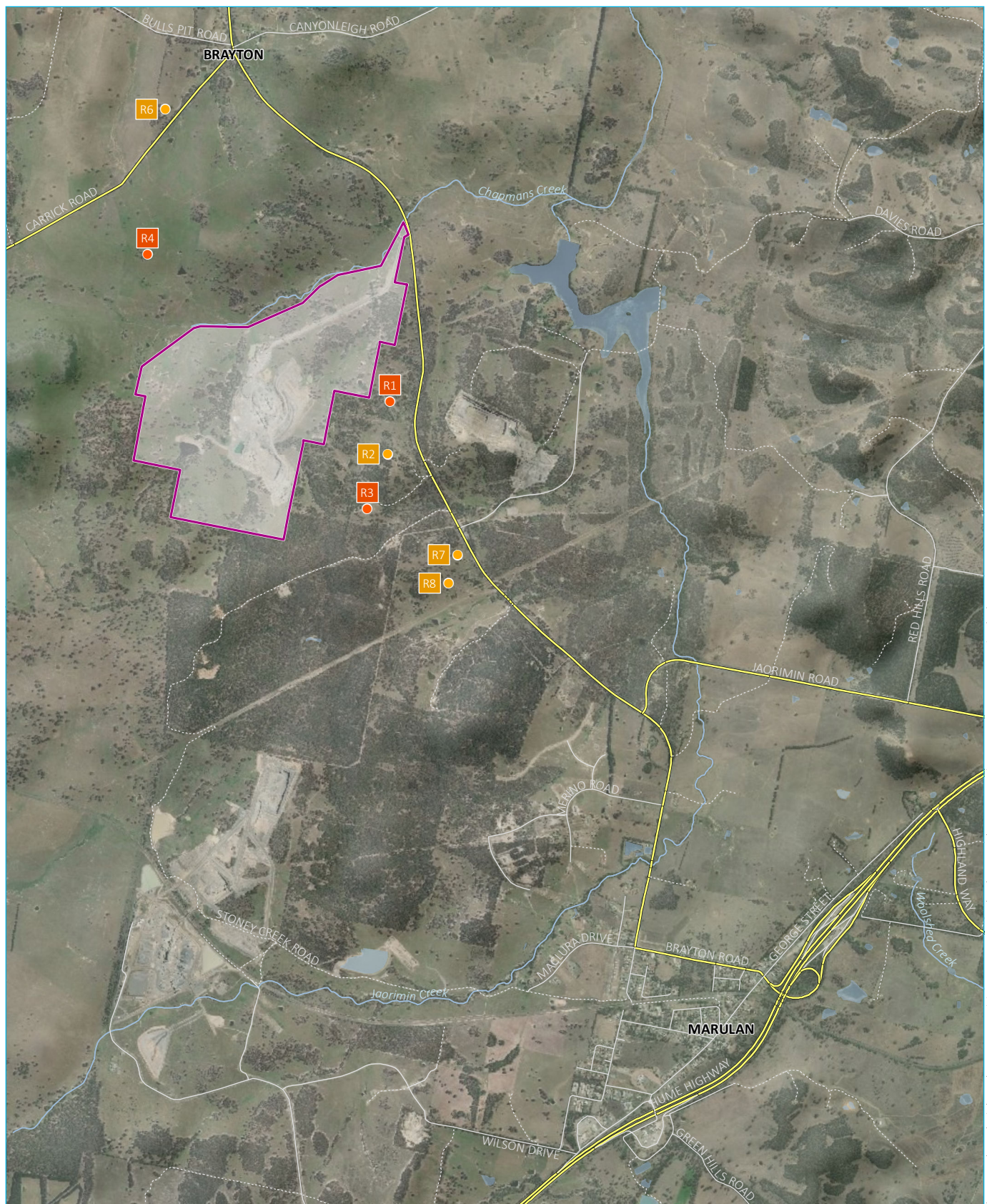


KEY

- Site boundary
- Local government area
- Rail line
- Highway
- Major road
- River
- Waterbody
- NPWS reserve
- State forest

Regional context

Gunlake Quarry Continuation Project
Scoping report
Figure 1.1



Source: EMM (2020); DFSI (2017); GA (2011); ASGC (2006)



KEY

- Site boundary
- Quarry noise assessment location
- Quarry noise assessment location (Gunlake-owned)
- Major road
- Minor road
- Vehicular track
- Named watercourse
- Waterbody

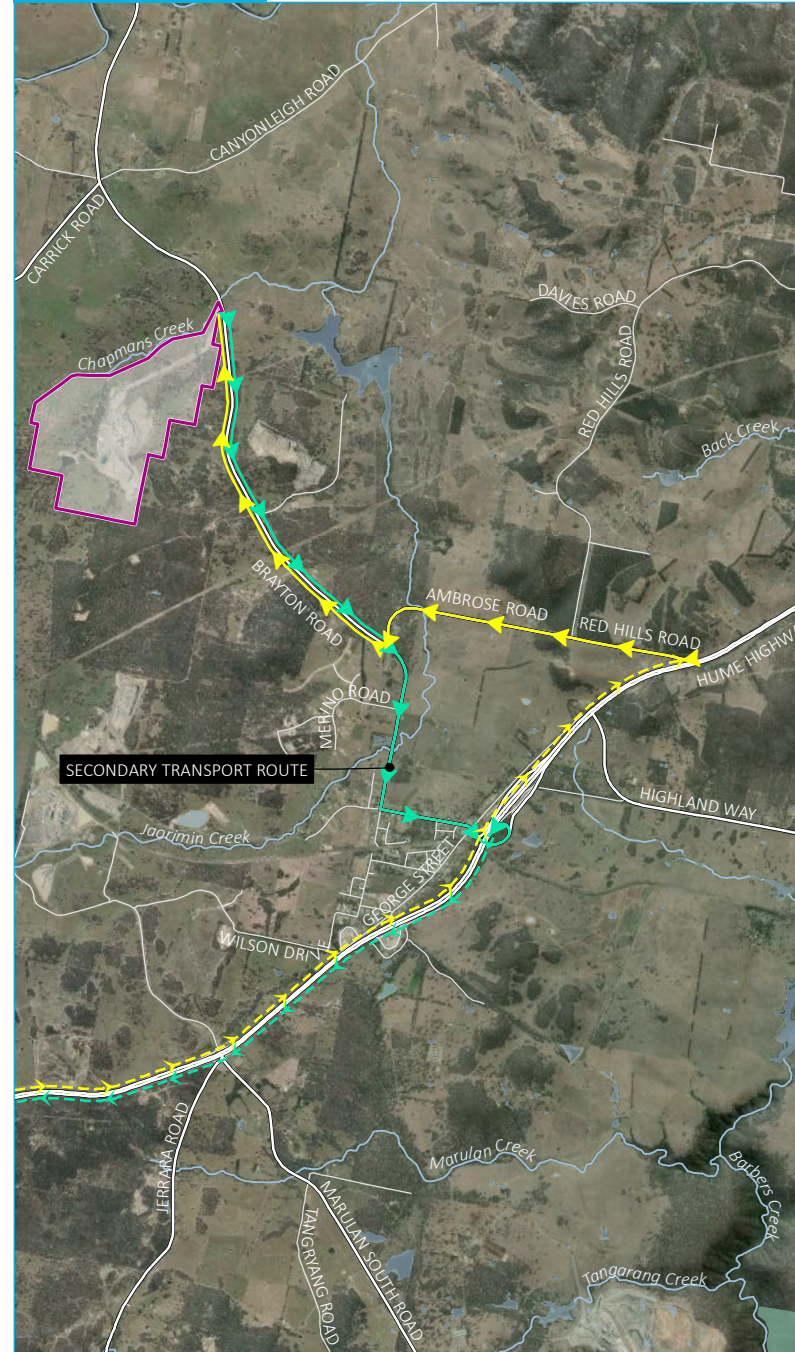
Local context

Gunlake Quarry Continuation Project
Scoping report
Figure 1.2

PRIMARY TRANSPORT ROUTE



SECONDARY TRANSPORT ROUTE



- KEY**
- Site boundary
 - Inbound transport route
 - Inbound transport route (highway)
 - Outbound transport route
 - Outbound transport route (highway)
 - Major road
 - Minor road
 - Named watercourse
 - Waterbody
 - NPWS reserve

Transport routes

Gunlake Quarry Continuation Project
Scoping report
Figure 1.3

1.4 Gunlake Quarry Extension Project modifications applications

There are two applications to modify the Extension Project Approval for the Extension Project to be determined by the LEC.

A Modification Application (MOD1) has been made under Section 4.55(2) of the EP&A Act to amend the biodiversity offsets required by the Extension Project Approval. MOD1 was filed with the LEC and is set down for hearing in early 2021.

A second Modification Application (MOD2), also under Section 4.55(2), was filed with the LEC on 17 November 2020. This primarily proposes to increase daily truck movements while remaining substantially the same development as that approved by the Extension Project Approval. Given that the trucking-related MOD 2 has been lodged for assessment but not determined, the Continuation Project application will include the MOD 2 components.

1.5 The purpose of this report

This scoping report provides an overview of the Quarry's current operations, the proposed Continuation Project and the potential environmental issues associated with the Continuation Project. It identifies the potential impacts that require investigation and assessment.

This scoping report has been prepared generally in accordance with the draft *Preparing a Scoping Report – Guidance for State Significant Projects* (DPIE 2019a). This scoping report accompanies the application for Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an environmental impact statement (EIS).

2 Gunlake Quarry Continuation Project

2.1 The site

The Quarry is located wholly on Lot 13 DP 1123374 (the 'Quarry site', Figure 1.2). There are biodiversity management areas in Lot 13 DP1123374, Lot 12 DP1123374, Lot 271 DP750053 and Lot 1 DP841147. These lots are owned by Gunlake Quarries Pty Ltd.

The land surrounding the Quarry is rural with low population density, predominately used for agriculture, generally grazing. Built features immediately surrounding the Quarry include dams, access tracks and fences.

There are a small number of residences around the Quarry (Figure 1.2). The Extension Project approval lists two residences (R2 and R7) that are subject to acquisition on request or to additional mitigation on request as a result of noise emissions from the Quarry.

Holcim's Johnniefelds Quarry is about 1 km east of Gunlake Quarry and, at its closest point Holcim's Lynwood Quarry is about 600 m south of Gunlake Quarry.

The nearest town is Marulan, about 7 km south-east of the site boundary.

The native vegetation in the Quarry site and surrounds has been highly modified by historical clearing and grazing. Patches of remnant vegetation largely occur in drainage lines. There are some large blocks of native vegetation south and south-east of the Quarry site.

There are two creek systems in the Quarry site, Chapmans Creek and an unnamed tributary of Chapmans Creek. Chapmans Creek is an ephemeral watercourse located on the northern site boundary. Chapmans Creek flows north-east into Joarimin Creek. Joarimin Creek is also ephemeral and drains to Wollondilly River, approximately 8.6 km north-east of the Quarry site.

2.2 Continuation Project description

The Gunlake Quarry Continuation Project operations would remain similar to the currently approved Extension Project operations with the following proposed changes:

- Daily truck movements:
 - from an average of 185 inbound and 185 outbound movements (approved) to an average of 345 inbound and 345 outbound movements;
 - from a maximum of 245 inbound and 245 outbound movements (approved) to a maximum of 375 inbound and 375 outbound movements.
- Truck movements averaging period changed from "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" to be averaged over the working days in a year.
- Remove the fixed annual tonnage limit so that the transport of saleable product is restricted by the approved truck movements only.
- Additional plant to meet product dispatch.

- Scale extraction and processing to meet product dispatch within the current approved hours.
- Quarry life to 30 years from the date of approval.
- Rectify the disturbance boundary (Figure 2.1) to include areas for which biodiversity offsets have been provided under Project Approval 07-0074 (and carried through to the Extension Project Approval) but which are outside of the Extension Project disturbance boundary (see below).

These changes will require an increased quarry and transport workforce.

Prior to surrendering the original approval for the Quarry (Project Approval 07-0074) on 1 August 2018, the eastern overburden emplacement was extended and the haul road into the pit was completed, both within the footprint approved by Project Approval 07-0074. Biodiversity offsets have been provided for vegetation clearance within these areas. By oversight, these areas were omitted from the Extension Project disturbance area. It is proposed to rectify this as part of the Continuation Project (Figure 2.1).

The application will seek to maintain all existing Quarry components and activities as well as the increased product transport.

The following aspects of the Quarry's operations are **not** proposed to be changed:

- the average and maximum number of approved truck movements along the Secondary Transport Route;
- the Quarry operation hours, and the hours that the Primary and Secondary Transport Routes are used;
- the footprint and the maximum depth (572 m AHD) of the Quarry pit; or
- the hours and frequency of blasting.

No road upgrades are proposed.

2.3 Product transport

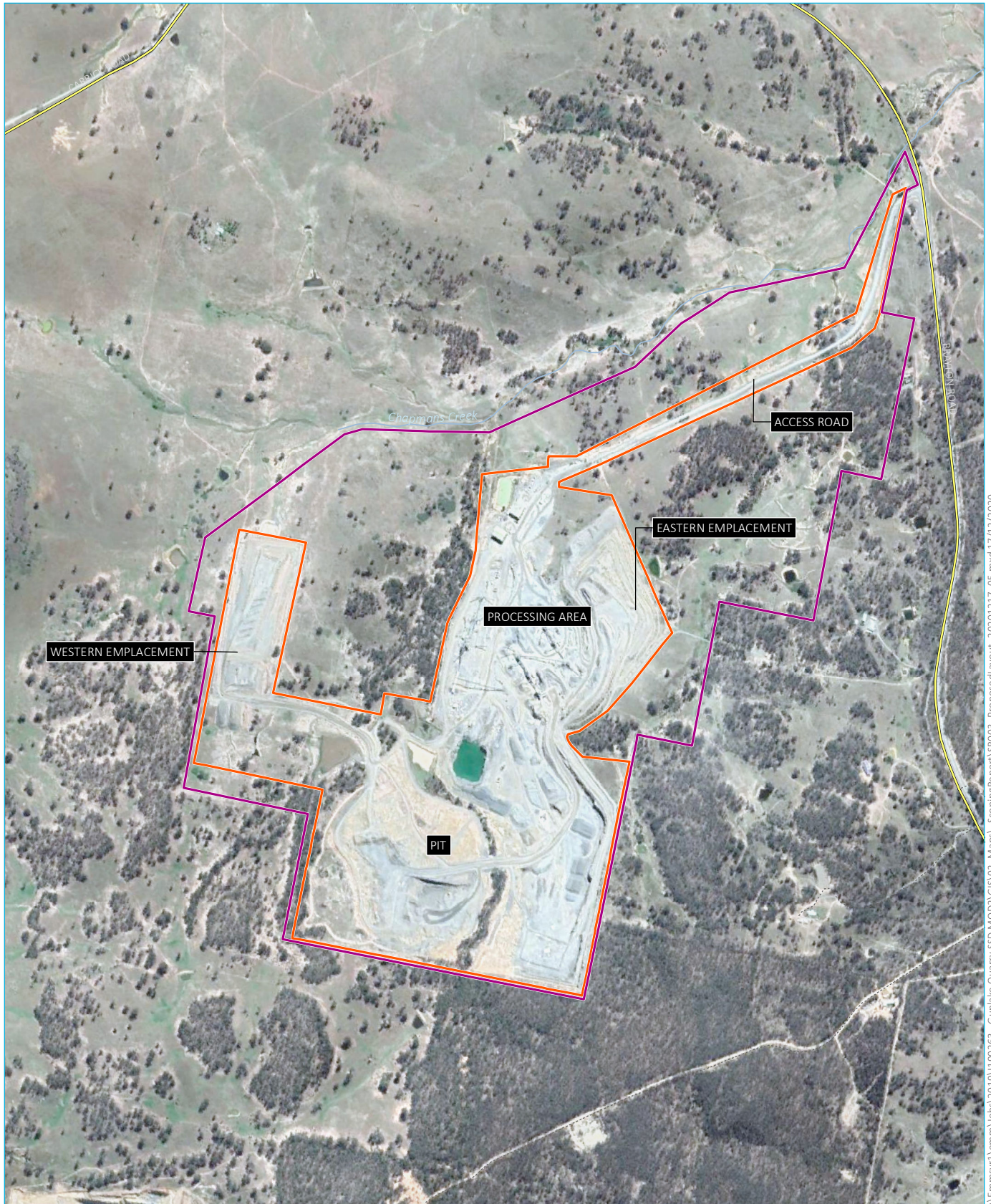
2.3.1 Road upgrades prior to the Extension Project

Most of the Quarry's products are supplied to the Greater Sydney market by truck transport along the Hume Highway via the Primary Transport Route. This includes products supplied to Gunlake's concrete batching plants in Greater Sydney. In 2008, products were supplied to one Gunlake concrete batching plant. Now, products are supplied to five Gunlake concrete batching plants and further plants are in the planning or development stages.

Gunlake also supplies the local and regional markets.

Since the Quarry was originally approved in 2008, Gunlake has progressively upgraded the transport routes. Initially, Gunlake used what is now known as the Secondary Transport Route, along Brayton Road to Marulan before connecting to the Hume Highway. In 2011, Gunlake constructed a bypass road (now known as Ambrose Road) which allowed its trucks to bypass Marulan on their journey to and from the Quarry. Gunlake transferred ownership of the bypass road to Goulburn Mulwaree Council (Council).

Use of the Primary Transport Route has allowed Gunlake to reduce the impacts of vehicle transport on residents along the Secondary Transport Route, and to progressively increase the Quarry production.



Source: EMM (2020); DFSI (2017); GA (2011); ASGC (2006); Google Earth (2020)



- KEY**
- Site boundary
 - Consolidated continuation project disturbance area
 - Major road
 - Vehicular track
 - Named watercourse

Proposed Continuation Project layout

Gunlake Quarry Continuation Project
Scoping report
Figure 2.1

2.3.2 Extension Project road upgrades

Since the Extension Project Approval was granted in 2017 Gunlake has:

- substantially upgraded the Primary Transport Route in accordance with the Austroads Guidelines so that it meets the requirements for rural roads with 1,000 to 3,000 average vehicle movements per day – the upgrades exceed the requirements the Extension Project Approval (Condition 26 of Schedule 3);
- implemented all of the traffic management and road safety changes required by the Extension Project Approval (Conditions 25, 27 and 28 of Schedule 3); and
- continued to introduce higher payload trucks to its transport fleet.

Examples of the road upgrades are provided in Photograph 2.1 (Ambrose Road prior to upgrade), Photograph 2.2 (Ambrose Road following upgrade).



Photograph 2.1 **Ambrose Road – looking west (July 2017)**



Photograph 2.2 **Ambrose Road – looking west (December 2020)**

The upgrades include:

- an acceleration lane on the Hume Highway;
- an upgrade to the Quarry access road intersection, including provision of an acceleration lane (Photograph 2.3);
- a 1-m wide centre line treatment (WCLT) along the Primary Transport Route, to separate traffic flows (Photograph 2.4);
- full road line-marking;
- provision of additional sealed and unsealed shoulders;
- new and extended steel road safety barriers (Photograph 2.5);
- installation of rural bus stops and property driveway improvements; and
- increased road signage and demarcation markers.



Photograph 2.3 Quarry intersection – looking north (September 2020)



Photograph 2.4 Trucks passing on Brayton Road – wide centreline treatment increasing the separation distance (November 2020)



Photograph 2.5 Red Hill Road with safety barrier

2.3.3 Transport route maintenance

Gunlake and Goulburn Mulwaree Council have implemented a road maintenance work plan and budget to ensure that the transport routes are properly maintained by Council using Gunlake Section 94 Contributions that are paid on a tonnage-based rate.

2.4 Project rationale

2.4.1 Need for product

The high quality of Gunlake's quarry and concrete products has seen increasing demand in both the greater Sydney and local regional markets due to the implementation of a huge infrastructure program by the State and Federal governments in NSW, particularly in greater Sydney. This subsequently has resulted in an increased demand for premium aggregates and civil products such as road base, drainage aggregates, crusher dust for the residential, industrial and commercial construction sectors. Gunlake is ideally situated to meet these future demand requirements.

2.4.2 Transport benefit

The proposed increase in truck movements is required to meet the increased demand for Quarry products. The additional truck movements will all occur on the recently upgraded Primary Transport Route that has been designed with ample capacity for additional truck movements.

The Extension Project Approval includes a limit on the tonnage of saleable product transported annual. The limit does not incentivise Gunlake to increase the tonnage carried by each truck, which would improve the Quarry's trucking efficiency as envisaged by *Moving More With Less, the NSW Heavy Vehicle Access Policy Framework* (NSW Government 2018). Limiting the tonnes of products transported does not allow for the rapidly changing advancements and evolution of truck safety and technology.

However approval conditions based on truck movements alone, would therefore incentivise Gunlake (and the trucking contractors that carry Quarry product) to invest further in modern higher capacity trucks to allow the

economic dispatch of lower-value products that would otherwise be by-products placed in emplacements. This would allow the resource to be used more efficiently and increase the resource's sustainability.

By targeting higher payload trucks, Gunlake will be managing a more modern truck fleet with better technology, resulting in less impact on the road pavement due to the number of axles and better suspension. The modernised truck fleet is regulated by both state and federal governments and the trucks are therefore safer for Gunlake's drivers and the general community.

The limit on saleable product transportation is not required to ensure that the quarry operates within the approved environmental impacts envelope and that it meets the environmental conditions imposed by the regulator.

2.4.3 Economic and social benefit

The Continuation Project will also have significant benefits for the regional economy and employment:

- the Quarry currently provides 52 full-time local jobs – this would rise to 70 full-time jobs for the Continuation Project;
- continued, and increased, opportunities for the approximately 200 contract truck drivers that deliver Quarry products, on either a full-time or part-time basis with many of these drivers transitioning from a part-time to a full-time basis;
- increase reliance on, and ongoing employment of, 20 contractors;
- an increasing reliance on local ancillary businesses;
- increased contribution to the local economy;
- increased Gunlake support for local community events; and
- increased local road contributions (Section 94) to Council for transport route maintenance.

There will also be a significant public benefit beyond Marulan and the local area with the increased supply of low-cost construction materials into the Sydney and regional markets.

3 Statutory context

3.1 Approvals history

Gunlake Quarry was originally constructed and operated under Project Approval 07-0074 issued by the Minister for Planning in September 2008 under Part 3A of the EP&A Act. The Project Approval was modified on three occasions. Modifications 1 and 3 were minor modifications to alter transport routes and truck numbers related to the quarry. Modification 2 included expansion of the Quarry pit and overburden emplacement, an increase to truck movements (equivalent to 750,000 tonnes per annum of saleable product) and alteration of the approved hours of operation.

As described in Section 1.3, the Gunlake Quarry Extension Project, allowing truck movements for 2 Mtpa tonnes per annum of saleable product, was approved by State Significant Development (SSD) 7090 by LEC Approval 2017/108663 granted on 30 June 2017.

Project Approval 07-0074 was surrendered in August 2018 and the Quarry now operates under the conditions of the Extension Project Approval (SSD 2017/108663).

3.2 Continuation Project approvals

The EP&A Act defines the statutory framework for planning approval and environmental assessment in NSW. The EP&A Act is administered by the Minister for Planning and Public Spaces, statutory authorities, and local councils.

Part 4 of the EP&A Act relates to development assessment and Division 4.7 relates specifically to SSD. The Quarry is currently SSD under clause 7 of the State Environmental Planning Policy (State and Regional Development) 2011 as it is development for the purpose of extractive industry that extracts from a total resource of more than 5 million tonnes. The Continuation Project will also be SSD.

An application for an SSD must be accompanied by an EIS prepared in accordance with the EP&A Regulation and the Secretary's Environmental Assessment Requirements (SEARs) for the project. This scoping report accompanies a request for SEARs for the Continuation Project.

A summary of relevant legislation (including planning instruments) and policies and the development's permissibility is provided in Table 3.1.

Table 3.1 Legislation relevant to the development

Legislation/instrument	Comment
Commonwealth legislation	
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)	The Extension Project operates under EPBC Approval 2015/7557. The Continuation Project will not require disturbance of any vegetation other than that for which offsets have previously been provided under the Extension Project approval.
State legislation	
<i>Environmental Planning and Assessment Act 1979</i> (EP&A Act), Section 4.7	Division 4.1 of Part 4 of the EP&A Act relates to the assessment of SSD.
<i>Protection of the Environment Operations Act 1997</i> (POEO Act), Schedule 1	The Quarry operates under Environment Protection Licence (EPL) 13012 granted under the POEO Act. The EPL will be varied following approval of the Continuation Project.

Table 3.1 **Legislation relevant to the development**

Legislation/instrument	Comment
<i>Roads Act 1993</i> (Roads Act)	Consent under section 138 of the Roads Act will not be required as no road works are proposed.
State Environmental Planning Policy (State and Regional Development) 2011, Schedule 1 State significant development – general	The proposal is SSD under the State Environmental Planning Policy (State and Regional Development) 2011.
The State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Extractive Industries SEPP)	<p>Clause 7(3)(a) permits the carrying out of an extractive industry with development consent on land on which development for the purposes of agriculture or industry may be carried out (with or without development consent).</p> <p>The EIS will assess the Continuation Project against this SEPP.</p>
State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)	Clause 104 directs the consent authority to give written notice of certain traffic generating developments to Transport of NSW (TfNSW). The Continuation Project is a traffic-generating development and will be referred to TfNSW.
State Environmental Planning Policy No. 33 Hazardous and Offensive Development (SEPP 33)	<p>SEPP 33 applies to development of potentially hazardous industry. It requires the consent authority to consider whether an industrial development is a potentially hazardous industry or a potentially offensive industry.</p> <p>The Extension Project was not considered to be Hazardous or Offensive Development (EMM 2016a) and there are unlikely to be any changes as a result of the Continuation Project that will change this.</p>
State and Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 (SDWC SEPP)	The SDWC SEPP applies to land within the Sydney Drinking Water Catchment. The Quarry is within the Wollondilly River sub-catchment, which is listed in Clause 7 of the SDWC SEPP as forming part of the Sydney Drinking Water Catchment. The Extension Project was assessed against the <i>Neutral or Beneficial Effect on Water Quality Assessment Guideline 2015</i> (Sydney Catchment Authority 2015). It was found that there was no groundwater or surface water impact predicted to any watercourse, waterbody, or drainage depressions that would not be a neutral or beneficial effect on the Sydney Drinking Water Catchment. However, the potential impacts to surface water and groundwater will be assessed as part of the EIS.
State and Environmental Planning Policy No. 55 - Remediation of Land	There will be no change in the land use and no additional disturbance areas are proposed. Therefore, no contamination assessment is required.
Goulburn Mulwaree Local Environmental Plan 2009	Clause 11 of the SRD SEPP states that development control plans do not apply to SSD.

4 Engagement

4.1 Gunlake engagement program

Gunlake has been actively engaging with the Quarry's stakeholders since 2008. Key aspects of the Gunlake engagement program are outlined below.

4.1.1 Community Consultative Committee

The Gunlake Quarry Community Consultative Committee (CCC) has operated since 2013. The committee is independently chaired by Don Elder and currently includes five community members, a Council representative and Gunlake representatives. The CCC generally meets three to four times per year.

The CCC meeting minutes are available on the Gunlake website.

4.1.2 Website

The Gunlake Quarries website provides an overview of the Quarry and the Gunlake Group.

The website provides a full range of environmental reports regarding the quarry including:

- the Quarry's management plans;
- environmental monitoring results and annual review;
- the site's Environment Protection Licence;
- the 2019 Independent Environmental Audit; and
- a link to the Gunlake Quarry Extension Project EIS and associated approval documents.

The website also provides community information and a community liaison form.

4.1.3 Community programs

Gunlake participates in numerous local community programs and events including:

- annual commitments:
 - Goulburn District Education Foundation (major contributor);
 - Marulan Australia Day Committee (major sponsor);
 - Tallong Apple Day Festival (major sponsor);
 - Marulan Chamber of Commerce Events: Marulan Kite Festival Art Show (major sponsor) and NSW Horologists Exhibition (major sponsor); and
 - Trades training scholarships.
- Other recent community commitments and initiatives include:

- Marulan Public School: major contributor to Playground upgrade;
 - Marulan Rural Fire Brigade: major contributor to fire station training room upgrade;
 - Goulburn Mulwaree Council, Marulan Village Working Party: co-contributor to the barbeque shelter;
 - Bundanoon Wombat Care: loan of vehicle after bushfires;
 - Gibraltar Road residents crown road upgrade: donated construction materials; and
 - Marulan Country Women's Association: co-contributor to the provision of a community defibrillator.
- Gunlake also participates in:
 - the Goulburn Mulwaree Council: Marulan Village Plan Working Party member;
 - the Goulburn Secondary Schools Work Experience Placement Program: committee member and participant in local career expos;
 - Regional Development Australia: ongoing panel member at a local 'jobs agenda' forums; and
 - the Marulan Region Chamber of Commerce: member business.

4.1.4 Newsletters

Gunlake produces and distributes regular updates to the community, both on its website and through the Discover Marulan newsletter. Past copies of the community updates are available on the Gunlake Quarries website.

4.1.5 Community telephone line/email

Gunlake operates a Community telephone line: 02 4841 1344.

Gunlake operates a dedicated email address (community@gunlake.com.au) with a response guaranteed within 48 hours.

4.2 Continuation Project engagement

4.2.1 Early engagement

Gunlake has embarked on early stakeholder engagement regarding the Continuation Project and will continue this throughout the assessment process in alignment with the draft *Engagement in EIA* (DPIE 2019b) guideline.

A community engagement strategy has been prepared as part of the scoping process for the EIS and is included in Appendix B.

Gunlake formally made the community aware of the continuation project at the CCC meeting on 23 October 2020. Meeting minutes are provided in Appendix C.

In addition, Gunlake have engaged the following stakeholders specifically in regards to the Continuation Project:

- Parliament of NSW Member for Goulburn;
- Local NSW Legislative Council Member of Parliament;

- Parliament of Australia Member for Hume;
- Goulburn Mulwaree Council – Mayor, General Manager and council officers;
- NSW Police – Goulburn Area Command; and
- site staff and a range of local community members and groups.

On 30 October 2020, Gunlake sent letters to all residents along the transport routes introducing MOD 2 and the Continuation Project. The letter noted that it is proposed to increase truck movements along the Primary Transport Route but not along the Secondary Transport Route. It provided Gunlake’s community contact details. The letter is provided in Appendix D.

The Gunlake Quarry Community Newsletter, providing an overview of the Continuation Project, was placed in the December 2020 Discoverer Marulan Newsletter. The Discoverer Marulan Newsletter covers Marulan, Tallong, Bungonia and Towrang. It is available as a hardcopy from local businesses and distributed to about 500 local people by email. The Gunlake Quarry Community Newsletter is provided in Appendix E.

4.2.2 Community Consultative Committee

The Continuation Project was discussed at CCC meetings held on 23 October and 4 December 2020. Meeting minutes have not yet been issued for the 4 December 2020 meeting.

4.2.3 Community Information Session

Following the CCC meeting, a Continuation Project Community Information Session was also held at Marulan Hall on 4 December 2020 between 2 pm and 5 pm. The session was advertised through the Discoverer Marulan Newsletter, in the letters delivered to residents along the transport routes, and through flyers on public notice boards in Marulan.

The session included posters introducing the Continuation Project, a poster on Gunlake’s contribution to local community groups and events and a rolling video showing the Quarry and Gunlake’s concrete batching plants in greater Sydney. Gunlake staff and representatives of EMM and the Australian Road Research Board were available to listen to participants concerns and answer questions.

The session was attended by nine local residents and a number of Quarry employees.

All participants needed to sign-in (to meet Covid-19 control requirements) and all participants were made aware of the available feedback forms. No participants completed a feedback form.

4.2.4 Matters raised

The key matters raised during this recent consultation include:

- transport:
 - speed limit on Primary Transport Route;
 - truck driver behaviour;
 - peak traffic movement times;
 - modernisation of truck fleet;

- transport of product;
- compression braking noise;
- concealed driveways – installation of warning signage;
- truck identification;
- road traffic noise;
- passing and climbing lanes;
- diesel emissions from trucks;
- other environmental matters:
 - drainage – at a specific location on the transport route;
 - quarry noise;
 - silica in dust;
 - maximum production limits;
- social benefits:
 - the importance of quarries to the local economy;
 - acknowledgement of Gunlake’s contributions to the local community;
- consultation:
 - advertising of the community information session; and
 - the importance of the CCC.

Ongoing consultation in regards to the Continuation Project has also highlighted that, while there are some concerns, the Quarry and the project have support from many stakeholders.

4.2.5 Government agencies and Goulburn Mulwaree Council

Gunlake is actively talking with DPIE, the Council and other key regulators in regards to the Continuation Project.

A scoping meeting was held with DPIE on 25 November 2020.

4.3 Proposed consultation

Gunlake will continue its stakeholder engagement program to ensure matters raised by the community and other stakeholders are understood and addressed.

A range of formal and informal stakeholder engagement tools are proposed for the Continuation Project assessment phase, including phone calls, emails, face-to-face meetings, a further community information session

(if required) and factsheet/letter drops. The identified stakeholder groups and engagement activities proposed for each group are summarised in Table 4.1.

Table 4.1 **Key stakeholder engagement scheduled activities**

Engagement activities	Date	Stakeholders
Quarry CCC meeting at Marulan Hall	February 2021	The local community as represented by the CCC
Quarry Community Newsletter to be placed in the Marulan Discoverer	February 2021	Local community
Community Information Session #2 if required		Local landholders Local businesses
The Gunlake website will continue to provide consultation materials and project updates	Ongoing	All stakeholders
Meetings and discussions	Ongoing	Local landholders Goulburn Mulwaree Council Local Marulan Chamber of Commerce Community service providers Relevant regulatory agencies

A Community Engagement Strategy (CES) is provided in Appendix B.

5 Proposed assessment

Preliminary environmental investigations have been carried out to identify the relevant matters to be addressed in the EIS and the required level of assessment.

The preliminary impact identification and assessment has been informed by the draft *Preparing a Scoping Report – Guidance for State Significant Projects* (DPE 2019a). The process included:

- consultation with DPIE and key stakeholders (see Chapter 4);
- identifying and characterising relevant matters for assessment, including appraisal of likely environmental and social impacts using the social impact assessment scoping worksheets; and
- reporting the outcomes of that assessment in this scoping report.

Based on these findings, issues have been defined as either key or other issues requiring a standard (ie generally within the body of the EIS) or a project-specific level of assessment (ie generally within a technical assessment appended to the main EIS).

The full list of matters considered in the scoping assessment is provided in the Scoping Worksheet provided as Appendix A. The matters identified in the Scoping Worksheet as requiring project-specific assessments are:

- traffic (including road safety);
- air quality and greenhouse gases;
- noise;
- surface water;
- groundwater;
- social impact; and
- economics.

5.1 Transport

The Extension Project EIS included a *Transport Assessment* prepared by EMM (EMM 2016c). This assessed the potential impacts of the Extension Project on the road and intersection capacity of the transport routes. A greater number of average and maximum truck movements were assessed than were eventually approved. A *Road Safety Audit* was completed in 2016 to inform the upgrade of the Primary Transport Route (Lyle Marshall & Partners and McLaren Traffic Engineering 2016).

The Quarry operates under the *Traffic Management Plan* (Gunlake Quarry 2020b) approved by the Secretary.

As described in Section 2.3, the Primary Transport Route has been substantially upgraded following the approval of the Extension Project.

The increased truck movements on the Primary Transport Route have the potential to change traffic conditions, road safety and the rate of road degradation. Road safety and traffic assessments will be conducted to determine

potential impacts on road safety and the capacity of the roads and intersections on the Primary Transport Route. This will include consideration of the cumulative impacts from other quarries in the region.

The road safety and traffic assessments do not need to extend to the Secondary Transport Route as there will be no changes to truck movements along this route.

5.2 Noise

The Extension Project EIS included a *Noise and Vibration Assessment* prepared by EMM (EMM 2016d). This involved the modelling of previously approved quarry site activities plus the Extension Project activities.

Quarry noise levels were predicted to have a moderate to significant residual noise impact at three private residences close to the Quarry but not beyond these. Gunlake subsequently purchased one of these properties.

Sleep disturbance criteria were predicted to be met by maximum noise level events at all assessment locations. Road traffic noise levels were predicted to satisfy the relevant noise criteria and guidelines at all nearest assessment locations for all road sections of the transport route. Blast overpressure and ground vibration levels were predicted to satisfy relevant EPA guidelines. These predictions have been met by subsequent monitoring.

The Quarry operates under the *Noise and Blast Management Plan* (Gunlake Quarry 2020c) approved by the Secretary.

The Continuation Project may result in changes to noise emissions due to changes to Quarry plant. Some productivity increases will be achieved through increased equipment utilisation that will not change the previous noise impact predictions that are based on the quarry fleet all operating simultaneously over a 15-minute period. Increased truck movements on the Primary Transport Route will increase road traffic noise.

A noise, vibration and road traffic noise assessment will be prepared. This will include modelling the impacts of changes to the onsite quarry activities and road traffic noise.

5.3 Air quality and greenhouse gases

The Extension Project EIS included an *Air Quality and Greenhouse Gas Assessment* prepared by Rambol (Rambol 2016). This characterised the existing local air quality, potential emissions from the Extension Project (including the pre-existing operations) and included air dispersion modelling. Pre-existing and proposed mitigation measures were incorporated into the modelling. A number of other background sources contribute to particulate matter emissions in the vicinity of the site such as vehicle movements generating dust and emissions (petrol and diesel), wind dust generated from exposed areas, and emissions from grass/bush fires and household wood burning. The air quality study noted that there were intermittent exceedances of relevant criterion for dust (24-hour PM₁₀ and PM_{2.5}) at monitoring stations in the broader area.

The dispersion modelling predicted that there would be no incremental or cumulative air quality impacts (ie exceedances of the impact assessment criteria at residences) as a result of the Extension Project.

The Quarry operates under the *Air Quality Management Plan* (Gunlake Quarry 2020d) approved by the Secretary.

The Continuation Project is expected to result in changes to dust and greenhouse gases emissions due to plant changes at the Quarry. An air quality and greenhouse assessment will be prepared. This will include modelling the impacts extraction, processing and truck movements. The greenhouse gases emissions from the Continuation Project will also be calculated.

5.4 Water

The Extension Project EIS included a *Surface Water Assessment* prepared by Royal Haskonings (Royal Haskonings 2016) and a *Groundwater Assessment* prepared by EMM (EMM 2016e).

The Quarry contains Chapmans Creek and two second order watercourses that are its tributaries. The quarry operates a surface water management system to prevent impacts to these watercourses. Water balance modelling indicate that the Quarry's process water requirements will be met under most climatic conditions and there are available contingencies if there are water shortfalls. The *Surface Water Assessment* summarised the water quality trends from Gunlake's surface water quality monitoring program started in 2007 (prior to establishment of the quarry). This indicated that the Quarry operation had not contributed to water pollution. While nutrient concentrations (total nitrogen and total phosphorus) were consistently 5 to 10 times above the guideline values, some of the highest concentrations were recorded prior to the commencement of quarry operations, indicating that the elevated levels are associated with historic agricultural land uses.

The *Groundwater Assessment* modelled groundwater inflows to the pit of up to 37 ML/year. Gunlake hold WAL 42340 for this water 'take'. A groundwater drawdown of two metres was predicted to extend up to 1.5 km from the edge of the pit footprint by Year 30 of the Extension Project. Groundwater inflows to the pit were not predicted to reduce baseflows to the ephemeral watercourses in the area (Chapmans Creek and Jaorimin Creek). No significant impacts to registered groundwater works were predicted and a neutral impact on water quality in the hydrological catchment was predicted.

The Quarry operates under the *Soil and Water Management Plan* (Gunlake Quarry 2020e) approved by the Secretary.

Given that the approved pit depth or footprint will not change, the Continuation Project is not expected to change or impact surface water or groundwater regimes. However, a water assessment will be prepared to address potential surface water and groundwater impacts from the Continuation Project. The assessment will include a validation assessment of the previous assessments, including updated modelling.

5.5 Social impacts

An SIA will be prepared based on the requirements of the *Social Impact Assessment Guideline for State Significant Mining, Petroleum Production and Extractive Industry Development* (DPE 2017) (the 'SIA Guidelines'). A SIA scoping phase has been completed to:

- identify and characterise potentially affected people and the Quarry's and Continuation Project's area of social influence; and
- identify social impacts that need investigation and the required level of assessment.

As described in Chapter 4, Gunlake has been actively engaging with the Quarry's stakeholders since 2008. As part of scoping the SIA for the Continuation Project, the area of social influence and potentially affected communities and key stakeholders have been reviewed based on ABS demographic and economic data.

5.5.1 Social impact assessment scoping

i Identification of area of social influence

People potentially affected/benefited by the Continuation Project include the Quarry's neighbours, residents along transport routes, the Marulan community, the Quarry's current and potential future workforce (including trucking

contractors), the workforce's families, local businesses, community service providers, Council, elected community representatives, and members of the regional community who may have an interest in the project.

The 'area of social influence' is the area to identify surrounding stakeholders who would potentially be directly or indirectly affected by the Continuation Project. The area of social influence is proposed to comprise of:

- the local area: Marulan, Brayton and Carrick – for consideration of those potentially directly affected by the Continuation Project; and
- the regional area: Goulburn Mulwaree and Wingecarribee local government areas (LGA), for consideration of those potentially indirectly affected by the Continuation Project.

The Australian Bureau of Statistics (ABS) boundaries for Brayton State Suburb (SSC), Marulan SSC, Carrick SCC, and Goulburn Mulwaree LGA, Wingecarribee LGA will be used as the area of social influence in the SIA.

ii Potentially affected people

Residents close to the Quarry and along the Primary Transport Route (Brayton, Ambrose and Red Hills Roads from the Quarry entrance to the Hume Highway) have the potential to experience impacts due to the Continuation Project. Identification of potential issues and impacts therefore focuses on landholders and nearby neighbours located along the Primary Transport Route.

Outside of these directly affected areas, the SIA will consider residents in the areas of social influence that are not negatively affected but may be positively affected, eg Gunlake employees, and Gunlake's current and potential future suppliers.

The SIA will also consider changes to the requirements for community services (eg health and emergency services) and housing.

While there are no early indicators that specific vulnerable groups would be directly impacted by the Continuation Project, the SIA consider whether there is the potential for the Continuation Project to impact on homeless and at risk of homeless, people with a disability, children, elderly people or other vulnerable people. It will also consider if the project could have specific impacts on Aboriginal people.

iii Scoping worksheet

The SIA Guidelines Scoping Tool Worksheets were used to determine the social dimensions of potential impacts of the Project. The worksheets are provided in Appendix A.

5.5.2 Assessment methods

The initial tasks undertaken during the scoping phase to inform the SIA will include the identification of the project's area of social influence (see Section 5.5.1); identifying potential material social impacts and the level of assessment that is required (see Appendix A), including consideration of matters raised by the community (see Section 4.2.1).

The SIA will seek further input regarding the potential social impacts of the Continuation Project:

- potentially affected people and local community surrounding the project;
- where the Quarry and transport workforce lives;
- social trends or changes experienced by the community

- social infrastructure, built and natural, that have social value to the community; and
- the history of the proposed project and how it is experienced by the surrounding community.

The SIA will:

- describe the social baseline and identify constraints;
- predict changes and trends, and discuss their potential impacts;
- identify and evaluate the likelihood and consequences of potential social impacts of the project;
- develop strategies that mitigate negatives and enhance benefits of social impacts; and
- develop a monitoring and management framework.

5.5.3 Socio-economic community profile

i Demography

The most recent Australian Census of Population and Housing was in 2016. The key demographic data are summarised in Table 5.1.

Table 5.1 Demographic data summary

Data	Marulan SSC	Brayton SSC	Carrick SSC	Goulburn Mulwaree LGA	Wingecarribee LGA	NSW
Population	1,178	173	136	29,609	47,882	7,480,228
Male (%)	51.5	52.8	51.5	50.6	47.8	49.3
Female (%)	48.5	47.2	44.1	49.4	52.2	50.7
Median age	41	48	47	42	47	38

Source: ABS (2017).

In Marulan, children aged 0–14 constituted 22.0% of the population, while the proportions in Carrick and Brayton are lower at 19.8% and 16.0%, respectively. The proportion of the population aged 65 years and older in Marulan was 18.6%, while the proportion in Brayton was 24.1%, both of which are higher than the NSW average of 16.3%. This is indicative of an aging population. Like many regional communities in Australia, there is a slight drop in the population between the ages of 15 and 24 years of age.

Marulan and Goulburn Mulwaree LGA had a significantly larger proportion of their populations that identified as Indigenous (both 4.0%) compared to NSW (2.9%).

ii Educational attainment

In 2016, there was a lower proportion of people with a Bachelor-level degree or above in Marulan (8.3%), Brayton (12.2%), Carrick (5.2%), Goulburn Mulwaree LGA (11.5%), and Wingecarribee LGA (21.4%) compared to the whole of NSW (23.4%). A greater proportion of people in these areas had a Certificate III-level attainment with 21.9% in Marulan, 20.5% in Brayton, 48.1% in Carrick, 16.4% across Goulburn Mulwaree LGA, and 34.9% in Wingecarribee

LGA, compared to 12.0% throughout NSW. That is, a high proportion of people in these areas have vocational and trade qualifications.

iii Occupations

Technicians and trade workers, machinery operators and drivers, and labourers were the top occupations of employed persons in both Marulan and Brayton, while the top occupations in Carrick were clerical and administrative workers, professionals, and managers. The most common industry providing employment in Marulan, Brayton, and across Goulburn Mulwaree LGA was construction. Construction is also a significant industry of employment in Carrick and Wingecarribee LGA. However, the most common industries of employment in Carrick and Wingecarribee LGA are public administration and safety and health care and social assistance, respectively.

Table 5.2 Top industries of employment

Marulan SSC	Brayton SSC	Carrick SSC	Goulburn Mulwaree LGA	Wingecarribee LGA	NSW
Construction (22.1%)	Construction (16.2%)	Public administration and safety (16.2%)	Construction (15.9%)	Health care and social assistance (12.5%)	Healthcare and social assistance (12.5%)
Transport, postal and warehousing (12.2%)	Public administration and safety (10.8%)	Construction (14.7%)	Public administration and safety (12.0%)	Construction (10.0%)	Retail trade (9.7%)
Manufacturing (10.3%)	Manufacturing (10.8%)	Retail trade (13.2%)	Retail trade (9.0%)	Retail trade (9.7%)	Construction (8.4%)/ Education and training (8.4%)

Source: ABS (2017).

In 2016, the employment rate was 5.7% in Marulan, 6.9% in Brayton, 5.6% in Carrick, and 6.3% in Goulburn Mulwaree LGA. This is not significantly different to 6.3% across NSW. However, the unemployment rate in Wingecarribee LGA (3.8%) was significantly lower than the NSW average.

iv Community values

The *Goulburn Mulwaree Council Delivery Program 2017–2021* (Goulburn Mulwaree Council 2017) establishes five strategic pillars to guide plans for achieving community goals:

- Environment – “We appreciate our range of rural landscapes and habitats, and act as custodians of the natural environment for future generations” (p.11);
- Economy – “We have a strong regional economy experiencing sustainable growth, which provides for a diverse range of employment opportunities” (p. 16)
- Community – “We are a network of vibrant, inclusive and diverse communities that value our cooperative spirit, self-sufficiency and rural lifestyle” (p.19);
- Infrastructure – “Our community is well serviced and connected to built, social and communications infrastructure” (p. 24); and
- Civic leadership – “Our leaders operate ethically and implement good governance. We empower our residents with the tools to participate actively in the development of our communities” (p. 31).

According to participants of workshops and surveys that were conducted in 2016 to inform the Tablelands Community Strategic Plan 2016–2036 (Goulburn Mulwaree Council, Upper Lachlan Shire Council & Yass Valley Council 2016), the Goulburn Mulwaree LGA community values their rural environments, continued economic growth in the region, social cohesion and collaboration and, shaping a community where “youth [are] able to stay in their home town with job opportunities” (p.12).

5.5.4 Anticipated social impacts

A preliminary set of potential impacts (negative and positive) has been identified based on the scoping assessment, including the outcomes of stakeholder meetings. An assessment of potential negative impacts requiring further assessment and likelihood of potential positive social impacts is detailed in Table 5.3.

Table 5.3 Identified potential positive and negative impacts

Potential social impacts	Negative related to:	Positive related to:
Way of life Surroundings Health and well-being	Increased dust and noise emissions from increased extraction and processing intensity. Increased road traffic noise from additional truck movements.	NA
Personal and property rights Livelihood Way of life Fears and aspirations	Reduction in house prices and property value due to increased environmental impacts or perceptions regarding the desirability of the area of social influence.	The continued operation of the quarry will provide ongoing employment within the local area, including substantial employment increases. Local economy and businesses. Supply valuable resources to construction projects in NSW and for the maintenance of roads.
Health and well-being Access to infrastructure, services and facilities	Impact on public safety arising from traffic conditions and road degradation due to additional truck movements. Truck/vehicle safety on local roads arising from additional truck movements. Potential delays to emergency services due to additional truck movements.	Increase in employment could reduce stress. Increase in population related to increased employment could support continuation of social infrastructure such as schools, health services and recreational groups and facilities.
Decision-making systems Fears and aspirations	Unfulfilled expectations/lack of knowledge resulting in frustration and anger.	Feedback on potential positive impacts and their management. Fulfilment of commitments and promises.

As noted above, a social impact assessment will be prepared for the Continuation Project that, along with the other technical assessments, addresses the matters above.

5.6 Economics

The Extension Project EIS included an *Economic Assessment* prepared by Gillespie Economics (Gillespie Economics 2016b). The Extension Project was estimated to have net social benefits to NSW of between \$16 million and \$27 million and hence is desirable and justified from an economic efficiency perspective. The input-output analysis

estimated that the extension project would make an annual incremental contribution to the economy for 22 years (ie in addition to the contribution from the approved operation until the end of the currently approved operations) of up to:

- \$40 million in annual direct and indirect regional output or business turnover;
- \$10 million in annual direct and indirect regional value added;
- \$3 million in annual direct and indirect household income; and
- 60 direct and indirect jobs.

The Quarry workforce will expand and there will be additional truck drivers employed or contracted by the quarry as a result of the Continuation Project. This will further have positive social and economic benefits.

An economic assessment will be prepared for Continuation Project. This will include cost-benefit and local effects analyses.

5.7 Visual

The potential visual impacts of the Extension Project were assessed in Section 16.2 of the Extension Project EIS (EMM 2016a). This found that existing topography and vegetation generally screens quarry activities from visual receivers. However, the quarry is visible from the residence approximately 1.2 km north-west of the infrastructure area (Residence R4 – owned by Gunlake), and isolated parts of surround properties have long distance views of generally more than 5 km. Vehicles on Brayton Road and Carrick Road have transient views of the site.

Permanent lighting is currently installed at the infrastructure area to ensure safe operating conditions. This lighting is positioned downwards and away from sensitive receptors to minimise emissions and nuisance impacts to surrounding landowners and road users. Lights are only used as required.

The pit footprint will remain the same for the Continuation Project. The pit and processing area are not visible from external sensitive receivers or public access areas.

As there will be no changes to the quarry layout that will impact on visual amenity, so it is not proposed to prepare a visual assessment.

5.8 Heritage

The Extension Project EIS included an *Aboriginal Cultural Heritage Assessment* (EMM 2016f). This assessed the Aboriginal cultural heritage values through desktop reviews, field survey, test excavation and consultation with Aboriginal people. The field survey identified 15 Aboriginal sites within the extension area, all comprised of stone artefacts. Archaeological test excavation characterised the subsurface archaeological deposit of known surface sites and surrounding landforms in the extension area that had limited ground surface visibility. All Aboriginal sites identified were assessed to have low archaeological significance, except one which was assessed as having moderate significance. EMM (2016f) reviewed the earlier Aboriginal cultural heritage assessments that included surveys in the additional area to be cleared. No Aboriginal sites were found within this area.

Eleven Aboriginal sites have been impacted to some degree by the Extension Project. These have been salvaged by surface artefact collection and detailed recording. The remaining four sites have been fenced and avoided.

The potential impacts of the Extension Project to historical heritage were assessed in Section 16.3 of the Extension Project EIS (EMM 2016a). No historical heritage sites were identified and no impacts to historical heritage were predicted.

The Quarry operates under the *Aboriginal Heritage Management Plan* (EMM 2020) approved by the Secretary. As the Quarry operates under this management plan and the disturbance area has been previously assessed, it is not proposed to prepare an Aboriginal heritage assessment or historical heritage assessment.

5.9 Biodiversity

The Extension Project EIS included a *Biodiversity Assessment Report* (EMM 2016g) and supplementary biodiversity information was presented in Appendix I of the Extension Project RTS (EMM 2016b). The Biodiversity Assessment Report found that the Quarry site has been largely cleared, while parts of the extension area contained native and exotic vegetation. The key findings for biodiversity within the extension area were as follows:

- there was limited habitat due to wide-spread removal of native vegetation for agriculture, however, some remnant vegetation occurs particularly along waterways;
- along waterways, the vegetation is considered to meet the description of Box Gum Woodland, an endangered ecological community (EEC) under the previous *Threatened Species Conservation Act 1995* (TSC Act) and a critically endangered ecological community (CEEC) listed under the Commonwealth EPBC Act;
- remnant vegetation within the extension area was also found to support threatened fauna species; and
- although the extension project was located to avoid areas of remnant vegetation, there was an unavoidable impact to biodiversity.

The Quarry operates under the *Rehabilitation and Biodiversity Offset Management Plan* (Gunlake Quarry 2015).

The Extension Project Approval provides biodiversity offsets to compensate for impacts to biodiversity within the Continuation Project disturbance area. Given this is the case, a Biodiversity Development Assessment Report (BDAR) Waiver will be prepared.

There will be no changes to bushfire risk so a bushfire assessment is not proposed.

5.10 Soil, land capability and rehabilitation

The Extension Project EIS included a *Soils And Rehabilitation Assessment* (EMM 2016h). This assessment identified two soil types in the quarry site: Kurosol (44.1 ha) and Natric Kurosol (55 ha) soils. Soils in the site have a class 2 fertility (moderately low) and generally only support plants suitable for grazing. The Hydrologic Soil Group is C (slow infiltration) for Kurosol and D (very slow infiltration) for Natric kurosols. Pre-quarrying soil land capability classes are 5 (severe limitations) for the Natric Kurosols and 6 (very severe limitations) for the Kurosols.

The Quarry operates under the *Soil and Water Management Plan* (Gunlake Quarry 2020e) and the *Rehabilitation and Biodiversity Offset Management Plan* (Gunlake Quarry 2015).

Progressive revegetation of emplacements uses stabilisation species and native trees are planted once the final landform is shaped. The proposed final land use would be restricted to grazing other than the final void which will have no agricultural potential. Landform stability, topdressing, water quality and vegetation are closely measured as part of the rehabilitation monitoring program. Maintenance activities may include weeding, re-topsoiling and applying soil amendments.

As the Continuation Project will not significantly change Quarry operations, it is not anticipated that there will be any change to rehabilitation activities. Therefore, a soil, land capability and rehabilitation assessment is not proposed.

5.11 Waste

The Continuation Project will allow the resource to be used more efficiently, reducing the amount of extracted material that will be added to the emplacements.

No additional waste is expected as part of the application. Current waste management practices on the site will continue to be sufficient for the additional works proposed.

6 Conclusion

6.1 Environmental impact statement

It is proposed to prepare an EIS for the Continuation Project in accordance with the EP&A Regulation and the SEARs for the project. It is proposed that the following site-specific technical assessments will be prepared as part of the EIS:

- traffic impact assessment;
- road safety assessment;
- air quality and greenhouse gases;
- noise;
- surface water;
- groundwater;
- social impact; and
- economics.

6.2 Project benefits

As part of the original quarry development, Gunlake financed the construction of the bypass road (Ambrose Road) that connects Brayton Road to Red Hills Road, allowing trucks to bypass Marulan. As part of the Gunlake Quarry Extension Project, Gunlake financed the upgrade of the Primary Transport Route in accordance with the Austroads Guidelines for rural roads with 1,000 to 3,000 average vehicle movements per day (Austroads 2020) – the upgrades exceed the requirements of the Extension Project Approval conditions. These upgrades enable increased truck movements while maintaining the safety of these public roads.

The high quality of the Quarry's products, and the concrete products that it is used for, has seen increasing demand for the Quarry's products in the greater Sydney and local regional markets. This demand is forecast to increase further as a result of the extensive infrastructure construction projects in NSW, that are funded by the NSW and Commonwealth governments, in part in response to the economic downturn caused by the COVID-19 pandemic.

It is forecast that the Quarry will not be able to meet this demand within the limits of the current Extension Project Approval. If approved, the Continuation Project will allow the Quarry to meet this demand once approved.

The Extension Project Approval was obtained with the expectation that virtually all saleable quarry products would require beneficiation and processing. The Continuation Project will allow for an increase in production efficiency through the utilisation of by-products to supply market demand. This will allow more efficient and sustainable use of the finite ignimbrite resource.

The Quarry currently employs about 52 people full-time and about 20 contractors and this would rise to 70 full-time positions for the Continuation Project and ongoing opportunities for the contractors.

In addition, around 200 contract truck drivers deliver products from the Quarry, on either a full-time or part-time basis. The proposed projects will provide further work for these drivers and opportunities for more drivers.

There will also be a significant public benefit to the local and regional areas as well the State with an increase in low-cost supply of construction materials into the market.

References

ABS 2017, *2016 Census of Population and Housing General Community Profile Catalogue number 2001.0*. Australian Bureau of Statistics.

Austroads 2020, *Guide to Road Design Part 3 Geometric Design, AGRD03-20*, Austroads.

DPE 2017, *Social Impact Assessment Guideline for State significant Mining, Petroleum Production and Extractive Industry Development*. Department of Planning and Environment.

DPIE 2019a, *Preparing a Scoping Report – Guidance for State Significant Projects*. NSW Department of Planning, Environment.

DPIE 2019b, *Draft Engagement in EIA – Guidance for State Significant Projects*. NSW Department of Planning and Environment.

EMM 2016a, *Gunlake Quarry Extension Project Environmental Impact Statement*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2016b, *Gunlake Quarry Extension Project Response to Submissions*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2016c, *Gunlake Quarry Extension Project Transport Assessment*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2016d, *Gunlake Quarry Extension Project Noise and Vibration Assessment*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2016e, *Gunlake Quarry Extension Project Groundwater Assessment*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2016f, *Gunlake Quarry Extension Project Aboriginal Cultural Heritage Assessment Including the Results of an Archaeological Test Excavation*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2016g, *Gunlake Quarry Extension Project Biodiversity Assessment*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2016h, *Gunlake Quarry Extension Project Soil and Rehabilitation Assessment*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

EMM 2020, *Aboriginal Heritage Management Plan*. Report prepared by EMM Consulting Pty Limited for Gunlake Quarries Pty Ltd.

Gillespie Economics (2016b), *Gunlake Quarry Extension Project Economic Assessment*. Report prepared by Gillespie Economics for EMM Consulting Pty Limited and Gunlake Quarries Pty Ltd.

Goulburn Mulwaree Council 2017, *Goulburn Mulwaree Council Delivery Program 2017 – 2021*.

Goulburn Mulwaree Council, Upper Lachlan Shire Council & Yass Valley Council 2016, *The Tablelands 2016–2036 Regional Community Strategic Plan*.

Gunlake Quarry 2015, *Rehabilitation and Biodiversity Offset Management Plan*.

Gunlake Quarry 2020a, *Environmental Management Strategy*.

Gunlake Quarry 2020b, *Traffic Management Plan*.

Gunlake Quarry 2020c, *Noise and Blast Management Plan*.

Gunlake Quarry 2020d, *Air Quality Management Plan*.

Gunlake Quarry 2020e, *Soil and Water Management Plan*.

Gunlake Quarry 2020f, *Pollution Incident Response Management Plan*.

Lyle Marshall & Partners and McLaren Traffic Engineering 2016, *Road Safety Audit*. Report prepared for Gunlake Quarries Pty Ltd.

NSW Government 2018, *Moving More With Less – The NSW Heavy Vehicle Access Policy Framework*.

Rambol 2016, *Air Quality and Greenhouse Gas Assessment*. Report prepared by Rambol Environ Australia Pty Ltd for EMM Consulting Pty Limited.

Royal Haskonings 2016, *Gunlake Quarry Extension Project Surface Water Assessment*. Report prepared by Royal Haskonings DHV for Gunlake Quarries Pty Ltd.

Sydney Catchment Authority 2015, *Neutral or Beneficial Effect on Water Quality Assessment Guideline*.

Appendix A

Scoping worksheets

Environmental Impact Statement (EIS) scoping worksheet for:				Gunlake Quarry Continuation Project SSD					Date:		19/11/2020				
What matters might be impacted?			What activities might cause an impact?		What are the characteristics of the impact?				How will the impact be managed?	What are the community and other stakeholder views?	What level of assessment and engagement is required in the EIS preparation phase?				
Social and environmental matters I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements Click on the matter for a description, or the link above for full glossary			Without any mitigation, is the proposal likely to impact on the matter? (Select from list)	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. if applicable, list the receptor being impacted and its status. E.g. construction noise will be heard at nearby school If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? (Manual entry)	Is the impact, without mitigation, expected to cause a material effect with regard to its... (Answer 'Y', 'N' or '?') Click on characteristic for description, or the link above for further detail				Does the impact need assessment in the EIS? (Auto fills)	Is the impact, without mitigation, expected to have a material cumulative effect with other impacts (including from other projects)? (Select from list)	What safeguards and management measures are expected to be required to address the impact? (Select from list)	Are there community or other stakeholder concerns regarding the impact or activity? (Based on engagement with community and other stakeholders) (Select from list)	Expected level of assessment and/or engagement required (Auto fills)	Relevant section in Scoping Report (Manual entry)	
					extent?	duration?	severity?	sensitivity?							
What does the proposal mean for people?	AMENITY	acoustic	Likely	Quarry: the 2016 Noise and Vibration Assessment was conducted in accordance with the NSW Industrial Noise Policy . There will be some changes to the quarrying fleet and processing. Transport routes: there will be an increase in road traffic noise along the primary transport route.	Y	Y	N	N	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	5.2	
		visual	Unlikely	Quarry: There will be no change to visual amenity from any external sensitive receivers or public access areas. Transport routes: no road upgrades will be required.								No	Scoping Report	5.7	
		odour	n/a	Approved quarrying and processing method does not involve odorous materials, chemicals or by-products.									No assessment necessary - Worksheet only	n/a	
		microclimate	n/a	It is not proposed to change the quarry footprint and the scale of quarrying operations will not impact upon microclimate.									No assessment necessary - Worksheet only	n/a	
	ACCESS	access to property	n/a	Quarry: the Quarry access road off Brayton Road does not access any other properties. Transport routes: there will be no road upgrades and no changes to the access to properties from primary or secondary transport routes.									No assessment necessary - Worksheet only	n/a	
		utilities	n/a	Quarry: the Quarry site does not contain any public utilities Transport routes: no road upgrades are proposed, so there will be no impacts to public utilities on the transport routes									No assessment necessary - Worksheet only	n/a	
		road network	Likely	Quarry: the Quarry site does not contain any public roads or rail Transport routes: there will be increased truck movements on the primary transport route that have the potential to change traffic conditions and road degradation. There will be no changes to truck movements on the secondary transport route.	Y	Y	N	N	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	5.1	
	offsite parking	Unlikely	Project-related parking contained wholly within the approved Quarry boundary.								No	Scoping Report	5.1		
	BUILT ENVIRONMENT	public domain	Unlikely	Quarry: the Quarry is surrounded by private property. There are no publicly accessible areas that could be impacted. Transport routes: the Primary Transport Route only passes private rural properties. There will be no changes to the Secondary Transport Route.								No	Scoping Report	2.1	
		public infrastructure	Likely	Quarry: the Quarry site does not contain any public infrastructure. Transport routes: there will be increased truck movements on the primary transport route that have the potential to change traffic conditions and road degradation. There will be no changes to truck movements on the secondary transport route.	Y	Y	N	N	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	5.1	
		other built assets	n/a	Quarry: the Quarry site only contains built assets used as part of quarry operations. Transport routes: no road upgrades are proposed, so there will be no impacts to built assets along the transport routes.									No assessment necessary - Worksheet only	n/a	
	HERITAGE	natural	Unlikely	Quarry: the Continuation Project will not require disturbance of any natural heritage other than that has been previously offset under the Extension Project approval. Transport routes: no road upgrades will be required.								No	Scoping Report	5.9	
		cultural	Unlikely	Quarry: the Continuation Project will not require disturbance of any cultural heritage. Transport routes: no road upgrades will be required.								No	Scoping Report	5.8	
		Aboriginal cultural	Unlikely	Quarry: the Continuation Project will not require disturbance of any Aboriginal cultural heritage. Transport routes: no road upgrades will be required.								No	Scoping Report	5.8	
		built	n/a	Quarry: there is no built heritage within the Quarry site. Transport routes: no road upgrades will be required.									No assessment necessary - Worksheet only	n/a	
	COMMUNITY	health	n/a	Only as related to matters relating to 'AMENITY'										No assessment necessary - Worksheet only	n/a
		safety	n/a	Only as related to matters relating to 'ACCESS'										No assessment necessary - Worksheet only	n/a
		services and facilities	Unlikely	The scale of the increased in quarrying operations and workforce is unlikely to impact upon services and facilities.								No	Scoping Report	5.5	
		cohesion, capital and resilience	Unlikely	The scale of the increased in quarrying operations and workforce is unlikely to impact upon cohesion, capital and resilience.								No	Scoping Report	5.5	
		housing	Unlikely	The scale of the increased in quarrying operations and workforce is unlikely to impact upon housing.								No	Scoping Report	5.5	

Environmental Impact Statement (EIS) scoping worksheet for:			Gunlake Quarry Continuation Project SSD							Date:		19/11/2020		
What matters might be impacted?			What activities might cause an impact?		What are the characteristics of the impact?				How will the impact be managed?	What are the community and other stakeholder views?	What level of assessment and engagement is required in the EIS preparation phase?			
Social and environmental matters I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements Click on the matter for a description, or the link above for full glossary			Without any mitigation, is the proposal likely to impact on the matter? (Select from list)	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. if applicable, list the receptor being impacted and its status. E.g. construction noise will be heard at nearby school If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? (Manual entry)	Is the impact, without mitigation, expected to cause a material effect with regard to its... (Answer 'Y', 'N' or '?') Click on characteristic for description, or the link above for further detail				Does the impact need assessment in the EIS? (Auto fills)	Is the impact, without mitigation, expected to have a material cumulative effect with other impacts (including from other projects)? (Select from list)	What safeguards and management measures are expected to be required to address the impact? (Select from list)	Are there community or other stakeholder concerns regarding the impact or activity? (Based on engagement with community and other stakeholders) (Select from list)	Expected level of assessment and/or engagement required (Auto fills)	Relevant section in Scoping Report (Manual entry)
					extent?	duration?	severity?	sensitivity?						
	ECONOMIC	natural resource use	Unlikely	There will be more sustainable use of hard rock resource as a result of Continuation Project, as more lower grade and waste material will be utilised as construction materials.							No	Scoping Report	2.4	
		livelihood	Unlikely	There will be increased employment at the quarry and additional truck drivers will be required. Quarry: there will be no impacts on surrounding agriculture or the livelihood of the Quarry's neighbours. Transport route: there will be no impacts on surrounding agriculture or the livelihood of the residents along the transport route.							No	Scoping Report	5.5	
		opportunity cost	n/a	The Continuation Project is the ongoing use of the Quarry site so there are not other potential uses for the site.								No assessment necessary - Worksheet only	n/a	
Environment?	AIR	particulate matter	Likely	Quarry: the 2016 <i>Air Quality and Greenhouse Assessment</i> considered the incremental impacts of the extension project and the cumulative impacts with Johnniefelds and Lynwood quarries. The 2016 <i>Air Quality and Greenhouse Assessment</i> found that all air quality criteria would be met at all residences. However, the rate of extraction and processing will change. Transport route: emissions associated with truck movements.	Y	Y	N	N	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	5.3
		gases	Likely	Quarry: the 2016 <i>Air Quality and Greenhouse Assessment</i> considered the incremental impacts of the extension project and the cumulative impacts with Johnniefelds and Lynwood quarries. The 2016 <i>Air Quality and Greenhouse Assessment</i> found that all air quality criteria would be met at all residences. However, the rate of extraction and processing will change. Transport route: emissions associated with truck movements.	Y	Y	N	N	Yes	No	Project Specific	No	Key Issue	5.3
		atmospheric emissions	Likely	There are likely to be increased greenhouse gas emissions.	Y	Y	N	N	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	5.3
	BIODIVERSITY	native vegetation	Unlikely	Quarry: the Continuation Project will not require disturbance of any native vegetation other than that has been previously offset under the Extension Project approval. Transport route: no road upgrades will be required so no roadside vegetation will be cleared.								No	Scoping Report	5.9
		native fauna	Unlikely	As above for 'native vegetation'								No	Scoping Report	5.9

Environmental Impact Statement (EIS) scoping worksheet for:				Gunlake Quarry Continuation Project SSD						Date:		19/11/2020			
What matters might be impacted?			What activities might cause an impact?		What are the characteristics of the impact?				How will the impact be managed?	What are the community and other stakeholder views?	What level of assessment and engagement is required in the EIS preparation phase?				
Social and environmental matters I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements Click on the matter for a description, or the link above for full glossary			Without any mitigation, is the proposal likely to impact on the matter? (Select from list)	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. if applicable, list the receptor being impacted and its status. E.g. construction noise will be heard at nearby school If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? (Manual entry)	Is the impact, without mitigation, expected to cause a material effect with regard to its... (Answer 'Y', 'N' or '?') Click on characteristic for description, or the link above for further detail				Does the impact need assessment in the EIS? (Auto fills)	Is the impact, without mitigation, expected to have a material cumulative effect with other impacts (including from other projects)? (Select from list)	What safeguards and management measures are expected to be required to address the impact? (Select from list)	Are there community or other stakeholder concerns regarding the impact or activity? (Based on engagement with community and other stakeholders) (Select from list)	Expected level of assessment and/or engagement required (Auto fills)	Relevant section in Scoping Report (Manual entry)	
					extent?	duration?	severity?	sensitivity?							
What does the proposal mean for the natural environment?	LAND	stability and/or structure	Unlikely	Quarry: it is not proposed to change rehabilitation activities or outcomes as part of the proposed modification. Transport route: no road upgrades will be required.							No	Scoping Report	5.10		
		soil chemistry	n/a	Quarry: it is not proposed to increase the existing Quarry footprint so soil will not be impacted Transport route: no road upgrades will be required.								No assessment necessary - Worksheet only	5.10		
		capability	n/a	Quarry: it is not proposed to increase the existing Quarry footprint so land capacity will not be impacted Transport route: no road upgrades will be required.								No assessment necessary - Worksheet only	6.10		
		topography	n/a	Quarry: it is not proposed to increase the existing Quarry footprint so there will be no changes to topography. The final pit depth will be unchanged. There will be small changes to the Quarry pit walls but these will not affect the surrounding topography. Transport route: no road upgrades will be required.								No assessment necessary - Worksheet only	5.10		
	WATER	water quality	Unlikely	Quarry progression is described in Section 3.1 of the 2016 EIS. This was based on a series of conservative assumptions and allowed for flexibility in the staging of the pit development. The 2016 EIS found that the extension project will have a neutral effect on surface water quality as it will satisfy the relevant criteria within the Neutral or Beneficial Effect on Water Quality Assessment Guideline 2015 (Sydney Catchment Authority 2015). The extraction and processing rate will change. However, the pit layouts and staging will remain generally in accordance with the pit layouts and staging presented in the 2016 EIS.							Project Specific	No	Key Issue	5.4	
		water availability	Unlikely	The Quarry's surface water management strategy will mitigates potential water quality and quantity impacts and the Quarry does not impact on downstream water users. The extraction and processing rate will change. However, the pit layouts and staging will remain generally in accordance with the pit layouts and staging presented in the 2016 EIS.								Project Specific	No	Key Issue	5.4
		hydrological flows	Unlikely	The 2016 EIS found that the extension project groundwater impacts were predicted to be minor and confined to an area immediately surrounding the pit. The impacts can be managed so as to not adversely impact on the surrounding environment.								Project Specific	No	Key Issue	5.4
What risks does the proposal face?	RISKS	coastal hazards	n/a										No assessment necessary - Worksheet only	n/a	
		flood waters	Unlikely	There will be no changes to the Quarry footprint, including the pit boundaries. The pit depth will not increase.								No	Scoping Report	n/a	
		bushfire	n/a										No assessment necessary - Worksheet only	n/a	
		undermining	n/a										No assessment necessary - Worksheet only	n/a	
		steep slopes	n/a										No assessment necessary - Worksheet only	n/a	

Social impact assessment (SIA) scoping worksheet for:			Gunlake Quarry Continuation Project SSD			Date:		11/05/2020		
Scoping results from EIS Worksheet						Is there a social impact?		What information will be required to assess the social impact?		
Social and environmental matters Click on a matter below for brief description, or refer to full glossary			Outline of impact (Auto fill from EIS worksheet)	Is a material effect on the matter expected? (Auto fill from EIS worksheet)	Is there community or other stakeholder concerns regarding the impact or activity? (Auto fill from EIS worksheet)	With regard to the matter expected to be impacted, will there be a social impact? Select this cell for brief description, or click link above for further detail		Are impacts on the matter expected to require a non-SIA specialist study? (Auto fill from EIS worksheet, then manually enter non-SIA report type)	Will the non-SIA specialist study address the social impact? Click on link above for further detail on potential classifications (Select from list)	Level of assessment for the social impact in the SIA Click on link above for further detail on potential classifications (Auto fills)
						Yes/No (Select from list)	If yes, outline the social impact (Manual entry, if not already covered in column D) If no, outline why (Manual entry)			
What does the proposal mean for people?	AMENITY	acoustic	Quarry: the 2016 Noise and Vibration Assessment was conducted in accordance with the NSW Industrial Noise Policy. There will be some changes to the quarrying fleet and processing. Transport routes: there will be an increase in road traffic noise along the primary transport route.	Yes	Yes	Yes	There will be an increase in road traffic noise along the primary transport route which may impact upon nearby residents. There is the potential for increased noise from the Quarry operations.	Yes - Traffic Impact Assessment & Noise and Vibration Assessment	Yes - in part	Standard SIA
		ACCESS	road network	Quarry: the Quarry site does not contain any public roads or rail Transport routes: there will be increased truck movements on the primary transport route that have the potential to change traffic conditions and road degradation. There will be no changes to truck movements on the secondary transport route.	Yes	Yes	Yes	There will be increased truck movements on the primary transport route that have the potential to impact traffic conditions and road road safety. However, the combined background and Quarry truck movements will be well within the design capacity of the recently upgraded Primary Transport Route.	Yes - Traffic Impact Assessment & Road Safety Audit	Yes - in part
	BUILT ENVIRONMENT	public infrastructure	Quarry: the Quarry site does not contain any public infrastructure. Transport routes: there will be increased truck movements on the primary transport route that have the potential to change traffic conditions and road degradation. There will be no changes to truck movements on the secondary transport route.	Yes	Yes	Yes	Gunlake and Goulburn Mulwaree Council (Council) have implemented a road maintenance work plan and budget to ensure that the Transport Routes are properly maintained by Council using Gunlake Section 94 Contributions. Increased road maintainance requirements will be met by inrecreased 94 Contributions which are paid on a 'per tonne' basis.	Yes - Traffic Impact Assessment & Road Safety Audit	Yes - in part	Standard SIA
What does the proposal mean for the natural environment?	AIR	particulate matter	Quarry: the 2016 Air Quality and Greenhouse Assessment considered the incremental impacts of the extension project and the cumulative impacts with Johnniefelds and Lynwood quarries. The 2016 Air Quality and Greenhouse Assessment found that all air quality criteria would be met at all residences. However, the rate of extraction and processing will change. Transport route: emissions associated with truck movements.	Yes	Yes	Yes	There may be increased particulate matter dust emissions from extraction, processing and transport. These are of concern to some community members.	Yes - Air Quality and Greenhouse Gas Assessment	Yes - in part	Standard SIA
		gases	Quarry: the 2016 Air Quality and Greenhouse Assessment considered the incremental impacts of the extension project and the cumulative impacts with Johnniefelds and Lynwood quarries. The 2016 Air Quality and Greenhouse Assessment found that all air quality criteria would be met at all residences. However, the rate of extraction and processing will change. Transport route: emissions associated with truck movements.	Yes	No	Yes	There may be increased diesel emissions from extraction, processing and transport. These are of concern to some community members.	Yes - Air Quality and Greenhouse Gas Assessment	Yes - in part	Standard SIA
		atmospheric emissions	There are likely to be increased greenhouse gas emissions.	Yes	Yes	No	There may be additional greenhouse gas (Scope 3) emissions associated with increased truck movements.	Yes - Air Quality and Greenhouse Gas Assessment	No	No SIA required
	WATER	water quality	Quarry progression is described in Section 3.1 of the 2016 EIS. This was based on a series of conservative assumptions and allowed for flexibility in the staging of the pit development. The 2016 EIS found that the extension project will have a neutral effect on surface water quality as it will satisfy the relevant criteria within the Neutral or Beneficial Effect on Water Quality Assessment Guideline 2015 (Sydney Catchment Authority 2015). The extraction and processing rate will change. However, the pit layouts and staging will remain generally in accordance with the pit layouts and staging presented in the 2016 EIS.	Yes	No	No	There are not expected to be changes to water quality or impacts to downstream water users.	Yes - Surface Water Assessment and Groundwater Assessment	No	No SIA required

Social impact assessment (SIA) scoping worksheet for:			Gunlake Quarry Continuation Project SSD				Date:		11/05/2020		
Scoping results from EIS Worksheet						Is there a social impact?		What information will be required to assess the social impact?			
Social and environmental matters Click on a matter below for brief description, or refer to full glossary			Outline of impact (Auto fill from EIS worksheet)	Is a material effect on the matter expected? (Auto fill from EIS worksheet)	Is there community or other stakeholder concerns regarding the impact or activity? (Auto fill from EIS worksheet)	With regard to the matter expected to be impacted, will there be a social impact? Select this cell for brief description, or click link above for further detail		Are impacts on the matter expected to require a non-SIA specialist study? (Auto fill from EIS worksheet, then manually enter non-SIA report type)	Will the non-SIA specialist study address the social impact? Click on link above for further detail on potential classifications (Select from list)	Level of assessment for the social impact in the SIA Click on link above for further detail on potential classifications (Auto fills)	
						Yes/No (Select from list)	If yes, outline the social impact (Manual entry, if not already covered in column D) If no, outline why (Manual entry)				
		water availability	The Quarry's surface water management strategy will mitigates potential water quality and quantity impacts and the Quarry does not impact on downstream water users. The extraction and processing rate will change. However, the pit layouts and staging will remain generally in accordance with the pit layouts and staging presented in the 2016 EIS.	Yes	No	Yes	Potential impacts to bores surrounding the quarry will be assessed. A significant drawdown in groundwater levels at these bores could impact landowners.	Yes - Surface Water Assessment and Groundwater Assessment	Yes - in part	Standard SIA	
		hydrological flows	The 2016 EIS found that the extension project groundwater impacts were predicted to be minor and confined to an area immediately surrounding the pit. The impacts can be managed so as to not adversely impact on the surrounding environment.	Yes	No	Yes	Potential impacts to bores surrounding the quarry will be assessed. A significant drawdown in groundwater levels at these bores could impact landowners.	Yes - Surface Water Assessment and Groundwater Assessment	Yes - in part	Standard SIA	

Appendix B

Community engagement strategy

Gunlake Quarries

Community and Stakeholder Engagement Plan (CSEP)

Purpose

This Plan has been developed to meet Gunlake's (the Company) responsibilities under the NSW Government's State Significant Resource Projects, Social Impact Assessment (SIA) guidelines and describes, in detail, the Company's approach to achieving the outcomes identified in the Scoping Report and the Secretary's Environmental Assessment Requirements (SEARS) for the preparation of an EIS and the Company's ongoing commitment to Community Engagement.

Vision

To create an environment of neutral and positive stakeholder and community sentiment, which will allow the quarry to operate with minimum resistance now and during any future modification.

Objectives

- continue to create a positive sentiment among stakeholders towards the Company through community engagement activities
- foster and maintain a relationship of trust and respect with all stakeholders, through the establishment and continuation of transparent and proactive strategic communication
- evaluate and commit to appropriate Corporate Social Responsibility activity to increase community respect for the Company and better position it against its competitors
- strategically control net media coverage and public rhetoric around the Company and its current operations and during any future modification

Communication activities

- **Gunlake Community Consultation Committee (CCC)**
- **A dedicated 24hour telephone and email Community Feedback System is in place**

This system encourages community feedback and enquiry by telephone, email and website contact.

By offering specific channels for the community, separate to the main business lines, consistent responses and accurate recordings of interaction can be achieved. This encourages more positive relationships. (i.e. particularly for cases where we have repeat enquirers).

- **Electronic and Print Media Releases and Regular Columns in Community**

Newsletter

Keeping the community and stakeholders informed and engaged with the Company generates more trust in the Company and the community commitments it makes.

These contributions deliver news and updates to stakeholders on a regular basis, i.e. CCC, Discover Marulan Monthly Newsletter or as it happens.

Newsletter content should include but not be limited to:

- updates on quarry operations or new procedures
- information about technologies or industry news
- team member features such as a Q&A or 'meet the team'
- events and photos
- fundraising, donations or charity activity
- partnerships and sponsorships
- Corporate Social Responsibility actions

▪ Online Communication

The newsletter and other information will also be shared on the Company's website to promote Gunlake's achievements and developments.

The Company will draft and upload content to the community sections of the website so that Community members will be able to click a topic on the newsletter and go to the website for more information. Including information on our current consent and any proposed modifications or changes.

▪ Community Consultation

Our Stakeholders:-

Goulburn Mulwaree Council including the Mayor, Councillors, relevant Executive staff and Road Safety Officer, State and Federal Members of Parliament, Relevant Portfolio Ministers, NSW Roads and Maritime Services, NSW Department of Planning and Environment, Environmental Protection Authority, Office of Environment and Heritage, Local Aboriginal Lands Council, NSW Police Force (Hume Local Area Command, Goulburn Police District), NSW Emergency Services (NSW Ambulance, NSWRF, NSWSES), National Heavy Vehicle Regulator, Gunlake Community Consultative Committee, Gunlake employees, Gunlake contractors, Residents of both the Primary and Secondary transport route, Local Service Clubs, Local Business Chambers, Local Primary and High Schools, TAFE NSW, Local Community Groups, the Marulan/Tallong Communities, other quarries and the Local Media.

If further community consultation is required (for example, if there is an issue, new application or extension proposal) the Company will:

- make telephone calls or send emails to stakeholders
- prepare and hand deliver letters
- attend one-on-one meetings and Community information sessions in a Covid safe

environment

▪ **Maintain Records**

A detailed record of all communication between the Company and stakeholders is highly valuable. The Company will continue to document any interactions held in person, over the phone or email/online. These records enable long term consistency for stakeholder relationship management. Importantly, they also enable immediate access, if required, to analytical reports for the quarry operators, the CCC or government regulators.

▪ **Community Engagement and Corporate Social Responsibility**

Engaging with the community through methods not involving quarry operations is another crucial element to building an improved and more positive relationship. The Company has established a Community Relations Fund (CRF) and employed a Community and Stakeholder Engagement Manager. The fund is administered by the Company and managed in a way that it contributes to or support events and activities for the community, such as:

- community picnics or barbeques
- local festivals (Marulan Australia Day, Marulan Kite Festival, Tallong Apple Day, Marulan Town Christmas Party)
- educational activities with local schools and TAFE (including industry school visits promoting apprenticeship opportunities)
- donating to or sponsoring a community group (Goulburn District Education Foundation)
- donations to local not for profit groups and charities (ad hoc donations either cash or in kind)
- upgrades to local community infrastructure in consultation with local government
- donation of educational materials or sporting infrastructure (Marulan and Tallong Public School end of year presentation ceremonies)
- Membership of local Community and Business associations (Marulan & District Chamber of Commerce, the Marulan Community Working Party)
- Ad hoc support to one off requests for assistance
- environmental initiatives

▪ **Internal Communication Processes**

The Company will initiate internal communication support to help it achieve its community and company objectives. An engaged and informed workforce, able and willing to champion the Company to the community, assists in dispelling misinformation and benefits relationships.

Appendix C

Gunlake Quarry Community Consultative Committee meeting minutes – 23 October 2020

**Minutes of Meeting of Gunlake Quarries Community Consultative Committee
held at Marulan at 10.00am on 23 October 2020**

1) Attendance:

Don Elder (Chairman), David Humphreys (CM), Ron Switzer (CM), Tony Mulvihill (CM), Geoff Kettle (Gunlake), David Kelly (Gunlake), Andrew Wade (Gunlake).

2) Apologies:

a) Angus Richmond (Gunlake), Scott Martin (GMC), Cheryl Bell (CM), Ken Wray (CM),

3) Declaration of pecuniary or other interests: none

4) Minutes of meeting held on 17 July 2020 were confirmed.

5) Business arising from the Minutes:

a) Submission to RMS re speed limit. Nothing has happened. To remain on agenda.

b) Quarry Annual Report – has been lodged with DPIE. Once accepted it will be placed on the Gunlake website.

c) Nomination for CCC from Marie Pender. Various correspondence has been exchanged between Chair and DPIE on this matter and on the nomination of David Blissett.

RESOLVED: The Chairman is authorised to refer the matter to Wendy Tuckerman, the local NSW MP, for assistance.

6) Correspondence

a) Letter 15/8/2020 Chairman to DPIE regarding nominations for CCC

b) Letter 6/9/2020 Chairman to DPIE regarding nominations for CCC

c) Letter 7/9/2020 Chairman to DPIE regarding nominations for CCC

d) Letter 2/10/2020 Geoff Kettle to Chairman

e) Letter 3/10/2020 Chairman to DPIE requesting action on CCC nominations

7) Company Report (attached with the minutes).

a) Gunlake are proposing to lodge both a Modification to its current operating consent as well as a new State Significant Development (SSD) application to increase production limits;

b) The applications will seek to increase truck movements on the Primary Transport Route (Brayton, Ambrose and Red Hills Roads from the Quarry entrance to the Hume Highway). There will be **NO** increase in truck movements south of the Brayton Road/Ambrose Road intersection or through the village of Marulan;

c) The proposed Modification 2 outbound truck movements will increase from 185 to 220;

d) The proposed Modification 2 will be subject to the NSW court process;

- e) The proposed SSD application will increase employee numbers at the quarry from 52 to 65;
- f) The proposed SSD application will be made through the NSW DPIE, will be advertised and call for submissions at that time;
- g) The proposed SSD application will increase outbound average truck movements to 345;
- h) Overall, there will be no change to the disturbance area, no change to the hours of operation, no change to the quarry blasting frequency, no change to biodiversity, and no change to truck numbers on the Secondary Transport Route.

Further details will be provided in a Fact Sheet to be produced by the Company, and at the next CCC meeting and the community information briefing.

8) General Business

- a) Gunlake propose that the next CCC meeting be held on 4 December to update the committee on progress with the applications, which will then be followed by a COVID safe Community Information Session later that day.
- b) Further details and arrangements for the Community Information Session will be confirmed in due course.
- c) Chairman requested that a copy of the proposed Newsletter and Community Information Correspondence be forwarded to the Chairman for distribution to CCC members.
- d) Community Member Tony Mulvihill commended Gunlake for its ongoing commitment and contribution to the local community.
- e) Community Member David Humphreys requested quantification on the increase Section 94 contributions to Council, should the Modification and subsequent SSD be approved.
- f) Community Member Ron Switzer enquired whether transport options would be reviewed.

9) Next Meeting

The next meeting is to be held at 10.00am on Friday 4 December 2020 at Marulan Community Hall.

The meeting closed at 11.15am.

Confirmed

Chairman

Appendix D

Gunlake letter to residents (30 October 2020)

30 October 2020

Dear Resident,

Gunlake Marulan Quarry

In accordance with our ongoing commitment to keep you informed about the operations of our quarry, we would like to advise you that we are preparing to lodge both a Modification to our current operating consent and a new State Significant Development (SSD) application to increase our production limits.

The high quality of our product has seen increasing demand in the greater Sydney and local regional markets and as such, we need to plan for this growth.

We are currently reviewing and forecasting our supply needs for future years and are making these applications as navigating the NSW Government Planning approvals system is both a thorough and lengthy process.

The applications will seek to increase our truck movements on the Primary Transport Route (Brayton, Ambrose and Red Hills Roads) from the Quarry to the Hume Highway.

There will be **NO** increase in truck movements south of the Brayton Road/Ambrose Road intersection or through the village of Marulan.

We will be hosting an initial Community Information Session in early December to provide information about the Modification and new SSD, the planning process, and the technical studies being conducted as part of the applications. We will distribute details about the event once the date, time, and venue are confirmed.

In the meantime, should you have any queries then please do not hesitate to contact us on 02 4841 1344 or community@gunlake.com.au

Kind regards,

Gunlake Quarry Community Team

"100% Australian owned and operated "

Appendix E

Gunlake Quarry Newsletter (December 2020)



GUNLAKE MARULAN QUARRY

Overview

The Gunlake Group (Gunlake), consisting of Gunlake Concrete and Gunlake Quarries, is an Australian family-owned business that is expanding to meet customer and market demands, across the Greater Sydney area, Southern Highlands and Southern Tablelands. Gunlake operates the Gunlake Quarry, approximately 7 km north-west of Marulan.

Gunlake is lodging an application to modify the quarry's current State Significant Development (SSD) consent to allow increased truck movements. Gunlake is also lodging a separate new SSD application for the Gunlake Quarry Continuation Project which would allow increased quarry production. Approval of these applications would allow the quarry to meet the increased demand projected for its high-quality products.

Modification application

The quarry's consent limits the average and maximum number of trucks that can be dispatched from the quarry each day. The modification application will seek to increase these limits on the Primary Transport Route (Brayton, Ambrose and Red Hills Roads from the Quarry entrance to the Hume Highway).

There will be no changes to the disturbance area, the pit depth, hours of operation, blasting frequency, or truck movements on the Secondary Transport Route, ie south of the Brayton Road/Ambrose Road intersection and through Marulan – see *Figure 1* over page.

The quarry's consent was granted by the NSW Land & Environment Court and so the modification application is to be made to the court. Its approval would provide an interim solution to meeting demand while the Gunlake Quarry Continuation Project SSD application is prepared, lodged and assessed.

Gunlake Quarry Continuation Project

The Gunlake Quarry Continuation Project application will be for a new SSD approval for the quarry. The application will be made through the NSW Department of Planning, Industry and Environment (DPIE).



The application will seek to:

- increase quarrying and processing rates;
- increase the workforce;
- increase truck movements from the site along the Primary Transport Route (Brayton, Ambrose and Red Hills Roads from the Quarry entrance to the Hume Highway); and
- extend the approval for quarry operations for 30 years to 2051.

There will be no changes to the disturbance area, the pit depth, hours of operation, blasting frequency, or the truck movements on the Secondary Transport Route, ie south of the Brayton Road/Ambrose Road intersection and through Marulan.

Over the next few months Gunlake Quarries will be preparing an environmental impact statement (EIS), to accompany the SSD application for the Gunlake Quarry Continuation Project. Technical studies that assess the environmental, economic and social impacts of the Gunlake Quarry Continuation Project will form part of the EIS.

The EIS will be placed on public exhibition. The community and other stakeholders will be invited to make a formal submission on the exhibited EIS. Gunlake will then provide responses to these submissions in a report to DPIE who will then prepare an assessment report.

As a SSD, the consent authority will be a delegate of the Minister of Planning or the Independent Planning Commission (IPC).

Employment opportunities

The quarry currently employs about 52 people full-time and about 20 contractors. There will be a small increase in the quarry's workforce if the proposed modification is approved. There will be larger increases in the workforce associated with the Gunlake Quarry Continuation Project.

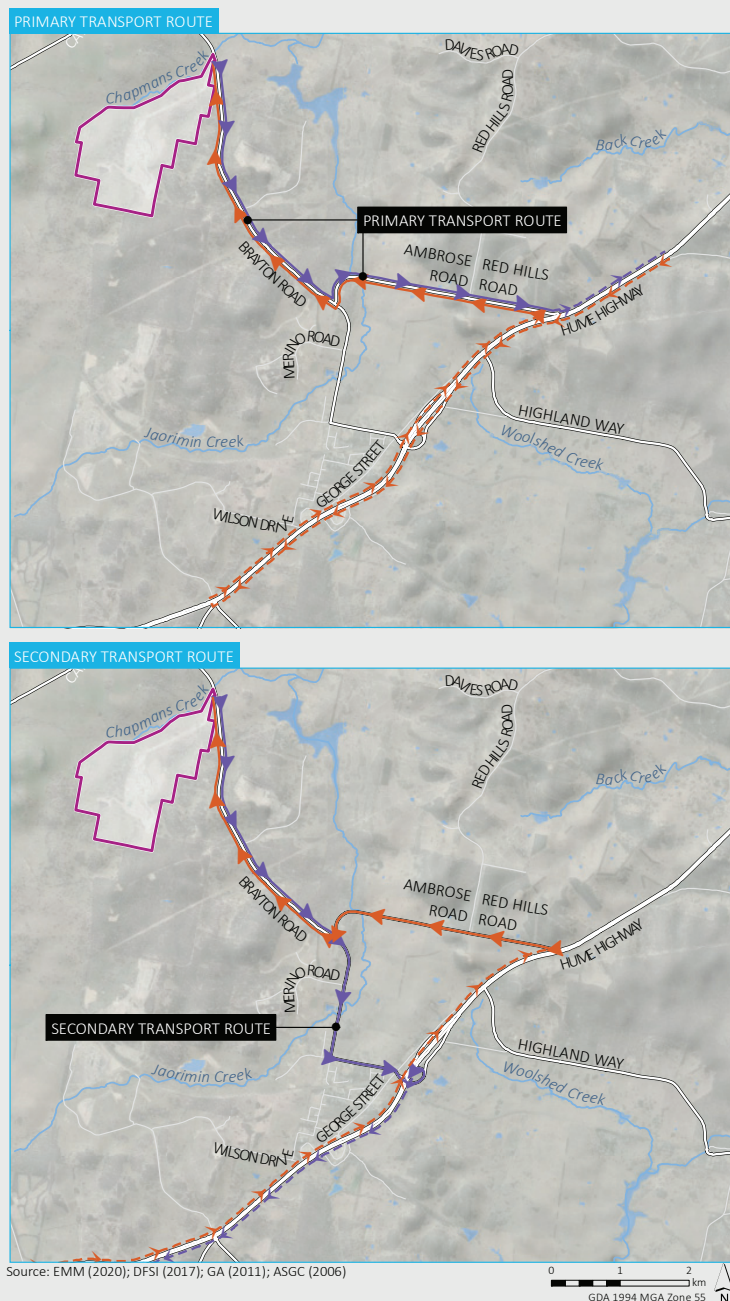


Figure 1: Transport Routes

In addition, around 200 contract truck drivers deliver products from the quarry. The proposed projects will provide further work for these drivers and opportunities for more drivers.

Visit Gunlake's website to register your interest in employment at the quarry (www.gunlake.com.au/careers).

How can you have your say?

Gunlake is committed to working with the community to understand your views, interests and what is important to you. Your feedback is an important part of the planning approvals process and assists in ensuring that the EIS addresses your issues and/or concerns and acknowledges the benefits to the community.

Gunlake will be conducting a range of engagement activities between November 2020 and February 2021 to ensure the local community and interested stakeholders are informed about the project and to collect their input. These engagement activities may include:

- meetings with key stakeholders;
- letters to residents on both the Primary and Secondary Transport Routes;
- community newsletters;
- community information sessions;
- webpage updates; and
- community email and phone number access for enquiries.

How can I find out more?

Gunlake will be holding a Community Information Session at the Marulan Memorial Hall on Friday 4th December 2020 from 2pm to 6pm.

As this will be a Covid Safe event, you will need to make an appointment to attend and convenient time slots will be allocated.

To register, please contact the Gunlake Quarry Community Team on the email address or telephone number below.

02 4841 1344

community@gunlake.com.au

www.gunlake.com.au

