

COUNCIL ASSESSMENT REPORT

Panel Reference	PPSWES-187 (PAN-324515)
DA Number	78/2023(1)
LGA	Griffith City Council
Proposed Development	Expansion and continued use of Extractive Industry - Quarry
Street Address	1/-/DP1290213 - Stevenson Road Tharbogang
Applicant/Owner	Applicant: Rockwood's Investment Group Owner: Jeffery John Stevenson
Date of DA lodgement	15 May 2023
Total number of Submissions Number of Unique Objections	<ul style="list-style-type: none"> One Submission
Recommendation	Approval
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011	SEPP (Planning Systems) 2021 – Schedule 6 Regionally Significant Development 7(1)(a) Particular designated development – extractive industry
List of all relevant s4.15(1)(a) matters	i.e. any: <ul style="list-style-type: none"> Griffith Local Environmental Plan, 2014 Griffith Development Control Plan No 1 – Non-Urban Development
List all documents submitted with this report for the Panel's consideration	i.e. any: <ul style="list-style-type: none"> Assessment Report Draft Conditions of Consent
Clause 4.6 requests	<ul style="list-style-type: none"> N/A
Summary of key submissions	<ul style="list-style-type: none"> N/A
Report prepared by	R W Corkery & Co Pty Ltd
Report date	12 January 2024

Summary of s4.15 matters

Have all recommendations in relation to relevant s4.15 matters been summarised in the Executive Summary of the assessment report?

Yes

Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report?
e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP

Yes

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?

Not applicable

Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S7.24)?

Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions

**Not
applicable**

Conditions

Have draft conditions been provided to the applicant for comment?

Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report

Yes

Development Assessment REPORT DA 78/2023

Application Summary

Application No:	78/2023
Title Details:	Lot 1 DP 1290213
Address:	Stevenson Road Tharbogang
Applicant:	Rockwood's Investment Group
Date Application Received:	15 May 2023
Owner:	Jeffery John Stevenson
Site Area:	59 ha
Zoning:	RU 1 Primary Production
Existing Use:	Extractive Industry (Quarry)
Proposed Development:	Expansion and continued use of Extractive Industry (Quarry)

Executive Summary

The applicant (R.W. Corkery & Co. Pty Limited (RWC) on behalf of Rockwoods Investment Group Pty Ltd) is seeking development consent for continued operation and extension of the Warburn Quarry ("the Quarry") which comprises the extraction and processing of raw materials and associated product transport.

The development proposal includes extraction, production and transportation of up to 250,000 tonnes of quarry materials per year. The quarry has been operating since the mid 1940's. It is currently operating under Development Consent Development Application (DA) DA945165, issued in 1995 by Griffith City Council. The current approval allows extraction of quarry material up to 185,100 tonnes.

As part of the Development Application, an Environmental Impact Statement (EIS) has been prepared by R.W. Corkery & Co. Pty Ltd, which included A Traffic Impact Assessment prepared by The Transport Planning Partnership Pty Ltd, Air Quality Assessment prepared by Northstar Air Quality Pty Ltd, Noise and Vibration Impact Assessment prepared by Muller Acoustic Consulting Pty Ltd, Biodiversity Development Assessment Report prepared by AREA Environmental and Heritage Consultants Pty Ltd, Groundwater Impact Assessment prepared by Larry Cook Consulting Pty Ltd and Aboriginal Cultural Heritage Assessment prepared by AREA Environmental and Heritage Consultants Pty Ltd.

The site is located in Benerembah in the west of the Griffith Local Government Area. The surrounding land uses are agricultural.

The land is zoned RU1 Primary Production under the provisions of Griffith Local Environmental Plan (LEP) 2014.

The proposal is a designated and integrated development application as well as Regional Development. General Terms of Approval have been issued by Environmental Protection Authority (EPA) & WaterNSW.

Based on the Section 4.15 assessment detailed in this report, the development application is recommended for approval subject to the conditions provided in draft format for the consideration of the Western Regional Planning Panel.

1. INTRODUCTION

1 Scope of this report

This report has been prepared to provide an overview of the proposal and the statutory assessment procedure used during the processing of the development application. An assessment of the key issues of the development is then provided.

The Development

The applicant is seeking development consent for the expansion and continued use of an existing approved quarry on the subject site. The proposal includes extraction and transportation of up to 250,000 tonnes of quarry material, importation of up to 1,500 tonnes per annum of concrete and other construction materials and the continuation of crushing and screening of fragmented rock and imported materials on site using a mobile processing plant.

The existing quarry is located on a single newly created lot which is separated into two by an irrigation supply channel. A new bridge will connect the northern and southern sections of the site. The existing quarry pit located on the southern side of the irrigation supply channel and the new quarry pit located north of the irrigation supply channel.

Development Application (DA) DA945165 is the most recent approval for the ongoing use of the quarry, and was issued in 1995 by Griffith City Council.

Including approval of processing up to a maximum of 185100 tonnes of material per annum with an average likely production of 100000tpa, over an area of 20.7ha. Figure 1 shows the previously approved quarry layout.

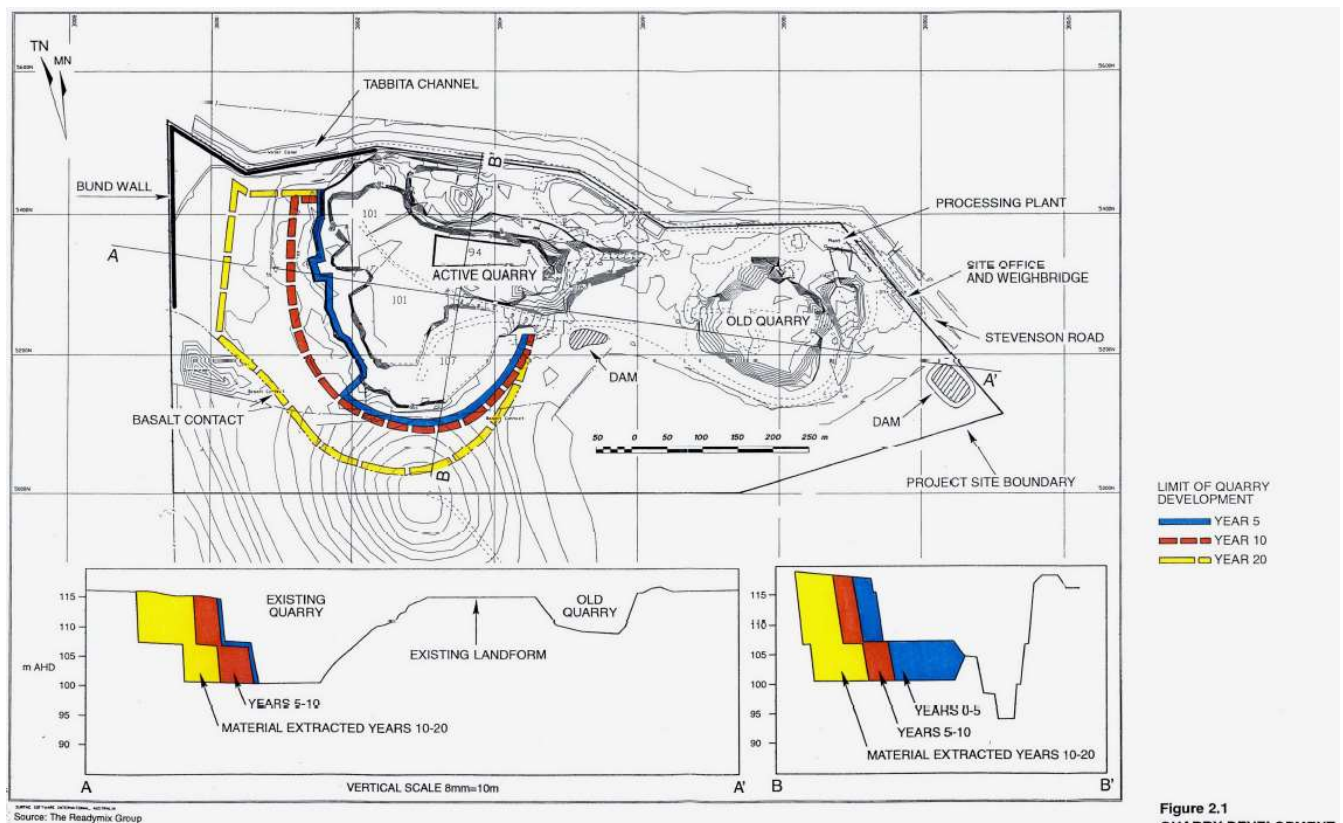


Figure 1 - DA945165 approved quarry layout

Figure 2.1
QUARRY DEVELOPMENT
YEARS 5,10 AND 20

Figure 2 shows the quarry layout as currently developed, with the following indicated on the plan:

- Quarry site boundary
- Existing limit of extraction and disturbance
- Processing and stockpiling areas
- Overburden stockpile
- Ancillary Components area
- Retention dam
- Quarry Sump
- Western Amenity Bund
- Retained (Planted native) vegetation
- Historic Explosive compound
- Fixed processing plant, and
- Buildings including storage shed, workshop, quarry office, weighbridge and amenities.

The existing quarry currently has an approved bench height of approximately 100m AHD, with an actual bench height ranging from 95m AHD (sump water level), with benches at 105 AHD and 110m AHD, with the upper limit of extraction at 115m AHD.

The extracted material is currently processed on site by crushing and screening materials using fixed processing plant. The plant includes: Jaw Crusher, Cone Crusher, Granulator and two Double Deck and one Triple Deck Screens.

The mobile equipment fleet includes hydraulic drill rig, excavator, front end loaders, bulldozer and water cart and dump truck are stored on site on the Quarry floor. There is an existing shed, office and amenities area and a parking area for light vehicles.

The proposal involves an expansion and continued use of the existing quarry details of this is listed below which has been extracted from the EIS prepared by R.W. Corkery & CO. Pty Limited.

The activities for which the Applicant is seeking development consent include the following:

- Extraction of material from within the proposed extraction areas to produce a range of quarry products.
- Importation of up to 1,500tpa of concrete washout and other construction materials for recycling and incorporation Quarry products.
- Crushing and screening of fragmented rock and imported materials on site using a fixed processing plant.
- Transportation of up to 250,000tpa of quarry products via Stevenson Road to end points of use within the Griffith LGA and the broader Riverina Region.
- Progressive and final rehabilitation of the Quarry to develop a final landform suitable for passive nature conservation and grazing.

The extraction and processing methods of quarry materials are not proposed to change from the current practices.

The existing quarry layout and the proposed final extent of the quarry extraction area are shown in figure 2 and figure 3.

The total area to be designated as the Quarry Site covers an area of 58.4ha of which the maximum area of disturbance would be approximately 42.7ha. Approximately 11.13ha of remnant native vegetation would be disturbed during the development of the Quarry Site.

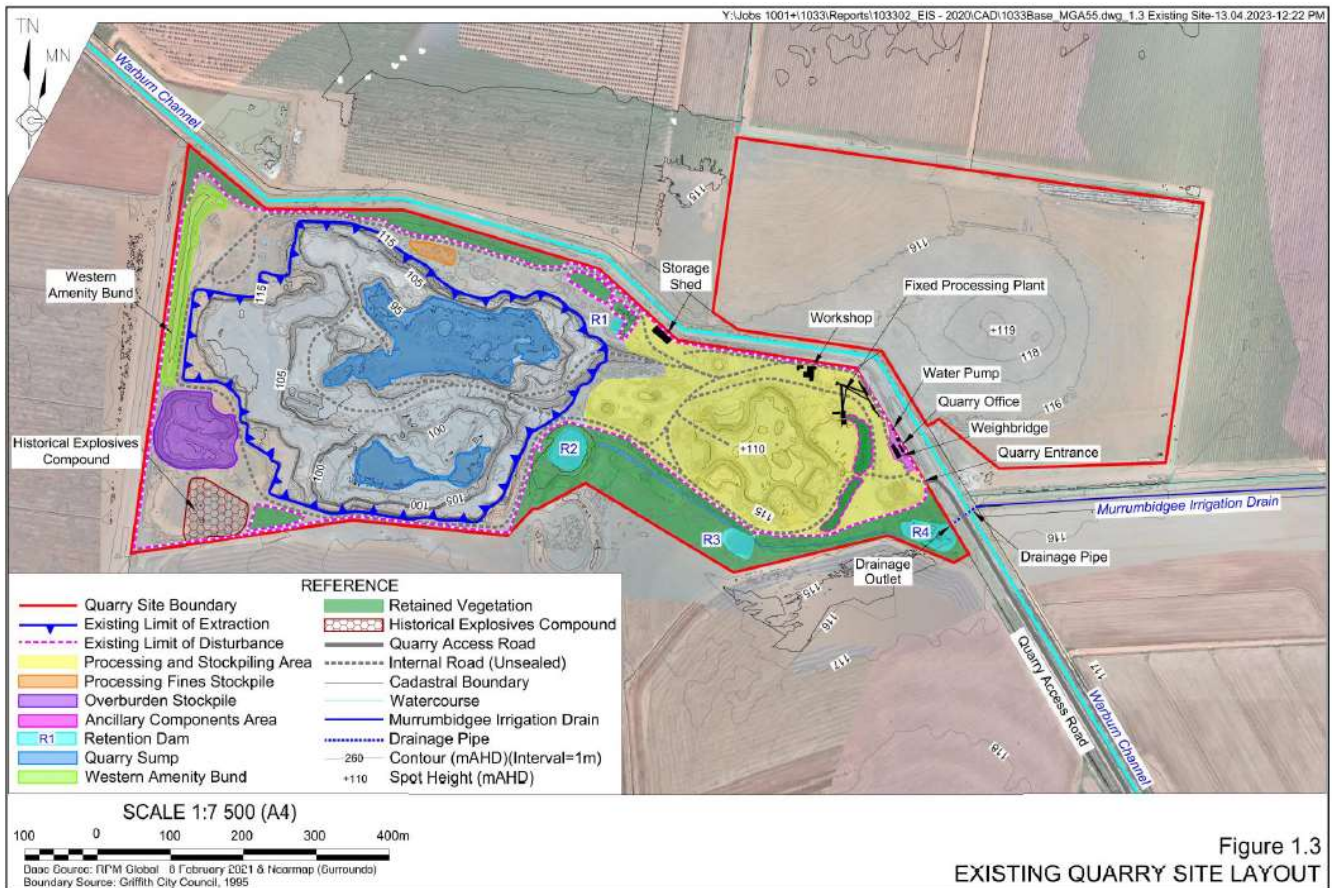


Figure 2 Existing Warburn Quarry Layout (Plan supplied in EIS)

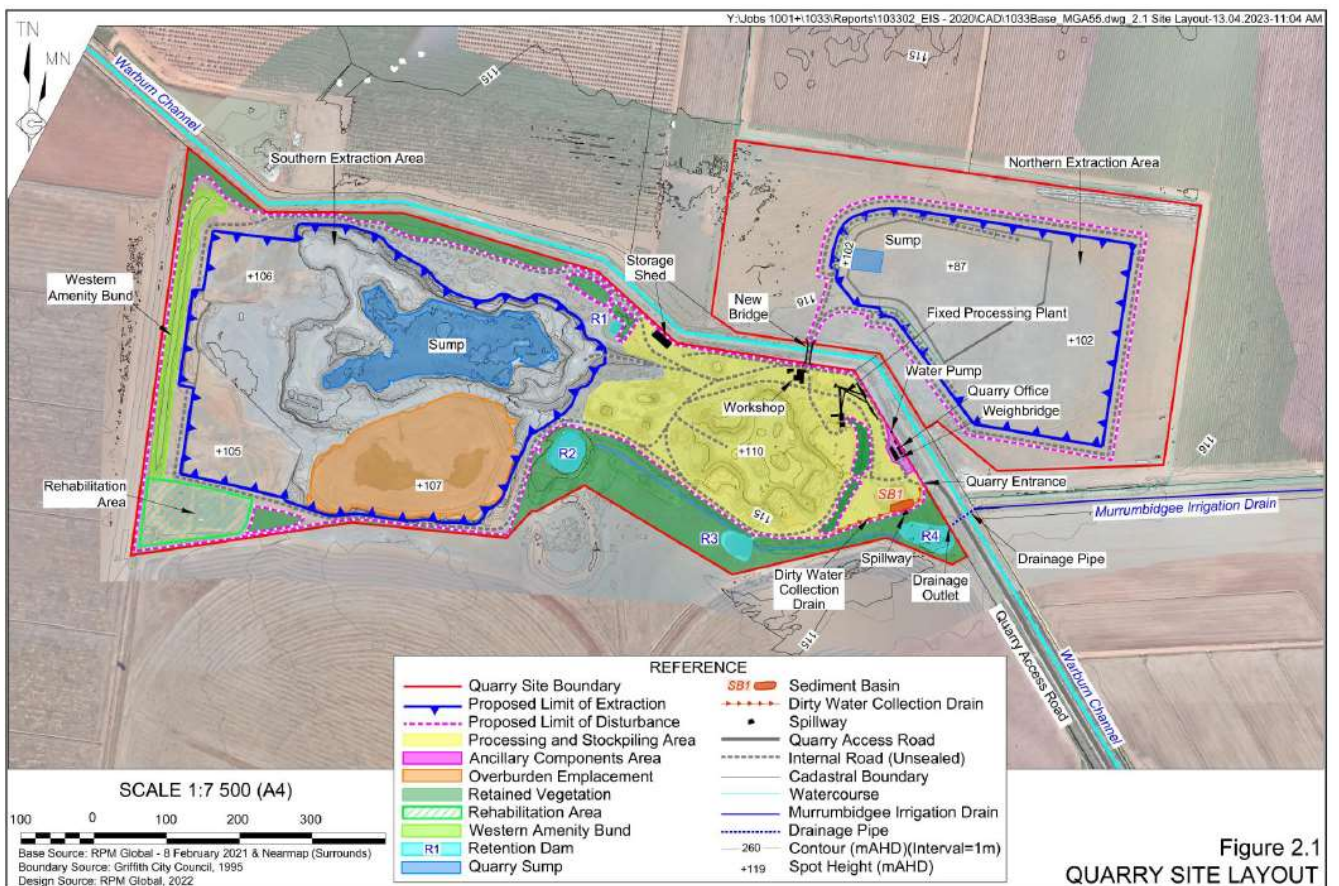


Figure 3 Proposed Full Extent of the Quarry Development (Plan supplied in EIS)

The proposed hours of operation are as per the following table:

Activity	Monday to Friday	Saturdays	Sundays or Public Holidays
Site development	6:30am – 6:30pm	6:30am – 3:00pm	Nil
Extraction operations	7:00am – 6:00pm	7:00am – 3:00pm	Nil
Blasting operations	10:00am – 3:00pm	Nil	Nil
Processing operations	7:00am – 6:00pm	7:00am – 3:00pm	Nil
Product despatch	6:30am – 6:30pm	6:30am – 3:00pm	Nil
Maintenance	24 hours / day	24 hours / day	Nil

Based on an average extraction rate of 200,000tpa, it is anticipated that the Quarry would operate for approximately 24.5 years. However, approval is being sought for 30 years to allow for peaks and troughs in demand and production levels.

The Applicant would continue to employ five full time staff at the Quarry including a Quarry Manager, Supervisor and three Operators. Additional personnel (e.g. driller, bulldozer operator) would also work on site during periods of peak production.

The Proposal would also provide ongoing employment for an average of four truck drivers throughout the life of the Quarry.

The extraction is proposed to be carried out in four stages as follows:

Stage 1 – Southern Extraction Area

Stage 1 extraction operations would involve the progressive development of the Southern Extraction Area to the west. The progression of development would ultimately extend the footprint of the Southern Extraction Area to cover a cumulative area of approximately 17.2ha (**Figure 2.4**).

During the extension of the Southern Extraction Area, overburden would be progressively pushed up to the edge of the active extraction area using a bulldozer or excavator to provide access to the targeted resource. Overburden would be used to construct the perimeter safety bund and extend the Western Amenity Barrier to the west of the limit of extraction. Following the removal of overburden, the targeted resource would be extracted using drill and blast methods with fragmented rock loaded and hauled to the fixed processing plant.

Stage 2A – Northern Extraction Area

Stage 2A extraction operations would involve the progressive development of a single bench within the Northern Extraction Area to a depth of 102m AHD (**Figure 2.5**). Ramps would be constructed at the northern and southern edges of the Northern Extraction Area to provide vehicular access to the floor of the extraction area.

During the development of the Northern Extraction Area, overburden would be progressively pushed up to the edge of the active extraction area using a bulldozer or excavator to provide access to the targeted resource. Overburden would be used to construct a perimeter safety bund, transferred directly to terminal benches, or emplaced on the floor of the Southern Extraction Area (see **Figure 2.1**). The Overburden Emplacement within the Southern Extraction Area would be progressively constructed throughout the life of the Proposal to cover an area of approximately 3.6ha, with a maximum height of 107m AHD and would provide sufficient long-term storage for up to approximately 220,000m³ (1cm) of material.

Stage 2B – Northern Extraction Area

Stage 2B extraction operations would involve the progressive development of the floor at 87m AHD within the Northern Extraction Area (**Figure 2.6**). The northern ramp would be extended to provide access to the floor of the extraction area at 87m AHD with the southern ramp terminating at the 102m AHD bench.

Stage 2C – Northern Extraction Area

Stage 2C extraction operations would involve the progressive development of the 102m AHD bench to the east (**Figure 2.7**). The development of this bench would ultimately extend the footprint of the Northern Extraction Area to cover a cumulative area of approximately 8.9ha.

The stages of extraction are shown on figure 4 to figure 7.

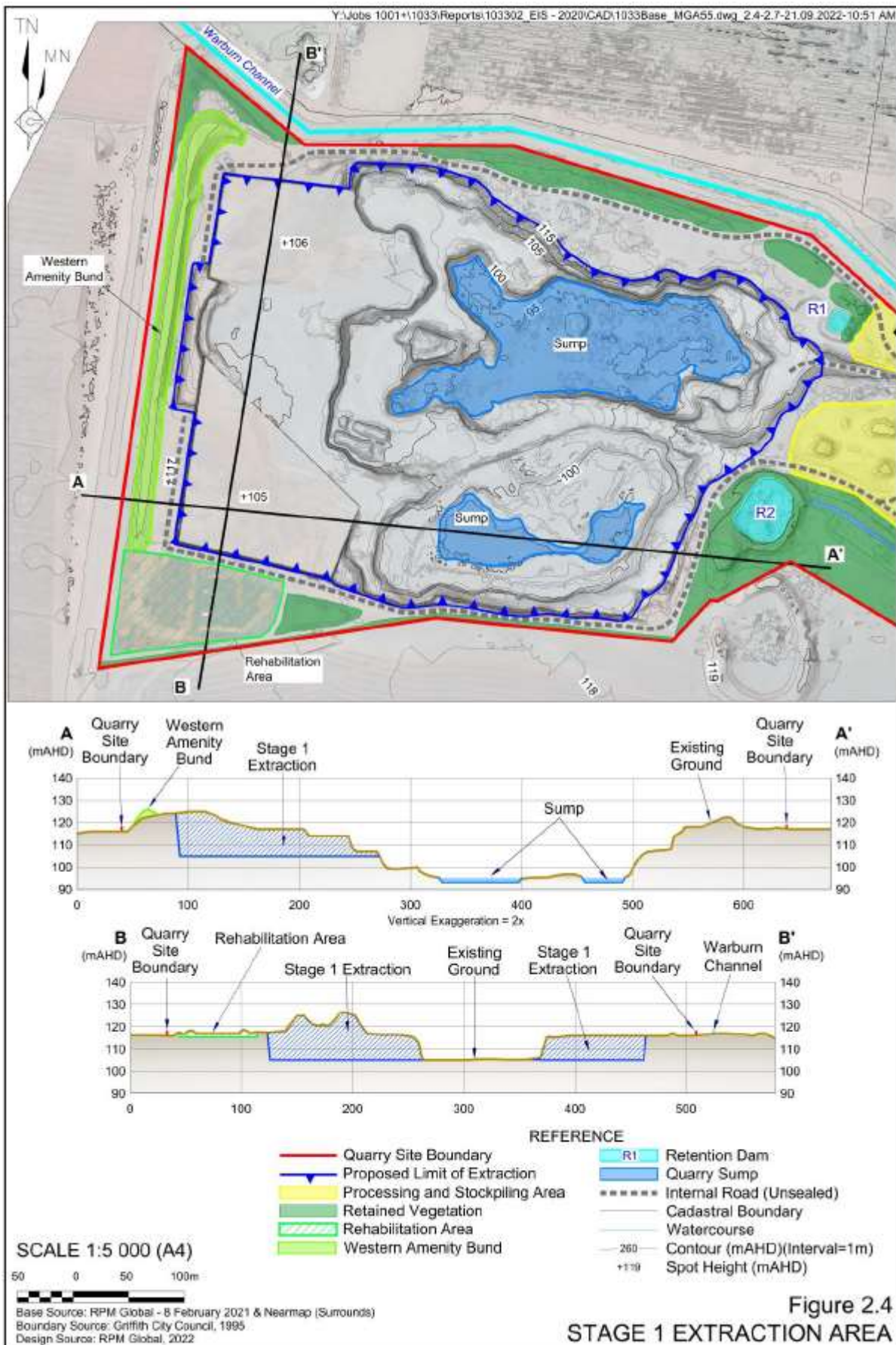


Figure 4 - Proposed Extraction Stage 1 and Cross-Sections

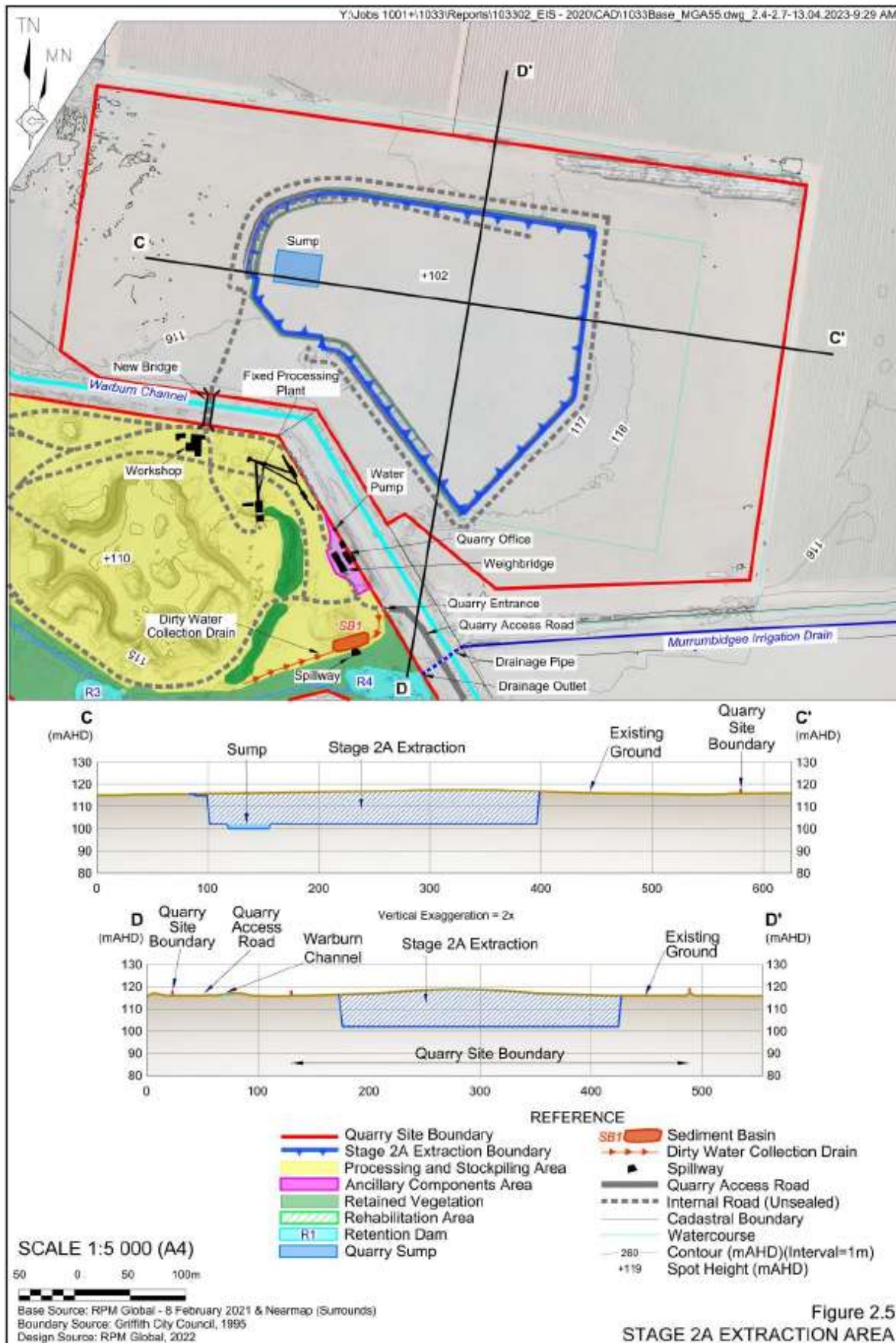


Figure 5 - Proposed Extraction Stage 2A and Cross-Sections

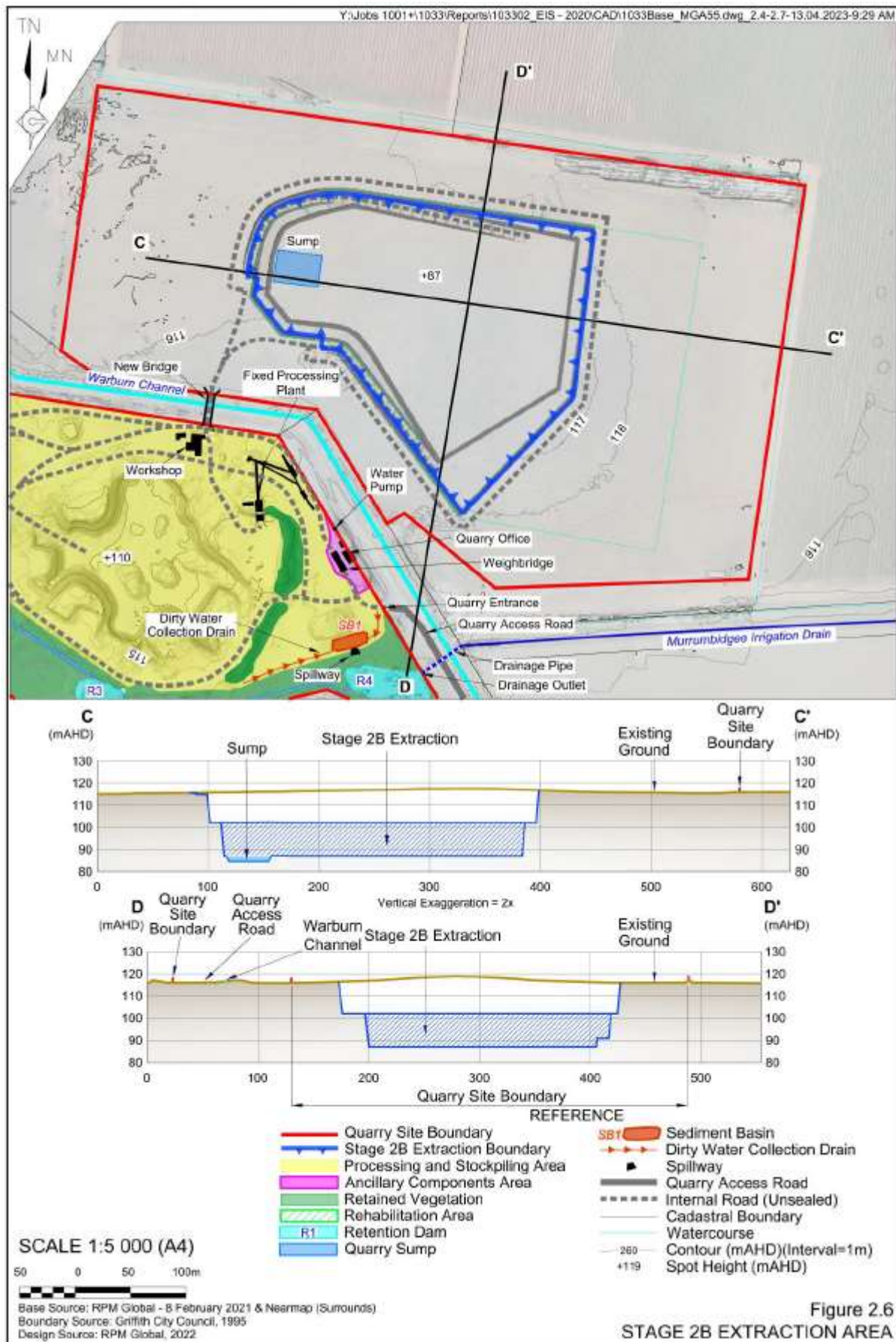


Figure 6 - Proposed Extraction Stage 2B and Cross-Sections

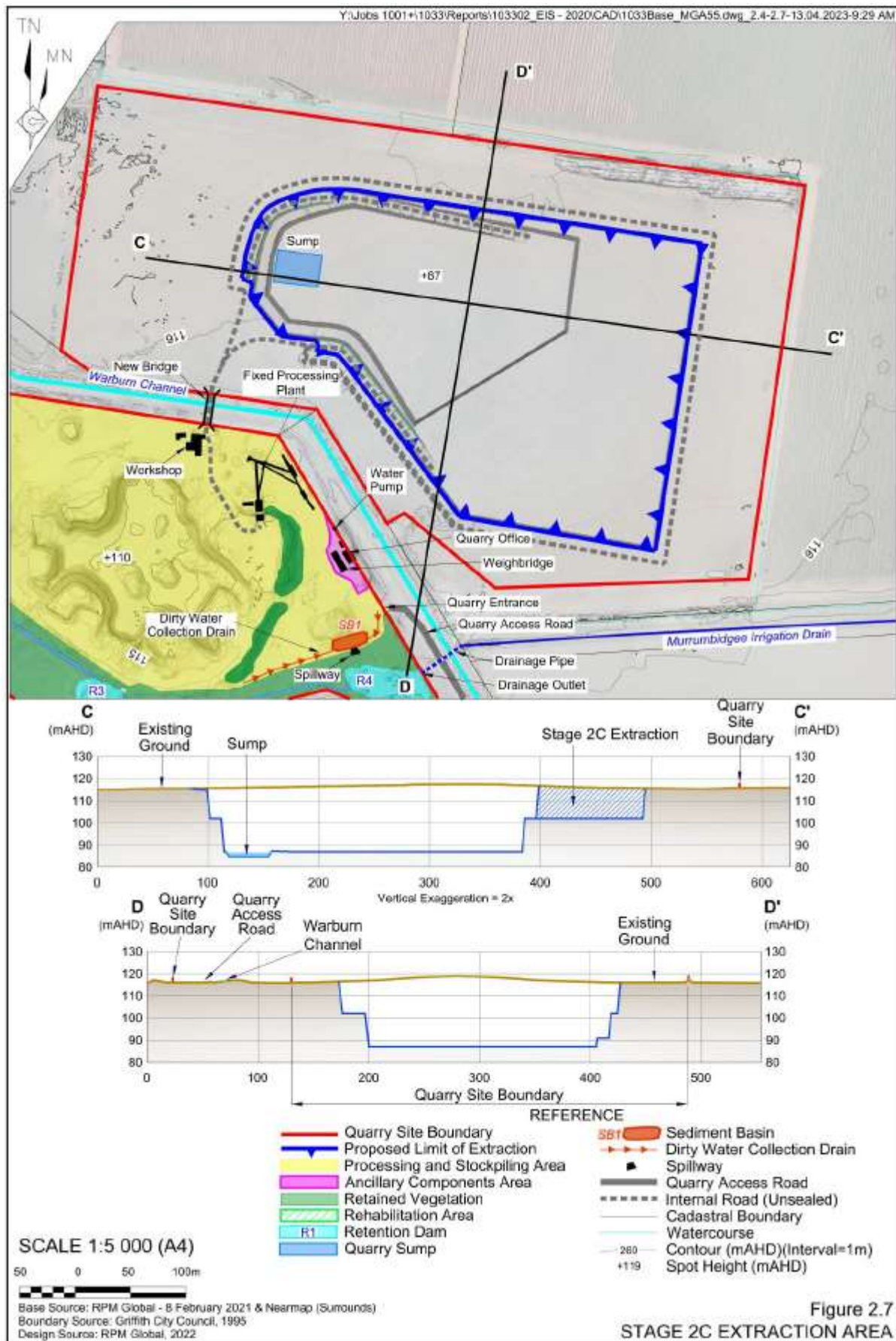


Figure 7 - Proposed Extraction Stage 2C and Cross-Sections

Site description and surrounding land use and development context

The Quarry Site covers a total area of 58.41ha of which approximately 42.71ha would be disturbed throughout the life of the Quarry including the extraction areas, operational areas and the rehabilitation area.

The Quarry Access Road provides access to the Quarry Site via Stevenson Road. The Quarry Access Road is located wholly within Lot 3 DP1176866 which is owned by Murrumbidgee Irrigation Limited. A “right of carriageway” provides access to the Quarry Site entrance. A “right of carriageway” within Lot 2 DP1267485, also owned by Murrumbidgee Irrigation Limited, provides for access between the northern and southern sections of Lot 1 DP1290213. It is noted that the construction of a new bridge is planned within Lot 2 DP1267485 which will provide access across the Warburn Channel. Whilst the bridge will be utilised by Quarry operations its construction does not form part of the Proposal.

The subject site is located approximately 12km northwest of Griffith, and is accessed via a right of carriageway from Stevenson Road.

The Quarry currently operates under Development Consent DA945165 issued by Griffith City Council on 21 December 1995 and has approval to extract up to 185,100t pa of basalt.

The Applicant has identified a further 4.9Mt of basalt which would be the target of the proposed extraction operation. In order to efficiently access and extract the identified resource, it is proposed that a new development consent is to be sought that would supersede the existing development consent. As part of this application, the Applicant proposes to increase the current maximum extraction, production and transportation rates to 250,000tpa to allow for existing and future market demands to be met.

The Quarry has operated since early 1940s The Quarry Site is used principally for the extraction and processing of the basalt, which is a limited resource in the region.

Being a basalt extrusion, the site contains a number of mounds, and is surrounded by flat irrigatable land to all sides. The natural landform of the Quarry Site has been significantly modified throughout the life of the extractive operation. The site contains some mostly planted native vegetation.

The uses surrounding the site are agricultural specifically vines and mixed irrigation farming.

The Quarry Site is located on rural land within Lot 1 DP1290213. that not all land within the Quarry Site would be disturbed.

The land on which the Quarry Site is situated is owned by Woods Property Group Pty Ltd which is part of the Milbrae Business Group. Milbrae operates a network of quarries within the Riverina Region of New South Wales, which together produce a range of hard rock and road base products, the bulk of which are used to supply private operators and local councils.

Figures 8, 9 and 10 show the location of the quarry.



Figure 8 Quarry Site Location



Figure 9 Quarry Site

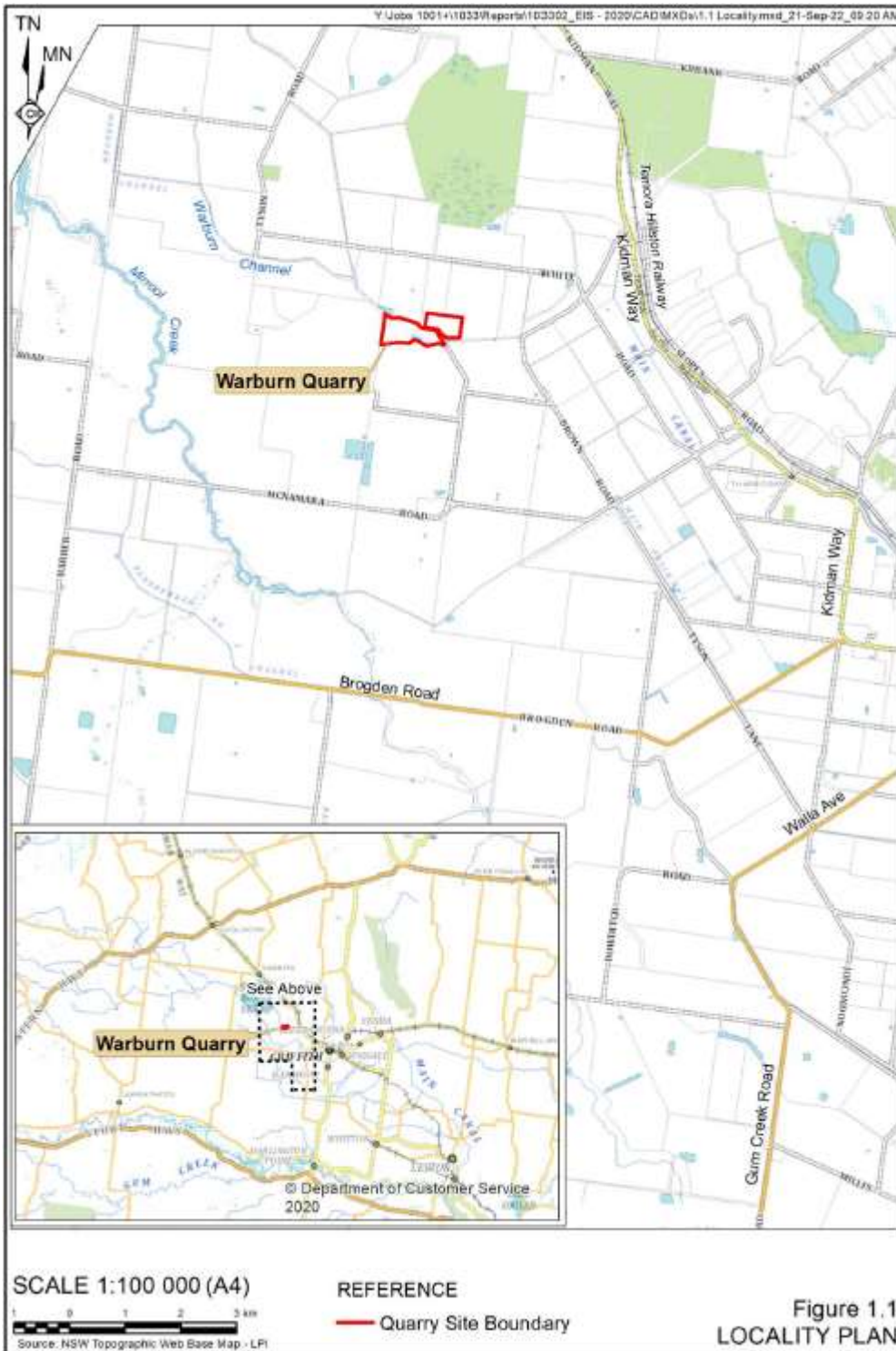


Figure 10 Location of Quarry, map supplied in the EIS

The site is zoned RU1 Primary Production under the provisions of the Griffith LEP 2014. The zoning of the site and surrounding land is shown on figure 11.

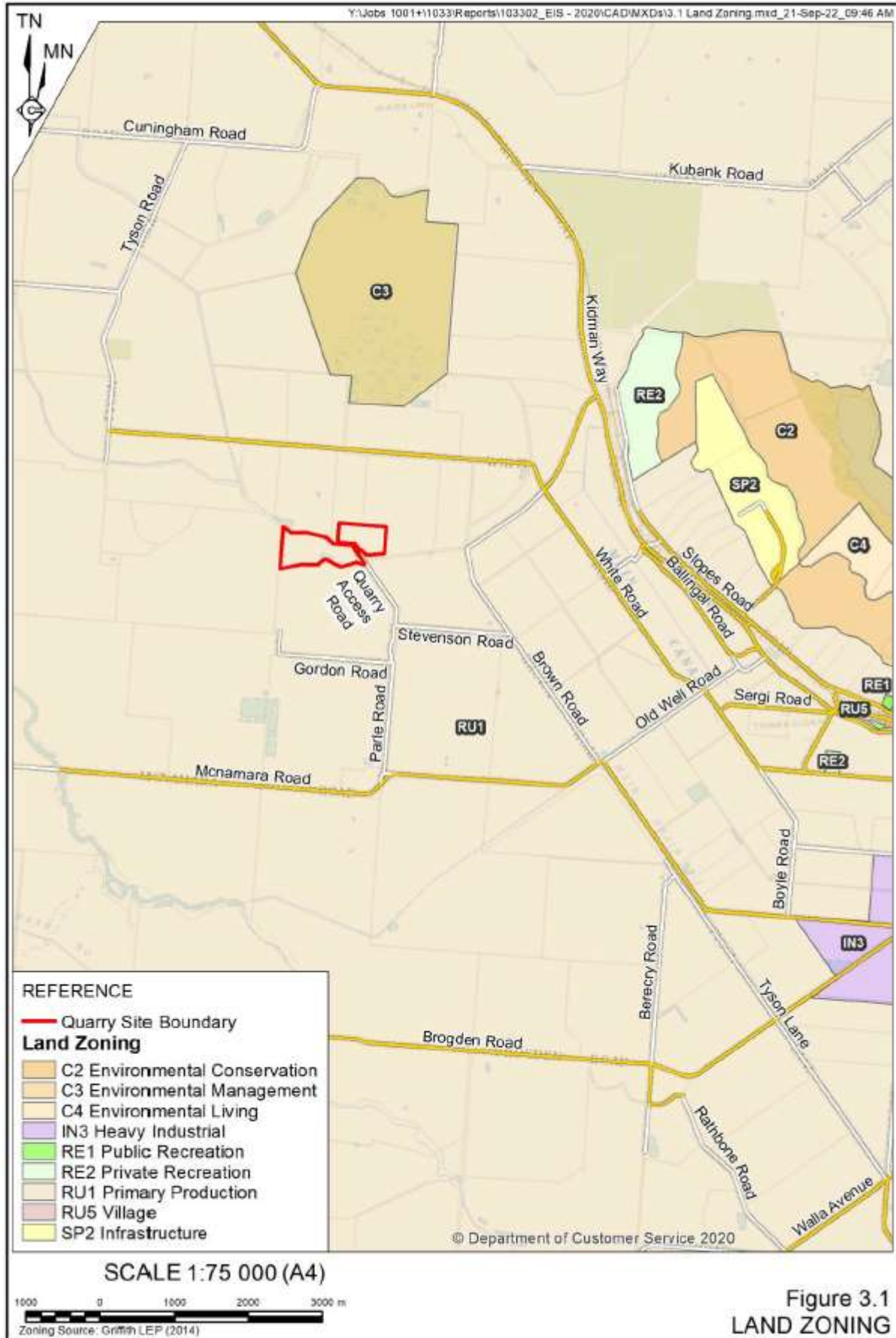


Figure 3.1
LAND ZONING

Figure 11 Zoning of the site

The closest dwellings are situated in a group of five adjoining White Road 1180m, 1245m, 1270m, 1330m and 1490m northwest of the quarry site. Two dwellings are located 1590m and 1700m from the quarry site to the west. Other dwellings surrounding the site are greater than

two kilometers from the existing and proposed quarry site.

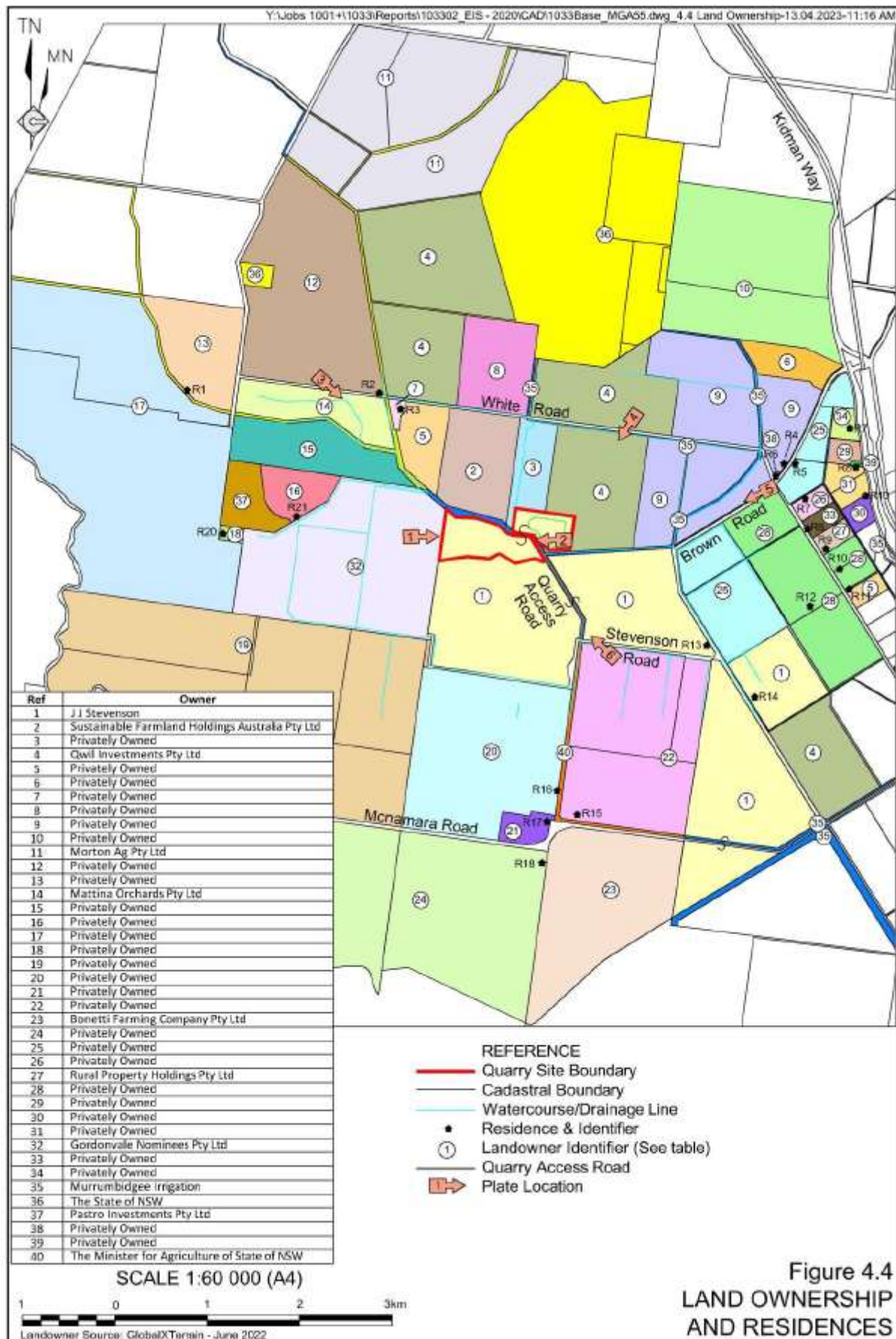


Figure 12 Land ownership and residences, map supplied in EIS

Figure 12 shows the land ownership within and surrounding the Quarry Site. There is only limited visibility of the Quarry from surrounding residences or public areas. This is because the surrounding landscape sits at approximately 116-118masl in the landscape with the majority of the quarry being depressed to a level of 94masl at the lowest pit sump. There are several mounds of gravel and over burden materials on the site which rise up to 126masl. Some screening is provided by the vegetation plantings within the quarry site, however additional screening of these areas could improve the aesthetic of the site.

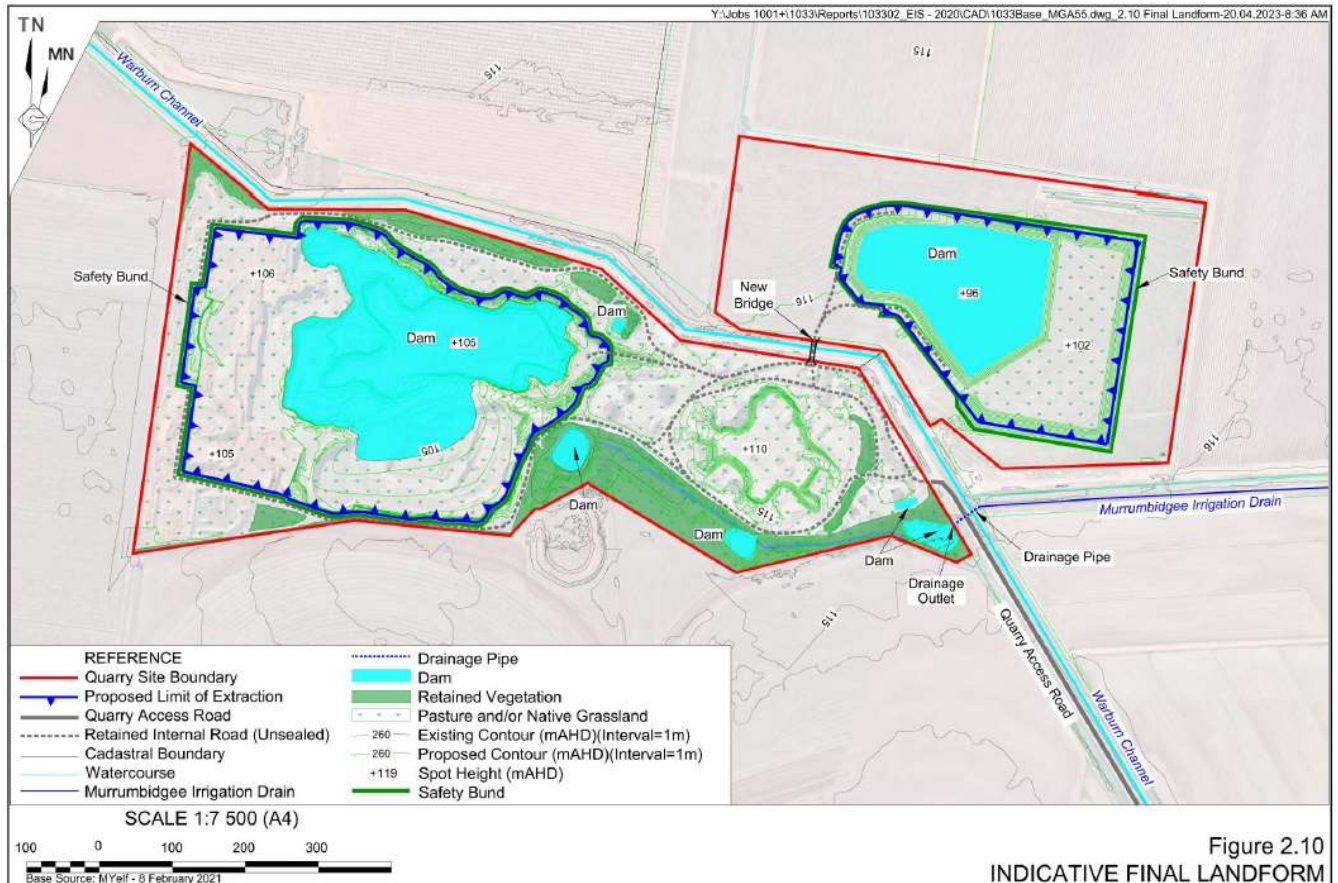


Figure 13 Indicative final landform

The indicative final landform suggests that the mounds of overburden soil, both existing and to be created, during the quarrying activities, will be reshaped by end of life to match the surrounding landform with the safety bund being the slightly above this level (Figure 13).

The quarry operates on a full-time basis and has the potential to create land use conflicts through the creation of noise and dust. There have been no known complaints about the operation of the quarry throughout its life time and there was one submission received from an adjoining resident commenting on the expansion of the quarrying operations. The noise impact assessment has found that noise impact is not expected to constrain the proposal and the air quality assessment concluded that the proposal is predicted to comply with the assessment criteria.

2.0. STATUTORY DEVELOPMENT ASSESSMENT FRAMEWORK

2.1. Legislation

Environmental Planning and Assessment Act (EP & A Act) 1979

Approval to undertake development in NSW is governed by the Environmental Planning and Assessment Act 1979 (EP & A Act). As identified in Clause 2.2 (Griffith Local Environmental Plan 2014), land within the development site is zoned RU 1 Primary Production under the Griffith Local Environmental Plan (LEP) 2014.

Extractive Industries are permitted with development consent within this zone.

The proposal is both integrated and designated development. General terms of approval were requested and received from the relevant approval agencies EPA and WaterNSW.

In accordance with Schedule 1 Clause 8 and Schedule 1 of the EP&A Act the development was publicly exhibited for a period of twenty-eight (28) days. One (1) submission providing comment but not objecting to the development was received.

Protection of the Environmental Operations Act (POEO Act) 1997

Section 48 of the Act requires any occupier of a premises to undertake scheduled activities if an appropriate license is held for that premises.

Paragraph 19 of Schedule 1 of the POEO Act identifies that where an extractive industry extracts more than 30,000t of materials per year require an Environment Protection License. As the proposal would result in extraction of up to 250,000t per annum of material, an Environment Protection License is required.

Biodiversity Conservation Act (BC Act) 2016

The purpose of the BC Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. The Applicant has advised existing planted native vegetation will be retained.

The BDAR Report has been written specifically in relation to the removal of derived native grassland, for the Stage 2 Quarry, north of the canal.

Field surveys within the Quarry Site identified the following Plant Community Type (PCT).

PCT 248 – Mixed box eucalypt woodland on low sandy-loam rises on alluvial plains in central western NSW.

A total of 11.13ha of native vegetation would be removed by the Proposal, all of which was considered by AREA (2023a) as being in poor condition and devoid of trees or large shrubs.

A total of 50 flora species were observed within the Quarry Site. Of these, 31 species were native and 19 were exotic.

AREA (2023a) identified that no ecosystem credit species or species credits species were either present or assumed to frequent the Quarry Site.

The expert report has identified that no ecosystem credit species or species credits species were either present or assumed to frequent the Quarry Site.

The EIS provides a variety of management measures to avoid or mitigate the risk of residual adverse impacts on threatened species within the Quarry Site in Section 5.5.4. These safeguard measures are to be conditioned.

The expert report also considered environmental assessment provisions of the EPBC Act, Matters of National Environmental Significance (MNES) and impacts on Commonwealth land and whether the proposal should be referred to the Commonwealth Department of Agriculture, Water and the Environment (DAWE).

Targeted surveys identified no threatened species or migratory species with potential to be impacted by the proposal. As such, AREA (2023a) determined that the Proposal would not have a significant impact on MNES or on the environment in general.

Previous development:

The AREA report however did not consider the impact of historical clearing of the quarry site, south of the canal, nor previous commitments to revegetation works at the site. These have been detailed in the 'Statement of Environmental Effect for the continued operation of the Griffith Hard Rock Quarry', prepared by 'R W Corkey and Co. Pty Limited' and dated June 1995 and approved as a supporting document via condition 1 of DA 945165.

The statement outlined rehabilitation activities with regards to staged revegetation of the quarry site. Some of the stage 1 (0-5 years) revegetation works have been carried out, however none of the stage 2 or 3 revegetation works have occurred (5-10 years and 10-20 years timeframes respectively). Given the time frames provided in relation to the date of approval, it is expected that all revegetation works outlined in the SOEE should have been implemented.

That said, some of the works previously identified in the SOEE are not able to be undertaken given the proposed new quarrying footprint and plan. As such, a new staged revegetation plan incorporating mid and upper story vegetation for screening and habitat, shall be conditioned on the application. The new revegetation plan is to be based on the previous plan in that screening to be undertaken immediately, and land to be reformed prior to planting with vegetation during the mid and end of quarry life stages. All revegetation utilizing locally native vegetation species, typically found in PCT 82, Western Grey Box, Poplar Box, White Cypress Pine - Tall woodland on red loams mainly of the Eastern Cobar Peneplain. Existing patches of vegetation being enhanced with mid layer species where gaps allow, such as locally native species Acacia, Eremophilla, Hakea, Hopbush and Senna.

National Parks and Wildlife Act (NP&W Act) 1974

The NP&W Act aims to manage and conserve nature, objects, places and features that have ecological and cultural value. The NP&W Act is administered and enforced by Heritage NSW within the Department of Premier and Cabinet.

Aboriginal places and objects are protected under the NP&W Act. An Aboriginal Heritage Impact Permit (AHIP) is required for consent to destroy, deface or damage an identified Aboriginal object or Aboriginal place. No Aboriginal places or objects of significance have been identified within the Quarry Site.

The landscape has been highly modified for quarrying and agricultural purposes. It is assumed the Northern Extraction Area was previously used as a vineyard or orchard based on the surrounding landscape. Existing impacts include presumed significant soil profile upheaval, irrigation channels, timber stockpiling, vehicle tracks, animal burrows and an electricity transmission line. The original landscape of the Southern Extraction Area is difficult to ascertain due to the high levels of disturbance. Soils within the Study Area are light brown, soft loamy sands. There are frequent outcroppings of basalt.

Standard conditions relating to the unexpected finding of items of heritage significance will be

placed on the consent.

State Environmental Planning Policy (State and Regional Development) 2011 One of the purposes of this State Environmental Planning Policy (SEPP) is to provide the basis for development to be declared 'regionally significant development' and to further confer the function of a regional planning panel to determine development applications. As designated development for the purpose of extractive industry, the Quarry is classified as regional development under this SEPP and therefore determination of the application will be by the Western Regional Planning Panel.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

Pursuant to Clause 18A the proposal is identified as designated development as it is:

- Extractive Industry located in the Western Division, and
- Obtain or process for sale or reuse more than 40,000 cubic metres in total.

2.2 Chronology of events and public notification and statutory referrals

DA lodged	30 May 2023
Site signposted	9 June 2023 – 7 July 2023
Facebook and Council Catchup Newsletter Advertising	9, 16, 23 and 30 June 2023
Neighbor notification (28 Days)	9 June 2023 – 7 July 2023
Period of public notification	9 June 2023 – 7 July 2023
Engineering Referral	1 June 2-23 – 17 October 2023
Environmental Health Referral	1 June 2023 – 8 December 2023
Essential Energy Referral	6 June 2023 – 20 June 2023
NSW EPA Referral	6 June 2023 – 27 June 2023
WaterNSW Referral	6 June 2023 – 23 August 2023
TfNSW Referral	6 June 2023 – 28 June 2023
Murrumbidgee Irrigation referral	6 June 2023 – Outstanding
Additional Information Request	9 June 2023 – 7 July 2023

3.0 SECTION 4.15 ASSESSMENT

Section 4.15 of the Act provides for heads of consideration against which the proposal is to be assessed. Each of the subsections will be dealt with below.

3.1. (a)(i) Environmental Planning Instruments

3.1. 1. Griffith Local Environmental Plan 2014

The site is located within the RU I Primary Production Zone. The development is defined as 'Extractive Industry' and is a development permitted with consent.

"extractive industry means the winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, tunnelling or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include turf farming."

"extractive material means sand, soil, gravel, rock or similar substances that are not minerals within the meaning of the Mining Act 1992."

The following provisions of the GLEP 2014 apply:

- Section 1.2: Aims of Plan
- Section 2.3(2): Zone objectives and Land Use Table
- Part 2: Land Use Table
- Section 6.3 Terrestrial Biodiversity
- Section 7.10 Essential Services

Clause of LEP	Comments
Section 1.2 Aims of Plan This Plan aims to make local environmental planning provisions for land in Griffith in accordance with the relevant standard environmental planning instrument under section 3.20 of the Act.	
(aa) to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,	Not applicable
(a) to prevent unnecessary urban sprawl by promoting business, industrial, rural and residential uses within and adjacent to existing precincts related to those uses,	Not applicable
(b) to minimise land use conflict in general by creating areas of transition between different and potentially conflicting land uses,	The proposal is not anticipated to lead to any land use conflict with surrounding properties.
(c) to provide a variety of development options to meet the needs of the community with regard to housing, employment and services,	Not applicable
(d) to manage and protect areas of environmental significance,	Not applicable
(e) to recognize the historical development of the area and to preserve heritage items associated with it.	Not applicable
Section 2.3(2) Zone objectives and Land Use Tables	
The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.	The development has been assessed in accordance with the relevant RU 1 zoning. The assessment considers that the development is consistent with the RU 1 objectives.
Section 2.3 subclause 1 objectives of zone Objectives are as follows:	
To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.	The proposed continued use of the land for extractive industry provides productive use of the natural resource within the Quarry Site. As the land to be disturbed under the Proposal is currently either disturbed by the existing quarry or unused, it is expected that the proposal would not adversely impact upon agricultural resources. Following the completion of the Proposal, the land would be rehabilitated to provide for passive biodiversity conservation and grazing.

To encourage diversity in primary industry enterprises and systems appropriate for the area.	The proposal is to provide for continued supply of Quarry products for use in construction and infrastructure projects throughout the Griffith LGA and the broader Riverina Region. This industry, i.e. an extractive industry, would continue to operate alongside a variety of primary industry enterprises in the Griffith LGA and assist to maintain the economic diversity of the area .
To minimise the fragmentation and alienation of resource lands.	The Proposal is to allow for the extension and continued operation of the Warburn Quarry and would not result in the fragmentation or alienation of resource lands
To minimise conflict between land uses within this zone and land uses within adjoining zones.	<p>The land within and immediately surrounding the Quarry Site is zoned RU1 - Primary Production, principally comprising mixed irrigation farming.</p> <p>The closest dwellings measured on councils GIS are a cluster of three situated 1220m 1225m 1300m north of the quarry site. The quarry operates on a full-time basis and has the potential to create land use conflicts through the creation of noise and dust. There have been no known complaints about the operation of the quarry. There was one submission from residents commenting on the DA, this is considered elsewhere in this report. The noise impact assessment and air quality assessment concluded that the proposal is predicted to comply.</p> <p>Therefore, it is unlikely that land use conflicts would arise as a result of the proposal.</p>
<i>To permit a range of activities that support the agricultural industries being conducted on the land and limit development that may reduce the agricultural production potential of the land.</i>	The Quarry Site is located within an area of relatively flat terrain surrounded by irrigated agriculture landuse. This is demonstrated by the Land and Soil Capability (LSC) of the Quarry Site with approximately 27.2ha of land classified as Class 3 and approximately 31.2ha of Class 6. Class 3 land is considered to have moderate limitations and is capable of sustaining high-impact land uses such as cropping and grazing. Class 6 is land is considered to have very high limitations, with land uses restricted to low impact activities such as grazing, forestry, and nature

	<p>conservation.</p> <p>The land within this area is also serviced by irrigation canals and channels which improves the suitability of the land for agricultural activities. It is therefore, considered that the Quarry Site is strategically located to minimise any potentially adverse impacts on agricultural land.</p> <p>The continued operation and extension of the Warburn Quarry would allow for the extraction and processing of raw natural materials to produce a range of crushed rock products. The existing operation has demonstrated a strong demand for these products both within Leeton LGA and the broader Riverina Region for applications in construction and infrastructure projects. It is considered that the Proposal would allow for the continued provision of these valuable services to the local community.</p>
<i>To permit tourist facilities that promote an appreciation of the rural environment and associated agricultural and horticultural activities, while ensuring the continued economic viability of the land.</i>	The proposed landuse is not related to the tourism industry and will not impact on tourism related activities in the locality.
Clause 7.3 Terrestrial biodiversity	
<p>The objectives of this clause are as follows:</p> <p>(a) protecting native fauna and flora, and</p> <p>(b) protecting the ecological processes necessary for their continued existence, and</p> <p>(c) encouraging the conservation and recovery of native fauna and flora and their habitats.</p>	<p>It is acknowledged that the Proposal has limited potential to impact fauna and flora through the direct clearing of approximately 11.13ha of mixed native and introduced groundcover vegetation and through indirect impacts such as the introduction of pests and weeds. It is noted that potential impacts to biodiversity have been avoided to the greatest extent practicable through the design of the proposal with native groundcover vegetation proposed to be planted in conjunction with site rehabilitation.</p>
Clause 7.10 Essential Services	
<p>Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the development are available or that adequate arrangements have been made to make them available when required-</p> <p>(a) the supply of water,</p> <p>(b) the supply of electricity,</p> <p>(c) the disposal and management of sewage,</p> <p>(d) stormwater drainage or on-site conservation,</p> <p>(e) suitable vehicular access.</p>	<p>The subject site has access to all essential services. Water is available to the site via Water Entitlements from Murrumbidgee Irrigation Supply Channel. Electricity is available to the site at the eastern side of the site via overhead high voltage power lines. Council's reticulated water supply and sewerage systems are not available in the area.</p> <p>The site has access via a private access road which connects to Stevenson Road.</p> <p>The subject land is adequately serviced, and the proposed development does not require any additional services.</p>

3.2 State Environmental Planning Policies (SEPPs)

3.2.1. **State Environmental Planning Policy (Planning Systems) 2021**

One of the purposes of the Planning Systems SEPP is to provide the basis for development to be declared “Regionally Significant Development” and to further confer the function of a regional planning panel to determine development applications.

The Quarry is classified as Regional Development under Schedule 6 of the Planning Systems SEPP being 7(1)(a) Particular designated development for the purposes of extractive industry facilities that meet the requirements for designated development under the [Environmental Planning and Assessment Regulation 2021](#), Schedule 3, section 26. As such, determination of the application will be by the Western Regional Planning Panel.

3.2.2. **SEPP (Resources and Energy) 2021**

The primary function of the Resources and Energy SEPP is to provide proper management, orderly and economic use and development of land containing mineral, petroleum and extractive material resources and to establish appropriate planning controls to encourage ecologically sustainable development through environmental assessment and sustainable management.

The Resources and Energy SEPP specifies matters requiring consideration in the assessment of any mining, petroleum production and extractive industry development, as defined in NSW legislation. A summary of the matters that the consent authority must consider when assessing a new or modified proposal for an extraction operation, is provided below:

Relevant SEPP Clause	Description	Relevance/Comment
2.18: Consideration of the voluntary land acquisition and mitigation policy	<p>Consideration is given to any applicable provisions of the voluntary land acquisition and mitigation policy, in particular:</p> <ul style="list-style-type: none"> • Any applicable provisions of the policy for the mitigation or avoidance of noise or particulate matter impacts outside the land on which the development is to be carried out; and • Any applicable provisions of the policy relating to the developer making an offer to acquire land affected by those impacts. <p>To avoid doubt, the obligations of a consent authority under this section extend to any application to modify a development consent for State significant development for the purposes of</p>	Voluntary land acquisition and mitigation policy is not relevant to this application.

	<p>mining, petroleum production or extractive industry.</p> <p>This section extends to applications made, but not determined, before the commencement of this section.</p>	
2.19: Compatibility with mining, petroleum production or extractive industry	<p>Consideration is given to whether the development is likely to have a significant impact on current or future mining, petroleum production or extractive industry and ways in which the development may be incompatible.</p> <p>Measures taken by the Applicant to avoid or minimise any incompatibility are considered.</p> <p>The public benefits of the development and any existing or approved mining, petroleum production or extractive industry must be evaluated and compared.</p>	<p>The Proposal would allow for the ongoing extraction of resource at an existing operation and would ensure that the maximum benefit is obtained from the target resource within the approved life of the Quarry. This is considered to be in the public benefit.</p>
2.20: Natural resource and environmental management	<p>Consideration is given to ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure:</p> <ul style="list-style-type: none"> • impacts on significant water resources, including surface and groundwater resources, are avoided or minimised; • impacts on threatened species and biodiversity are avoided or minimised; and • greenhouse gas emissions are minimised and an assessment of the greenhouse gas emissions (including downstream emissions) of the development is provided. 	<p>Sections 5.4.3 and 5.4.2 of the report address matters related to surface water and groundwater respectively.</p> <p>The applicant proposes to continue the management of surface water runoff to limit the potential for sediment laden runoff leaving the Quarry Site. The extraction area has been designed to drain internally to minimise the risk of sediment-laden discharge off site. Surface water is to be managed in a manner that maximizes opportunities for the reuse and recycling of captured surface water</p> <p>Water NSW has provided terms of approval which have been attached to the consent</p>

		<p>Section 5.5 of the report addresses matters relating to biodiversity.</p> <p>The proposal includes the removal of approximately 11.13 ha of groundcover vegetation in poor condition</p> <p>The quarry has been designed to avoid impacts to surrounding vegetation as far as practicable</p> <p>Additional revegetation works will be required to screen the site.</p> <p>Greenhouse gas emissions are proposed to be reduced through the implementation of a maintenance program for all plant and equipment (Sec 5.2.7).</p>
2.21: Resource recovery	The efficiency of resource recovery, including the reuse or recycling of material and minimisation of the creation of waste, is considered.	The Proposal would ensure that the maximum benefit is obtained from the target resource within the approved life of the Quarry.
2.22: Transportation	<p>The following transport-related issues are considered.</p> <ul style="list-style-type: none"> • The transport of materials from the site by public road. • Limitation of the number of truck movements that occur on roads within residential areas or roads near to schools. • The preparation of a code of conduct for the transportation of materials on public roads. 	<p>Section 5.1 of the report addresses matters related to transportation.</p> <p>The Road Transport Assessment concludes that the transportation of Quarry Products from the Warburn Quarry is to be accommodated on the surrounding road network with acceptable impacts on the capacity, efficiency and safety of the road network.</p> <p>Council has required upgrades through conditions on the draft notice of determination.</p>

3.2.3. SEPP (Resilience and Hazardous) 2021

The Resilience and Hazards SEPP aims to manage the development of hazardous and offensive industries, or potentially hazardous and offensive industries. Without the implementation of appropriate impact minimisation measures, these industries would (or potentially would) pose a significant risk in relation to the locality, to human health, life or property, or to the biophysical environment.

Additionally, the Resilience and Hazards SEPP aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. In particular, this policy requires consideration of whether a development requires a consent for remediation works or not and, where warranted, requires that remediation works meet certain standards and notification requirements.

3.12 Matters for consideration by consent authorities	
<p>In determining an application to carry out development to which this Part applies, the consent authority must consider (in addition to any other matters specified in the Act or in an environmental planning instrument applying to the development)—</p> <ul style="list-style-type: none"> (a) current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development, and (b) whether any public authority should be consulted concerning any environmental and land use safety requirements with which the development should comply, and (c) in the case of development for the purpose of a potentially hazardous industry—a preliminary hazard analysis prepared by or on behalf of the applicant, and (d) any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application), and (e) any likely future use of the land surrounding the development. 	<p>The Council has considered the effect out development to which this Part of the proposed development. As part applies, the consent authority must of the development application an EIS consider (in addition to any other was prepared by R.W. Corkery & Co. submitted with the application.</p> <p>The EIS found that the Proposal involves the use of diesel fuel, a Class of 3 C1 combustible liquid, and small amounts of other hydrocarbons, and including lubricating oils and combustible liquids.</p> <p>Ammonium nitrate would not be stored on site, rather it would be transported to the Quarry Site for blasting on the day of each blast. As the quantity required for each blast does not exceed the relevant hazard analysis prepared by or on thresholds for Class 5.1 materials.</p> <p>The Resilience and Hazards SEPP does not require that ammonium nitrate be considered further.</p> <p>As the areas proposed for disturbance within the Quarry Site have previously been used only for extractive industry, agriculture or passive biodiversity conservation, the Applicant is satisfied that no contaminated land occurs on the Quarry Site. The Resilience and Hazards SEPP is therefore not considered further in this assessment.</p>

3.2.4. SEPP (Primary Production) 2021

Clause of SEPP	Comments
2.1 Aims of Chapter	
<p>The aims of this Chapter Policy are as follows-</p> <p>(a) to facilitate the orderly economic use and development of land s for primary production,</p> <p>(b) to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources,</p> <p>(c) to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations,</p> <p>(d) to simplify the regulatory process for smaller-scale low risk artificial waterbodies, and routine maintenance of artificial water supply or drainage, in irrigation areas and districts, and for routine and emergency work in irrigation areas and districts,</p> <p>(e) to encourage sustainable agriculture, including sustainable aquaculture,</p> <p>(f) to require consideration of the effects of all proposed development in the State on oyster aquaculture,</p> <p>(g) to identify aquaculture that is to be treated as designated development using a well-defined and concise development assessment regime based on environment risks associated with site and operational factors</p>	<p>The subject land is not identified as State or regionally significant agricultural land by Schedule 1 of the Primary Production and Rural Development SEPP.</p> <p>The Proposal would not remove any land currently managed for intensive agriculture although it is acknowledged that sporadic grazing is undertaken, principally to control bush fire fuel loads. As demonstrated at numerous other quarry sites where agricultural activities are undertaken concurrently within extractive industry.</p> <p>The Quarry south of the canal is an existing use and is not currently impacting on the surrounding agriculture. The proposed expansion and continued use of the quarry north of the canal is not likely to have an impact on the surrounding agricultural uses.</p> <p>The protection of the land that is the subject of the Proposal would not provide any public benefit. In fact, the employment and local economic stimulus that would be generated by the Proposal is considered to be of wider public benefit. The Quarry is an existing use and already has impacts however these are not considered detrimental as no submissions or any complaints have been made during the life of the quarry nor were any submissions opposing the application received.</p> <p>As a result, the Primary Production and Rural Development SEPP is not considered further.</p>

3.3 (a) (ii) Draft Environmental Planning Instruments

There are no draft Environmental Planning Instruments to be considered in this assessment.

3.4 Any development control plan

DCP No 1 – Non Urban Development

Design Elements	Minimum Development Standards	Compliance
Bulk, Scale, Setbacks and General Amenity Issues	<p>(i) 1(a), 1(b), 1(d) (Rural Residential component only), 1(h), 1(i) (Rural Residential component only)</p> <ul style="list-style-type: none"> The structure is to be setback a minimum of ten (10) metres from the front boundary 	The land is zoned RU1 (Rural 1a equivalent) and the proposed quarry is located 1km from Stevenson Road on a private Murrumbidgee

Design Elements	Minimum Development Standards	Compliance
	or setback a minimum of one hundred (100) meters from the front boundary where the lot has frontage to an “arterial road” or “proposed by-pass route”.	Irrigation access road. This road is not an arterial road or proposed by-pass.
Open Space, Additional Buffer Areas	<ul style="list-style-type: none"> • A minimum buffer distance (by way of an easement) of fifty (50) metres shall apply from natural watercourses. • A minimum buffer distance (by way of an easement) of twenty (20) metres shall apply over drainage lines and canals. • A minimum buffer distance (by way of an easement) of forty (40) metres shall apply from adjoining agricultural lands (Refer to DCP 28 - <i>Land Use Buffer Controls</i>). • All buffer areas are to be planted out using tree species and shrubs that are suitable to the area. <p>The above information shall be incorporated in the Management Plan to be submitted to Council. (See Table 1, Row h)</p>	<p>No new buildings are proposed.</p> <p>DCP 28 has been rescinded</p> <p>Existing revegetation works including a variety of native trees will be retained between the quarry and adjoining agricultural lands to assist with screening the quarry, however it is considered this should be augmented by additional revegetation works to improve screening of the site and environmental outcomes.</p>
Landscaping	<ul style="list-style-type: none"> • The required setback area in sub clause (a) to all boundaries is to be soft landscaped to a minimum of 90% of that part of the lot. • No more than 10% of the front yard is to be paved or sealed. <p><i>Note: Soft landscaping can be trees, gardens, lawns and the like of the applicant/owners choice but does not include improvements such as driveways, parking areas, swimming pools (including coping decking and development ancillary to the pool) and ancillary dwelling structures/sheds/garages and the like.</i></p>	<p>Existing revegetation works including a variety of native trees will be retained between the quarry and adjoining agricultural lands to assist with screening the quarry, however it is considered this should be augmented by additional revegetation works to improve screening of the site and environmental outcomes.</p>
Site Access	<ul style="list-style-type: none"> • Where the access way connects to a sealed road, the access way and suitable tapers are to be bitumen sealed or equivalent hard surface between the property boundary and the road carriageway. • Where the access connects to a gravel road, the access way and suitable tapers are to be 	<p>Site access is existing and the location will not be altered as part of this proposal.</p> <p>Maneuvering and truck turning areas within the site</p>

Design Elements	Minimum Development Standards	Compliance
	<p>constructed to gravel road standard, between the property boundary and the road carriageway.</p> <ul style="list-style-type: none"> Concrete pipe culvert with standard headwalls is to be constructed at a suitable location relative to the table drain and clear of the edge of the road carriageway. Design and construction is to be to Council's standard. Existing channel crossings are to be used to service all existing and proposed structures on the allotment. Only one channel crossing per road frontage shall be permitted to be used to access allotments. Where additional channel crossings are proposed consent shall be obtained from Murrumbidgee Irrigation and Council prior to construction. In 1(a) Rural and 1(b) Rural Agricultural Protection zones, where the access connects to a sealed Council road (except arterial roads) and there is no change to the agricultural utilization and/or no additional access points to existing dwellings and the access ways are well constructed and maintained, bitumen sealing will not necessarily be imposed. (Note: Should the development change, then the situation should be reviewed.) <p>Driveways shall be a minimum of six (6) metres wide between the edge of the road carriageway and the property boundary. Internal driveways shall be a minimum of three (3) metres wide.</p>	<p>are existing however the existing carpark may require some upgrade works to provide the seven carparking spaces previously conditioned.</p>
Stormwater Management	Refer to DCP 23 - <i>Engineering Requirements for Development</i> for requirements.	<p>This DCP has been rescinded, however the application has addressed stormwater collection / disposal considering the extensive roof area of the building.</p> <p>It is understood that there will also be a requirement to collect the condensed water from the air conditioning system and disposal of that to the stormwater system. The</p>

Design Elements	Minimum Development Standards	Compliance
		stormwater system will include on site collection tanks and then it will be spray irrigated across the farm as necessary.
Fire Management (i) All structures where a fire threat has been identified on Council's 'Environmental and Ecological Bushfire Threat' map (ii) General Principles: Fire access trails and firebreaks are to be sensitively sited within the landscape, especially in steep terrain (iii) Works in association with clubs, community facilities places if assembly and recreation areas.		The land was not mapped as bushfire prone when the application was submitted. It has subsequently been mapped, however a Quarry does not require a Bushfire management Plan.

3.5 The likely impacts of that development,

The impacts of the development includes the environmental impacts and the social and economic impacts in the locality.

The EIS addressed the likely impacts of the development on the environment and the measures to mitigate the effects.

3.5.1 Access, Transport and Traffic

The Quarry Site is located on rural land within Lot 1 DP1290213. The Quarry Site covers a total area of 58.4ha of which approximately 42.7ha would be disturbed throughout the life of the Quarry. The Quarry Access Road provides access to the Quarry Site via Stevenson Road. The Quarry Access Road is located wholly within Lot 3 DP1176866 which is owned by Murrumbidgee Irrigation Limited. A "right of carriageway" provides access to the Quarry Site entrance. A "right of carriageway" within Lot 2 DP1267485, also owned by Murrumbidgee Irrigation Limited, provides for access between the northern and southern sections of Lot 1 DP1290213. It is noted that the construction of a new bridge is planned within Lot 2 DP1267485 which will provide access across the Warburn Channel. Whilst the bridge will be utilised by Quarry operations its construction does not form part of the Proposal.

A Traffic Impact Assessment was prepared and found that the traffic generation would be a maximum of 12 laden truck movements per hour and 60 laden truck movements per day on the days when products are dispatched.

Transport for NSW (TfNSW) was consulted by Council of the application and reviewed the application and accompanying EIS. TfNSW advised Council that they will not object to the development and did not provide any condition to be imposed on the development.

Councils Development Engineers provided the following advice:

In the applicant's response, prepared by TTPP, dated 26 July 2023, turning path diagrams for a 19m semi-trailer has been prepared. Even though it is anticipated that the majority of the

trucks transporting product will be truck and dog trailer combinations, TTPP has used the 19m semi-trailer as the design vehicle as they have greater spatial requirements than a 19m truck and dog trailer combination when turning.

Each of the intersections was tested using auto turn and sweep path diagrams and consideration given to exiting and required signage. A variety of intersections were identified where road widening will be required to accommodate the simultaneous two-way movement of two 19m semi-trailer trucks while maintaining a 500mm clearance between the trucks.

This included consideration of both road width and condition along with intersections on Kidman Way, Brown Road, Old Well Road, McNamara Road and Stevenson Road.

It was determined that a section of Brown Road would require upgrading to all weather gravel surface.

A detailed engineering assessment was undertaken and all relevant conditions imposed.

3.5.2 Heritage

No Aboriginal or European heritage sites were recorded during archaeological surveys undertaken to inform the EIS. As such, it has been assessed that there is a low likelihood that the Proposal would adversely harm cultural heritage items or sites.

Works are to stop in the event of Aboriginal artefacts being found within the Quarry Site, this will be a condition.

3.5.3 Water

Groundwater:

Monitoring bores indicate static groundwater levels between 95m and 97m AHD. The water level recorded in monitoring bore in the western part of the existing Quarry is observed to fluctuate within an approximate 1.5m range (105.9m to 107.4m AHD)

Assessment of existing and proposed quarry footprints and modelling of groundwater suggests the following annual groundwater inflow volumes for each stage of the Proposal are as follows:

- Existing Quarry – 189ML/year
- Stage 1 – 189ML/year
- Stage 2A – 189ML/year
- Stage 2B – 315ML/year
- Stage 2C – 315 ML/year

Active dewatering will be required for the life of the quarry.

At the end of life, pit lake water level will reach equilibrium for both the Stage 1 and Stage 2 voids in approximately 17 years. The median water levels at equilibrium would be around 95.6 m AHD and 104.6 m AHD for the Stage 2 and Stage 1 pit lakes respectively. At these median water levels, the Stage 2 void would receive annual groundwater inflows of 48.0 ML/year whilst the Stage 1 void would receive 65.0 ML/year.

The Applicant will implement a program of regular water level measurements and water quality sampling. The program's aim would be an increased understanding of the groundwater setting, which then provides for the identification of impacts and informs any management decisions.

The monitoring program. It is proposed that baseline water level data would be used to inform management actions in the event that a departure from predicted groundwater levels occurs.

Surface water:

The water is currently used when required by the water truck for dust suppression on internal roads and other unsealed surfaces during extraction and processing periods. Water is also required for the water sprays on the mobile processing plant. The applicant proposes to continue using water for dust suppression. The applicant proposes to obtain water from the Quarry sump and sediment basins as required.

The extraction area is designed to be internally draining to minimize the risk of sediment-laden discharge off site. All the runoff drains to a sump located on the floor of the extraction area. The sump receives runoff from the entire extraction area.

Assuming an average of 300 operating days per year throughout the life of the Proposal, water use requirements are not expected to exceed 15.3ML per year, whereby.

- 0.3 ML/year – would be required for stockpile dust suppression using moveable sprinklers
- 1.5ML/year – would be required for dust suppression on the processing plant via fixed sprinklers.
- 13.5ML – would be required for dust suppression on haul roads and unformed tracks

A Water Access Licence (WAL) would be required to account for groundwater inflows within the Southern and Northern Extraction Areas. It is anticipated that a minimum of 189 share components from the Lachlan Fold Belt MDB Groundwater Source that is managed under the *Water Sharing Plan for the NSW Murray-Darling Basin Fractured Rock Groundwater Sources Order 2020*, increasing to 315 share components during the development of Stage 2B. Based on the annual usage identified above, these groundwater inflows, along with incident rainfall would be sufficient to meet all Quarry-related water demand.

3.5.4 Air Quality

The EIS advises that the applicant would implement set mitigation and management methods to minimise the potential for air quality related impacts surrounding the site. A specific management plan should be prepared to address this and it is a condition of consent.

The results of the air quality assessment undertaken for the EIS concluded that the Proposal is predicted to comply with all impact assessment criteria.

The EPA has issued General Terms of Approval and they are attached to this report.

3.5.5 Flora and Fauna

Area Environmental and Heritage Consultants (AREA 2023) were commissioned by R.W. Corkery and Sons who prepared the EIS. They undertook an assessment on the flora and fauna present on the site and also a Biodiversity Development Assessment Report (BDAR) specifically for the land located north of the water supply channel.

The development of the Northern Extraction Area is the only component of the Proposal which would have a direct impact to native vegetation. The Northern Extraction Area of 8.94 hectares is surrounded by a proposed 2.19-hectare area of disturbance, making the total impact to native vegetation in and around the Northern Extraction Area 11.13 hectares.

It is noted that the Quarry Site has been designed to avoid impacts to native vegetation as far as practicable. A condition will be applied to the development consent to address this.

Commitments relation to Biodiversity include:

- Rehabilitation Area (1.03 hectares) - A designated area south of the Western Amenity Bund would be progressively rehabilitated during Stage 1 – see Section 2.12 for details of rehabilitation activities to be undertaken as part of the Proposal.
- Retained Vegetation (4.88 hectares) - Designated areas of existing vegetation would be retained to preserve biodiversity values within the Quarry Site. These areas would be clearly marked to prevent inadvertent access.

The subject land is largely occupied by the existing quarry (Southern Extraction Area) with small patches of retained vegetation which would not be impacted by the Proposal. Where native vegetation would be impacted by the Proposal (i.e., for the development of the Northern Extraction Area), the land has been previously cleared of wooded vegetation and associated habitat values. Changes in management have seen this area re-populated with and dominated by native vegetation, although the vegetation remains in a poor condition.

The landscape and subject land are generally flat, with a rising elevation to the northwest and east beyond the 1500 metre buffer (assessment area).

Local waterways are predominately irrigation channels. Mirrool Creek lies to the southwest, outside the assessment area.

The local landscape is the subject of intensive agriculture, mostly irrigated cropping, but also irrigated perennial horticulture, irrigated seasonal horticulture, grazing native vegetation, and grazing modified pastures.

Habitat connectivity is very poor within the assessment area to historical clearing associated with agricultural activities. Very little remnant vegetation remains in the locality, with most being located with road corridor or on less-arable land such as Bimble Box / White Cypress Pine Woodland on rocky ridgelines and Black Box Woodland in depressions.

Native vegetation cover within the assessment area (1500 metre buffer around the subject land) was estimated to be three percent based on review of aerial imagery and understanding of the subject land as required for this assessment.

The Proposal would avoid and minimise impact to native vegetation and threatened species habitat by:

- Avoiding impact to treed vegetation around the existing Quarry Site – as “Retained Vegetation”.
- Avoid impact to existing Retention Basins.
- Progressively rehabilitating the site during extraction operations including a Rehabilitation Area described in the Proposal.
- Minimising impact to native vegetation to the required Extraction Areas with a minimal Operation Area surrounding each.
- Minimising prescribed and indirect impacts including:
 - Operating for a maximum of 12 hours in daylight hours.
 - Managing dust effectively.
 - Managing the operation of the site to avoid establishment/ increase of weeds and pests.
- Clear delineation of the proposed Limit of Disturbance

The following table was provided in summary of progressive rehabilitation actions:

Stage	Rehabilitation Activity
Stage 1	<ul style="list-style-type: none"> • Removal of structures, profiling, and revegetation within the Historical Explosives Compound to the southwest of the Southern Extraction Area. • Progressive emplacement of overburden on terminal benches and the development of the overburden emplacement within the Southern Extraction Area. • Weed and feral pest control within the Quarry Site.
Stage 2A	<ul style="list-style-type: none"> • Progressive emplacement of overburden on terminal benches and the development of the overburden emplacement within the Southern Extraction Area. • Weed and feral pest control within the Quarry Site.
Stage 2B	<ul style="list-style-type: none"> • Progressive emplacement of overburden on terminal benches and the development of the overburden emplacement within the Southern Extraction Area. • Weed and feral pest control within the Quarry Site.
Stage 2C / Post Operations	<ul style="list-style-type: none"> • Progressive emplacement of overburden on terminal benches and the development of the overburden emplacement within the Southern Extraction Area. • Profile blasting within the Northern Extraction Area. • Removal of the Western Amenity Bund which would be achieved by pushing the material to the floor of the Southern Extraction Area. • Removal of all equipment and infrastructure within the Ancillary Components Area and Processing and Stockpiling Area. • Seeding of all areas of disturbance with suitable pasture crops and/or native grass species. • Weed and feral pest control within the Quarry Site.

Despite the above, end of life rehabilitation of the stage 1 footprint area was conditioned on Development Application 945165, which have not been undertaken to date. The condition required a Landscape plan was to be submitted to Council for approval. The plan to show the existing and proposed location of all planting screens, species types, staging/timing indication when the works were to be completed. Whilst the applicant has provided a list of stage 1 rehabilitation activities (summarized above), it is considered that the intent of conditions on DA 945165 along with the opportunity available within stage 1 to provide additional rehabilitation measures should not be overlooked or undervalued.

In the absence of an alternative landuse, the improvement of biodiversity values at the site should be considered further as an opportunity to provide a wildlife stepping stone within the locality, allowing stopover between the McPherson Range, Mirrool Creek and Warburn Swamp which are located between two to four kilometers from the site. The presence of mid and upper story plantings not being underestimated in terms of value for both food and shelter, especially given the stage 1 pit(s) will provide a permanent wetland body within the site (See figure 13 for final landscape form).

As such a condition has been incorporated into the consent requiring a landscape plan for the Stage 1 site to be further revegetated with locally native species pending identified locations within the footprint from the following woodland communities eg weeping myall, Bimble Box or black box.

3.5.6 Noise

A noise and vibration impact assessment (NIA) for the Proposal was undertaken by Muller Acoustic Consulting Pty Ltd (MAC)(2023).

The MAC (2023) report considers potential impacts to the existing noise environment at 21 privately-owned residences are located between 1.5km and 3.6km from the Quarry Site.

The MAC (2023) report advises 'With the exception of the Warburn Channel, there is no significant infrastructure and minimal existing industrial noise in the area surrounding the Quarry Site, excepting the existing Quarry. The areas potentially affected by noise emissions from the Proposal are best described acoustically as rural.'

It is anticipated that the daytime background noise levels in the rural areas surrounding the Quarry Site (excluding existing quarrying activities) would be below 30dB(A) and, in accordance with section A1.2 of the Noise Policy for Industry (NPI) (EPA, 2017), a default minimum daytime background noise level of 35dB(A),L90 has been adopted as the basis for determining project-specific noise goals or Project Noise Trigger Levels (PNTLs).'

'Blasting operations at Quarry have been carried out since extraction operations commenced in 1995. The Applicant has developed a blasting method suited to the conditions at the Quarry Site. The existing blast schedule includes blasting at approximately monthly intervals, however, these intervals can be more frequent during periods of high product demand.'

'A total of no more than 12 blasts would be undertaken per year with no more than one blast per month proposed (excluding that required in the event of a misfire). The indicative blast design specifications adopted for the blasting assessment are representative of a 50,000t blast.'

'Predictive noise modelling was undertaken by MAC (2023) using DGMR (iNoise, Version 2022.01) software to quantify noise emissions from the operational activities. The model incorporated a three-dimensional terrain map, noise source data, ground type, attenuation from barriers and atmospheric information to predict noise levels at the nearest potentially impacted residences.'

Construction activities associated with the Proposal would be undertaken during periods of reduced production using equipment generally consistent with that used on site. As such, MAC (2023) considers that construction activities would not contribute to elevated noise levels and no further assessment of these activities is required.'

'Modeling of road noise by MAC (2023) advises that it is anticipated the Quarry would result in an increase in road traffic noise levels of less than 0.5dBA LAeq(period).'

'Noise emissions from the proposed intersection upgrade works however would exceed the day period NML of 45dB LAeq(15min) at receiver R13 by up to 7dB. Where works are undertaken during out of hours periods, it is anticipated that receivers R13 and R14 would experience noise levels above the relevant NMLs. The Applicant would consult with relevant landholders prior to the proposed construction activities and restrict works to standard hours, if required.'

The MAC (2023) report advises 'the predicted air blast overpressure and ground vibration levels at the 21 residential properties surrounding the Quarry Site. It is predicted that blasts would satisfy all relevant ANZECC overpressure and vibration criteria at all residences.'

Based on the predictive assessments undertaken by MAC (2023), operation of the Quarry in the manner proposed is not expected to exceed the criteria adopted for the operational and road traffic noise assessments or the blasting assessment.

It is noted that construction noise emissions from the proposed intersection upgrade works would exceed the day period NML of 45dB LAeq(15min) at receiver R13 by up to 7dB. Where works are undertaken during out of hours periods, it is anticipated that receivers R13 and R14 would experience noise levels above the relevant NMLs. The Applicant would consult with relevant landholders prior to the proposed construction activities and restrict works to standard hours, if required.

Noise and vibration impacts are, therefore, not predicted to constrain the Proposal.

3.5.7 Natural Hazards Flood

The quarry sump or pits within the quarry site are mapped as flood prone due to groundwater seepage. The remainder of the quarry however is not mapped as being flood prone due to its elevated position in the landscape and there is no risk of flooding. Water from within the sump requires ongoing pumping which is used on site during the operational period for dust suppression.

The annual groundwater inflow volumes for each stage of the Proposal that are as follows:

- Existing Quarry – 189ML/year
- Stage 1 – 189ML/year
- Stage 2A – 189ML/year
- Stage 2B – 315ML/year
- Stage 2C – 315 ML/year

The Quarry operations will be required to obtain a Water Access Licence (WAL) to cover the above predicted annual groundwater inflows.

Once quarry extraction ceases at the site, modelling of the pit lake water level equilibrium for both the Stage 1 and Stage 2 voids suggest equilibrium will be reached in approximately 17 years. The median water levels at equilibrium would be around 95.6 m AHD and 104.6 m AHD for the Stage 2 and Stage 1 pit lakes respectively. At these median water levels, the Stage 2 void would receive annual groundwater inflows of 48.0 ML/year whilst the Stage 1 void would receive 65.0 ML/year.

Following the cessation of Quarry operations, the Proposal would require 113ML/year in perpetuity to account for groundwater inflows to the final voids.

Given the location of the Quarry Site, the significant distance to the nearest registered groundwater users (greater than 20km²), the lack of GDEs in the vicinity and the chemical characteristics of the groundwater, it is anticipated that groundwater impacts as a result of the Proposal would be negligible.

Bushfire

The subject land was partially mapped as bush fire prone land after the development application and as such detailed Bush Fire Hazard Assessment is not required for the Proposal.

The applicant advised that the Quarry Site is located within the Murrumbidgee Irrigation Area and the Warburn Channel is located approximately 25m to east of the Ancillary Components Area which would provide a fire break in the unlikely event of a bush or grass fire. It is further noted that the closest canopy vegetation is located approximately 35m to the west and 60m to the south of the Ancillary Components Area.

3.5.8 Social Impact

The Quarry has been operating since the mid 1940's and is currently operating under DA945165 which was approved on 12 December 1995 and issued to the previous owner.

The continued operation and expansion may generate dust and noise on site which has the potential to impact surrounding residences. The closest residence is 1.2km to the north of the quarry, it is considered that the separation distance between the quarry may minimize any potential impacts. During the life of the Quarry no known complains have been made with Council.

3.5.9 Economic Impact

The continued use and expansion of the Quarry is considered to have a positive impact upon the economy. The Quarry currently employs local residents, and it proposes to continue employment of local personnel. In addition to providing employment in the local area and region the quarry also supplies crushed rock products to Griffith City and surrounding Shires. The expansion and continued use proposes to continue to supply crushed rock and quarried material to the surrounding area.

3.6 The suitability of the site for the development

The site is in a rural area and is suitable for the use of land as a quarry. The quarry has operated at this site since the 1940's and is currently operating under DA945165 issued to the former owner by Leeton Shire Council on 12 December 1995.

The quarry has not received any complaints during its life of operation. Extractive industries are permitted in the zone with development consent.

The development will be conditioned to ensure minimal impact on the environment and surrounding area.

3.7 Public Submissions

One (1) submission was received commenting on the development. The submission states:

'We have received the letter notifying us of the quarry expansion, and after careful consideration, we would like to express our non-opposition to the expansion. However, we do have several concerns regarding the potential impacts it may have on our farm operations and property value due to the closer proximity and increased size of the site.'

Concerns listed by the applicant have been considered in the table below:

Concerns:	Assessment:
1. Dust Contamination: Given the closer proximity of the expanded quarry to our vineyard, we are particularly concerned about the potential impact of dust contamination on our grape crops. Dust settling on the grapes could have adverse effects on the quality and marketability of our produce. We kindly request that both the Griffith City Council and the quarry owner ensure that appropriate measures are taken to minimize dust pollution, such as enhanced dust suppression techniques, regular monitoring, and the implementation of comprehensive dust control strategies.	The EIS has identified the following potential sources of operational emissions: <ul style="list-style-type: none">• Particulate emissions from overburden handling.• Particulate emissions from drilling and blasting.• Loading and hauling of raw materials to the processing plant.• Loading of the processing plant with raw material.• Processing of raw materials.• Management of product stockpiles.• Loading of product trucks with products.• Wheel-generated particulate emissions from the transportation of products off site.

	<ul style="list-style-type: none"> • Emissions from vehicle and equipment exhausts. • Wind erosion of disturbed areas. <p>The Applicant has committed to following best practice mitigation measures to ensure that dust impacts are minimised including the following (Sec 5.2.6):</p> <ul style="list-style-type: none"> • The dust collection system, such as fabric filters, on the drill rig would be regularly serviced to ensure it remains effective. • Misting water sprays would be used on crushers and screens. • All unsealed internal roads would be surfaced with appropriate materials to limit dust lift-off, as required. • Unsealed roads and unformed tracks and/or surfaces utilised by vehicles (e.g. tracks used by product transport trucks within the extraction area) would be watered, as required. • Appropriate care would be taken to avoid spillage during loading. • Load size would be limited, as appropriate, to ensure materials do not extend above truck sidewalls. • Each truck cover would be fully extended on laden product transport trucks before each truck leaves the Quarry Site. • All vehicles travelling on internal unsealed roads or unformed tracks within the Quarry Site would be limited to a speed no greater than 40km/h. • The Applicant's complaints management system would continue to be maintained to ensure that all complaints are dealt with through investigation and implementation of corrective treatments.
<p>2. Noise: With the expanded quarry site, we anticipate an increase in noise levels that could significantly affect the tranquillity of our farm environment. We kindly request that both the Griffith City Council and the quarry owner ensure noise mitigation measures are implemented to minimize any potential disturbances to our operations and the overall quality of life on our farm. This may include the use of effective sound barriers, strict enforcement of noise regulations, scheduling activities during reasonable hours, and implementing noise reduction measures wherever possible.</p>	<p>The EIS has considered the following in its assessment of the application:</p> <ul style="list-style-type: none"> • construction and operational noise and off-site transport noise impacts of the development; • reasonable and feasible mitigation measures to minimise noise emissions; • monitoring and management measures; • a description of the proposed blasting hours, frequency and methods; and • an assessment of the likely blasting and vibration impacts of the development. <p>Blasting operations at Quarry have been carried out since extraction operations commenced in 1995. The Applicant has developed a blasting method suited to the conditions at the Quarry Site. The existing blast schedule includes blasting at</p>

	<p>approximately monthly intervals, however, these intervals can be more frequent during periods of high product demand.</p> <p>The Applicant is committed to minimising the noise generated by extraction, processing and transport activities through the implementation of the following operational noise controls and management measures.</p> <ul style="list-style-type: none"> • All hours of operation presented in Section 2.11 would be strictly adhered to. • The maximum number of laden truck movements would be limited to 12 per hour and 60 per day. • All drivers would be required to sign a Driver's Code of Conduct requiring a high standard of driver performance, avoidance of using exhaust brakes in built-up areas and travel at the required speeds. • All equipment on the Quarry Site would be regularly serviced to ensure sound power levels of each item remains at or below that nominated for noise modelling purposes. • Where practicable, "quiet" practices would be adopted when operating equipment (i.e. positioning idling trucks in appropriate areas). <p>The following operational controls would be implemented to ensure that any potential impacts from blasting are limited and that blasting processes are undertaken efficiently and safely.</p> <ul style="list-style-type: none"> • Blasting would be restricted to between the hours of 10:00am to 3:00pm, Monday to Friday, as specified in Section 2.11. • Blasting would take place no more than once per day as specified in the ANZECC guidelines. • Blast impacts would be monitored during each blast to ensure that blast characteristics do not result in overpressure or vibration levels that are not consistent with the existing blasting methods. • Non-explosive rock breaking methods such as hydraulic splitting or expansive chemical agents (e.g. Cardox CO2 blasting system) may be considered in the event that blast impacts to the Warburn Channel are identified. <p>A blast notification protocol would be implemented, and planned blasting would be pre-emptively discussed with surrounding residents.</p>
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<p>3. Residential Impact: As part of our long-term plans, we are considering the construction of a house on our farm land. We seek assurance from both the Griffith City Council and the quarry owner that the quarry expansion will not have any adverse impacts on our ability to enjoy a peaceful and comfortable living environment. It is important for us to have clarity on any potential restrictions or regulations that may arise from the quarry's increased proximity to our intended residential area.</p>	<p>Proposed development is assessed at such time as an application is lodged. Council would consider the proximity of any proposed dwelling to the quarry in its assessment and may require building to be constructed to standards to reduce any impact such as sound insulated windows to reduce any real or perceived impact.</p>
<p>4. Property Value: The expanded quarry site coming closer to our farm raises concerns about the potential impact on the value of our property. We kindly request the joint assurance of both the Griffith City Council and the quarry owner that the quarry expansion will not cause significant devaluation of our farm, particularly in terms of crop damage or the perception of diminished desirability due to its increased proximity. We hope that any necessary remedial actions or compensatory measures will be taken in the event of any negative impacts.</p>	<p>Council does not consider the value of property in its assessment of development applications.</p>
<p>5. Water Contamination: Another significant concern we have is the potential for the quarry operations to contaminate the water sources we rely on to irrigate our farm. We kindly request that both the Griffith City Council and the quarry owner ensure rigorous measures are in place to prevent any contamination of our water supply. This may include the installation of appropriate containment and drainage systems, regular water testing, and adherence to strict environmental protection regulations.</p>	<p>Terms of approval have been provided by NSW Water who will require monitoring of the quarry. Council has also conditioned the Murrumbidgee Irrigation provide consent for the proposed development.</p>
<p>6. Farming practices. We often need to spray our crops on an as-needed basis, which can occur at any hour of the day depending on weather conditions and other factors. Given the proximity of the quarry, we are concerned that our spraying may potentially interfere with your work activities on the quarry. We kindly request that both the Griffith City Council and the quarry owner take this into consideration and ensure that our farming operations can proceed without hindrance or interruption.</p>	<p>Spraying of crops must be undertaken in accordance with guidelines produced by the Department of Primary Industries. Spray Drift must not leave the farm.</p>

3.8 The public interest

The development was advertised and publicly exhibited in accordance with provisions of the EP& A Act and Griffith Community Participation Plan. One submission was received as a result of the public notification. It is considered to be in the overall public interest that the Application be approved.

4. CONCLUSION

The proposal is for the continued use and expanded operation of the Extractive Industry (Warburn Quarry) which comprises the extraction and processing of raw materials and associated product transport at its Warburn Quarry.

The development application is designated development and an EIS was submitted to identify all potential impacts.

The EIS has been prepared in accordance with the Director Generals requirements issued by the Department of Planning. All relevant legislation for the assessment of the development and the identified impacts are assessed within this report.

The development application was processed in accordance with the provisions of the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulation 2000.

Based on the above assessment of the proposal, it is recommended to the Western Region JRPP that the development application for Lot 1 DP 1290213, via Stevenson Road, Tharbogang be approved subject to the conditions listed in Appendix A.

Assessing Officer:



Joanne Tarbit
Development Assessment Planner

Reviewed By:



Kerry Rourke
Acting Development Assessment Coordinator