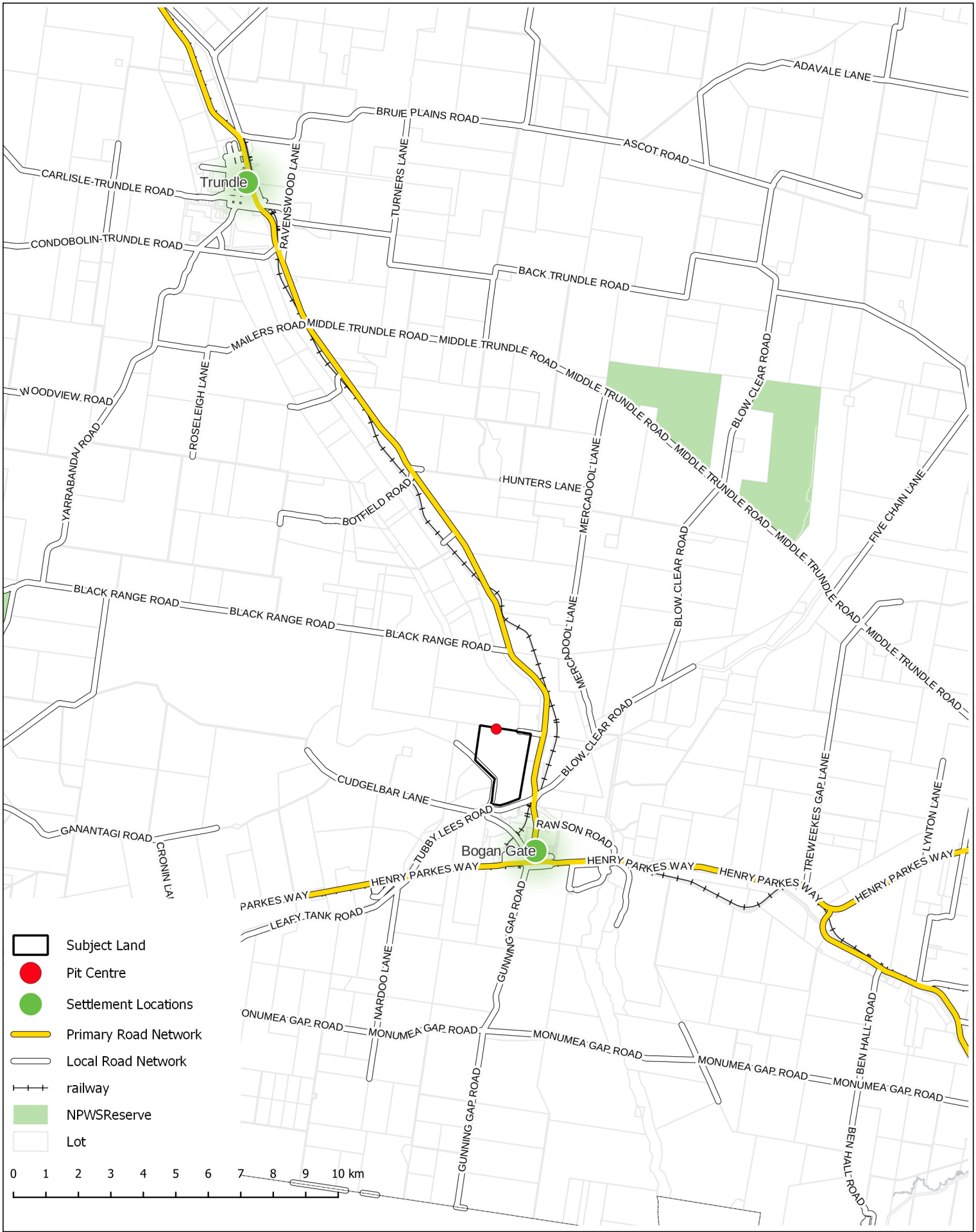

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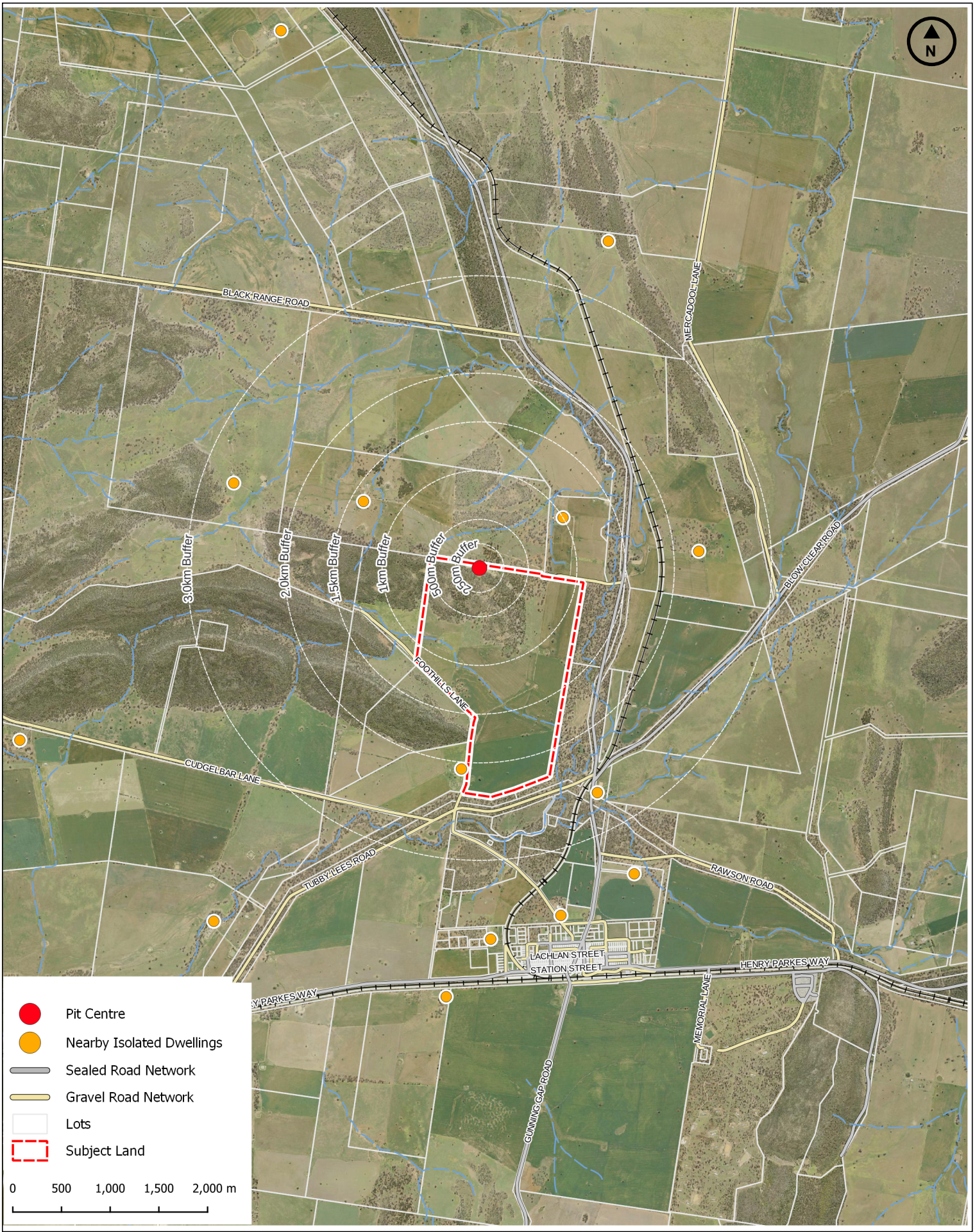
DRAWING: SITE LOCATION PLAN		**DRAWN BY:** DS	
PROJECT NAME: Extractive Industry (Lees Pit)	**CLIENT:** PARKES	**CHECKED BY:** MC	
DRAWING STATUS: FOR APPROVAL		**SCALE** 1:150000 @ A4	



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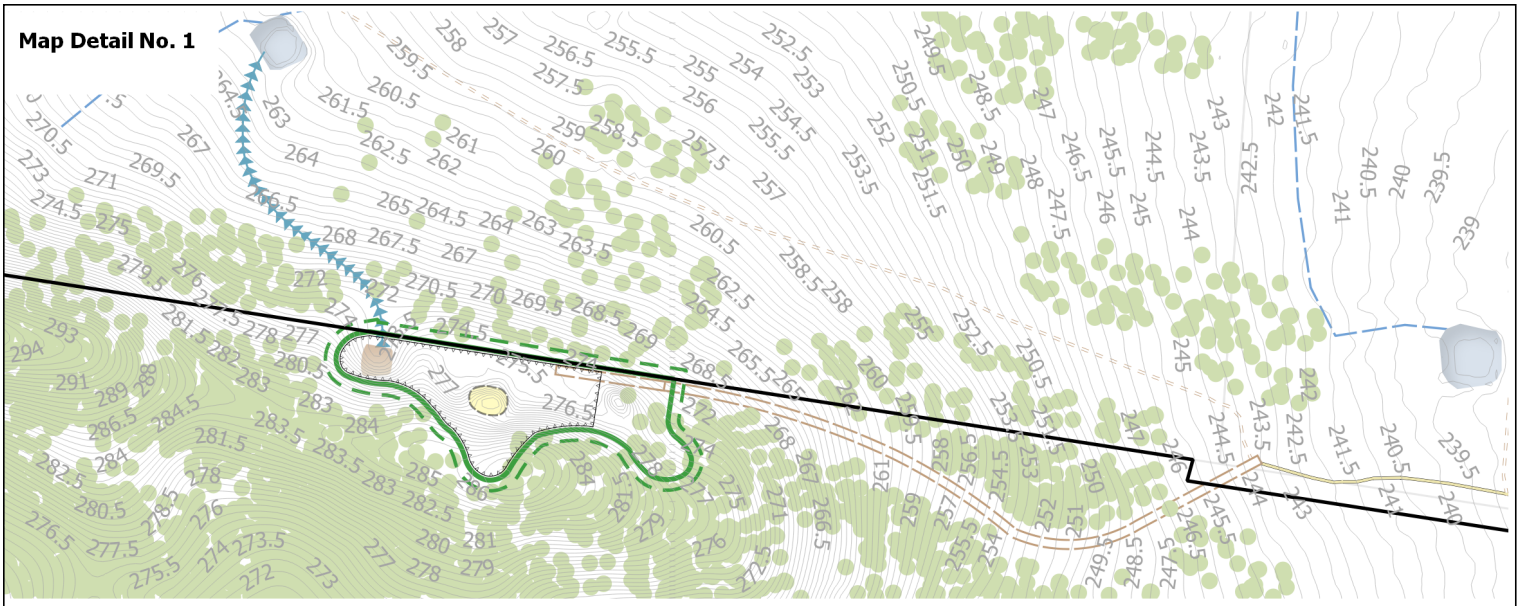
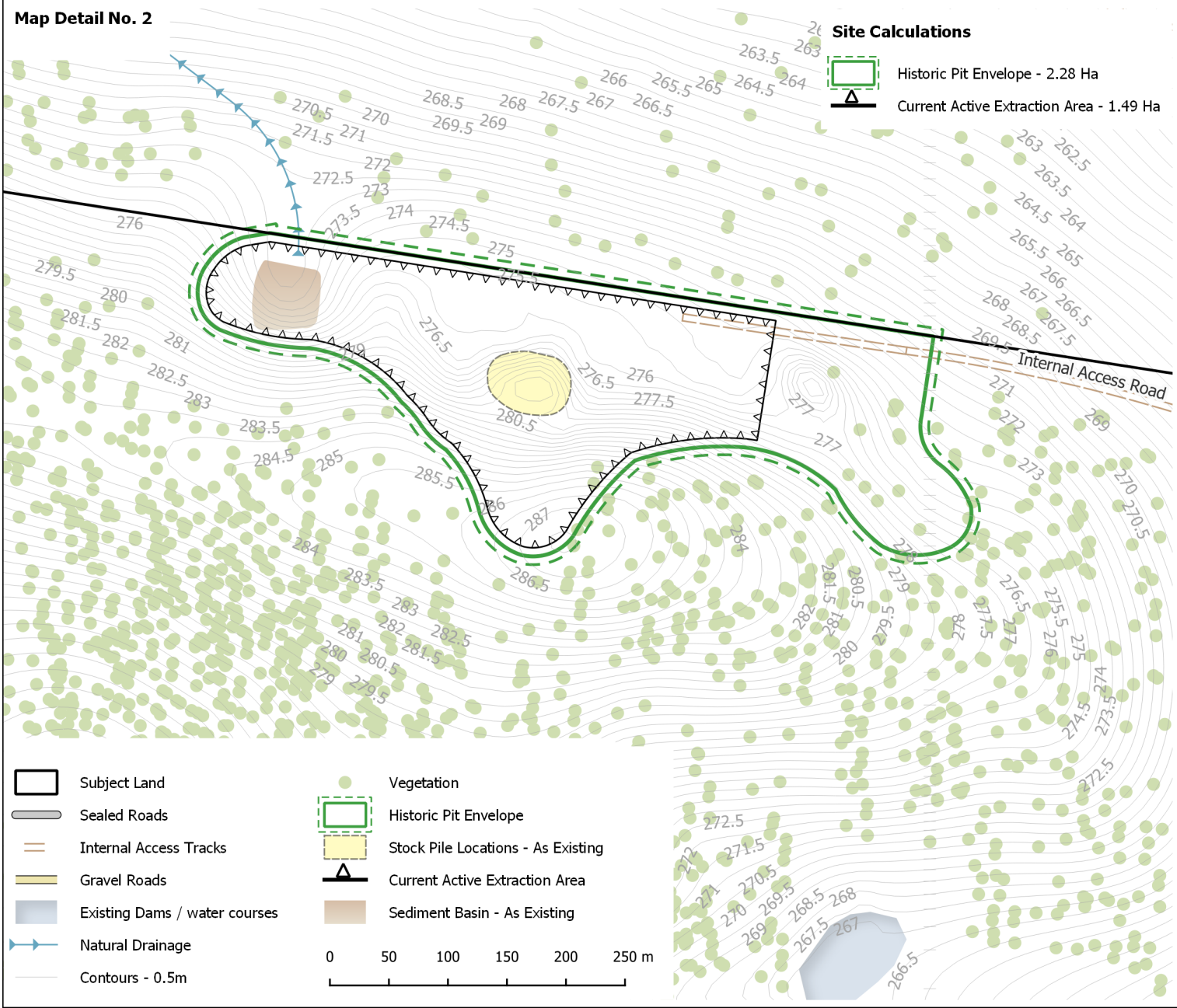


Map Detail No. 2

Site Calculations

Historic Pit Envelope - 2.28 Ha

Current Active Extraction Area - 1.49 Ha



- Subject Land
- Sealed Roads
- Internal Access Tracks
- Gravel Roads
- Existing Dams / water courses
- Natural Drainage
- Contours - 0.5m
- Vegetation
- Historic Pit Envelope
- Stock Pile Locations - As Existing
- Current Active Extraction Area
- Sediment Basin - As Existing

0 50 100 150 200 250 m

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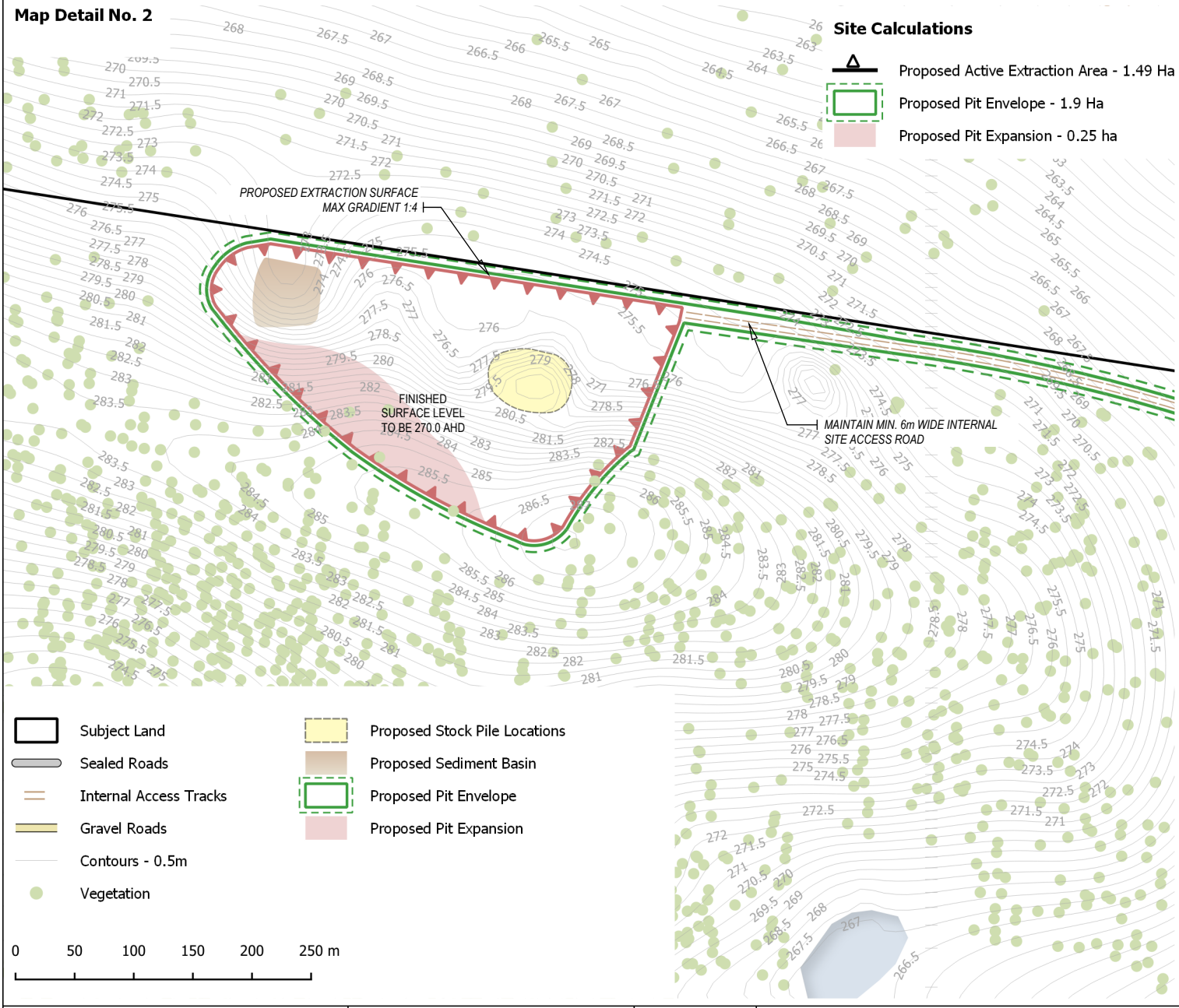
Map Detail No. 2



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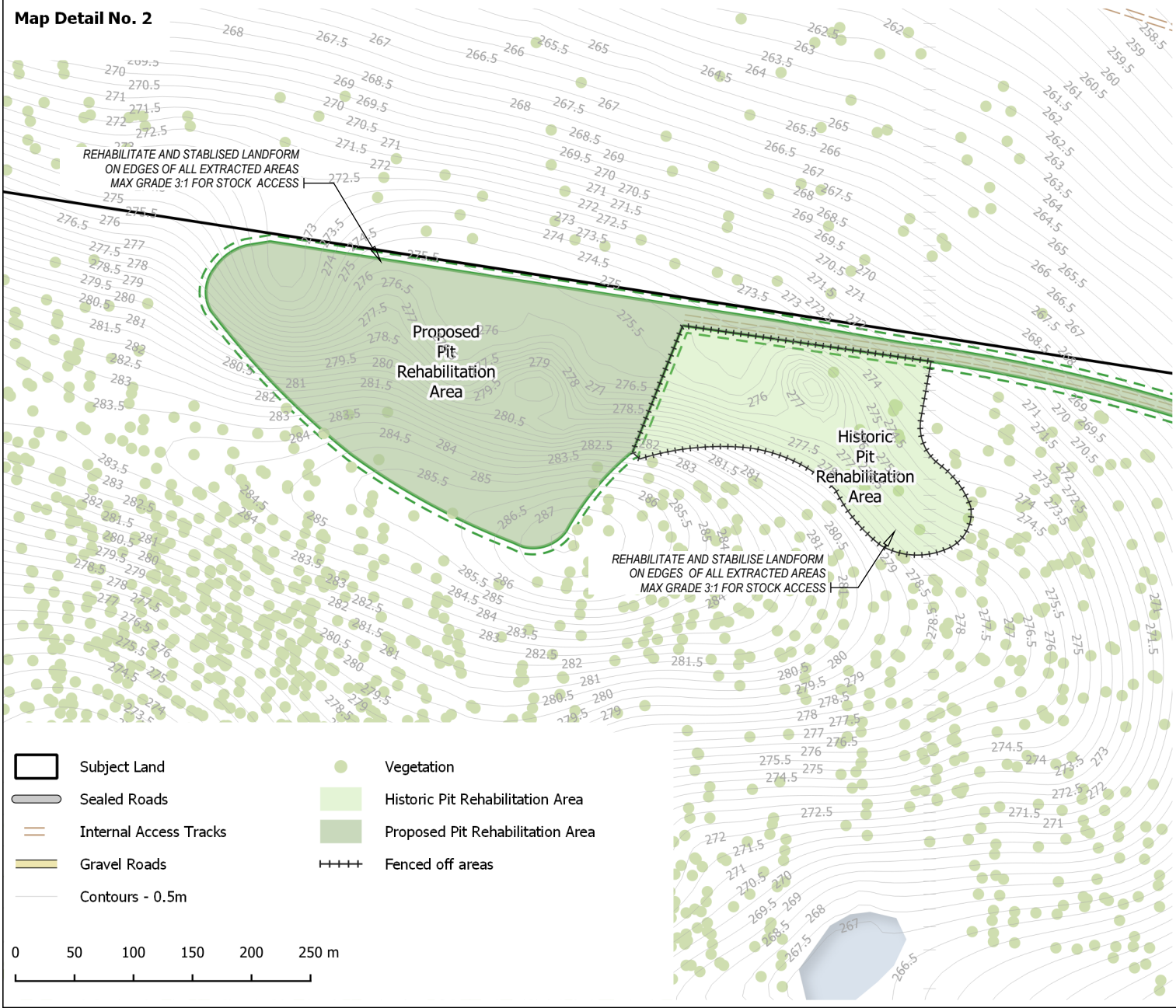

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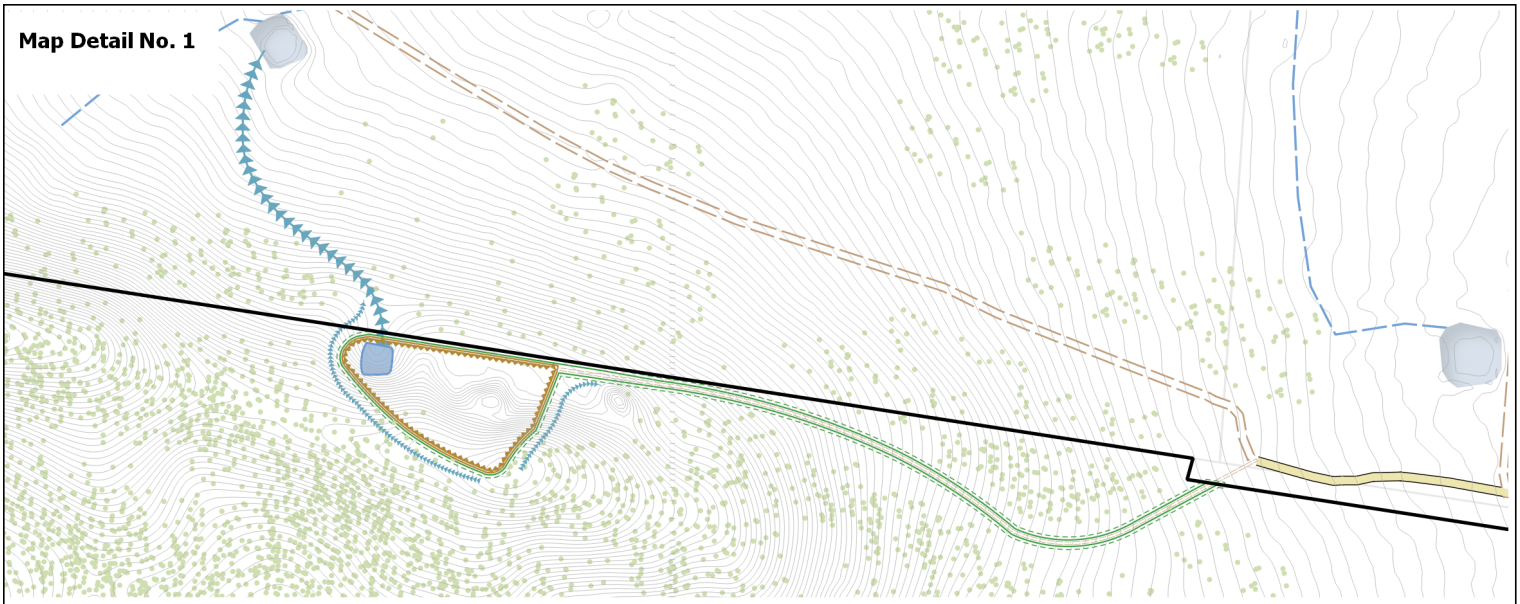

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PARKES NSW 2870

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Statement of Environmental Effects

Extractive Industry (Lees Pit) on Lot 1 DP 1146416, The Grange Lane, Bogan Gate

DOCUMENT CONTROL

Project Report Details

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Principal Author	Michael Carter, Director, Currajong Pty Ltd
Client	Parkes Shire Council
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Currajong Pty Ltd
205A Clarinda Street
Parkes NSW 2870
www.currajong.com.au
info@currajong.com.au

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1. INTRODUCTION

1.1. Scope

This Statement of Environmental Effects (SEE) has been prepared by Currajong Pty Ltd (Currajong) on behalf of Parkes Shire Council, the applicant for the proposed Lees Pit located on Lot 1 DP 1146416, the Grange Road, Bogan Gate. This document has been prepared to accompany a development application for a proposed extractive industry at the location of an existing gravel quarry, known as Lees Pit (the proposal).

1.2. Overview

Parkes Shire Council wishes to establish a new gravel pit operation on Lot 1 DP 1146416 to supply road base material for construction and maintenance of the local road network.

The site of the gravel pit is at an historic gravel pit operation on the Lee property, which has vehicular access from The Grange Lane. The new gravel pit is to be located on cleared land on the eastern face of a timbered ridgeline running east-west along the property owned by the Lee family. Surrounding land is rural farmland. The settlement of Bogan Gate is located approximately 3.6km to the south. The nearest dwelling not associated with the gravel pit is located approximately 700m to the north-east. Figure 1 – Site Location Plan and Figure 2 – Site and Surrounds Plan show the main features of the site and surrounds.

The layout of the proposed new extractive industry, in relation to the existing gravel pit footprint, and the surrounding area is shown on Figure 3 – Conceptual Site Layout Plan and Figure 4 – Conceptual Quarry Development Plan). The proposal includes an active extraction area less than 2 hectares and progressive rehabilitation to achieve a post extraction landform suitable for rural activities, including livestock grazing (refer Figure 5 – Conceptual Rehabilitation Plan).

The proposal is a gravel quarry that will extract less than 30,000 cubic metres of gravel material per annum within a total disturbance area of less than 2 hectares for a period of up to 25 years. The proposal will supply gravel material directly to the surrounding local road network for construction and maintenance purposes associated with Parkes Shire Council's Roads Program.

1.3. Application particulars

Applicant	Parkes Shire Council
Proposed Site	Lot 1 DP 1146416, The Grange Lane, Bogan Gate
Proposal	Extractive industry (gravel quarry)
Estimated capital cost	$14,320 (including GST)
Zoning	RU1 Primary Production under Parkes Local Environmental Plan 2012
Consent Authority	Parkes Shire Council

1.4. Approvals required

The proposal requires development consent under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The proposal does not trigger 'designated development' pursuant to Part 1, Section 19 of Schedule 3 of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) for 'Extractive Industries' because:

- less than 30,000m^3 per annum would be extracted; and
- less than 2ha of disturbance would occur; and
- all areas of disturbance are more than 40m from a waterway; and
- the existing slope of the gravel pit footprint area is less than 18 degrees to the horizontal; and
- the gravel pit footprint may involve limited blasting, but is more than 500m from a dwelling not associated with the development; and
- the quarry footprint is more than 500m from another extractive industry.

The proposal does not trigger 'regionally significant development' because it is not designated development and has a capital investment value of less than $30 million.

The proposal does not trigger 'integrated development' because it does not involve the extraction, processing or storage of more than 30,000 tonnes per annum (tpa) of extractive materials or the crushing, grinding or separating of materials of more than 150 tonnes per day or 30,000tpa and therefore the proposal is not classified as a 'Scheduled Activity' and an Environment Protection Licence (EPL) is not required under the Protection of the Environment Operations Act 1997 (POEO Act).

The proposal does not trigger the Biodiversity Offsets Scheme (BOS) threshold, because does it involves less than 1ha of native vegetation clearing.

In accordance with Part 4 of the EP&A Act a Development Application is to be lodged with Parkes Shire Council, along with a Statement of Environmental Effects (this report) and various plans in support of the proposed extractive industry.

1.5. Format of the report

The information presented in this SEE covers all aspects of the proposal as specified under the EP&A Regulation. The SEE has been prepared as a single document of several sections as follows:

Section 1	Introduces the proposal and the main project drivers
Section 2	Describes the main features of the site and surrounds
Section 3	Provides a description of the proposal, including a description of the existing gravel pit operations, proposed new gravel pit operations and the site rehabilitation phases of the project
Section 4	Reviews the proposal against the relevant legislative requirements
Section 5	Assesses the potential impacts of the proposal and documents the proposed mitigation and management strategies proposed to minimise environmental impacts
Section 6	Reviews the proposal against the environmental, economic and social considerations and other non-statutory best practice guidelines
Section 7	Provides the conclusion for the SEE

The SEE is supported by the following figures and drawings:

Figure 1	Site location plan
Figure 2	Site and surrounds plan
Figure 3	Existing gravel pit layout plan
Figure 4	Conceptual gravel pit redevelopment plan
Figure 5	Conceptual rehabilitation plan
Figure 6	Stormwater and sediment management plan

2. DEVELOPMENT SITE DESCRIPTION

2.1. Site Description

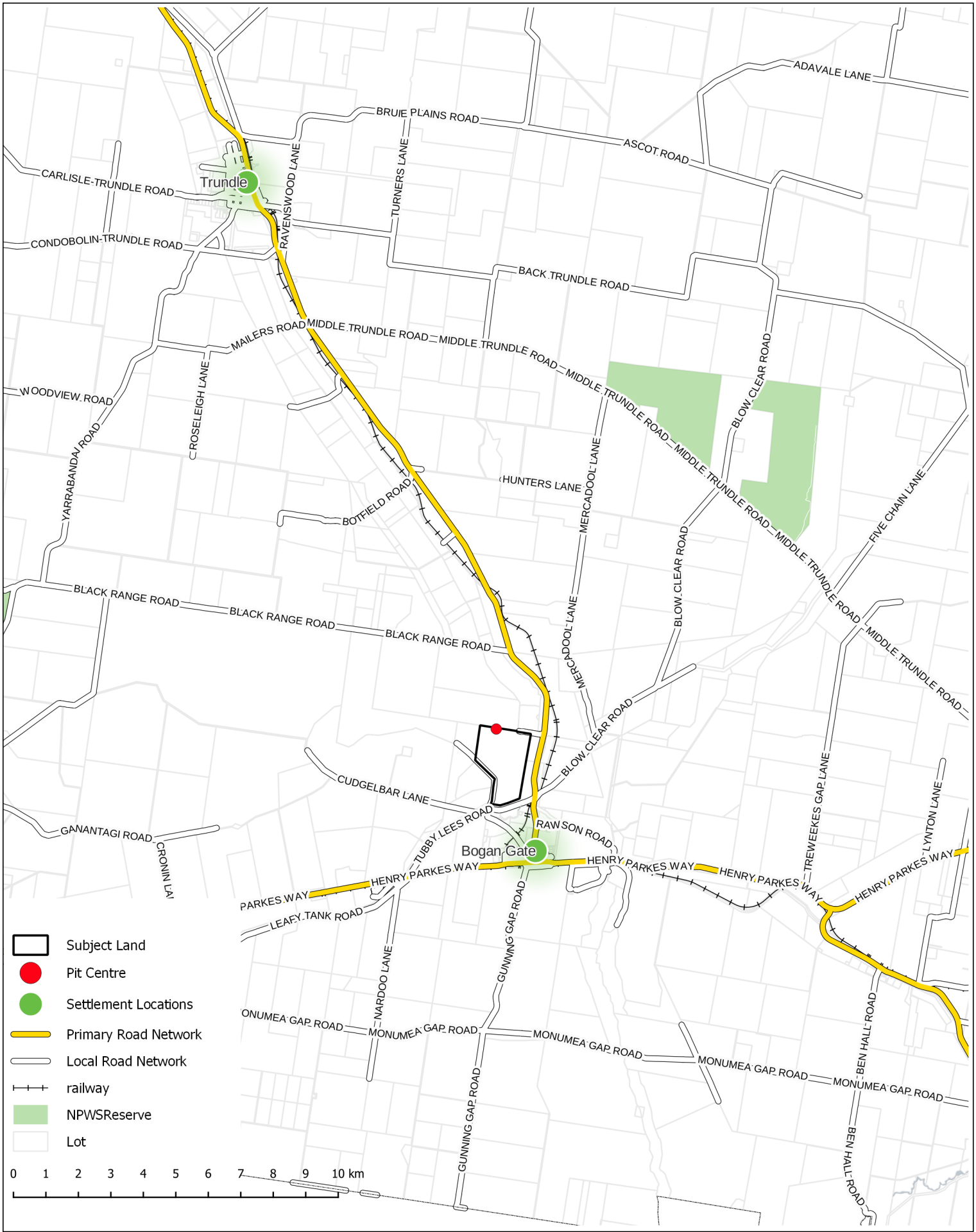
The existing historic gravel pit, knowns as Lees Pit is located in the Parkes Shire at Bogan Gate (refer Figure 1 – Site Location Plan). The existing historic gravel pit is located on Lot 1 DP 1146416, The Grange Lane, Bogan Gate. The old pit is approximately 2 hectares (ha) in area and comprises a relatedly shallow excavation site (ranging in depth of 1 to 3 metres below natural ground surface).

2.2. Land-use and zoning description

The site of the Lees Pit is zoned RU1 – Primary Production under the Parkes Local Environmental Plan 2012. Surrounding land is similarly zoned RU1 – Primary Production.

2.3. Surrounding land-use description

The existing Lees Pit is generally surrounded by rural land comprising broadacre farming paddocks and the remnant settlement of Bogan Gate. The closest residence to the quarry site is located approximately 700m to the north-east (refer Figure 2 – Site and Surrounds Plan).



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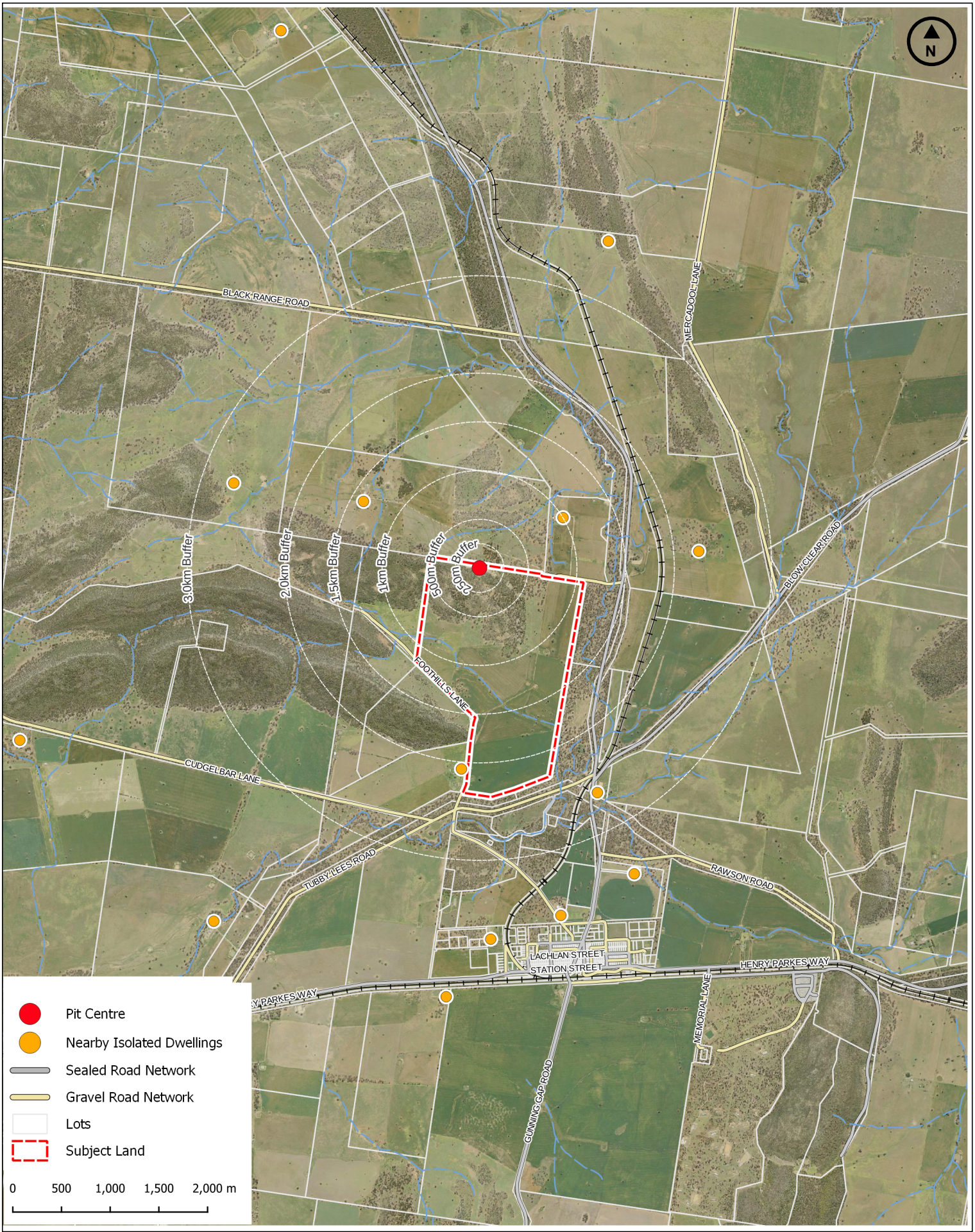

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3. DESCRIPTION OF THE PROPOSAL

3.1. Objectives of the proposal

The principal objective of the proposal is to obtain development consent to enable the operation of the Lees Pit for extraction of gravel material. The proposal would enable the applicant (Parkes Shire Council) to supply gravel products to the surrounding local road network for construction and maintenance purposes. The objectives for the proposal are to:

- Provide a high quality, economical source of gravel products for construction and maintenance of the road network.
- Minimise to the greatest extent possible, impact to the local environment, community and stakeholders.
- Provide a final post extraction landform suitable for rural activities including livestock grazing.
- Ensure the operation of the proposal is safe, reliable and cost effective, contributing to the delivery of the Parkes Shire Council Roads Program and the economy of the region.

3.2. Overview of the proposal

The proposal is a gravel quarry with a maximum annual extraction rate of less than 30,000 cubic metres of material per annum. The total area of proposed disturbance is less than 2ha (refer Figure 3 – Conceptual Site Layout Plan and Figure 4 – Conceptual Quarry Development Plan). The life of the quarry is anticipated to be less than 25 years, subject to resource availability and Parkes Shire Council's Roads Program. Limited blasting may be required where material is not able to be extracted by mechanical excavation means, with one blast per year estimated to occur. Excavated material would generally be stockpiled and crushed by mobile gravel crushing plant for subsequent delivery of gravel material directly to the local road network via The Grange Lane.

Proposal extractive industry activities include:

- Delineation of the new gravel pit footprint.
- Initial installation of new environmental controls including erosion and sediment control measures.
- Installation of site security signage and contact details at the site entrance / exit to The Grange Lane.
- Removal of native vegetation along the southern edge of the quarry.
- Establishment of a transportable toilet and light vehicle parking area.
- Gravel pit operations (extraction, processing and stockpiling of material) within the new gravel pit footprint.
- Loading of gravel material onto Council trucks for delivery of material directly to the surrounding road network for maintenance and construction road works.
- Progressive rehabilitation of previously disturbed areas not part of the new gravel pit footprint.
- Closure and final rehabilitation of the gravel pit.

The Lees Pit will involve extraction, processing and stockpiling of material within a reduced gravel pit footprint. Front end loaders will be used for loading of material onto road haulage trucks. Stockpiled

material is regularly calculated, based on survey. As such a weighbridge is not anticipated to be required as part of the operation.

No chemical / fuel storage is proposed, with all plant to be serviced via PSC mobile plant or at the PSC Depot in Parkes.

3.3. Gravel Pit Establishment Layout

The site of the existing gravel pit is approximately 2ha and the total area of the proposed new gravel pit is less than 2ha (refer Figure 3 – Conceptual Site Layout Plan).

3.4. Gravel Pit Resources and Products

The site consists of sedimentary resource which forms part of a slightly elevated area above the Botfields Creek. The low elevations, resource distributions, weathering profile and confining topography of the site has been well suited to simple lateral quarrying progression by Parkes Shire Council earthmoving equipment. The resource is predicted to produce road base products, including fill and crushed gravel aggregates suitable for local road construction and maintenance projects. Detailed material testing to confirm suitability of the material will be undertaken subject to receipt of development consent.

3.5. Gravel Pit Operations

Once the proposed new pit design is implemented, the Lees Pit will operate within a small / confined area of less than 2ha (refer Figure 4 – Conceptual Quarry Development Plan).

Similar to other gravel pits operated by Parkes Shire Council, the Lees Pit is proposed to be operated on a campaign basis, whereby earthmoving, crushing or haulage operations may be conducted for several weeks, followed by no activity for several months other than material storage.

Extraction would use standard quarrying methodologies that involve overburden stripping, mechanical extraction, processing and stockpiling with the final products used by Council for road building and maintenance. Limited blasting may be required where material is not able to be extracted by mechanical excavation means, with no more than one blast per year required at the site.

The number of plant and equipment deployed on-site is anticipated to vary. Types of major plant and equipment deployed on-site may include, but not be limited to, a bulldozer, grader, excavator, mobile crushing and screening plant, watercart, haul trucks and front-end loader. The mobile crushing and screening plant would be temporarily established at the site by a contractor to process stockpiled extracted material under Council's supervision.

All quarry materials would be delivered directly to the local road network generally by Parkes Shire Council haulage trucks.

3.6. Gravel Pit Water Management

Operational water would be required for dust suppression operations. This water would generally be sourced from the primary sediment basin. Figure 6 provides the conceptual stormwater and sediment management plan for the proposal, including the sizing of the sediment basin based on the following:

- Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom, 2004).
- Managing Urban Stormwater: Soils and Construction – Volume 2C – unsealed roads (DECC, 2008a).
- Managing Urban Stormwater: Soils and Construction – Volume 2E – mines and quarries (DECC, 2008b).

3.7. Gravel Pit Waste Management

The proposal is expected to produce a negligible amount of waste. The principal potential waste streams may include, but are not necessarily limited to:

- Material wastes (mud slurry and sediment laden water) from gravel processing and dust suppression.
- General solid wastes (putrescible and non-putrescible).
- Waste from on-site mechanical breakdowns (batteries, oil filters, waste oil / hydrocarbons and containers, oil / water emulsions and flat tyres).
- Domestic wastewaters.

Site wastes will be managed in the following manner:

- Establishing site management controls requiring all waste to be stored in vehicles.
- Removing wastes from site for disposal or recycling by appropriate licensed operator(s).
- Removing domestic wastewater from transportable toilet to an appropriate wastewater treatment plant.
- No burning or burying of wastes on-site.

3.8. Gravel Pit Infrastructure, Utilities and Services

There is currently limited infrastructure, utilities or services located at the site. Electricity would be sourced from mobile generators on the back of PSC service vehicles (if required). Potable water would be carried by each employee / contractor. Water for dust suppression will be sourced from the primary sediment basin or a licenced water cart supplier. Telecommunications would be provided by mobile phone and /or PSC Two-way Radio. Sewage management would be via a transportable toilet, serviced by a licenced waste contractor. Diesel fuel would be delivered to the site by PSC service vehicles and there would be no permanent fuel storage on site.

3.9. Gravel Pit Employment

The proposed temporary workforce when operating at full capacity is expected to comprise six (6) staff, including crushing contractors, loader operators and truck drivers. However, it is envisaged that only one (1) to two (2) persons would be working at the site on a usual day of quarrying operations.

3.10. Gravel Pit Hours of Operation

The hours of operation of the Lees Pit would generally be 7.00am to 5.00pm weekdays. Some work may be carried out on weekends. No work will be carried out on Public Holidays.

3.11. Gravel Pit Rehabilitation

The objective for rehabilitation of the proposal is to achieve a post extraction landform suitable for rural activities, including but not limited to livestock grazing (refer Figure 5 – Conceptual Rehabilitation Plan).

3.11.1. Rehabilitation of previously disturbed areas not proposed for quarrying

It is proposed to complete rehabilitation of previously disturbed areas (not proposed to be included in the new gravel pit footprint) when the areas designated for rehabilitation are no longer required for final land forming or ancillary purposes. The final landform would be designed to drain areas to sediment basins in the

new gravel pit. Once final land forming of peripheral areas is completed, it is proposed to delineate the rehabilitation areas with a white plastic tape to prevent further disturbance from adjoining quarrying operations. Soil stabilisation with grass cover and revegetation of rehabilitation areas would also occur at this time. Sediment controls would also be finalised at this stage.

3.11.2. Final Rehabilitation

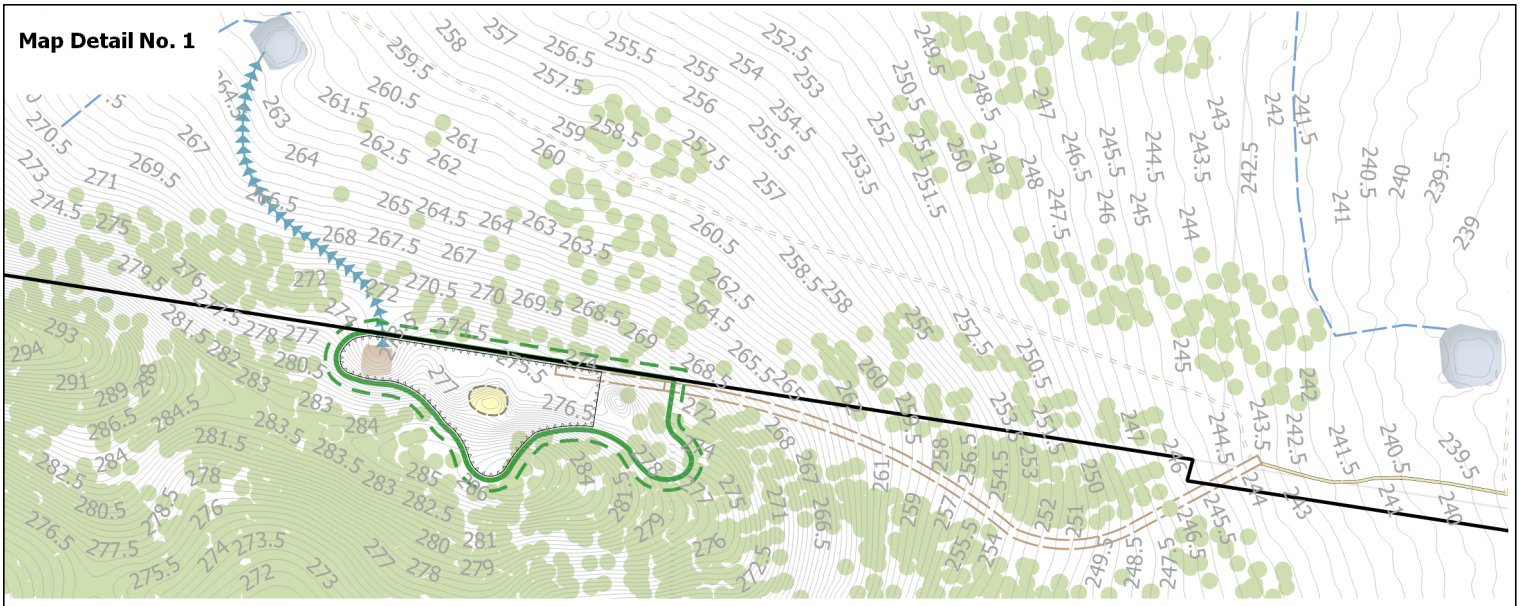
Final rehabilitation of the Lees Pit is to commence when the pit resource is exhausted and / or the final pit floor / drainage contours are reached.

The final pit floor, hardstand and stockpile areas (and other low slope areas) will generally be finished as follows:

- Slopes to be graded to fall to the sediment basin.
- Available topsoil to be respread.
- Post extraction land-use to comprise of rural activities consisting of pasture grasses and livestock grazing.
- Sediment is to be removed to convert the dam to a clean water storage structure.
- Sediment basins will be retained as clean water storage structures.
- PSC plant, equipment and buildings (including demountable and mobile equipment) will be removed.

As the site approaches the end of its lifecycle, a large proportion of the original quarry site is planned to have already been rehabilitated. Therefore, the final rehabilitation works will mainly relate to the final spreading of topsoil stockpiles and the re-establishment of grasses (with seed and fertiliser) suitable for the continuation of rural uses of the site.

Map Detail No. 1



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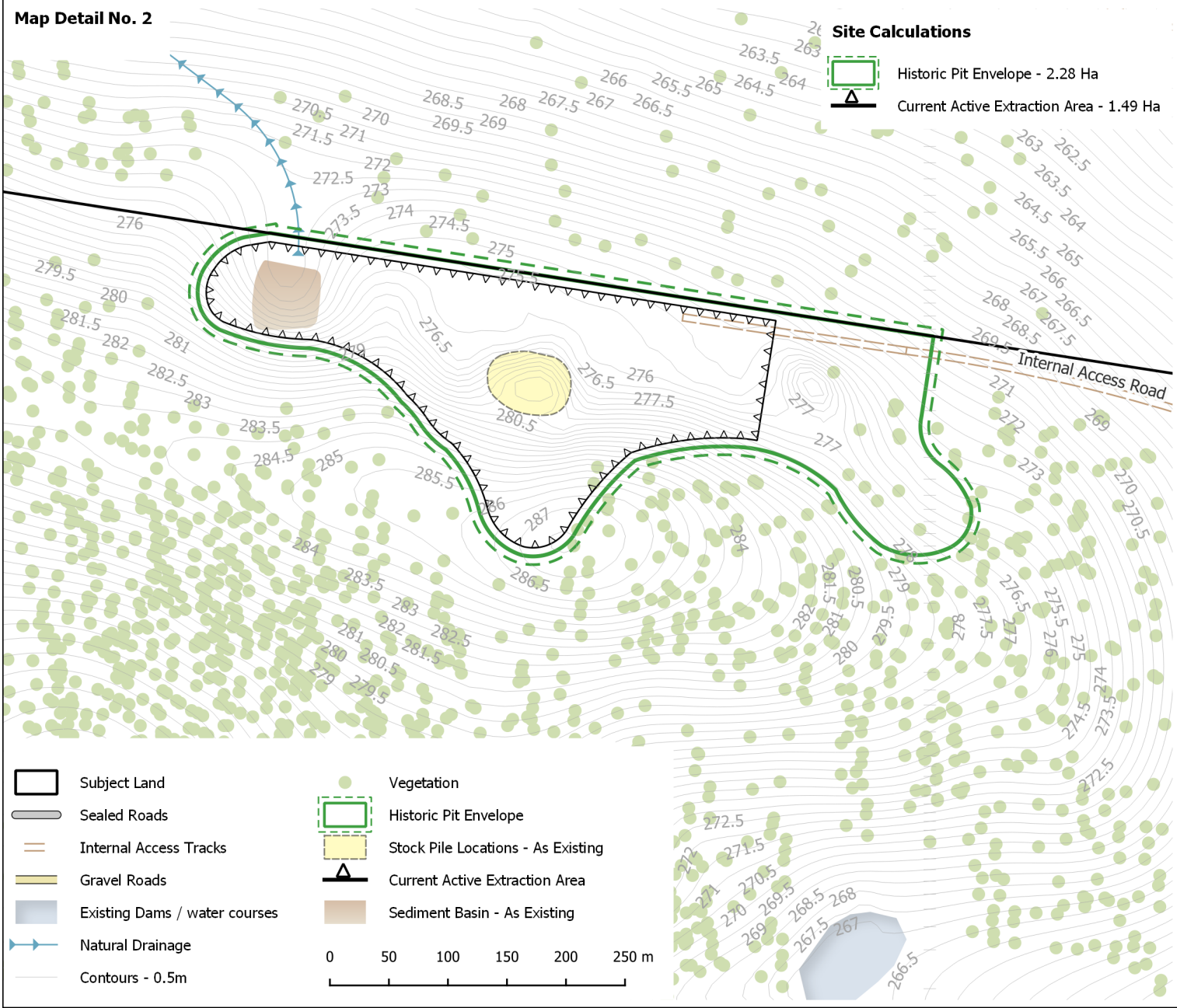

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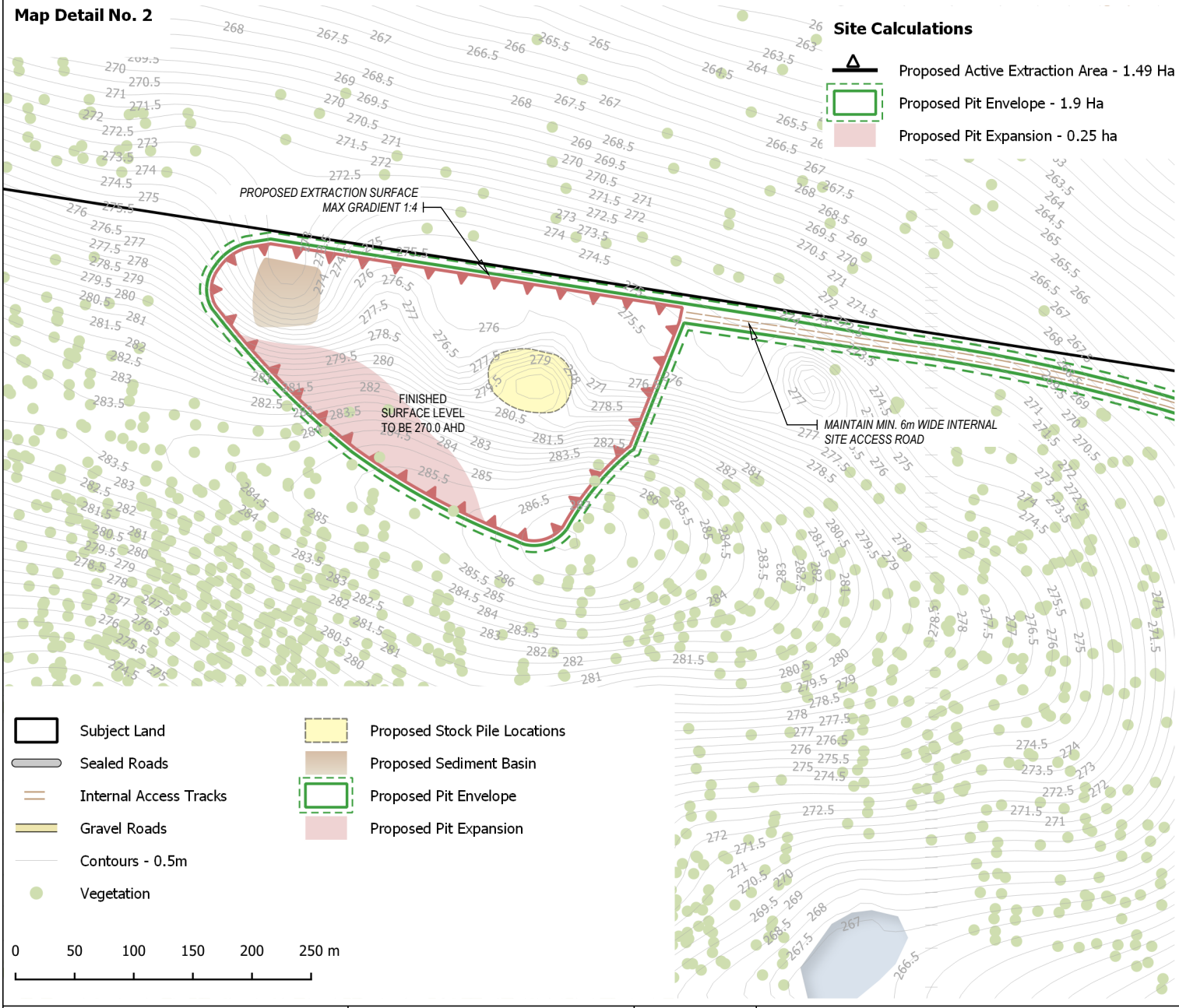

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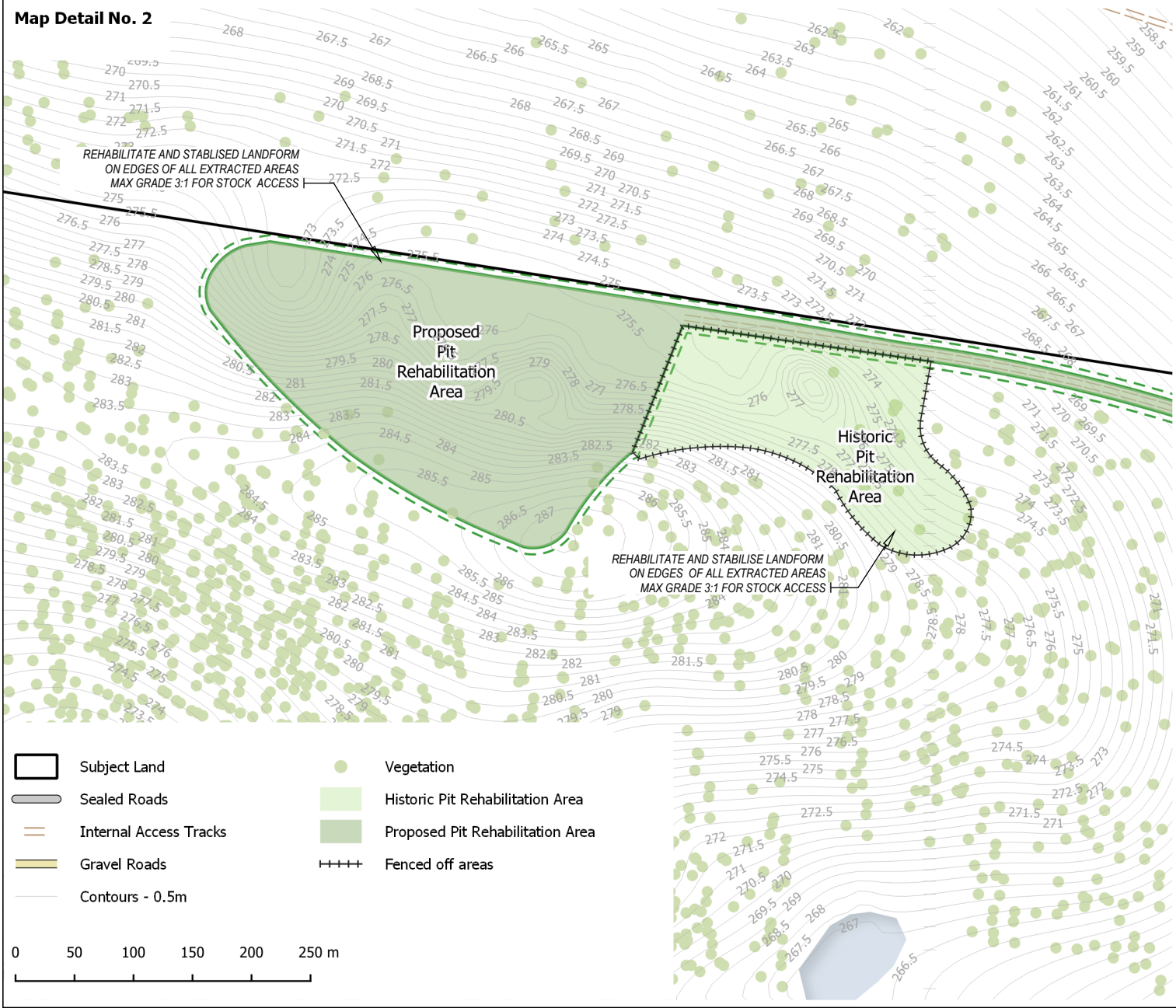

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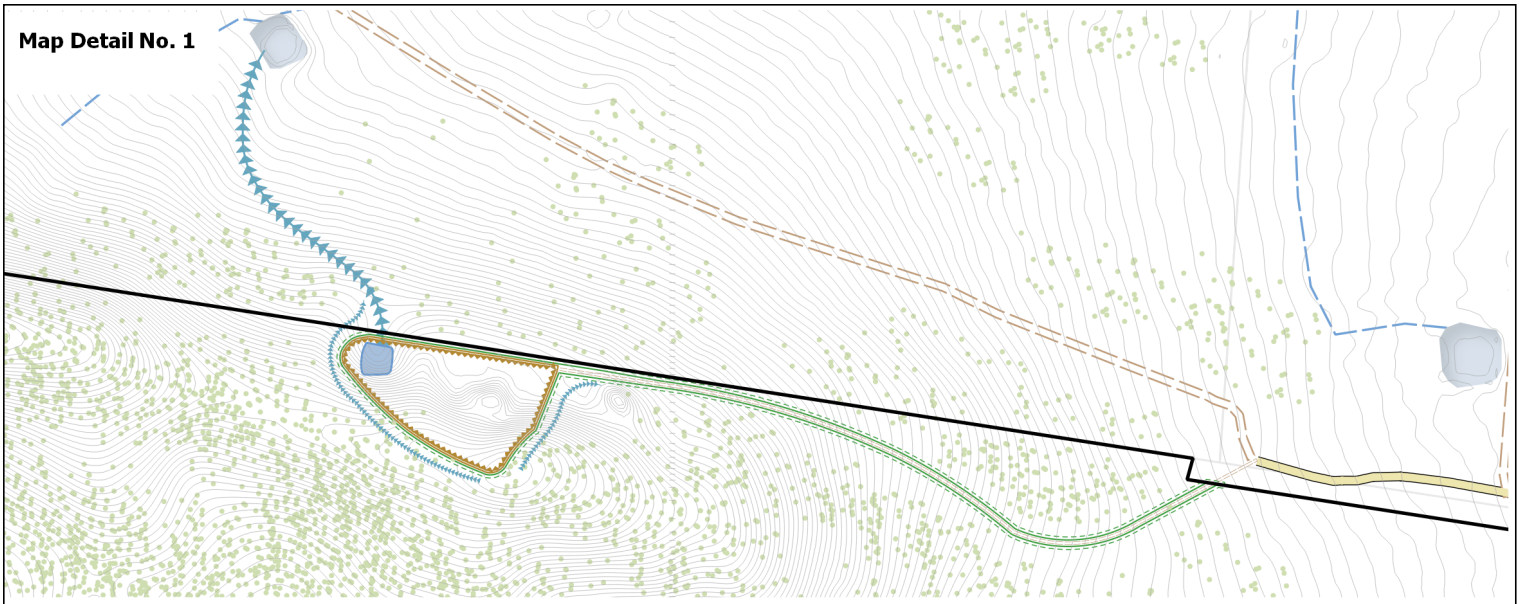

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4. PLANNING AND LEGISLATIVE CONTEXT

4.1. Introduction

The following section of the report describes the applicable local planning policies, State and Federal legislation and guidelines. The applicable documents are summarised in this section, followed by a statement outlining how the development will address and / or comply with the legislation or policy.

4.2. Commonwealth legislation

Under the Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), referral is required to the Australian Government for proposed actions that have the potential to significantly impact on Matters of National Environmental Significance (MNES) or the environment of Commonwealth land. The assessment of the proposal's impact on MNES (refer Section 5) found that there is unlikely to be a significant impact on relevant MNES or on Commonwealth land. Accordingly, the proposal has not been referred under the EPBC Act.

4.3. New South Wales legislation

4.3.1. Environmental Planning and Assessment Act 1979

The EP&A Act forms the legal and policy platform for development assessment and approvals process in NSW. The objects of the EP&A Act are:

a. to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

b. to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

c. to promote the orderly and economic use and development of land,

d. to promote the delivery and maintenance of affordable housing,

e. to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

f. to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

g. to promote good design and amenity of the built environment,

h. to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

i. to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

j. to provide increased opportunity for community participation in environmental planning and assessment.

Under the EP&A Act, local councils prepare Local Environment Plan (LEPs) that specify planning controls for specific parcels of land. The EP&A Act also provides for State Environmental Planning Policies (SEPPs) and Regional Environmental Plans (REPs). Applicable environmental planning instruments are discussed in later

parts of this SEE. In general, development consent is required for the proposed extractive industry, pursuant to the Parkes Local Environmental Plan 2012.

4.3.2. Local Government Act 1993

Section 68 of the Local Government Act 1993 (LG Act) specifies that approval is required for a number of activities carried out on operational land, including:

- Structures or places of public entertainment.
- Water supply, sewerage and stormwater drainage work.
- Management of trade waste in the sewerage system.
- Swing or hoist goods over a public road.

No local government approvals are required.

4.3.3. Heritage Act 1977

The Heritage Act 1977 provides for the conservation of environmental heritage defined as places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance which are at least 50 years old. The Act applies to non-Aboriginal relics only, as Aboriginal relics are protected under the National Parks and Wildlife Act 1974.

The subject site is not listed on the State Heritage Register and an approval from Heritage NSW is not required under the Heritage Act 1977. The site is also not listed as a Heritage Item under the Parkes Local Environmental Plan 2012.

Heritage issues are assessed under Section 5 of this SEE. In general, no heritage issues / impacts have been assessed to apply, and an approval under the Heritage Act 1977 is not required to be obtained for the proposal.

4.3.4. National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 (NPW Act) is administered by the Office of Environment and Heritage and provides the basis for the legal protection of flora and fauna in NSW.

Unless a licence is obtained under the NPW Act (or the Threatened Species Conservation Act 1995), it is an offence to harm any animal that is protected or is a threatened species, population or ecological community. It is also an offence to pick any plant that is protected or is a threatened species, population or ecological community. In addition, a person must not, by act or omission, damage any critical habitat.

The NPW Act also provides the basis for the legal protection and management of Aboriginal sites within NSW. Sections 86, 90 and 91 of the NPW Act provide statutory protection for any physical / material evidence of Aboriginal occupation of NSW and places of cultural significance to the Aboriginal community.

The site largely comprises ‘disturbed land’ used for gravel quarrying and farmland, as defined under The National Parks and Wildlife Regulation 2019 (NPW Regulation). An Aboriginal due diligence assessment is not required. Aboriginal cultural heritage issues are assessed under Section 5 of this SEE. In general, no heritage issues / impacts have been assessed and an approval under the Heritage Act 1977 is not required to be obtained for the proposal. In general, no threatened species or Aboriginal issues / impacts have been assessed to apply, and an approval under the NPW Act is not required to be obtained for the proposed new gravel pit.

4.3.5. Biodiversity Conservation Act 2016

The Biodiversity Conservation Act 2016 (BC Act 2016) provides a framework for the management of flora and fauna on lands within NSW. Under this Act the principles of ecologically sustainable development are used to achieve the conservation and protection of biodiversity values. Biodiversity impacts are addressed in Section 5 of this SEE. Approval under the BC Act is not required as no removal of native vegetation is proposed.

4.3.6. Roads Act 2016

Under Section 138 of the Roads Act 1993 a person must not erect a structure or carry out a work in, on or over a public road, or dig up or disturb the surface of a public road, otherwise than with the consent of the appropriate road authority. The pit has access from an existing gravel access that intersects with The Grange Lane. No new accesses or road works are proposed on the local road network to support the continued extractive industry operations at Lees Pit. An approval under the Roads Act 1993 is not required to be obtained for the proposed new gravel pit operations.

4.3.7. Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act 1997 (POEO Act) regulates air, noise, land and water pollution. The existing gravel pit operations on the site do not operate under an Environment Protection Licence (EPL) and Parkes Shire Council is the Appropriate Regulatory Authority (ARA) for general pollution control matters in the Parkes LGA. The nature and scale of the proposed new gravel pit operations does not fall under the threshold triggers that would require licensing by EPA under the POEO Act. No licence approvals are required.

4.3.8. Work Health and Safety Act 2011

The management and handling of hazardous substances and dangerous goods in NSW is controlled under the Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011. There are also Hazardous and Offensive Development Application Guidelines that apply in NSW. No hazardous or offensive goods are currently stored or handled at the Lees Pit site in large quantities. Any handling of fuel, oils and chemicals will be temporary in nature and carefully limited / managed by PSC staff or approved contractors. A specific approval under this legislation and policy framework is not required to be obtained for the proposal.

4.3.9. Waste Management Act 2000

The objective of the Water Management Act 2000 (WM Act) is the sustainable and integrated management of the State's water sources for the benefit of both present and future generations by applying the principles of ecologically sustainable development to protect, enhance and restore water sources and their associated ecosystems, ecological processes and biological diversity and their water quality. The objectives of the Act were considered throughout the planning and design phases of this development. The watercourses and groundwater in the vicinity of the property will be protected through design and management practices, including diversion banks and sediment basins. The proposal is unlikely to intercept groundwater and any sediment basin and residual water storage structures will be within the maximum harvestable rights for the site. Water impacts are addressed in Section 5 of this SEE. In general, no specific approvals are required under the WM Act.

4.3.10. Rural Fires Act 1997

The Rural Fires Act (RF Act) 1997 requires approval of development on bushfire prone land as identified by a bushfire prone land map prepared under Section 146 of the EP&A Act. Review of the Rural Fire Service website and ePlanning Spatial viewer indicates the Lees Pit is located on land comprising bushfire prone land.

Bushfire risk is addressed in Section 5 of this SEE. In general, no specific impact mitigation or approvals are required under the RF Act to manage bushfire risk.

4.3.11. Noxious Weeds Act 1993

The Noxious Weeds Act 1993 (NW Act) provides for the declaration of noxious weeds by the Minister for Primary Industries. Noxious weeds may be considered noxious on a National, State, Regional or Local scale. All private landowners, occupiers, public authorities and Councils are required to control noxious weeds on their land under Part 3 Division 1 of the NW Act. Weed management is addressed in Section 5 of this SEE. In general, no specific impact mitigation or approvals are required under the Noxious Weeds Act to manage noxious weeds.

4.3.12. Contaminated Land Management Act 1997

Parkes Shire Council is required to notify the EPA if contamination is discovered that presents a significant risk of harm. Guidelines on the Duty to Report Contamination under the *Contaminated Land Management Act 1997* are available on the EPA website. EPA notification is not required to be obtained for the proposed activities at the subject site.

4.4. State Environmental Planning Policies (SEPP)

4.4.1. SEPP – Planning Systems 2021

The Planning Systems SEPP identifies significant development and infrastructure and confer functions on Regional Planning Panels to determine development applications. The proposal is not classified as 'State Significant Development' or 'Regional Development' and will be assessed and determined by Parkes Shire Council as local development.

4.4.2. SEPP – Biodiversity and Conservation 2021

The Biodiversity and Conservation SEPP aims to protect the biodiversity values of trees and other vegetation in non-rural areas of the State and preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation. Provisions protecting bushland, trees, heritage items, waterways, wetlands and koalas are included in the SEPP. An assessment of relevant issues is provided in Section 5 of this SEE, however no significant impacts on biodiversity values are assessed to apply.

4.4.3. SEPP – Resources and Energy 2021

The Resources and Energy SEPP recognises the importance of mining, petroleum production and extractive industries to NSW and aims to provide for the proper management and the orderly development of land containing minerals, petroleum products and extractive materials. The SEPP permits extractive industries where agricultural or industry purposes may be carried, such as the RU1 Primary Production zone that applies to the site. The SEPP aims to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment and sustainable management of these resources. Part 2 of the SEPP establishes specific requirements for the assessment of development pursuant to the SEPP.

An assessment against the provisions of the SEPP is provided in Table 1.

Table 1 – RE SEPP Assessment

Section	Subsection	Clause Description	Assessment
2.16		Non-discretionary development standards for mining	Not applicable as the proposal is not a mine
2.17	Compatibility of proposed mine, petroleum production or extractive industry with other land uses		
	Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must—		
	(a)(i)	The existing uses and approved uses of land in the vicinity of the development, and	The existing use of the site and surrounding land is for extractive industry, bushland regeneration and livestock grazing
	(a)(ii)	The existing use of the site and surrounding land is for extractive industry, grazing and cropping.	the proposal will occupy an existing / historic gravel pit, within an area of bushland that is used for livestock grazing and stock shelter
	(a)(iii)	Any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and	The proposal is not incompatible with the existing use of the site and surrounding land
	(b)	Evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a)(i) and (ii), and	The proposal is to operate a gravel pit on less than 2ha. The gravel pit materials will be used on local roads and will provide public benefit through reduced traffic impacts on the local road network by providing a supply of road base and gravel re-sheeting material
	(c)	Evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii).	The proposal is compatible with the existing and approved uses of the land in the vicinity of the site
2.18	Consideration of voluntary land acquisition and mitigation policy.		
			Not applicable as the proposal is for extractive industry and is not in the vicinity of an existing mine, petroleum production facility or extractive industry

Section	Subsection	Clause Description	Assessment
2.19	Compatibility of proposed development with mining, petroleum production or extractive industry.		
			Not applicable as the proposal is for extractive industry and is not in the vicinity of an existing mine, petroleum production facility or extractive industry
2.20	Natural resources management and environmental management		
	(1)	Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following—	See below
	(1)(a)	That impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable,	Impacts to water are addressed in Section 5
	(1)(b)	That impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,	Impacts to biodiversity are addressed in Section 5
	(1)(c)	That greenhouse gas emissions are minimised to the greatest extent practicable.	Greenhous gas emissions are addressed in Section 5
	(2)	Without limiting subclause (1), in determining a development application for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development and must do so having regard to any applicable State or national	Greenhouse gas emissions are addressed in Section 5

Section	Subsection	Clause Description	Assessment
		policies, programs or guidelines concerning greenhouse gas emissions.	
	(3)	Without limiting subclause (1), in determining a development application for development for the purposes of mining, the consent authority must consider any certification by the Chief Executive of the Office of Environment and Heritage or the Director-General of the Department of Primary Industries that measures to mitigate or offset the biodiversity impact of the proposed development will be adequate.	Impacts to biodiversity are addressed in Section 5
2.21	Resource Recovery		
	(1)-(3)	Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider the efficiency or otherwise of the development in terms of resource recovery Before granting consent for the development, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at optimising the efficiency of resource recovery and the reuse or recycling of material. The consent authority may refuse to grant consent to development if it is not satisfied that the development will be carried out in such a way as to optimise the efficiency of recovery of minerals, petroleum or extractive materials and to minimise the creation of waste in association with the extraction, recovery or processing of minerals, petroleum or extractive materials.	The proposal is unlikely to generate waste other than typical commercial waste associated with the operation of quarry by staff and mobile processing plant and plant and equipment The extraction of material will be efficient, relying on mechanical means only and not requiring blasting. Processing and stockpiling of material will be undertaken in an efficient manner by modern mobile processing plants and equipment. The proximity of the proposal to the local road network will assist in the efficient delivery of gravel material and minimise haul routes and avoiding impacts on the local road network Any quarry material produced that cannot be used by the PSC will be retained on site and reused in the rehabilitation of the site
	(2)		
	(3)		
2.22	Transport		
	(1)(a)-(c)	Before granting consent for development for the purposes of mining or extractive	The proposal is to deliver gravel material directly to local roads in the

Section	Subsection	Clause Description	Assessment
		industry that involves the transport of materials, the consent authority must consider whether or not the consent should be issued subject to conditions that do any one or more of the following— a. require that some or all of the transport of materials in connection with the development is not to be by public road, b. limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools, c. require the preparation and implementation, in relation to the development, of a code of conduct relating to the transport of materials on public roads.	Parkes Shire and generally within 20km from Lees Pit. PSC has adopted procedures and training to ensure transport haulage operations follow best practice standards
	(2)(a)-(b)	If the consent authority considers that the development involves the transport of materials on a public road, the consent authority must, within 7 days after receiving the development application, provide a copy of the application to— a. each roads authority for the road, and b. the Roads and Traffic Authority (if it is not a roads authority for the road).	The proposal involves access from The Grange Lane. No upgrades to existing access are proposed. The proposal is not traffic generating development
2.23	Rehabilitation		
	(1)	Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring the rehabilitation of land that will be affected by the development.	See below
	(2)(a)-(d)	In particular, the consent authority must consider whether conditions of the consent should—	A rehabilitation plan has been prepared for the proposal so that the site will be returned to the

Section	Subsection	Clause Description	Assessment
		(a) require the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated, or	landowner suitable for the establishment of grazing and bushland
		(b) require waste generated by the development or the rehabilitation to be dealt with appropriately, or	Any waste will be recycled or disposed of at an approved waste facility
		(c) require any soil contaminated as a result of the development to be remediated in accordance with relevant guidelines (including guidelines under clause 3 of Schedule 6 to the Act and the Contaminated Land Management Act 1997), or	Soil contamination is unlikely, and any minor fuel or oil spills will be addressed as part of the rehabilitation of the site
		(d) require steps to be taken to ensure that the state of the land, while being rehabilitated and at the completion of the rehabilitation, does not jeopardize public safety.	

4.4.4. SEPP – Primary Production 2021

The Primary Production SEPP aims to facilitate the orderly economic use and development of lands for primary production by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources in the State.

Lees Pit is an existing / historic quarry that is located on land RU1 Primary Production under the Parkes Local Environmental Plan 2012. The proposed extractive industry works are permitted on land zoned RU1. The site is not State Significant agricultural land and there are no requirements under the SEPP that apply to the proposed quarry.

4.4.5. SEPP – Transport and Infrastructure 2021

The Transport and Infrastructure SEPP provides a consistent planning regime for infrastructure and the provision of services and public works across NSW, along with providing for consultation with relevant public authorities during the development assessment process.

The proposal involves access from The Grange Lane that intersects with The Bogan Way. On the eastern side of The Bogan Way is the Bogan Gate – Tottenham Railway. No upgrades to existing accesses or railway level crossings are proposed. The proposed development is not traffic generating development as defined under Schedule 3 of the Infrastructure SEPP and is not development that has implications for main roads.

Section 2.48 of the SEPP requires consideration of electricity supply requirements, where the development is:

- Within or immediately adjacent to an easement for electricity purposes (whether or not the electricity infrastructure exists).
- Immediately adjacent to an electricity substation.

- Within 5m of an overhead power line.
- Includes installation of a swimming pool any part of which is within 30m of a structure supporting an overhead electricity transmission line and / or within 5m of an overhead electricity power line.
- Placement of power lines underground.

Power supply is not connected to the Lees Pit. There are no overhead powerlines near the proposed quarry. There are no aspects of the development proposal that impacts on electricity supply services, as per SEPP requirements.

4.4.6. SEPP – Exempt and Complying Development Codes 2008

The Exempt and Complying Development Codes SEPP permits certain activities without consent or by issue of a Complying Development Certificate. The proposal is neither exempt or complying development, and development consent is sought for the proposed extractive industry operations at Lees Pit.

4.4.7. SEPP – Resilience and Hazards 2021

This SEPP requires that a consent authority must consider the contamination potential of the land, and if the land is contaminated, it is satisfied that the land is suitable for the development in its contaminated state, or that appropriate arrangements have been made to remediate the site prior to the development being carried out.

The site has been used as a gravel pit for many years. There are no known fuel storages located on the site. Small quantities of fuels, oils, greases and chemicals may have been brought to the site for site / plant maintenance.

Visual inspection of the site does not reveal any evidence of contamination of chemicals, fuels or waste dumps. A search of the NSW contaminated land register and Parkes Shire Council's Contaminated Sites Register does not show the site as contaminated land. It is not proposed to change the use of the site for continued gravel pit operations, and the quarry will continue to operate within the confines of the site and involve modern work practices that should not increase current contamination risk at the site or adjoining lands. Upon the cessation of extraction, the proposal will involve full rehabilitation of the site including removal of infrastructure.

Based on existing operations, the site is considered suitable for the proposed gravel pit operations. No further investigations / actions are considered necessary.

4.5. Local Environmental Plans

4.5.1. Parkes Local Environmental Plan 2012

The Parkes Local Environmental Plan 2012 (PLEP) applies to all land within the Parkes Local Government Area. The site of the proposed development is zoned RU1 – Primary Production under the PLEP.

The proposed land use is defined as 'extractive industry' under the PLEP:

> *"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"*

An extractive industry land use within the RU1 Primary Production zone is a permissible land use with development consent.

The objectives of the zone RU1 are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To encourage eco-tourism enterprises that minimise any adverse effect on primary industry production.
- To permit non-agricultural uses that support the primary production purposes of the zone.
- To permit small scale rural tourism uses associated with primary production and environmental conservation with minimal impact on primary production and the scenic amenity of the area.
- To encourage the provision of tourist accommodation in association with agricultural activities.
- To provide opportunities for employment-generating development that adds value to local agricultural production and integrates with tourism.

The proposed development is for an extractive industry, which is permissible with consent within the RU1 Primary Production zone. The proposal has been carefully designed to respond to existing site conditions, adjoining land-uses and the natural resources of the area. The site will be returned to rural and agricultural uses at the end of life of the proposal with no significant change in land capability. The continued utilisation of the balance of the site for rural and agricultural uses will minimise potential fragmentation and alienation of agricultural land. The proposal is not considered to conflict with the adjoining land-uses based on the assessments undertaken as part of this SEE. The proposed development is therefore considered to be both compatible and consistent with the surrounding land-uses and meets the objectives of the RU1 Primary Production zone.

A number of special provisions under the PLEP apply to the proposal. An assessment of the proposal against the relevant provisions of the PLEP is provided below:

Clause 2.6 Subdivision consent requirements

The Lees Pit is located wholly on Lot 1 DP 1146416. It is not necessary to undertake any subdivision of the land and Clause 2.6 does not apply.

Clause 5.11 Bush fire hazard reduction

The site is not mapped as bush fire prone land. Management of fire emergency situations is discussed in Section 5 of this SEE.

Clause 6.1 Earthworks

The proposal involves earthworks associated with extraction of gravel resources from part of the existing gravel pit and progressive rehabilitation of the balance of the historic pit. Soils and water quality impacts are addressed in Section 5 of this SEE. In general, no significant implications on environmental functions and processes, neighbouring uses, cultural or heritage items, drainage patterns, existing vegetation or other features of the surrounding land have been identified that can't be addressed through mitigating potential impacts.

Clause 6.2 Terrestrial Biodiversity

Clause 6.2 of the PLEP identifies the following objectives regarding terrestrial biodiversity:

a. protecting native fauna and flora, and

b. protecting the ecological processes necessary for their continued existence, and

c. encouraging the conservation and recovery of native fauna and flora, and their habitats.

The site is mapped as 'biodiversity' on the Natural Resource – Biodiversity Map of PLEP. Section 5 of this SEE provides an assessment of the potential biodiversity impacts of the proposal. In general, no significant impacts are assessed given the proposal involves no clearing of native vegetation.

Clause 6.7 Essential services

The existing gravel pit is already established with no connections to power, telecommunications, gas, town water supply or sewerage. No upgrades to existing accesses, public roads, water supplies, sewerage or lighting are considered necessary to accommodate the proposal.

4.6. Development Control Plans

4.6.1. Parkes Shire Council Development Control Plan

The Parkes Shire Development Control Plan 2021 (DCP) applies to the development site and there are no specific provisions relating to extractive industries.

4.7. Contribution Plan

4.7.1. Parkes Shire Council Road Contributions Plan

The Parkes Shire Council Road Contributions Plan 2016 applies to the developments that generate heavy haulage vehicle movements in the Parkes Shire.

Certain developments which use heavy vehicle haulage are exempt from the payments for the heavy vehicle contribution, in order to assist the viability of smaller local scale enterprises.

Given that truck haulage from Lees Pit is associated with an existing gravel quarry and Parkes Shire Council's Roads Program, the impact on local roads is offset by the benefits produced from road construction and maintenance. The Parkes Shire Council Road Contributions Plan 2016 is not considered to apply to the proposal.

5. ASSESSMENT OF ENVIRONMENTAL ISSUES

The main environmental issues that have been raised and investigated as part of the design process for the proposed development have been documented in this section. Each issue is investigated by way of introducing the key issue(s), documenting existing conditions, assessing impacts and proposing management and mitigation measures.

5.1. Biodiversity

5.1.1. Introduction

Under the BC Act, local development (assessed under Part 4 of the EP&A Act) that is proposed to significantly affect threatened species or that triggers the Biodiversity Offsets Scheme (BOS) threshold will be subject to the BOS and require the preparation of a Biodiversity Development Assessment Report (BDAR) by an accredited assessor to apply the Biodiversity Assessment Method (BAM).

A Biodiversity Assessment has been undertaken in this section to provide an overview of key ecological values of the local area and to assess the proposal's potential impacts on biodiversity. The assessment is based on a desktop review and field survey. The assessment considers specific legislative requirements relating to flora and fauna, including:

- Effects on threatened species, populations and ecological communities, as listed under the BC Act; and
- Likely impacts on nationally listed threatened species, populations, and ecological communities, as listed under the EPBC Act.

5.1.2. Assessment of existing condition

Lees Pit is located within the Parkes Local Government Area (LGA). The site is accessed off The Grange Lane. The site is zoned RU1 – Primary Production. The total area disturbed by the existing / historic gravel pit is 2ha.

The topography of the site is largely influenced by historic settlement in and around Bogan Gate. Land-use surrounding the gravel pit is rural land (supporting grazing and cropping activities), except for the small blocks that were associated with early settlement to the west of the site. Vegetation in the proposal area has been highly modified and consists of isolated paddock trees with a grassy / weedy / cropped groundcover.

Table 2 below provides further environmental context:

Table 2 – Environmental Context Summary

Attributes	Description
LGA	Parkes
Zoning	RU1 Primary Production
Catchment	Lachlan River
IBRA Bioregion	NSW South Western Slopes
IBRA Subregion	NSS Lower Slopes
Mitchell Landscape	Goonumbla Hills - Rounded low hills - general elevation 290 to 390m, local relief 70m. Stony yellow earths on the sands, thin brown structured loams on the hills merging with red-brown and red texture-contrast soils on the flats. Open forest of grey box (Eucalyptus microcarpa), white cypress pine (Callitris glaucophylla), with bimble box (Eucalyptus populnea) in the creeks and red ironbark (Eucalyptus sideroxylon) with shrubs on the gravels. Extensively cleared, grazed and cultivated.
Nearest Waterway	Botfields Creek, located approximately 99m east of Lees Pit. The creek flows in a south-westerly direction into the Goobang Creek and then into the Lachlan River.
Nearest NPWS Park	Goobang National Park (55km east of the site).
Soils	Ordovician and silurian sandstone, andesite, siltstone and phyllite with a partial blanket of Tertiary quartz gravels and sands.
Biodiversity Values Map	No biodiversity values are mapped within the proposal area.

The Central West / Lachlan Regional Native Vegetation PCT Map (OEH, 2015) suggests the following vegetation communities associated with the BC Act occur within the proposal area:

- White Box Yellow Box Blakely's Red Gum Woodland Endangered Ecological Community (EEC). The community is also listed under the EPBC Act as the White Box-Yellow Box-Blakely's Red Gum grassy woodlands and derived native grasslands.
- Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions EEC. The community is also listed under the EPBC Act as the Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of Eastern Australia EEC.
- Fuzzy Box on alluvials of the South West Slopes, Darling Riverine Plains and the Brigalow Belt South Bioregions EEC.
- Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray Darling Basin, Riverina and NSW South Western Slopes Bioregions; and

Field assessment confirms one predominant plant type along the subject site, being PCT76: Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions.

The results of the desktop review and the field assessment were collated and reviewed in the context of local ecological knowledge to provide a broad assessment of the habitat on the site and around the study area.

The findings of the habitat assessment are summarised in the Table 3.

Table 3 – Habitat Values Assessment

Factor	Impact
Land identified on the Biodiversity Values Map under the NSW *BC Act 2016*?	No
Area of Outstanding Biodiversity Value (AOBV) under the NSW *BC Act 2016*?	No
Critical habitat nationally?	No
An area reserved or dedicated under the *National Parks and Wildlife Act 1974*?	No
Is the proposal located within land reserved or dedicated within the meaning of the *Crown Lands Act 1989* for preservation of other environmental protection purposes?	No
A World Heritage Area?	No
Environmental Protection Zones in environmental planning instruments?	Yes
Lands protected under *SEPP (Biodiversity and Conservation) 2021?*	No
Land identified as wilderness under the *Wilderness Act 1987* or declared as wilderness under the *National Parks and Wildlife Act 1974*?	No
Aquatic reserves dedicated under the *Fisheries Management Act 1994*?	No
Aquatic Threatened Ecological Community?	No
Wetland areas dedicated under the Ramsar Wetlands Convention?	No
Land subject to a conservation agreement under the *National Parks and Wildlife Act 1974*?	No
Land identified as State Forest under the *Forestry Act 1916*?	No
Acid sulphate area?	No
Protected riparian habitat?	No
Mapped Key Fish Habitat?	No
Hollow bearing trees were recorded within the subject site.	Yes

An assessment against MNES: Significant Impact Guidelines 2013 was undertaken to provide guidance on determining whether an action is likely to have a significant impact on a matter protected under the Environment Protection and Biodiversity Conservation Act 1999. In determining the nature and magnitude of impacts, the following were considered:

- The EPBC Act protected matters search tool: www.environment.gov.au/erin/ert/epbc/index.html
- Lists of threatened species and ecological communities: www.environment.gov.au/epbc/protect/species-communities.html
- List of migratory species: www.environment.gov.au/epbc/protect/migratory.html
- List of Australia's Ramsar Wetlands map: www.environment.gov.au/epbc/protect/wetlands.html
- Commonwealth marine environment information: www.environment.gov.au/epbc/protect/marine.html
- World Heritage properties map: www.environment.gov.au/epbc/protect/heritage.html
- National Heritage places map: www.environment.gov.au/epbc/protect/heritage.html
- Great Barrier Reef Marine Park information: www.gbrmpa.gov.au
- Water resource mapping: www.environment.gov.au/epbc/about/water-trigger.html

The findings of the MNES assessment is provided in Table 4.

Table 4 – MNES Assessment

Factor	Impact
Any impact on a World Heritage property?	No
Any impact on a National Heritage place?	No
Any impact on a wetland of international importance?	No
Great Barrier Reef Marine Park	No
Commonwealth Marine Area	No
Any impact on a listed threatened species or communities?	No
Any impacts on listed migratory species?	Yes (non-significant)
Any impact on a Commonwealth marine area?	No
Does the proposal involve a nuclear action (including uranium mining)?	No
Additionally, any impact (direct or indirect) on Commonwealth land?	No
Any impact on a water resource, in relation to coal seam gas development and large coal mining development?	No

No entities listed under the EPBC Act are likely to be significantly impacted by this proposal.

5.1.3. Assessment of potential impact

The proposed gravel pit footprint is approximately 1.98ha and within the previously disturbed pit area.

The proposed gravel pit site is devoid of native vegetation, except for a central highly disturbed pocket of box eucalypt trees and native vegetation fringing the perimeter of the gravel pit site which has been previously disturbed to various extents.

Remnant woodland vegetation in close proximity to the proposed gravel pit site comprises white cypress pine (Callitris glaucophylla), grey box (Eucalyptus microcarpa), Mugga iron bark (Eucalyptus sideroxylon) and a grassy / weedy understorey.

It is proposed to remove vegetation towards the centre of the existing gravel quarry to allow for further development of the pit to a depth of approximately 15m below natural ground surface. This central / deeper pit expansion is proposed to source higher grade gravel material and to create a suitably graded and safe embankments around the perimeter of the quarry.

A significance assessment under Section 1.7 of the EP&A Act which takes into consideration Part 7 of the BC Act determining whether the proposal is likely to significantly affect threatened species and / triggers the Biodiversity Offsets Scheme (BOS) is provided in Table 3 – BC Significance Assessment:

Table 3 – BC Significance Assessment

Test	Assessment
Section 7.3(1)(a) - likely adverse affect on the life cycle of threatened species	The site is comprised of pastureland and native vegetation. The proposed PSC gravel pit operations are to be located within an historic gravel pit that is devoid of native vegetation. Vegetation around the periphery of the site is proposed to cleared to achieve safe batters and separation from quarrying operations. The proposed development is not likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction. There is potential for occasional foraging occurring within the site. Breeding for species is more likely to occur along the creeks and denser forests.
Section 7.3(1)(b) - likely adverse effect on the extent or composition of an endangered ecological community	There are no endangered ecological communities identified at the site.
Section 7.3(1)(c) - likely adverse affects on habitat of threatened species or ecological community	No foraging areas / food resources are likely to be impacted by the proposal. The extent of impacts would be low, given the highly disturbed nature of the site and limited clearing proposed.

Test	Assessment
Section 7.3(1)(d) - likely adverse affect on declared area of outstanding biodiversity value	No Areas of Outstanding Biodiversity Value are recorded to occur on or around the site, as defined under the BC Regulation 2017. The proposal will not have an adverse effect on any declared area of outstanding biodiversity value.
Section 7.3(1)(e) - potential for the development to be part of a key threatening / impact process	The proposal would not significantly increase the prevalence or risk of key threatening process. The potential for foraging over the quarry site is severely limited and unlikely to occur. Management and mitigation strategies to be adopted at the PSC gravel pit (see below) will minimise impacts and improve habitat value over time.

5.1.4. Management and mitigation

While a BDAR is not required for the proposal, it is important that measures are taken to minimise impacts on the receiving environment in and around the gravel pit site. Table 5 – Biodiversity Management Measures outlines the proposed management measures to reduce impacts on biodiversity:

Table 5 – Management and Mitigation

Impact	Management Measures
Pre-construction	
General	The limits of the gravel pit and access road will be delineated using appropriate fencing, signage and barriers, identified on concept rehabilitation plan, and during staff induction training. Procedures will be implemented for unexpected threatened species finds and fauna handling as well as protocols to manage weeds and pathogens.
Vegetation clearing	The limits of the gravel pit and access road will be delineated using appropriate fencing, signage and barriers, identified on concept rehabilitation plan, and during staff induction training.
Invasion and spread of pathogens and disease	Pathogen control protocols shall be developed and implemented in accordance with the requirements of the Biosecurity Act 2015.
Invasion and spread of weeds	Weed control protocols shall be developed and implemented as gravel pit operations.
During construction / operation	

Impact	Management Measures
Fauna protection	Suitable fauna protection protocols are to be utilised. This includes the undertaking of pre-clearance surveys, provision of compensatory nest boxes, procedures to safely fell habitat trees and release areas for any rescued fauna should there be a need for minor clearing of trees for safety / operational reasons.
Threatened species protection	If unexpected, threatened fauna or flora species are discovered, works which may disturb the species must cease until any potential impacts are reviewed and assessed by a suitably qualified ecologist.
Disturbance to fallen timber and dead wood	Any woody debris should be re-used on site for habitat improvement. Woody debris should be lifted and placed appropriately outside the construction footprint in an adjacent area of project sites to enhance habitat. If long logs are required to be cut to assist relocation, logs must be cut away from hollow ends.
Pest animal monitoring / control	Pest animals such as rodents, foxes, rabbits, wild dogs and feral cats are controlled on an as needs basis.
Post operation	
Preparation of a site rehabilitation plan	A Concept Rehabilitation Plan has been prepared in consultation with the landowner. A final rehabilitation plan will be developed in accordance with the landowner needs prior to quarry shut down.

Other management measures that are described in this SEE also manages and mitigates impacts to biodiversity values by way of:

- Surface water management measures.
- Waste management measures.
- Bushfire management measures.
- Rehabilitation management measures.

5.2. Water Quality

5.2.1. Introduction

The proposal involves an extractive industry operation at Lees Pit. The proposed new gravel pit will have an area less than 1.98ha. Surface water runoff from the gravel pit will be well-contained within the site. The new pit design will involve water storage structures (sediment basins) less than the harvestable rights. It is not proposed to excavate to groundwater level, which is estimated at depth. On this basis, a surface water and ground water impact assessment has been prepared for the proposal.

5.2.2. Assessment of existing condition

Water uses surrounding the site include on-farm storage in dams. The site is not affected by the "Flood Planning" layer identified by Council or under the NSW Planning Portal. The likelihood of a flood inundating the site is low. The site is not located on land identified as groundwater vulnerable identified by Council or under the NSW Planning Portal. A number of bores in vicinity of the Lees Pit have been identified from the Water NSW database. In general, bores are used for stock and domestic purposes and have been primarily installed to target relatively deep aquifers.

5.2.3. Assessment of potential impact

The depth of extraction is unlikely to intercept groundwater which is at depth in the area. The proposal does not include extraction or interception of groundwater.

It is proposed to manage the disturbed quarry area by diverting all surface water to a sediment basin at the northern end of the quarry site. Clean over land flow water from upslope will be diverted around the disturbed gravel pit area by diversion bunds or diversion drains. The sediment basins would be significantly less than the maximum harvestable right dam capacity for the site.

The proposal is unlikely to impact on surface water or ground water due to separation from groundwater and nearby waterways, the limited area of disturbance, small scale of the activity and implementation of management measures.

5.2.4. Management and mitigation

The proposed management measures to reduce impacts on water resources are as follows:

- No groundwater will be taken.
- Stormwater runoff entering the site from external areas, and non-sediment laden (clean) stormwater runoff entering a work area or area of soil disturbance will be diverted around or through that area in a manner that minimises soil erosion and the contamination of that water for all discharges up to the specified design storm discharge.
- All reasonable and practicable measures will be implemented to control flow velocities in such a manner than prevents soil erosion along drainage paths and at the entrance and exit.
- Internal drainage channels will be constructed with silt traps. Such silt traps shall be cleared at regular intervals.
- Quarry and working benches shall be drained to the sediment basin.
- Operational water for dust suppression will be sourced from the sediment basin for the proposal. Where water is not available from the sediment basin it will be sourced from licenced water suppliers.

- The sediment basin will be designed to capture and treat stormwater prior to discharge in all cases to achieve water quality release limits of, 6.5 – 8.5 pH and 50 mg/L Total Suspended Soils (TSS).
- An Erosion and Sediment Control Plan would be implemented at the site in accordance with Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom, 2004).

5.3. Air Quality

5.3.1. Introduction

The proposed new gravel pit is well separated from the nearest sensitive receptor and is unlikely to result in air quality impacts over and above that otherwise associated with the exiting rural uses of the land. On this basis, an air quality impact assessment has been prepared for the proposal.

5.3.2. Assessment of existing condition

The proposal involves continued extractive industry operations within an existing gravel pit. The proposal will disturb less than 1.98ha.

5.3.3. Assessment of potential impact

The POEO Act sets the statutory framework for managing air quality in NSW, including establishing the licensing scheme for major industrial premises and a range of air pollution offences and penalties.

The POEO (Clean Air) Regulation 2010 sets standards of concentration for emissions to air from both scheduled and non-scheduled activities. For the proposal activities, the POEO (Clean Air) Regulation provides general standards of concentration for scheduled premises which are:

- Solid particles (total) – Any activity or plan (except listed below) – 50mg m^3.
- Solid particles (total) – Any crushing, grinding, separating or materials handling – 20mg m^3.

Further to the requirements above, Part 4 Clause 15 of the POEO (Clean Air) Regulation requires that motor vehicles do not emit excessive air impurities which may be visible for a period of more than 10-seconds when determined in accordance with the relevant standard. Schedule 8 of the POEO (Clean Air) Regulation indicates that burning of vegetation is prohibited, except with approval.

There is potential for emissions to air from the following:

- Removal of overburden, loading of haul trucks, transport, unloading, and storage of overburden.
- Mechanical extraction (bulldozer, excavator or front-end loader).
- Processing of rock, and storage in stockpiles.
- Loading of haul trucks, transport, unloading and haulage offsite.
- Wind erosion of parts of the extraction area and processing area.
- Emissions from vehicle and generator exhaust.

The specific pollutants of interest associated with those activities are:

- Total suspended particulate (TSP).
- Particulate matter with an aerodynamic diameter of 10 microns (PM10).
- Particulate matter with an aerodynamic diameter of 2.5 microns (PM2.5).

Emissions of particulate matter associated with construction phase and operational phase activities are unlikely to have a significant impact on air quality due to the separation from nearby sensitive receptors, limited area of disturbance, small scale of the activity and implementation of management measures.

Emissions of noxious carbon monoxide (CO) and sulphur dioxide (SO2) related to diesel combustion would are also unlikely to have a significant impact on air quality (in addition to particulates considered above) given the distances between the proposal and nearest sensitive receptors and the quantity of equipment operating on site.

It is not anticipated that any air quality monitoring would be required to be performed, although it is recommended that regular audits are performed to ensure that the site is implementing the air quality control measures appropriately.

5.3.4. Management and mitigation

Procedures would be developed for the proposed quarry linking visible dust generation from all activities with wind conditions experienced at the gravel pit site. A range of actions would be listed which would be adopted to reduce visible dust generation, until such time as the adopted trigger levels have reduced.

The proposed emissions controls to be employed at the site are as follows:

- Application of water on internal haulage roads and pit or the use of dust suppression additives for dust control (if required) or closure of pit operations.
- Application of water sprays on materials crushing operations.
- Application of water sprays on materials screening operations.
- Retention of particulate matter within the pit for activities occurring in the pit.
- Covering loads with a tarpaulin.
- Limit load sizes to ensure material is not above the level of truck sidewalls.
- Minimising travel speeds and distances.

5.4. Noise and Vibration

5.4.1. Introduction

The proposal involves continued extractive industry operations within an existing gravel pit. The proposed new gravel pit is well separated from the nearest sensitive receptor and is unlikely to result in noise or vibration impacts. On this basis, a noise impact assessment has been prepared for the proposal.

5.4.2. Assessment of existing condition

The proposal involves continued extractive industry operations at an existing / historic gravel pit site. It is assumed all noise sources will be contained with the quarry footprint area, including excavators and front-end loaders for extraction, a mobile processing plant for processing the material and a front-end loader for stockpiling material and loading of haul trucks and haulage offsite.

5.4.3. Assessment of potential impact

The POEO Act sets the statutory framework for managing noise and vibration in NSW. The EPA released the Noise Policy for Industry (NPI) in October 2017 which provides a process for establishing noise criteria for consents and licenses enabling the EPA to regulate noise emissions from scheduled premises under the POEO Act. The objectives of the NPI are to:

- Provide noise criteria that is used to assess the change in both short term and long term noise levels;
- Provide a clear and consistent framework for assessing environmental noise impacts from industrial premises and industrial development proposals;
- Promote the use of best-practice noise mitigation measures that are feasible and reasonable where potential impacts have been identified; and
- Support a process to guide the determination of achievable noise limits for planning approvals and/or licences, considering the matters that must be considered under the relevant legislation (such as the economic and social benefits and impacts of industrial development).

The policy sets out a process for industrial noise management involving the following key steps:

a. Determine the Project Noise Trigger Levels (PNTLs) (i.e. criteria) for a development. These are the levels (criteria), above which noise management measures are required to be considered. They are derived by considering two factors: shorter-term intrusiveness due to changes in the noise environment; and maintaining the noise amenity of an area.

b. Predict or measure the noise levels produced by the development with regard to the presence of annoying noise characteristics and meteorological effects such as temperature inversions and wind.

c. Compare the predicted or measured noise level with the PNTL, assessing impacts and the need for noise mitigation and management measures.

d. Consider residual noise impacts - that is, where noise levels exceed the PNTLs after the application of feasible and reasonable noise mitigation measures. This may involve balancing economic, social and environmental costs and benefits from the proposed development against the noise impacts, including consultation with the affected community where impacts are expected to be significant.

e. Set statutory compliance levels that reflect the best achievable and agreed noise limits for the development.

f. Monitor and report environmental noise levels from the development.

Project Noise Trigger Levels

The policy sets out the procedure to determine the PNTLs relevant to an extractive industry development. The PNTL is the lower (i.e. the more stringent) of the Project Intrusiveness Noise Level (PINL) and Project Amenity Noise Level (PANL) determined in accordance with Section 2.3 and Section 2.4 of the NPI.

Project Intrusiveness Noise Level (PINL)

The PINL (LAeq(15min)) is the RBL + 5dB and seeks to limit the degree of change a new noise source introduces to an existing environment. Hence, when assessing intrusiveness, background noise levels need to be measured / predicted.

For low noise environments, such as rural environments like the Lees Pit site, minimum assumed RBLs apply within the NPI and can be adopted in lieu of completing background noise measurements. This is considered the most conservative method for establishing noise criteria for a project. These result in minimum intrusiveness noise levels as follows:

- Minimum Day RBL = 35dBA;
- Minimum Evening RBL = 30dBA; and
- Minimum Night RBL = 30dBA.

Due to the rural nature of the locality, the PINLs for the Lees Pit are assumed to be based on the minimum RBL+5dBA.

Project Amenity Noise Level (PANL)

The PANL is relevant to a specific land use or locality. To limit continuing increases in intrusiveness levels, the ambient noise level within an area from all combined industrial sources should remain below the recommended amenity noise levels specified in Table 2.2 of the NP). The NPI defines two categories of amenity noise levels:

- Amenity Noise Levels (ANL) – are determined considering all current and future industrial noise within a receiver area; and
- Project Amenity Noise Level (PANL) – is the recommended level for a receiver area, specifically focusing the project being assessed.

PANL for new industrial developments = recommended ANL minus 5dBA. The following exceptions apply when deriving the PANL:

- Areas with high traffic noise levels;
- Proposed developments in major industrial clusters;
- Existing industrial noise and cumulative industrial noise effects; and
- Greenfield sites.

Where the PANL is applicable and can be satisfied, the assessment of cumulative industrial noise is not required.

Therefore, the recommended amenity noise levels from the NPI for a Residence in a Rural noise amenity area are:

- Day – 50 dB LAeq(period)
- Evening – 45 dB LAeq(period)
- Night – 40 dB LAeq(period)

Assessment criteria for Lees Pit proposal

- Noise Management Levels (NMLs) for construction activities for all residential receivers are 45dB LAeq(15min) (RBL +10dB).
- The PINLS for the proposal are 35 dB LAeq(15min) for the morning shoulder and 40 dB LAeq(15min) for the day period.

- The PANLs for the proposal are 43 dB LAeq(15min) for the night / morning shoulder and 50 dB LAeq(15min) for the day.
- The PNTLs for the proposal are therefore 35 dB LAeq(15min) for the morning shoulder and 40 dB LAeq(15min) for the day period.

Maximum Noise Level Assessment

The potential for sleep disturbance from maximum noise level events from a project during the night-time period needs to be considered. The NPI considers sleep disturbance to be both awakenings and disturbance to sleep stages. The proposal does not involve night works and no further consideration of this matter is made in this SEE.

Road Noise Policy

The road traffic noise criteria are provided in the Department of Environment, Climate Change and Water NSW (DECCW), Road Noise Policy (RNP), 2011. The policy sets out noise criteria that provide for a degree of amenity appropriate for the land use and road category. Noise emissions associated with haulage of material on local roads are unlikely to have a significant noise impact due to the separation from nearby sensitive receptors and roads, small scale of haulage operations and infrequency of haulage operations.

ANZECC Blasting Guidelines

Noise and vibration levels from blasting are assessable against criteria established in the Australian and New Zealand Environment Conservation Council (ANZECC) – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration. The blasting limits are generally consistent with the guideline levels contained within AS2187:2006 Part 2 – Explosives - Storage and Usage – Part 2. Where compliance is achieved, the risk of human annoyance is minimised.

The proposal may involve limited blasting and therefore the ANECC blasting guidelines is assessed in this SEE. Noise blast emissions are unlikely to have a significant noise or vibration impact due to the separation from nearby sensitive receptors, infrequent blasting regime and the implementation of management measures.

5.4.4. Management and mitigation

The proposed noise management measures are to be employed at the site are as follows:

- Enclose fixed engines, pumps and compressors where practicable.
- Maintain equipment in accordance with the original equipment manufacturer's specifications.
- Shut down equipment when not in use.
- Reduce vehicle speed on internal access roads.
- Heavy mobile equipment (e.g. front-end loaders, dozers, haul trucks, excavators) shall be fitted with broadband reversing alarms to mitigate potential nuisance from tonal characteristics of traditional beeper alarms.
- Avoid unnecessary operation of plant or revving of mobile or stationary motors and engines.
- Mobile plant and equipment operated at the site should be selected and maintained to minimise noise emissions.
- All internal roads for road haulage and off-road trucks shall be constructed and maintained to avoid excessive noise associated with uneven surfaces and potholes.

5.5. Traffic and Transport

5.5.1. Introduction

The proposal involves continued extractive industry operations within an existing gravel pit. All quarry materials from the proposal will be delivered directly to the road network for use by Parkes Shire Council in the construction and maintenance of the local road network. The access onto The Grange Lane is existing. No new works on the public road network is required. On this basis, a traffic impact assessment has been undertaken.

5.5.2. Assessment of existing condition

Vehicular access to the site is already provided via a Crown Road maintained by Parkes Shire Council (refer Figure 3 – Existing Pit Layout Plan).

5.5.3. Assessment of potential impact

The proposal would produce less than 30,000 cubic metres of gravel per annum for direct supply to the local road network for construction and maintenance purposes.

The proposed development is not traffic generating development as defined under Schedule 3 of the Infrastructure SEPP and is not development that has implications for main roads.

Assessment of the implications of the proposed gravel pit has been undertaken against the general functioning of the local road network and railway level crossings in the area. It is assessed the proposal will place no significant additional traffic volumes on level crossings, and there is no warrant for railway / road upgrades. No implications for rail infrastructure / operations are assessed to occur, including stormwater drainage, noise, air quality, overshadowing, visibility, heritage assets or the like.

The impact on the road network will be light vehicles and trucks associated with Parkes Shire Council's Roads Program. Traffic and transport impacts are assessed to be minimal and offset by the benefits produced from road construction and maintenance. No road contributions or road upgrades are warranted.

5.5.4. Management and mitigation

No additional mitigation measures are proposed, other than existing.

5.6. Visual Impacts and Amenity

5.6.1. Introduction

The proposed development will result in minimal changes to the surrounding landscape, given the proposal involves use of an existing gravel pit which is not readily visible from the nearest residential receptors or The Grange Lane.

5.6.2. Assessment of existing condition

The site sits within a context of rural land-use, with isolated dwellings further afield. The gravel pit is not readily visible from the nearest sensitive receptors or to traffic travelling along The Grange Lane.

5.6.3. Assessment of potential impact

An assessment of the potential impacts of the proposed development on visual amenity has been undertaken, including an assessment of the likely visual impacts of the development on private landowners in the vicinity of the development and key vantage points in the public domain.

The visual impacts of the proposal have been assessed against the contrast that will result post new gravel pit operations. It is assessed that the physical changes to the landscape will not create significant impacts on the context and setting of the area, largely due to the separation of the gravel pit from the nearest sensitive receptors.

5.6.4. Management and mitigation

No additional mitigation measures are proposed, other than continued extractive industry operations within the confines of the existing gravel pit and maintenance of existing vegetation around the perimeter of the pit.

5.7. Heritage

5.7.1. Introduction

The Lees Pit site is not listed as heritage items under the PLEP or State Heritage Register. Assessment of the potential impacts associated with cultural and built heritage have been considered in this section.

5.7.2. Assessment of existing condition

There are no recorded Aboriginal heritage sites recorded in and around the site. The proposal involves continued extractive industry operations within an existing gravel pit. The gravel pit site comprises 'disturbed land', as defined under NPW Regulation. The site is not listed as a local heritage item listed under the PLEP or State Heritage Register. There are no features of the site that are particular rare or have significant heritage value.

5.7.3. Assessment of potential impact

A visual inspection of the site reveals a highly disturbed / modified built environment. Section 80B of the NPW Regulation define disturbed land as follows:

> *Land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable. Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below*

ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks.

Due to the highly disturbed nature of the gravel pit site, it is highly unlikely that any items of Aboriginal heritage will be discovered during new pit works. The area of proposed vegetation removal has been inspected and there is no visible evidence of cultural heritage items in the area. The proposal is considered to be a "low impact activity" and is exempt from the Due Diligence process as per Section 80B (1) of the NPW Regulation. Consequently, an Aboriginal Archaeological Due Diligence Assessment is not required.

Assessment of historic and built heritage is open for assessment, based on the matters for consideration under Section 4.15 of the EP&A Act. This assessment has revealed no impacts on heritage items. Consequently, a Heritage Impact Assessment is not required.

5.7.4. Management and mitigation

Due to the disturbed nature of the Lees Pit site, it is unlikely that any items of Aboriginal heritage will be discovered during construction of building improvements. No specific mitigation strategies are proposed, other than general awareness of the legislative protection of Aboriginal objects under the NPW Act in the unlikely event that artefacts are discovered.

5.8. Public Safety Hazards

5.8.1. Introduction

An assessment of the potential impacts of the proposal on:

- hazards;
- worker safety;
- public safety (pedestrian and motorists);
- contamination; and
- waste

in order to minimise safety risks and impacts on the public domain.

5.8.2. Assessment of existing condition

The proposal will utilise standard operational measures that a typical to the industry and the following site-specific hazards identified at the Lees Pit site, as follows:

- The handling, storage and disposal of hydrocarbons.
- Potential for bushfire.
- Potential for unauthorised access to the site.

5.8.3. Assessment of potential impact

The land that accommodates the Lees Pit is mapped as comprising bushfire prone land. The gravel pit site is devoid of vegetation and will have a safe evacuation route to The Grange Lane.

The site is not flood prone.

In relation to public safety risks associated with unauthorised access to the site, the site is fenced, gates would be locked when not in use and appropriate signage alerting the public to the quarry would be placed

at the entrance to the access to the proposal. In addition, the landowner's residence is located within the site and there has been no history of unauthorised access to the site. As a result, public safety risks associated with unauthorised access to the site are considered negligible.

Waste generated by the proposal is likely to be moderate and can be managed appropriately and assuming adherence to industry standard waste management measures. Based on the adoption of these mitigation measures the site can minimise waste management impacts to an acceptable level. In relation to risks associated with hydrocarbons, based on the proposed management and mitigation measures, the risk of hydrocarbon contamination of land is considered to be negligible.

5.8.4. Management and mitigation

The proposal will implement the following risk management measures to minimise the potential for worker and public safety, waste and hazard related impacts:

Bushfire Hazard

Parkes Shire Council has bushfire management and evacuation procedures in place that deal with fires. The proposal would:

- Ensure that the site remains fenced and the entrance is locked when the site is not occupied.
- Store hydrocarbons and hazardous materials in bunded, impervious areas undercover in accordance with the relevant Australian Standard, including AS1940 – The Storage and Handling of Flammable and Combustible Liquids.
- Ensure that fuel loads in undisturbed sections of the site are managed to minimise the potential for bushfire.
- Ensure that all plant is fitted with appropriate fire suppression equipment.
- Ensure that a water cart is available during all extraction campaigns, thereby providing firefighting capabilities if required.
- In the event that the site is threatened by a bushfire, site personnel would be evacuated to the nearest safest place. Alternatively, if evacuation were not possible or safe, the proposal would provide a cleared area for personnel to shelter.

Unauthorised Access

The proposal would ensure that the site remains fenced, and the entrance is locked when the site is not occupied. Appropriate signage alerting the public to the quarry would be placed at the entrance to the access to the proposal.

Waste

The proposal would ensure the following:

- Appropriate waste receptacles must be provided for the segregation and storage for waste.
- All wastes will be segregated onsite and disposed of with specific licensed waste services providers.
- Waste storage areas would be more than 150m from mapped bushfire prone land.
- Bins and storage areas to be maintained so they are free of vermin (mice, rats, cockroaches, flies).
- Littering not permitted. All worksites must be free of litter, including cigarette butts.

- No waste is to be burnt on site.
- Hydrocarbons and hazardous materials to be handled in accordance with the relevant Australian Standard, including AS1940 – The Storage and Handling of Flammable and Combustible Liquids.
- All waste streams are to be removed off site by a licensed waste contractor to a lawful point of disposal.

5.9. Social and Economic Impacts

5.9.1. Introduction

An assessment of potential social and economic impacts of the proposed development has been undertaken.

5.9.2. Assessment of existing condition

The site and surrounding land are zoned RU1 Primary Production. The proposed gravel pit is to be largely confined within the active extraction area of an existing gravel pit. The land surrounding the proposed gravel pit will continue to be used for agricultural purposes concurrently with the operation of the proposal.

5.9.3. Assessment of potential impact

An assessment of potential impacts of the proposed development has been undertaken with regards to scoping methodology outlined in the Social Impact Assessment Guideline 2017 (SIA Guideline), published by the Department of Planning and Environment. Table 6 – SIA Guideline Assessment provides an assessment of the proposed development against the criteria in the SIA Guideline.

Table 6 – SIA Guideline Assessment

Matters	Key Links to Social Impacts	Risk of Impact without mitigation	Nature of impact	Explanation
Amenity				
Acoustic	Way of life;	Unlikely	Negative	Noise emissions are unlikely to impact on nearby sensitive receptors.
Visual	Surroundings	Unlikely	Negative	The proposal has been designed to avoid visual amenity impacts to the greatest numbers of nearby sensitive receptors as possible.
Odour	Surroundings	Unlikely	Negative	The proposal will not produce a strong odour.
Microclimate	Surroundings	N/A	Nil	The proposal will not significantly impact microclimate.

Matters	Key Links to Social Impacts	Risk of Impact without mitigation	Nature of impact	Explanation
Access				
Access to property	Way of life;	N/A	Nil	The proposal will not impact on access to neighbouring properties.
Utilities and public transport	Access to infrastructure, services and facilities;	Unlikely	Negative	The proposal will not utilise public roads for transportation.
Road and rail	Personal and property rights.	Unlikely	Negative	The proposal will not utilise public roads and rail sidings for delivery of products.
Built Environmental				
Public domain	Community;	N/A	Nil	The proposal will not impact the public domain as it will be located on private land.
Public infrastructure	Access to infrastructure, services and facilities;	N/A	Nil	The proposal will not preclude public access to public infrastructure.
Other built assets	Surroundings; Personal and property rights	N/A	Nil	As above.
Heritage				
Natural	Way of life;	N/A	Nil	Natural heritage of the site is not compromised by the proposed development.
Cultural	Community;	Likely	Negative	The proposal will not impact on cultural values in the public domain.
Aboriginal culture	Culture;	Aboriginal culture	Negative	The proposal will implement the unexpected finds procedure.

Matters	Key Links to Social Impacts	Risk of Impact without mitigation	Nature of impact	Explanation
Built	Surroundings.	Unlikely	Negative	There are no built heritage items registered on the site
Community				
Health	Health and wellbeing;	Likely	Negative	Dust and noise emissions are expected to be below NSW guidelines at the nearby sensitive receptors therefore minimising the possibility of any health impacts to the community.
Safety	Surroundings	Likely	Negative	The proposal has been assessed as not increasing a known safety risk.
Services and facilities	Way of life, Access to infrastructure, services and facilities;	N/A	Nil	The proposal does not impact access to public services or facilities.
Cohesion, capital and resilience	Way of life; Community; Culture	Likely	Positive	The proposal will provide employment opportunities to the local community and contribute to the community through various community benefit programs.
Housing	Way of life, Personal and property rights.	N/A	Nil	The proposal will not impact on housing supply or demand.
Economic				
Natural resource area	Way of life;	Likely	Positive	The proposal will utilise available natural resources in a sustainable manner. The natural resources consumed will be supplied to support the construction of the road network.
Livelihood	Surroundings;	Likely	Positive	The proposal will provide employment and training opportunities for the area. The economic activity generated by the quarry will also relate to the longer-term

Matters	Key Links to Social Impacts	Risk of Impact without mitigation	Nature of impact	Explanation
				benefit to the region through the construction and maintenance of the road network.
Opportunity cost	Personal and property rights	N/A	Nil	The net benefit to the community and region outweighs the utilisation of geological resources. The opportunity cost would favour the use of the land as a quarry over agricultural uses. The site can be rehabilitated for longer term outcomes.
Air				
Air emissions.	Surroundings	Likely	Negative	The proposal is unlikely to exceed the NSW EPA air quality criteria. Air quality mitigation measures will be implemented during the operation and monitoring will be carried out to ensure ongoing compliance.
Biodiversity				
Native vegetation and fauna	Surroundings	Likely	Negative	Vegetation clearing is proposed on site however the net loss of biodiversity impacts is minimal.
Land				
Stability/structure, land capability, topography	Surroundings	Likely	Negative	While the proposal will result in land disturbance, controls will be in place to overcome these impacts and the land will be rehabilitated following the cessation of the extractive activities.
Water				
Quality, availability, hydrological flows	Surroundings	Unlikely	Negative	Soil and water management measures will be implemented to ensure the proposed development has minimal impact to surrounding water bodies and hydrological flows.

Considering the proposal in the context of the existing gravel pit operations as well as the previously addressed issues related to biodiversity, water and air quality, noise, traffic, heritage, safety and visual amenity, the proposal would be unlikely to have an unacceptable impact on residents or the environment within or surrounding the site. As a result, adverse socio-economic impacts are assessed to be negligible.

5.9.4. Management and mitigation

Management and mitigation measures for each of the elements comprising a potential social impact (e.g. noise, traffic, visual amenity and air quality) have been addressed in their relevant sections of the SEE. Furthermore, the proposal would implement the following management and mitigation measures to ensure that the proposal-related benefits for the community surrounding the site are maximised and adverse impacts are minimised:

- Maintain a complaints telephone line and ensure that the existence of the number is advertised at the site entrance.
- Give preference, where practicable and cost-competitive, to suppliers of equipment, services or consumables located within the surrounding communities.

The SEE has considered land-use compatibility and recommended that the site is considered suitable for the proposal with respect to land use zoning and the intended purpose of the land and surrounding land.

Management and mitigation measures for each of the elements comprising a potential impact (e.g. noise, air quality, access, traffic, visual amenity, built heritage, and safety) have been addressed in their relevant sections of the SEE.

6. EVALUATION AND JUSTIFICATION FOR THE PROPOSAL

6.1. Introduction

This section presents the evaluation and justification of the proposal in light of the objects of the EP&A Act. It also assesses the proposal against the principles of Ecologically Sustainable Development (ESD) and other key policy guidelines in order to provide further guidance as to the acceptability of the proposal, as presented in the SEE. An assessment of the consequences of not proceeding with the proposal and site suitability is also undertaken in this section.

6.2. Objectives of the EP&A Act 1979

Development Consent is being sought under Section 4.16 of the EP&A Act and must therefore satisfy the objectives of the EP&A Act. The objectives of the Act are listed below:

a. to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

b. to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

c. to promote the orderly and economic use and development of land,

d. to promote the delivery and maintenance of affordable housing,

e. to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

f. to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

g. to promote good design and amenity of the built environment,

h. to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

i. to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

j. to provide increased opportunity for community participation in environmental planning and assessment.

6.3. Ecological Sustainable Development

ESD is a long-standing and internationally recognised concept. The concept has been affirmed by the 2002 World Summit for Sustainable Development and has been included in multiple pieces of Federal and State legislation. Australia's National Strategy for Ecologically Sustainable Development (1992) defines ecologically sustainable development as:

> *"Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends".*

The proposal has endeavoured to address long established ESD principles, as follows:

- The precautionary principle - No serious environmental threats have been identified. No delays to the final design investigations or assessment process are recommended to allow for additional information / studies / surveys to take place under different climatic or seasonal conditions.
- Inter-generational (social) equity - Social equity provides a notion of preservation of environmental aspects that cannot be replaced for the enjoyment of future generations. Generally, such aspects relate to biodiversity, cultural heritage, land-use and the transformation of the locality as a result of the development. The proposal has considered such aspects and the SEE assessment concludes that environmental impacts will be minimal. By adopting the recommendations in this SEE for the construction and operational phases, the operation of intergeneration equity can be maintained.
- Conservation of biological and ecological integrity - Given the highly disturbed / modified nature of the site, no significant flora or fauna issues have been identified. Procedures will be implemented during construction and operation of the premises to minimise potential risks on the environment.
- Improved valuation, pricing and incentive mechanisms - The small volumes of waste generated from the proposal will be appropriately managed to minimise impacts on common public areas, the appropriate pricing mechanism are used to reflect the user pays approach to environmental management.

An environmentally sustainable design framework has been incorporated into the Gravel Pit Conceptual Plans to:

- Identify high quality material for extraction, processing and haulage to the local road network.
- Reduce the operational costs associated with the building additions.
- Improve energy and water efficiency by creating covered / shaded areas on the site.
- Provide a healthy / safe working environment throughout the premises, relative to the age and condition of existing buildings on the site.

6.4. Safety, security and crime prevention

The design of the premises has focused on the safety and well-being of all users, including staff and contractors. The design maintains good safety standards. Adequate site security will be maintained and clear sightlines around entry / exits to ensure safety of haulage operations.

6.5. Cumulative impacts

The potential environmental impacts of the proposal have been detailed in the relevant sections of the SEE. The proposal will not result in a net impact to biodiversity, water quality, air pollution, noise, safety, loss of views, traffic or parking. Overall, the proposal makes a neutral / positive contribution to the environment. The proposal is considered compatible with the site and its surrounds and does not contribute to having a significant cumulative impact.

6.6. Suitability of the site for the development

The suitability of the site has proven with historic use of the site for a gravel pit. The site has the capacity to support the proposed new gravel pit operations without creating adverse impacts on the site or adjoining land. The proposal is considered suitable on the site.

6.7. Public interest

The proposal has been identified for continued gravel quarry operations under Parkes Shire Quarry Strategy in 2021.

The proposal is permitted in the RU1 Primary Production zone. There are no specific policy statements from either Federal or State Government that are relevant to the proposal, nor any planning studies or strategies that need to be taken into account. There are no covenants, easements or agreements that affect the proposal in the long term.

The proposal is assessed to pose no significant detrimental impacts on the public interest.

7. CONCLUSION

This Statement of Environmental Effects has been prepared by Currajong Pty Ltd on behalf of Parkes Shire Council to support a Development Application for a proposed gravel pit on Lot 1 DP 1146416, The Grange Lane, Bogan Gate.

The proposed gravel pit is to be managed by Parkes Shire Council at a rate that is less than 30,000m^3 per annum for a period of up to 25 years, subject to resource availability and Council's Roads Program.

The assessment of the proposed development has been documented in this Statement of Environmental Effects to visualise all aspects of the relevant matters for consideration under the Environmental Planning and Assessment Act 1979 and Environmental Planning and Assessment Regulation 2021. The assessment concludes the site is permissible in the RU1 Primary Production zone and consistent with relevant design standards.

It is recommended that sufficient information has been submitted with the Development Application to allow the Parkes Shire Council to make an informed decision on the proposal. It is the findings of this Statement of Environmental Effects that the proposed development should be supported.