



Request for Secretary's Environmental Assessment Requirements



Ironstone Developments Pty Ltd

Deep Creek Quarry
279 Deep Creek Road, Limeburners Creek
NSW 2324

16/11/2020

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279 Deep Creek Road, Limeburners Creek NSW 2324

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Prepared for:

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EXECUTIVE SUMMARY

Ironstone Developments Pty Ltd (IDPL) propose to develop a hard rock quarry called Deep Creek Quarry (DCQ) located on the boundary of the localities of Limeburners Creek and Allworth New South Wales off The Bucketts Way in the Mid-Coast local Government Area.

The quarry will produce up to 500,000 tonnes per annum of hard rock aggregate products, with the primary target rhyolite that has the unique properties required to meet high specification road building standards. Targeting the rhyolite will also result in ancillary weathered rock products suitable for the local construction industry.

The DCQ is expected to employ up to 10 full-time staff, with further support for the local and regional construction industry and associated haulage contractors.

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1. INTRODUCTION

This Scoping Report supports a request for the Secretary's Environmental Assessment Requirements (SEARs) to prepare an Environmental Impact Statement (EIS) for a quarry at Limeburners Creek NSW (Deep Creek Quarry - DCQ).

The proponent for the proposed development is Ironstone Developments Pty Ltd (IDPL), a locally owned company with considerable experience in quarrying operations.

Specifically, the proposed quarry is to be located at Lot 472 DP 1162208 & Lot 48 DP 753178, 279 Deep Creek Road, Limeburners Creek NSW 2324 (Subject Land). Access to the quarry will be via a dedicated quarry access road constructed within a portion of land to be subdivided from Lot 551 and Lot 552 DP 1238818.

Pursuant to Schedule 1, Clause 7 of the *State Environmental Planning Policy (State and Regional Development) 2011*, development that extracts from a total resource of more than five million tonnes is classified as State Significant Development (SSD) and requires the preparation of an EIS, prepared in accordance with the *Environmental Planning and Assessment Regulation 2000* (EP&A Regs). The DCQ, under current design plans, is expected to extract approximately 12 megatons over the project lifetime and therefore constitutes SSD.

Under Schedule 2, Part 3 of the EP&A Regs, an EIS must be prepared in accordance with environmental assessment requirements sought by written application from the Planning Secretary (commonly referred to as Secretary's Environmental Assessment Requirements, or SEARs). The application must include particulars of the location, nature and scale of the development or activity and as required by the Secretary. This Preliminary Environmental Assessment (PEA) document intends to provide those particulars.

2. CONTEXT

2.1 PROJECT LOCATION

IDPL propose to develop a hard rock quarry called Deep Creek Quarry (DCQ) located approximately 10 km northeast of Clarence Town and 11 km northwest of Karuah, within the Local Government Area (LGA) of Mid-Coast in NSW. The Subject Land is located approximately 1.5 km west of The Bucketts Way intersection, with The Bucketts Way and Pacific Highway intersection located a further 11.5 km south at Twelve Mile Creek.

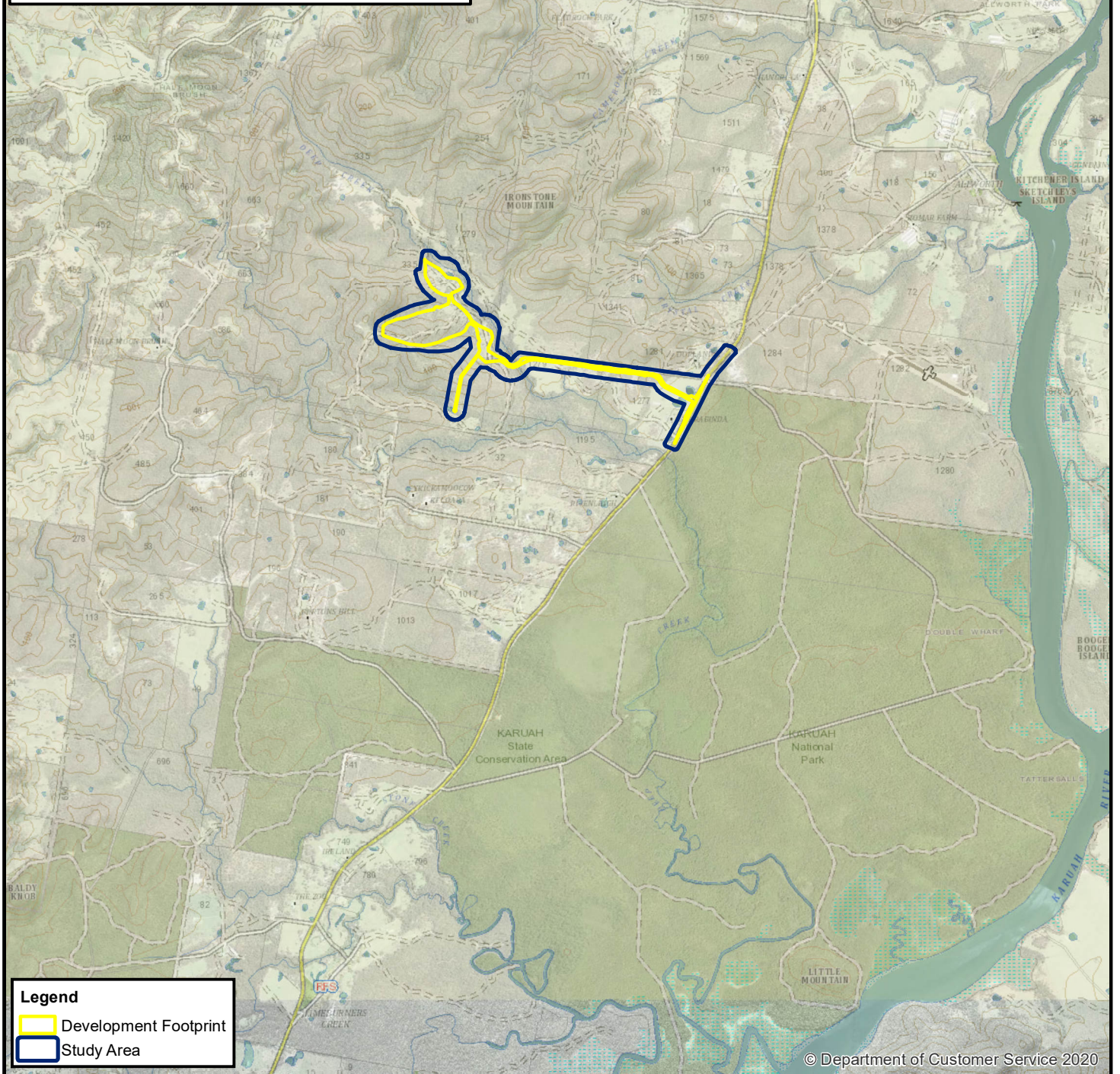
Specifically the proposed DCQ is to be located at lots 472/ DP1162208, 48/ DP753178, 551/ DP1238818, 552/ DP1238818, and Deep Creek Road and The Bucketts Way Road reserves at Limeburners Creek, Parish of Karuah, County of Gloucester, 279 Deep Creek Road, NSW 2324.

See **Figure 1** for the location of the Subject Land.

Regional Context

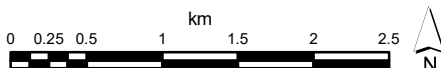


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Legend

- Development Footprint
- Study Area



PROJECT REFERENCE: 20203112

DATE DRAWN: 2020/11/25 15:45 Version 1

DRAWN BY: GJoyce

DATA SOURCE:
NSW DFSI - 2018

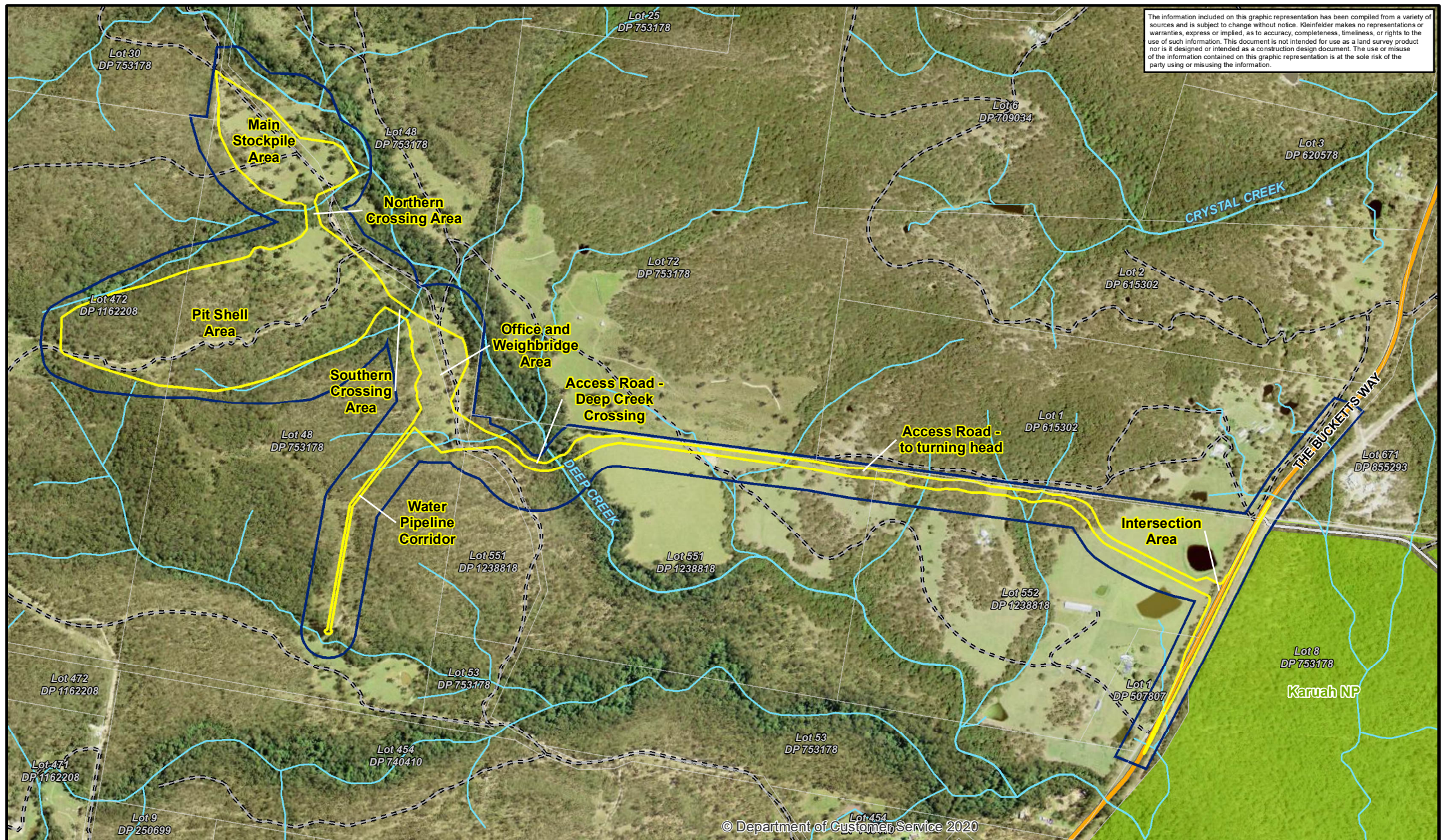
Locality

Ironstone Developments Pty Ltd
Deep Creek Quarry
Buckets Way, Limeburners Creek, NSW

FIGURE:

1

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Legend Development Footprint Study Area Lot Boundaries National Park Named Watercourse Unnamed Watercourse Arterial Road Local Road Track
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3. PROJECT DESCRIPTION

IDPL seeks approval under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* for the construction and operation of the DCQ. The extraction footprint of the quarry has been determined following resource mapping undertaken by VGT Pty Ltd between 2013 and 2018 and consideration of ecological constraints from site surveys undertaken by Kleinfelder Australia Pty Ltd (Kleinfelder) starting in 2016.

While the total hard rock resource within the proponents landholding is considerably larger than that proposed, in order to focus the quarry on the highest value rhyolite product, a resource of approximately 12 million tonnes (MT) is proposed to be extracted.

The primary target material for the quarry will be a high quality rhyolite resource aimed at satisfying RMS demand for high friction road aggregates. While the project targets durable high friction rhyolite, the wider resource also comprises moderately durable trachyte, durable arenite and quartz trachyte, with a secondary resource containing a decorative dimension stone.

The key details of the Project are shown within **Table 1** below. An overview of the proposed Quarry layout is shown in **Figure 2**.

Table 1: Key Aspects of the proposed Deep Creek Quarry Project

Aspect	Key Aspects of the Project
Key elements	Hard rock quarry extracting up to 500,000 tonnes per annum over a period of up to 30 years including a sealed access road, site office, workshop, weighbridge and stockpile area with associated water management infrastructure. Progressive rehabilitation of quarried land returning to pasture and native vegetation.
Location	279 Deep Creek Road, Limeburners Creek, NSW 2324, within the Mid-Coast local government area.
Property Titles	Lots 472/ DP1162208, 48/ DP753178, 551/ DP1238818, 552/ DP1238818, and Deep Creek Road and The Bucketts Way Road reserves at Limeburners Creek, Parish of Karuah, County of Gloucester, 279 Deep Creek Road, Limeburners Creek, NSW 2324.
Land Owner	Ironstone Developments Pty Ltd (access road corridor under option to Ironstone Developments from local private landholder).
Proponent	Ironstone Developments Pty Ltd.
Employment	Up to 10 full-time staff, with further support for the local and regional construction industry and associated haulage contractors.
Area	Total Project Area of approximately 30 hectares, comprising: 18 ha of quarry extraction area. 12 ha in supporting infrastructure and roads. from a proponent land holding of approximately 308 hectares.

Aspect	Key Aspects of the Project
Elevations	Approximate elevations relevant to the Project are: - Quarry located between 37 m to 115 m Australian Height Datum (AHD). - Workshop, office and stockpiles between 31 to 49 m AHD. - Access road between 22 to 59 m AHD. Quarry pit is sheltered to west by a ridge 125 m to 145 m AHD high and is above the nearby Deep Creek that has an elevation of 28 m AHD.
Project Life	Up to 30 years.
Extraction Rate	Maximum of 500,000 tonnes per annum, and maximum daily rate of 4,000 tonnes.
Resource and products	Approximately 13 Mt of rhyolite, arenite and weathered rock, crushed, screened and sized for various products including road construction and landscaping purposes. High proportion of product to meet TfNSW specification for high grip to improve road safety.
Operating Hours	Construction of access, bunds, workshop and office: 7:00 am to 5:00 pm Monday to Friday. 8:00 am to 1:00 pm Saturday. - No works on Sunday or public holidays. Quarrying Operations: 7:00 am to 5:00 pm Monday to Friday. 8:00 am to 1:00 pm Saturday. - No quarrying on Sunday or a Public Holiday. Loading and dispatch of trucks: 6:00 am to 6:00 pm Monday to Friday. 6:00 am to 1:00 pm Saturday. - No haulage on Sunday or a Public Holiday.
Transport Rate	- Maximum of 25 laden trucks per hour at peak rates. - Maximum daily extraction rate of 4,000 tonnes per day. - On average, this equates to 55 laden trucks per day in order to meet peak production. - Up to 10 vehicles of employees would be expected to arrive and depart within 1 hour of opening and closing.
Extraction	- Maximum extraction rate of 500,000 tonnes per annum. - Weathered rock stripped by bulldozer or excavator. - Blasting of hard rock. - Excavator and articulated trucks to feed mobile crusher and screen on pit floor. - Conveyors, articulated trucks, and excavator or front-end loader and articulated trucks, to distribute materials between processing and stockpile areas. - Front-end loader to load road registered haulage trucks for saleable products.
Support facilities and utilities	- Site office, weighbridge, workshop, stores, car parking. - New intersection on The Bucketts Way with private sealed access road. - Power supply from diesel generators, solar or connection to the mains network via a new underground electrical line adjacent to the access road. - Telecommunications line run adjacent to the access road. - Water supply sourced from rainwater, onsite dams, surface water runoff, groundwater seepage and imported potable water as needed.
Rehabilitation	On completion of extraction, benches will be revegetated with native trees consistent with surrounding vegetation with a free draining quarry floor consisting of open grassland and scattered woodland that may provide a dwelling site generally consistent with the existing approved subdivision of the property.

3.1 PROJECT DESIGN MITIGATIONS

Mitigation measures will be developed during the preparation of the EIS and subsequent SSD application process. These will draw upon consultation with relevant stakeholders and government authorities. In addition, mitigation measures will be developed following the preparation of specialist studies, including; an Aboriginal Heritage Assessment, a BDAR (including offset calculations), an Air Quality Impact Assessment, a Noise Impact Assessment, a Groundwater Assessment, a Surface Water Assessment, development of a Water Management System, a Traffic Impact Assessment, a Resource Assessment, a Visual Impact Assessment, a Social Impact Assessment and an Economic assessment / cost benefit analysis.

The EIS will further include mitigation measures developed from specialist advice towards soils and rehabilitation. Further controls will also be developed during preparation of the concept intersection and access design and via refining the project design in order to minimise potential environmental impacts.

During the current project development design changes have occurred to mitigate potential impacts of the DCQ upon nearby receivers and the surrounding environment, these changes have included:

1. **Access via Forest Glen Road** was reviewed as a possible quarry access road as it provides legal access to the property. This was not adopted due to the potential high impact to residents with traffic going past numerous properties, the steep hills would also generate more noise going up and down.
2. **Access via Deep Creek Road from The Bucketts Way** was reviewed as a possible quarry access road, this is the current primary access to the property. This was not adopted due to the proximity to of an existing dwelling adjacent to the road. The access option was also closer to other residents on Forest Glen Road.
3. **Access via a new road and intersection** formed in agreement with local land owners provided a straighter road along the northern boundary of the property that was spatially more remote from dwellings than on Deep Creek Road. The intersection allows for a full length acceleration lane.
4. **Adjustment to new road intersection location.** The eastern most portion of the new access road was modified following consultation with an adjacent land owner north of the road to move the alignment south and further away from their dwelling. This alignment results in an irregular paddock on the property and moves the road toward dwellings south of the access road. The new access road location requires a shorter acceleration lane, though remains consistent with typically accepted deviation to road standards.

5. **Adjustment to new access road profile.** To improve efficiencies of the new access road the road includes cuttings on the crests that provide a more gentle and efficient road profile whilst also shielding noise emissions.
6. **Access road horizontal alignment.** The access road has been designed with regard to the location of large and hollow bearing trees, selecting an alignment that minimised impacts on ecology.
7. **Quarry footprint.** The quarry started as a larger pit design, extending to the west and south. To minimise noise emissions the quarry was adjusted to retain the dominant ridge line to the west and retain the ridge line to the south.
8. **The quarry extraction plan.** Initial plans aimed to work the quarry in a general east to west direction, this potentially resulted in greater noise emissions to the south and east of the quarry. The extraction plan has been developed to retain an east-west trending barrier to properties south of the quarry. The pit progression is generally west into the hill and then working south behind the barrier. Activity on the top of the hill will only be required when initially clearing and drilling /starting a new bench profile.
9. **Processing location.** The primary processing of material was initially planned to follow the developing benches; however, this would result in one of the highest noise emissions to occur at higher elevations. On review, the main processing will now occur at the floor of the quarry, stating on the northern side of the east-west barrier and moving west as the pit expands.

3.2 HOURS OF OPERATION

Construction of intersection, access and workshop and office:

- 7:00am to 5:00pm Monday to Friday, 8:00am to 1:00pm Saturday.
- No works on Sunday or public holidays.

Quarrying Operations (crushing and processing):

- 7:00am to 5:00pm Monday to Friday, 8:00am to 1:00pm on Saturday.
- No quarrying on Sunday or a Public Holiday.

Loading and dispatch of product trucks:

- 6:00am to 6:00pm Monday to Friday, 6:00am to 1:00pm Saturday.
- No works on Sunday or public holidays.

3.3 RESOURCE AND GEOLOGY

The quarrying resource comprises a mixture of durable rhyolite, weathered rhyolite, moderately durable trachyte, durable volcanolithic arenite and quartz trachyte.

3.4 CAPITAL INVESTMENT VALUE

A tentative figure of \$3-5 million is estimated to be required for the construction of the quarry and associated road upgrades. It is considered likely that the final cost will vary from the amount provided as the required scope of works are modified during the preparation of the EIS to reduce environmental and social impacts of the proposed SSD. A quantity surveyor will prepare a report to determine the estimated capital investment value.

4. LEGISLATIVE CONTEXT

4.1 *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999 (COMMONWEALTH)*

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), assessment and approval is required for actions that are likely to have a significant impact on matters of national environmental significance. An action includes a project, development, undertaking, activity, or series of activities. When a person proposes to take an action they believe may need approval under the EPBC Act, they must refer the proposal to the Australian Government Minister for the Department of Environment (DoE). The EPBC Act identifies nine matters of national environmental significance (MNES):

1. World heritage properties.
2. National heritage places.
3. Wetlands of international importance (RAMSAR).
4. Nationally listed threatened species and communities.
5. Migratory species listed under international agreements.
6. Nuclear actions.
7. Commonwealth marine areas.
8. Great Barrier Reef Marine Park.
9. A water resource, in relation to coal seam gas development and large coal mining development.

The EIS will include an assessment of the potential impacts of the proposed construction and operation of the quarry against listed MNES.

The proposed activity has been referred to DoE, due to identification of potential impacts to MNES due to the presence of nationally listed threatened species (see Section 5.7).

4.2 *ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 (NSW)*

Pursuant to Schedule 1, Clause 7 of the *State Environmental Planning Policy (State and Regional Development) 2011*, development that extracts from a total resource of more than five million tonnes is classified as State Significant Development (SSD). The DCQ, under

current design plans, is expected to extract up to 13 MT over the project lifetime and therefore constitutes SSD.

SSD are assessed pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), whereby an EIS is prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

Under Schedule 2, Part 3 of the EP&A Regs, an EIS must be prepared in accordance with environmental assessment requirements sort by written application from the Planning Secretary (commonly referred to as Secretary's Environmental Assessment Requirements (SEARs). The application must include particulars of the location, nature and scale of the development or activity and as required by the Secretary. This document intends to provide those particulars.

The consent authority for the proposed development will be the NSW Minister of Planning (or as otherwise delegated by the Minister).

Pursuant to section 4.41 of the EP&A Act, the following approvals are not required for SSD:

- A permit under section 201, 205 or 219 of the *Fisheries Management Act 1994*.
- An approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977*.
- An Aboriginal heritage impact permit (AHIP) under section 90 of the *National Parks and Wildlife Act 1974*.
- A Bush Fire Safety Authority under section 100B of the *Rural Fires Act 1997*.
- A water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the *Water Management Act 2000*.

The following authorisations, as listed under section 4.42, cannot be refused for carrying out SSD that is authorised by development consent under Division 4.7:

- An aquaculture permit under section 144 of the *Fisheries Management Act 1994*.
- An approval under section 15 of the *Mine Subsidence Compensation Act 1961* (repealed legislation).
- A mining lease under the *Mining Act 1992* (unless the person is deemed unfit for a license under section 380A of that Act).
- An environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997* (for any of the purposes referred to in section 43 of that Act).
- A consent under section 138 of the *Roads Act 1993*.

- A licence under the *Pipelines Act 1967*.

4.3 STATE ENVIRONMENTAL PLANNING POLICY (STATE AND REGIONAL DEVELOPMENT) 2011

The proposed Quarry is assessed as SSD pursuant to Schedule 1, Clause 7 of the *State Environmental Planning Policy (State and Regional Development) 2011* as an extractive industry that will extract more than five million tonnes from a total resource over the lifetime of the project.

Clause 11 of the *State Environmental Planning Policy (State and Regional Development) 2011* states the following:

“11 Exclusion of application of development control plans

Development control plans (whether made before or after the commencement of this Policy) do not apply to:

- a) State significant development, or*
- b) development for which a relevant council is the consent authority under section 4.37 of the Act.”*

As such, the provisions of the *Great Lakes Development Control Plan (DCP)* do not apply to the proposed SSD. Notwithstanding the project design will have regard to the provisions of the DCP in the design where relevant.

4.4 STATE ENVIRONMENTAL PLANNING POLICY (MINING, PETROLEUM PRODUCTION AND EXTRACTIVE INDUSTRIES) 2007 (NSW)

The *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP)* provides framework to facilitate the orderly and economic use and development of land for the purpose of promoting the extraction of natural resources for the social and economic welfare of the state.

Clause 7(3) of the Mining SEPP states:

“Extractive industry

Development for any of the following purposes may be carried out with development consent:

- a) *extractive industry on land on which development for the purposes of agriculture or industry may be carried out (with or without development consent),*
- b) *extractive industry in any part of a waterway, an estuary in the coastal zone or coastal waters of the State that is not in an environmental conservation zone."*

The Subject Land is zoned RU2 – Rural Landscape under the *Great Lakes Local Environmental Plan 2014* (See **Section 4.15**). Both agriculture and industries are listed as permitted with consent within the RU2 zone. It should also be noted that extensive agriculture is permitted without consent within the RU2 zone under the *Great Lakes Local Environmental Plan 2014*.

Relevant to the proposed quarry, the Mining & Extractive SEPP includes the following clauses of relevance:

- **Clause 7:** Enables quarries to be permissible with consent on any land to which agriculture or industry may be carried out.
 - *The quarry is therefore permissible with consent.*
- **Clause 12:** Requirement for the Consent Authority to consider the compatibility of the quarry with surrounding land use.
 - *EIS must assess the potential for impacts on use of adjoining land uses.*
- **Clause 14:** Requirement for the consent authority to consider the potential impacts on water, threatened species and biodiversity and greenhouse gas emissions.
 - *EIS must include assessment on biodiversity and consideration of greenhouse gas emissions.*
- **Clause 15:** Requirement for the consent authority to consider matters relating to efficiency and minimising waste.
 - *The EIS will include consideration of efficiencies and waste.*
- **Clause 16:** Requirement for the consent authority consider measures relating to transport of materials on public roads, including the provision of the development application to the roads authority (Council and/or TfNSW).
 - *The EIS will include an assessment of traffic impacts that will assist in any referral of the application to TfNSW.*
- **Clause 17:** Requirement for the consent authority consider conditions relating to rehabilitation of the quarry.
 - *The EIS will include documentation relating to the final landform and rehabilitation of the quarry.*

4.5 STATE ENVIRONMENTAL PLANNING POLICY NO 55— REMEDICATION OF LAND

Under Clause 7 of the *State Environmental Planning Policy No 55—Remediation of Land* (SEPP 55) a consent authority must account for potential contamination on land prior to issuing development consent. As such, in accordance with SEPP 55, the Subject Land will be assessed for potential contamination as part of the EIS.

4.6 STATE ENVIRONMENTAL PLANNING POLICY (KOALA HABITAT PROTECTION) 2019

The State Environmental Planning Policy (Koala Habitat Protection) 2019 (replacing SEPP 44) retains the intent of SEPP 44 and aims to “*encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.*”

Core Koala habitat is defined in the updated SEPP and the list of tree species listed under the SEPP has been expanded from 10 to up to 65, across nine distinct regions of NSW.

Kleinfelder have conducted detailed vegetation mapping of the subject land since 2016. An assessment of the potential impact of the proposed construction and operation of the Quarry upon koalas and koala habitat will be undertaken as part of the EIS, and in line with the Koala Habitat Protection SEPP (2019).

4.7 BIODIVERSITY CONSERVATION ACT 2016 (NSW)

Pursuant to section 7.9 of the *Biodiversity Conservation Act 2016* (BC Act), SSD applications require the application of the Biodiversity Assessment Method (BAM), established under section 6.7, which is utilised to prepare a Biodiversity Development Assessment Report (BDAR), unless advised otherwise by the Chief Executive of the Biodiversity Conservation Division (BCD) and the Secretary of the Department of Planning, Industry and Environment (DPIE).

SSD projects automatically trigger the Biodiversity Offsets Scheme (BOS), unless advised otherwise by the Chief Executive of the BCD and the Secretary of DPIE.

The Secretary of the DPIE may advise further biodiversity assessment is required beyond the scope of the BAM as part of the SEARs.

SSD are assessed under section 7.14 of the BC, requiring the retirement of biodiversity credits to offset impacts to flora and fauna following implementation of mitigation measures with the aim to reduce the potential impact of the SSD. The retirement of biodiversity credits is to occur prior to the relevant stage of development to which the credits offset.

4.8 LOCAL LAND SERVICES ACT 2013 (NSW)

Under Section 60: O(ai) of the *Local Land Services Act 2013* (LLS) Act the clearing of native vegetation in a regulated rural area is permitted following approval by a determining authority for a development consent under Part 4 of the EP&A Act. The proposed SSD will be assessed utilising the BAM and subject to approval under the BC Act and Part 4 of the EP&A Act.

4.9 PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997 (NSW)

The *Protection of the Environment Operations Act 1997* (POEO) Act provides for the protection, restoration and enhancement of the environment in NSW.

Section 43 of the POEO Act identifies that Environmental Protection Licences (EPL) may be issued for a range of purposes. The proposed development constitutes a scheduled activity under the POEO Act as a “*land-based extractive activity*” that “*involves the extraction, processing or storage of more than 30,000 tonnes per year of extractive materials.*” As such an EPL will be sought for the proposed activity.

The Quarry will require an EPL for the “*crushing, grinding or separating*” of “*more than 150 tonnes of materials per day or 30,000 tonnes of materials per year.*”

On determination of the project application, an application for an EPL will be lodged with the NSW Environment Protection Authority (EPA). As the proposal is subject to an environmental assessment under the EP&A Act, the EPA will not be required to invite or consider public submissions prior to the licence being approved. If the proposed Ironstone Mine is permitted as SSD under the EP&A Act, an EPL for related scheduled activities cannot be refused, with

the prescribed EPL conditions consistent to those set out under the SDD approval documentation.

4.10 ROADS ACT 1993

The proposed SSD includes, in its current design, the provisions for a private access road to join The Bucketts Way with an appropriate approved intersection.

The roadworks described above will require a Section 138 Approval from Mid-Coast Council. However, it should be noted that this approval must be consistent with the specifications of the approval (if granted) for the SSD pursuant to section 4.42 of the EP&A Act.

4.11 BIOSECURITY ACT 2015 (NSW)

The primary object of the Biosecurity Act 2015 is to *“provide a framework for the prevention, elimination and minimisation of biosecurity risks posed by biosecurity matter, dealing with biosecurity matter, carriers and potential carriers, and other activities that involve biosecurity matter, carriers or potential carriers.”*

If the proposed activity propagates the spread of weeds within the subject land Ironstone Developments will have a General Biosecurity Duty to remove the weed species and once the areas of quarry material extraction are complete remediate the site.

4.12 NATIONAL PARKS AND WILDLIFE ACT 1974 (NSW)

The *National Parks and Wildlife Act 1974* (NPW Act) intends to conserve nature, objects, places or features (including biological diversity) of cultural value within the landscape. The NPWS Act also aims to foster public appreciation, understanding and enjoyment of nature and cultural heritage, and also provides for the preservation and management of national parks, historic sites and other areas identified under the Act.

A basic search of the Aboriginal Heritage Information Management System (AHIMS) database for Lot 48 DP 753178 and Lot 472 DP 1162208 using a 200 m buffer found no identified Aboriginal sites or places within the Subject Land (NSW Office of Environment and Heritage 2018) (See **Appendix 1**).

As stated in **Section 4.1** an AHIP for disturbing an Aboriginal item or place is not required if the proposed DCQ is permitted as SSD under the EP&A Act. The EIS is to contain sufficient information towards the permissibility of the proposed SSD with regards to Aboriginal Heritage as part of the application process.

4.13 HERITAGE ACT 1977 (NSW)

The *Heritage Act 1977* provides for the understanding, conservation, protection of matters of New South Wales' heritage and the constitution of the Heritage Council of New South Wales.

Pursuant to section 4.41 of the EP&A Act (**Section 4.1**), an approval under Part 4, or an excavation permit under section 139 of the *Heritage Act 1977* is not required for SSD as part of the application process.

4.14 WATER MANAGEMENT ACT 2000 (NSW)

The Water Management Act 2000 (WM Act) and the associated Water Management Regulations (General) 2018 (WM Regs), provide framework for the “*sustainable and integrated management of the water sources of the State for the benefit of both present and future generations*”.

Of relevance to the proposed quarry the WM Act provides framework for:

- **Harvestable rights.** Harvestable rights allow owners of a property to, without the need for any access licence, water supply work approval or water use approval, to construct and use one or more water supply works for the purpose of capturing and storing water and use of that water on that property. The harvestable right for the area permits the capture of up to 10% of average annual regional rainfall run-off. Dams constructed for this purpose may be constructed on any gully but only on a first or second order stream. Dams currently proposed as part of the Project are within first order streams. One existing dam is located on the property in a second order stream.
- **Access Licences.** Where the EIS determines the annual water take is in excess of the harvestable right or will intercept more than 3ML per annum of groundwater, a water access licence (WAL) will be required consistent with the water sharing plan.
 - o The Subject Land is located within lands covered under the following water sharing plans:
 - The *Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009*.

- The *Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016*.

Schedule 4, Clause 7 provides a 3 ML per annum exemption for aquifer interference activities for approved quarrying activities. Current understandings of ground water suggest the quarry floor is located above the groundwater table and it is unlikely to result in extraction or interference with groundwater. This will be further assessed through a groundwater study as part of the EIS.

- Section 89, Water use approvals. Required if additional water is needed beyond the harvestable right allocation or aquifer interference exemption.
- Section 90, Water management work approvals, required if a water supply bore is drilled or dam constructed outside of the harvestable rights framework.
- Section 91, Activity approvals are applicable to a controlled activities and aquifer interference activities, where:
 - Controlled Activities are works within 40 m of a water course, with the exception of fencing, crossings or tracks in a rural zone, activities associated with harvestable rights or a lawfully constructed car park or hard stand. No works associated with the project are considered to require a Controlled Activity Approval.
 - Aquifer interference activities are the penetration, interference, take or obstruction of an aquifer or the water within in it. Based on the current understanding, groundwater is located below the floor of the quarry. The quarry will therefore not require an aquifer interference approval.

Deep Creek is further mapped within the extents of the *Water Sharing Plan for the North Coast Coastal Sands Groundwater Sources 2016*. The extent of Deep Creek mapped within this plan is located approximately 5 km southeast of the Subject Land.

4.15 WATER ACT 1912 (NSW)

The *Water Act 1912* sets out the provisions of water rights, water and drainage and the use of water from artesian sources in New South Wales. The *Water Act 1912* manages water sources not accounted for under the *Water Management Act 2000*.

The *Water Act 1912* remains applicable to:

- taking water from a water source outside water sharing plan areas;
- construction and use of water supply works outside water sharing plan areas;
- drainage works in all areas of NSW; and
- aquifer interference activities in all areas of NSW.

The Subject Land is located in lands managed under the *Water Sharing Plan for the Lower North Coast Unregulated and Alluvial Water Sources 2009* and the *Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016*, administered under the *Water Management Act 2000*, and is therefore does not require a license under the *Water Act 1912*.

4.16 GREAT LAKES LOCAL ENVIRONMENTAL PLAN 2014

The Subject Land is located within the Mid-Coast LGA, formed via the amalgamation of the Great Lakes, Greater Taree and Gloucester Shire Councils on 12 May 2016 (Mid-Coast Council, 2018).

Upon review of the NSW Legislation website, the Subject Land is still managed under the *Great Lakes Local Environmental Plan 2014* (Great Lakes LEP). Under the Great Lakes LEP, the Subject Land is zoned as RU2 – Rural Landscape (RU2).

The objectives of the RU2 zone are as follows:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To maintain the rural landscape character of the land.*
- *To provide for a range of compatible land uses, including extensive agriculture.*
- *To provide for rural tourism in association with the primary industry capability of the land which is based on the rural attributes of the land.*
- *To secure a future for agriculture in the area by minimising the fragmentation of rural land and loss of potential agricultural productivity.*

Under the Great Lakes LEP, *Extractive Industries* are permitted with consent within the RU2 zone. As such, the proposed development can comply with prescribed land zoning following approval by the NSW Minister of Planning under the EP&A Act.

Several portions of the proposed SSD will intersect the mapped *Flood Planning Area* under the Great Lakes LEP. The proposed SSD will therefore require assessment against Clause 7.3 of the Great Lakes LEP during the preparation of the EIS (see **Section 5.6.2**).

5. PRELIMINARY IMPACT ASSESSMENT

5.1 LAND USE

5.1.1 Existing Environment

The Subject Land is located within a rural environment, comprising a combination of forested hills and ridgelines intersected by vegetated drainage lines. Large parcels of vegetation remain within the valley floodplain, with some clearing of vegetation for residential, commercial, utility and infrastructure use.

Anthropological land use within 1 km of the Subject Land comprises the following:

- Large lot private properties and associated dwellings.
- Private businesses.
- Farming (primarily beef cattle grazing).
- Utility easements (e.g. powerline).
- Maintained private accessways, fire trails, public roads and trails.

The Karuah State Conservation Area and Karuah National Park is located approximately 2.1 km south east of the proposed quarry pit. The private access road and The Bucketts Way intersection is located immediately to the west of the National Park.

5.1.2 Project Consideration

The EIS will include assessment of the social impact of the proposed SSD (see **Section 5.11**) and potential for impact on the land uses in the surrounding properties. The DCQ final design will need to address potential social and land use impacts while minimising any potential environmental impact identified during the preparation of the EIS. It is not expected that the proposed SSD will result in substantial change to surrounding land use.

5.2 CLIMATE

5.2.1 Existing Environment

The Subject Land is located within the former extent of the Great Lakes LGA, which now forms part of the Mid-Coast LGA. The climate in the locality is characterised by warm summers and mild winters. Rain peaks during summer and autumn, decreasing in intensity later in the year. Summer temperatures often exceed 25°C from November to March. Winter temperatures can drop down below 10°C. The average annual rainfall for area surrounding the Subject Land is around 1124.9 mm.

The Williamtown RAAF Bureau of Meteorology (BoM) weather station (Site number: 061078), located approximately 26 km south of the Subject Land, provides long-term climate statistics for the locality. Climate statistics recorded at the Williamtown RAAF Weather Station are recorded in **Table 2**.

5.2.2 Project Consideration

The EIS will need to consider prevailing wind direction with regards to noise and dust generation from construction and operation of the Quarry. Under the provisions of the Mining SEPP, the EIS will be required to consider greenhouse gas emissions generated by the development.

Table 2: Climate averages for locality (Williamtown RAAF Weather Station 1942 to 2020).

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Temperature °C													
Mean max	28.3	27.7	26.4	23.8	20.4	17.7	17.2	18.8	21.5	23.8	25.6	27.4	23.2
Mean min	18.2	18.1	16.4	13.2	10.1	8.0	6.4	6.9	9.1	12.0	14.4	16.6	12.4
Rainfall (mm)													
Monthly mean	98.3	117.8	120.7	109.8	108.6	124.6	72.6	72.8	60.1	73.5	81.9	77.5	1118.0
Rain days ≥1mm	7.1	7.3	8.2	7.5	7.6	8.4	6.4	6.1	5.6	7.3	7.2	7.0	85.7
9 am Conditions													
Rel humidity %	72	76	77	76	79	80	77	71	66	64	66	68	73
Wind speed kph	11.9	10.6	10.2	11.4	13.7	15.9	16.4	16.8	15.3	14.4	14.4	12.9	13.7
Dominant vectors >20% of time	Variable	Variable	Variable	W, NW	W, NW	W, NW	W, NW	W, NW	W, NW	NW	Variable	Variable	W, NW
3 pm Conditions													
Rel humidity %	59	62	61	59	60	60	55	50	50	54	55	56	57
Wind speed kph	21.9	20.6	18.9	17.2	15.8	17.5	18.7	20.9	22.0	22.5	23.5	23.5	20.2
Dominant vectors >20% of time	E, SE	E, SE	E, SE	SE	Variable	W	W, NW	W, NW	SE	SE	E, SE	E, SE	SE

Source: Bureau of Meteorology 2020

5.3 GEOLOGY

5.3.1 Existing Environment

Geologic mapping was performed by VGT Pty Ltd between 2013 and 2018. The mapping indicates that the site consists of the Paterson Volcanics. This Formation is part of the New England Orogen Province that was formed by a volcanic activity in the Serpukhovian (lower Carboniferous) age some 323-330 million years ago. The Formation is described as Grey-green rhyodacitic ignimbrite and is up to 150 m thick.

The following description provides a general summary of the subsurface conditions encountered during the VGT resource evaluation investigation.

Four boreholes (designated as DDH7, DDH17, DDH18 and DDH19) have been within the proposed Quarry Area. Those boreholes were logged by VGT and core samples taken have been inspected by the author. The ground conditions encountered in the boreholes are summarised **Table 3-1** below. The approximate depth ranges of the units are shown as meters below ground line (bgl).

Table 3-1: Summary of Encountered Stratum

Stratum	DDH7 (m bgl)	DDH17 (m bgl)	DDH18 (m bgl)	DDH19 (m bgl)
Soil Overburden	0 – 1.35	0 – 1.0	0 – 2.5	0 – 0.5
Weathered Sandstone/Siltstone/Claystone	1.35 – 6.8	–	2.5 – 5.6	0.5 – 5.0
Fresh Sandstone/Siltstone	–	–	5.6 – 14.2	5.0 – 14.6
Rhyolite	6.8 – 68.4	1.0 – 39.6	14.2 – 55.6	14.6 – 61.6
Fresh Sandstone/Siltstone/Claystone	68.4 – 72.0	–	–	–

5.3.2 Project Consideration

The quarrying resource comprises a mixture of durable rhyolite, moderately durable trachyte, durable volcanic arenite and quartz trachyte, with a secondary resource containing a decorative dimension stone. The primary target material for the quarry will be a high-quality rhyolite resource aimed at satisfying Transport for NSW demand for high friction road aggregates.

5.4 SOILS

5.4.1 Existing Environment

Soil landscapes, and their corresponding characteristics, for the Subject Land have been determined via review of the *Soil Landscapes of the Newcastle 1:100 000 Sheet* report and corresponding mapping layer (Mathei 1995).

The Subject Land contains the following soil landscapes:

- Ironstone Mountain (im and ima) colluvial soil landscape.
- Ten Mile Road (tm) erosional soil landscape.
- The Branch residual soil landscape.

The Ironstone Mountain soil landscape is located on steep slopes (generally >30%) containing well drained gravelly Bleached Loams / Lithosols, well drained stony Yellow Earths and some moderately deep, well drained Yellow Podzolic soils on slopes and occasional crests. A variant of the Ironstone Mountain soil landscape occurs on rolling crest ridges and slopes between 5-15% (Mathei 1995).

The Ironstone Mountain soil landscape possesses the following qualities and limitations:

- Foundation hazard.
- Generally located on steep slopes.
- Mass movement hazard.
- Very high water erosion hazard.
- Localised rocky outcrops.
- Shallow.
- Stony soils of low fertility.

(Mathei 1995).

The Ten Mile Road soil landscape is found on undulating low hills of Carboniferous sediments and acid volcanics within Clarencetown Hills and Medowie Lowlands regions. The Ten Mile road soil landscape contains moderately deep to deep well to imperfectly drained brown Soloths, Yellow Soloths, and shallow, well drained Bleached Loams / Lithosols (Mathei 1995).

The Ten Mile Road soil landscape possesses the following characteristics:

- High water erosion hazard.
- Localised shallow soils.
- High run-on and seasonal waterlogging.
- Strongly to extremely acid soils of low fertility.

(Mathei 1995)

The Branch soil landscape is found on broad plains on deep Pleistocene clay deposits in the Medowie Lowlands. The Branch soil landscape contains deep, poorly drained Soloths. The Branch soil landscape possesses the following characteristics:

- Seasonal waterlogging.
- Foundation hazard.
- Highly erodible.
- Strongly acid soils with extremely low wet strength.
- Low fertility.
- Low permeability.

(Mathei 1995)

The Subject Land is not within a mapped area with the potential to contain Acid Sulphate Soils (ASS) under the Great Lakes LEP, nor is it mapped within the extent of potential ASS under the NSW OEH *Acid Sulfate Soils Risk* mapping layer within the NSW Government's Sharing and Enabling Environmental Data (SEED) mapping system (Office of Environment and Heritage 1998; State of NSW and Office of Environment and Heritage 2018).

5.4.2 Project Consideration

The EIS for this SSD shall provide further assessment towards the management of soils with regards to land stability, erosion potential, and potential limitations to rehabilitation.

The proposed Quarry is not expected to be impacted by ASS, however further assessment will be conducted as part of the EIS.

In accordance with SEPP 55, the Subject Land will be assessed for potential contamination as part of the EIS.

5.5 TOPOGRAPHY AND LANDFORM

5.5.1 Existing Environment

The Subject Land generally comprises of forested hills and slopes, intersected by the floodplain of Deep Creek within the north-eastern portion of the property. Elevations within the Subject Land range from 30 m Australian Height Datum (AHD) to 130 m AHD (measured using 10 m contours).

The proposed footprint of the Quarry is located in a wide gully between two ridgelines, generally grading downslope towards Deep Creek and Deep Creek Road to the northeast.

The location of the proposed Quarry within the Subject Land is shown in **Figure 2**.

5.5.2 Project Consideration

The EIS will include an assessment of the potential impacts upon surface hydrology resulting from the modification of the local topography, including the implementation of control measures to manage surface water drainage in the quarry and prevent sediment laden run-off draining into Deep Creek.

The EIS will further need to consider the potential for land instability and the implementation of suitable batters for the safety of site personnel during quarrying works.

5.6 SURFACE WATER

5.6.1 Existing Environment

Surface water drainage within the Subject Land is characterised by several 1st order ephemeral drainage lines forming within gullies. These drainage lines converge at lower elevations prior to flowing into Deep Creek and an unnamed 5th order ephemeral stream.

5.6.2 Project Consideration

The proposed Quarry will, within its current footprint:

- Is located between two 1st order ephemeral streams, with limited disturbance to the main gully lines.
- Intersect one 1st order, three 2nd order and a 5th order stream for the construction of access roads. Construction of the main access road will occur within the riparian buffer of Deep Creek, a 4th order stream.
- Intersect one 1st order stream for the construction of the product stockpile area. Construction works will also occur within the riparian buffer of a 1st order ephemeral creek and Deep Creek.
- Draw water from inline dams in 2nd and 3rd order ephemeral streams.

The EIS will include hydrological modelling of surface water drainage following construction of the proposed Quarry. Hydrological modelling will include assessment of the potential impact of the proposed SSD with regards to surface water drainage and the potential changes to the local flood regime. It is expected that several minor modifications to the current design may be required to optimize the proposed SSD with regards to mitigating potential surface water impacts.

Preparation of the EIS will include the development of control measures to manage surface water drainage in the quarry and prevent sediment laden run-off draining into adjacent drainage lines.

Preparation of the EIS will need to further include consultation with the NSW Department of Primary Industries to mitigate potential impact of the proposed SSD upon intersected drainage lines and riparian buffers.

5.7 FLORA AND FAUNA

5.7.1 Existing Environment

Kleinfelder have conducted detailed vegetation mapping of the Subject Land since 2016. The extent of vegetation mapped is illustrated on **Figure 3**. The area surveyed encompasses the entirety of the project footprint, with the remainder of the Subject Land to be unaffected by the proposed construction and operation of the Quarry.

The following Plant Community Types (PCTs) were identified within the Subject Land (**Table 3**).

Table 3: PCTs identified within the Subject Land (Kleinfelder, 2016).

Plant Community Type (PCT)	PCT ID	Potential Equivalent EEC
HU770: Tallowwood - Smooth-barked Apple - Blackbutt grass tall open forest of the Central and lower North Coast	1556	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (Partial) (NSW)
HU781: Tallowwood - Brush Box - Sydney Blue Gum moist shrubby tall open forest on foothills of the lower North Coast	1567	Nil
HU804: Spotted Gum - Broad-leaved Mahogany - Red Ironbark shrubby open forest	1590	Lower Hunter Spotted Gum-Ironbark Forest in the Sydney Basin Bioregion (Part) (NSW)
HU833: Smooth-barked Apple - Red Bloodwood - Brown Stringybark - Hairpin Banksia heathy open forest of coastal lowlands	1619	Nil

The following threatened flora species were identified within the subject land:

- *Tetradlea juncea* - Black-eyed Susan – listed as Vulnerable in NSW under the *Biodiversity Conservation Act 2016* and Vulnerable in Australia under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.
- *Callistemon linearifolius* - Netted Bottle Brush – listed as Vulnerable in NSW under the *Biodiversity Conservation Act 2016*.

Fauna surveys conducted identified a total of 79 fauna species, comprised one fish, one crustacean, six amphibians, two reptiles, 32 mammals and 37 birds. Of these, one pest animal, the Red Fox (*Vulpes vulpes*) was identified.

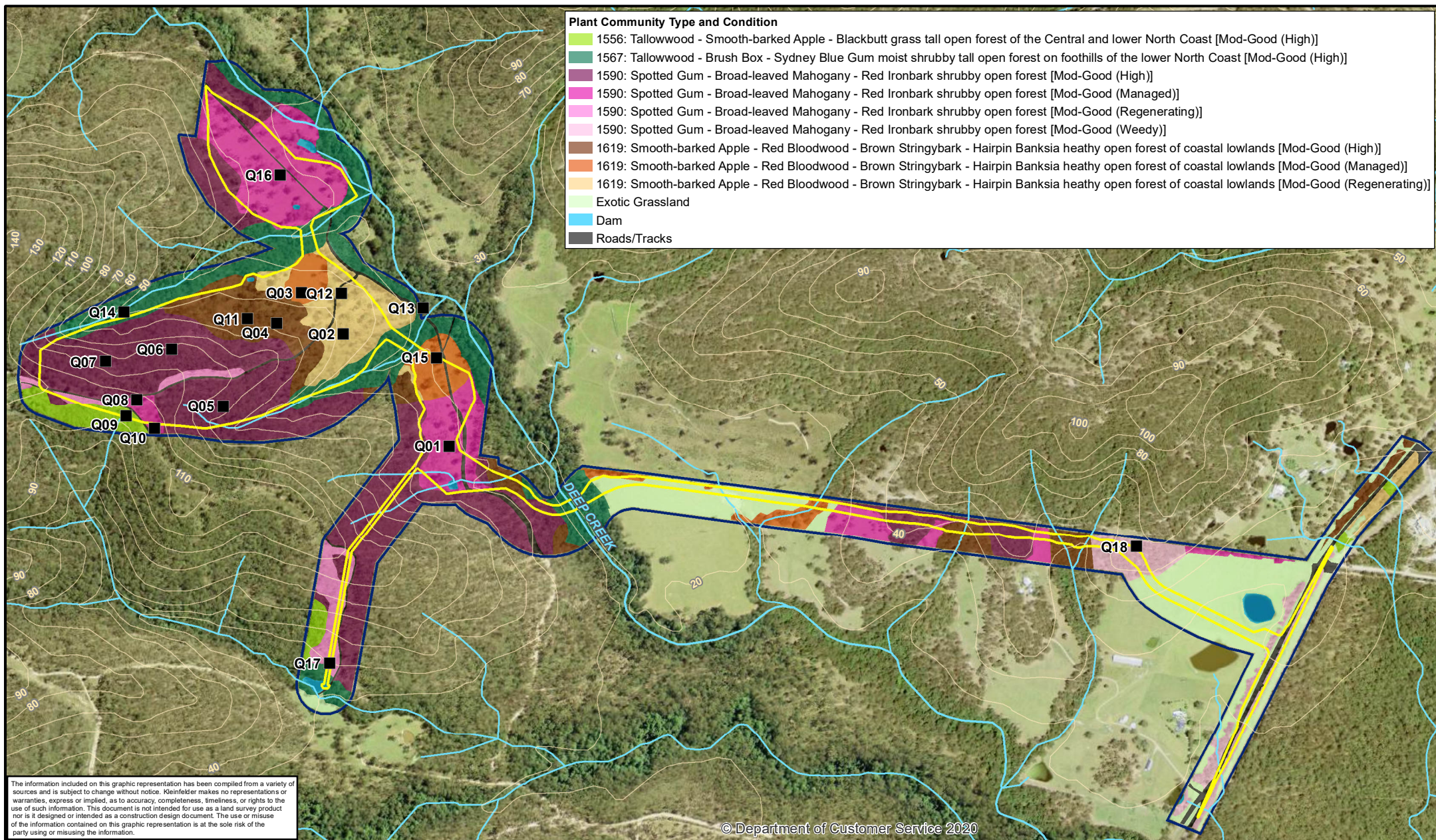
Fifteen of the species recorded are listed as Vulnerable under the NSW BC Act; Glossy Black-Cockatoo (*Calyptorhynchus lathami*), Little Lorikeet (*Glossopsitta pusilla*), Masked Owl (*Tyto novaehollandiae*), Sooty Owl (*Tyto tenebricosa*), Large-eared Pied bat, Eastern False Pipistrelle (*Falsistrellus tasmaniensis*), Eastern Coastal Freetail Bat (*Micronomus norfolkensis*), Little Bent-winged Bat (*Miniopterus australis*), Southern Myotis (*Myotis macropus*), Koala, Golden-tipped bat (*Phoniscus papuensis*), Grey-headed Flying fox, Yellow-bellied Sheath-tail-bat (*Saccolaimus flaviventris*), Greater Broad-nosed Bat (*Scoteanax rueppellii*), and Eastern Cave Bat (*Vespadelus troughtonii*).

Four of the recorded fauna species are listed as Vulnerable under the EPBC Act; being the Koala, New Holland Mouse, Grey-headed Flying-fox and Large-eared Pied Bat.

One migratory species listed under the EPBC Act was identified during survey, Rufous Fantail.

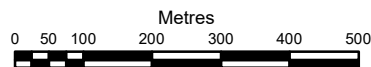
5.7.2 Project Consideration

As stated under **Section 4.7**, the proposed SSD automatically triggers the Biodiversity Offset Strategy under the NSW *Biodiversity Conservation Act* 2016. Preparation of the Biodiversity Assessment Report is underway and will include assessment of the proposed activity in accordance with the Biodiversity Assessment Method, including any further requirements issued in response to the request for SEARs process.



Legend

- Development Footprint
- Study Area
- Plot Transects
- Contours (10m)
- Named Watercourse
- Unnamed Watercourse



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PROJECT REFERENCE: 20203112

DATE DRAWN: 2020/11/25 16:24 Version 1

DRAWN BY: G.Joyce

DATA SOURCE:
NSW DFSI - 2019

Plant Community Types

Ironstone Developments Pty Ltd
Deep Creek Quarry
Bucketts Way, Limeburners Creek, NSW

FIGURE:

3

5.8 STRATEGIC AGRICULTURAL LAND

5.8.1 Existing Environment

The Subject Land is not located within an area that has been mapped as Biophysical Strategic Agricultural Lands or Critical Industry Cluster Land (Equine or Viticulture).

5.8.2 Project Consideration

No further consideration required.

5.9 HISTORIC CULTURAL OR NATURAL HERITAGE VALUES

5.9.1 Existing Environment

A search of the Heritage NSW database and review of the Great Lakes LEP did not find any European Heritages sites within 1 km of the Subject Land (NSW Office of Environment and Heritage 2018).

The World Heritage List, Commonwealth Heritage List and National Heritage List have been reviewed. There are no historic, cultural or natural resource heritage values on these lists either on the site nor have the potential to be impacted by the proposed Quarry (Department of Environment and Energy 2018; Department of Environment and Energy 2018; United Nations Educational, Scientific and Cultural Organization 2018).

5.9.2 Project Consideration

It is not expected that the proposed quarry will impact upon items of Historic, Cultural or Natural Heritage values, however further heritage assessment will be undertaken as part of the EIS.

5.10 ABORIGINAL HERITAGE

5.10.1 Existing Environment

The Subject Land is located in lands within the Karuah Local Aboriginal Land Council area.

A search of the NSW Government Aboriginal Heritage Information System (AHIMS) system was conducted on 9 July 2020 for Lot 472 DP 1162208, Lot 48 DP 753178, Lot 551 DP 1238818 and Lot 552 DP 1238818 using a 200 m buffer. No Aboriginal sites or places are recorded in or near any of the aforementioned allotments.

An assessment of the proposed DCQ against Chapter 8 'The generic due diligence process' of the former NSW Department of Environment, Climate Change and Water's (DECCW - now NSW DPIE) Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales 2010 (Due Diligence Guideline) has been conducted (See **Table 4**). The assessment found that the proposed DCQ is located within 200 m of waters (intersects Deep Creek and several ephemeral drainage lines), with the proposed pit shell to intersect forested ridgelines. There are no caves or rock overhangs present within the quarry area and the historical logging activity have reduced the potential for modified trees to be present within the Action Area

Table 4: Assessment of the proposed Quarry against the Due Diligence Guideline (DECCW 2010).

Step	Response
1) Will the activity disturb the ground surface or any culturally modified trees?	The proposed Quarry will disturb the ground surface. No known culturally modified trees are located within the Subject land, however this does not preclude the existence of unknown modified trees.
2) Are there any:	
a) Relevant confirmed site records or other associated landscape feature information of AHIMS?	No sites recorded on the AHIMS database.
b) Any other sources of information of the which the person is aware?	No sites identified utilising the NSW Heritage Register or Great Lakes LEP.
c) Landscape features that are likely to indicate presence of Aboriginal objects?	The proposed quarry is not located on disturbed land and contains the following sensitive landscape features: - Is located within 200 m of waters. - Parts of the proposed quarry have the capacity to impact upon ridgelines within the Subject Land. The proposed Quarry will not be located within 20 m of a cave, rock shelter or cave mouth.

Step	Response
3) Can you avoid harm to the object or disturbance of the landscape feature?	Given the topography of the Subject Land and nature of the resource, it is considered that complete avoidance of sensitive landscapes identified under the Due Diligence Guidelines is unlikely.
Further assessment by a specialist required.	

5.10.2 Project Consideration

Given the landscape of the locality and potential sensitivities highlighted in **Table 4**, an Aboriginal Cultural Heritage Assessment Report (ACHAR) is required for the proposed activity.

The EIS will therefore include the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) to assess potential impacts to Aboriginal Cultural Heritage during the construction and operation of the proposed quarry. The ACHAR will be prepared by a qualified archaeologist, in consultation with the local Aboriginal community.

5.11 BUSHFIRE

5.11.1 Existing Environment

The Subject Land contains Category 1 and buffer bush fire prone land under the Mid-Coast Council bush fire prone land map (2018), viewed using the Mid-Coast Council online mapping system. The Mid-Coast LGA has a Fire Danger Index (FDI) of 80.

The Subject Land consists of several forest slopes that form part of a larger vegetated corridor that extends northwards beyond Stroud and to Williamstown in the south. The combination of undulating topography and a mosaic of vegetation types results in a region where the practical implementation of adequate bushfire protection measures is essential for reducing both the ignition risk and the susceptibility of a development to bushfire.

5.11.2 Project Consideration

The design and construction of the proposed quarry will be planned in conjunction with RFS guidelines '*Planning for Bushfire*' (2019) and AS3959-2018. The EIS will also consider any additional requirements received in the SEARs.

5.12 TRAFFIC

5.12.1 Existing Environment

Access to the Subject Land is via The Bucketts Way and Deep Creek Road. The Bucketts Way is a two lane, 8 m wide sealed bitumen road, which services traffic between the Twelve Mile Creek intersection of the Pacific Highway and towns such as Stroud and Stratford, located north of the Subject Land.

Direct access to the Subject Land from the Bucketts Way will be via a new sealed access road from The Bucketts Way intersecting with Deep Creek Road adjacent to the proposed quarry property.

5.12.2 Project Consideration

The proposed SSD will require a new intersection between the new access road and The Bucketts Way to ensure safe ingress and egress during the operation of the proposed Quarry.

The proposed SSD will include adjustments to Deep Creek road for the safety of personnel, private landholders and native fauna during construction and operation.

The EIS will include an assessment of the potential loading increase along public roads as a result of the construction and operation of the Quarry. The EIS will further include an assessment of the potential traffic, social and environmental impacts of the adjustments to Deep Creek Road and to the new access road and The Bucketts Way intersection.

Preparation of the EIS will include consultation with the Transport for NSW (Roads and Maritime), Mid-Coast Council and local residents during the course of intersection and road upgrade designs. It is expected that designs may be progressively modified throughout the application in response to stakeholder feedback, whilst simultaneously reducing potential impacts on the environment where identified.

5.13 SOCIAL

5.13.1 Existing Environment

5.13.1.1 Local Environment

The Subject Land is located in a rural environment, along a major arterial road servicing traffic between townships to the north and the Pacific Highway to the south. Major noise sources in the locality are likely restricted to vehicle movement along The Bucketts Way.

Natural aesthetic qualities of the landscape are present, with the local landscape surrounding the Subject Land dominated by forested ridgelines and drainage gullies.

The Bucketts Way has demonstrated capacity for servicing traffic generated via mining operations owned by Yancoal Stratford Duralie.

5.13.2 Project Consideration

A completed Environmental Impact Statement Scoping worksheet is provided within **Appendix 2**. The worksheet has been prepared in consultation with Mara Consulting, a social engagement and impact assessment specialist. The worksheet recommends a Standard Social Impact Assessment (SIA) is prepared for the proposed quarry.

Social impacts from a development can result from a multitude of factors, and it is often a cumulative impact from a number of variables that will ultimately influence stakeholder opinion for a particular development.

The SIA will have regards to potential cumulative impacts of the proposed Quarry upon the social fabric of not just those within the locality of the Subject Land, but anyone that is either affected or expresses an interest in the proposed SSD.

It is expected that the following stakeholders may be impacted or have an interest in the proposed SSD:

- The proponent IDPL.
- Surrounding residents as identified on **Figure 4**.
- Contractors engaged during the SSD application process.
- Motorists utilising Deep Creek Road and The Bucketts Way.

- Local services and residents within the nearby townships of Clarence Town, Allworth, Limeburners Creek and Twelve Mile Creek.

The following organisations may also have an interest in the proposed SSD and will be consulted during the EIS process. This is not an exhaustive list and it may be modified depending upon the SEARs and feedback through the consultation process.

- Mid Coast Council.
- Department of Planning Industry and Environment.
- Environmental Protection Authority.
- Hunter Water Corporation.
- Companies contracted during the construction and operation of the Quarry.
- Port Stephens Council (PSC).
- Transport for NSW (TfNSW).
- Natural Resource Access Regulator.
- NSW Department of Primary Industry.
- NSW Water.
- Biodiversity Conservation Division (BCD).

The proposed SSD will provide an economic benefit to the local economy, providing long-term employment for up to ten employees and further employment for contractors engaged throughout the lifetime of the quarry.

5.14 VISUAL AMENITY

5.14.1 Existing Environment

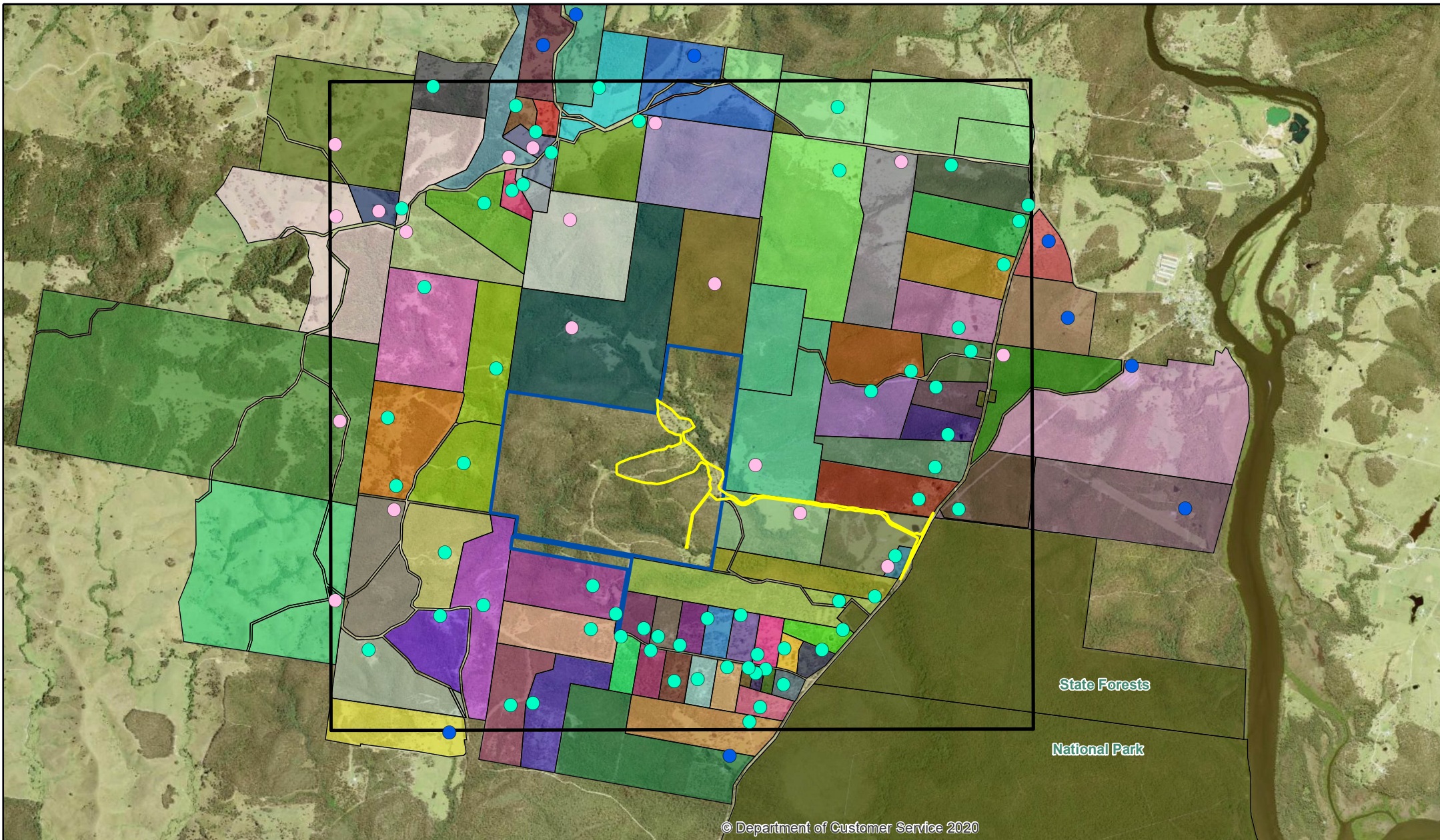
The area is characterised by partially cleared valley floors and lower slopes used for agricultural grazing and private dwellings. The ridgelines are all vegetated. Visibility from The Bucketts Way (the primary viewing location) is relatively constrained being located at lower elevations with substantial roadside vegetation also limiting views from the travelling public.

5.14.2 Project Consideration

Current evaluation of the quarry in a visual context, suggests that the quarry pit will not be visible from any public roads (except Deep Creek Road) or neighbouring dwellings. Filtered views from vegetated ridgelines on neighbouring private properties may be possible but are unlikely to be significant. The quarry pit and infrastructure areas are located adjacent to Deep Creek Road, however, at this location, the road services three properties, which at present, do

not have any approved dwellings or permanent residents. The quarry access road as it approaches Deep Creek Road, along with the intersection will be visible to passing motorists and dwellings located north and south of the access road. Consultation has occurred with these residents and has resulted in design changes to the road to make the alignment further from any particular dwelling.

A visual impact assessment will be performed as part of the EIS in order to manage visual impacts during and following the proposed activity. Planning the design of the quarry will also incorporate potential final landforms and associated rehabilitation.



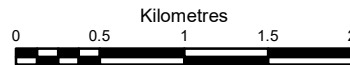
Legend

- Subject Land
- Development Footprint

Receptor Lot Boundary

Multiple-lot land holdings are represented by single fill colour

- Existing Receptor
- Potential Future Receptor
- Existing Receptor (outside domain)



PROJECT REFERENCE: 20203112

DATE DRAWN: 2020/11/26 16:51 Version 5

DRAWN BY: G.Joyce

DATA SOURCE:
NSW DFSI - 2020

Surrounding Receptors

Ironstone Developments Pty Ltd
Deep Creek Quarry
Bucketts Way, Limeburners Creek, NSW

FIGURE:

4

6. PROJECT JUSTIFICATION

The primary target material for the quarry will be a high quality rhyolite resource aimed at satisfying TfNSW demand for high friction road aggregates. This material improves grip and is often used in areas where the additional grip allows for increased road safety. The site is strategically located to be able to efficiently supply the resource for road infrastructure throughout NSW while utilising the established distribution network nearby. The materials produced by the quarry are expected to meet market demand between Coffs Harbour and Canberra.

The pit location has been partially cleared for agricultural purposes and logging, the shallow depth of the target resource in this area allows for a reduced amount of overburden. While alternate areas of resource are present within the wider land owned by the proponent, the adopted resource area is considered to have the highest resource value and can be extracted with the lowest possible environmental impacts.

The proponent has therefore opted to target a smaller area of the available high friction rhyolite resource that is in short supply but high demand by TfNSW due to the increased grip and therefore safety it provides in road infrastructure. The project design to date, has included a range of changes to the design (as per Section 3.1).

Given the unique beneficial properties of the target resource and its location, there are no feasible alternatives to the proponent for the development of the proposed project.

7. COMMUNITY LIAISON AND CONSULTATION

During the development of the project to this stage, the project has included consultation with the following stakeholders:

- Department of Planning Industry and Environment.
- Mid-Coast Council.
- Port Stephens Council.
- Transport for NSW.
- Resources Regulator.
- Land owners located along the proposed new access corridor.
- Land owners of the dwelling immediately north of the proposed access road.
- Property owners immediately east and north of the quarry pit.
- A copy of the first DCQ newsletter has also been distributed to local properties and is enclosed as **Appendix 3**.

Preparation of the EIS for the proposed SSD will involve consultation with a number of stakeholders, including, but not necessarily limited to the following:

- The local community within the area generally shown by **Figure 4**.
- TfNSW with regards to traffic impacts and intersection with The Bucketts Way.
- The NSW EES / BCT with regards to Aboriginal Cultural Heritage Impacts and identified impacts upon NSW listed threatened species and / or ecological communities.
- The Australian Government Department of the Environment with regards to impacts (if identified) to threatened species and ecological communities listed under the Commonwealth EPBC Act.
- The Karuah Local Aboriginal Lands Council with regards to Aboriginal Cultural Heritage Impacts.
- The NSW Department of Primary Industries with regards to relevant license applications.
- Mid-Coast Council.
- Any further government authority or regulatory body identified as requiring consultation during the preparation of the EIS.

A register of consultation undertaken will be maintained in order to ensure feedback from all stakeholders are addressed during the preparation of the EIS.

8. CONCLUSION

Based on the information presented within this Scoping Report, it is respectively requested that the Secretary of the DPIE issue the SEARs for this SSD in accordance with *Part 4 of the Environmental Planning & Assessment Act 1979*.

9. REFERENCES

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APPENDIX 1. AHIMS SEARCH RESULTS

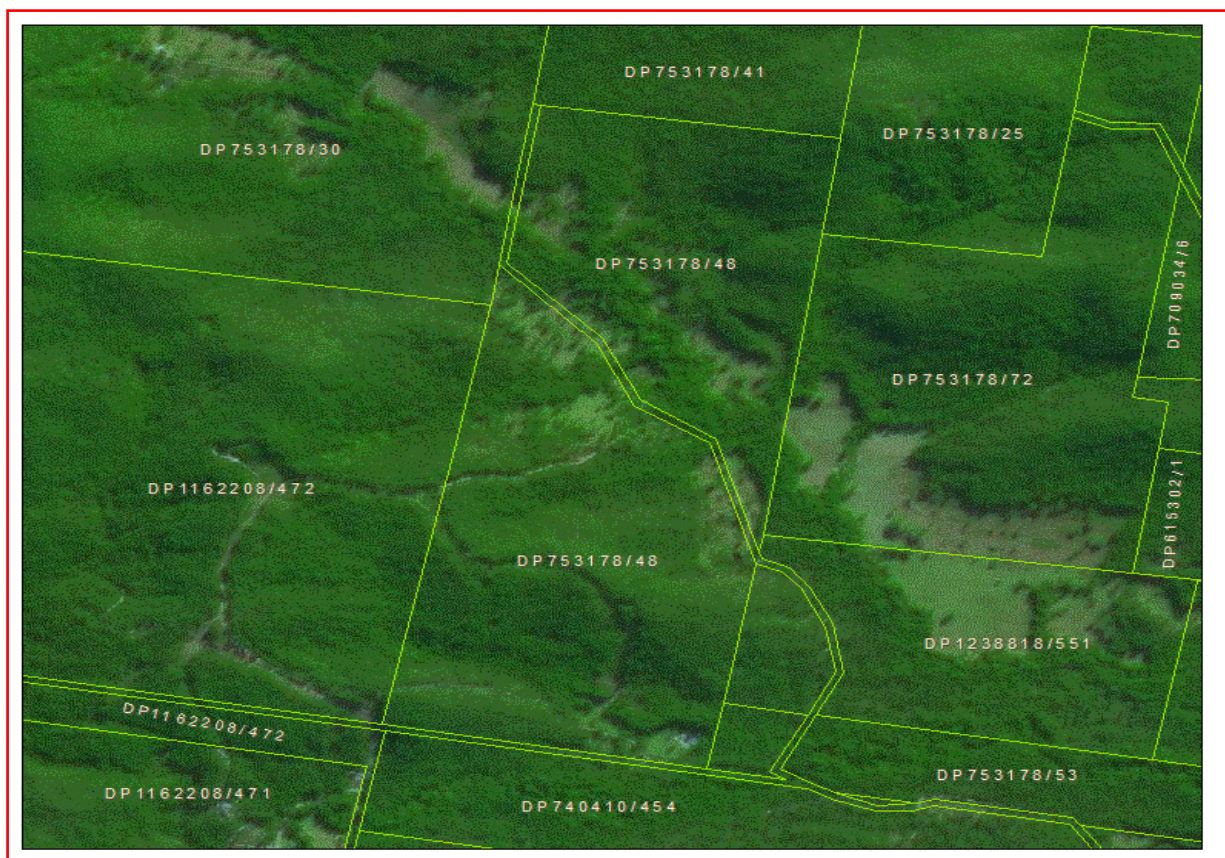
Kleinfelder
95 Mitchell Road
Cardiff New South Wales 2285
Attention: Bradley Deane
Email: bdeane@kleinfelder.com

Date: 09 July 2020

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 48, DP:DP753178 with a Buffer of 200 meters, conducted by Bradley Deane on 09 July 2020.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(http://www.nsw.gov.au/gazette\)](http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
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- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

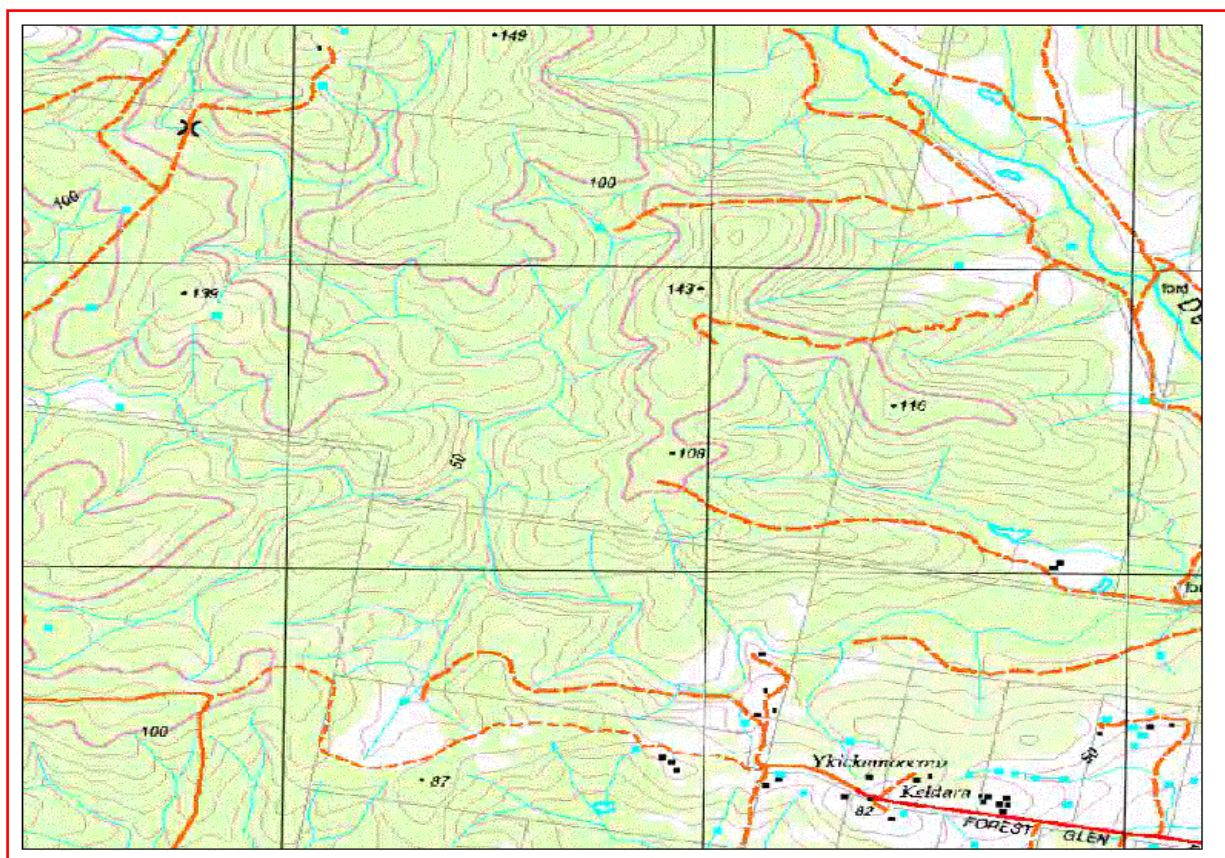
Kleinfelder
95 Mitchell Road
Cardiff New South Wales 2285
Attention: Bradley Deane
Email: bdeane@kleinfelder.com

Date: 09 July 2020

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 472, DP:DP1162208 with a Buffer of 200 meters, conducted by Bradley Deane on 09 July 2020.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



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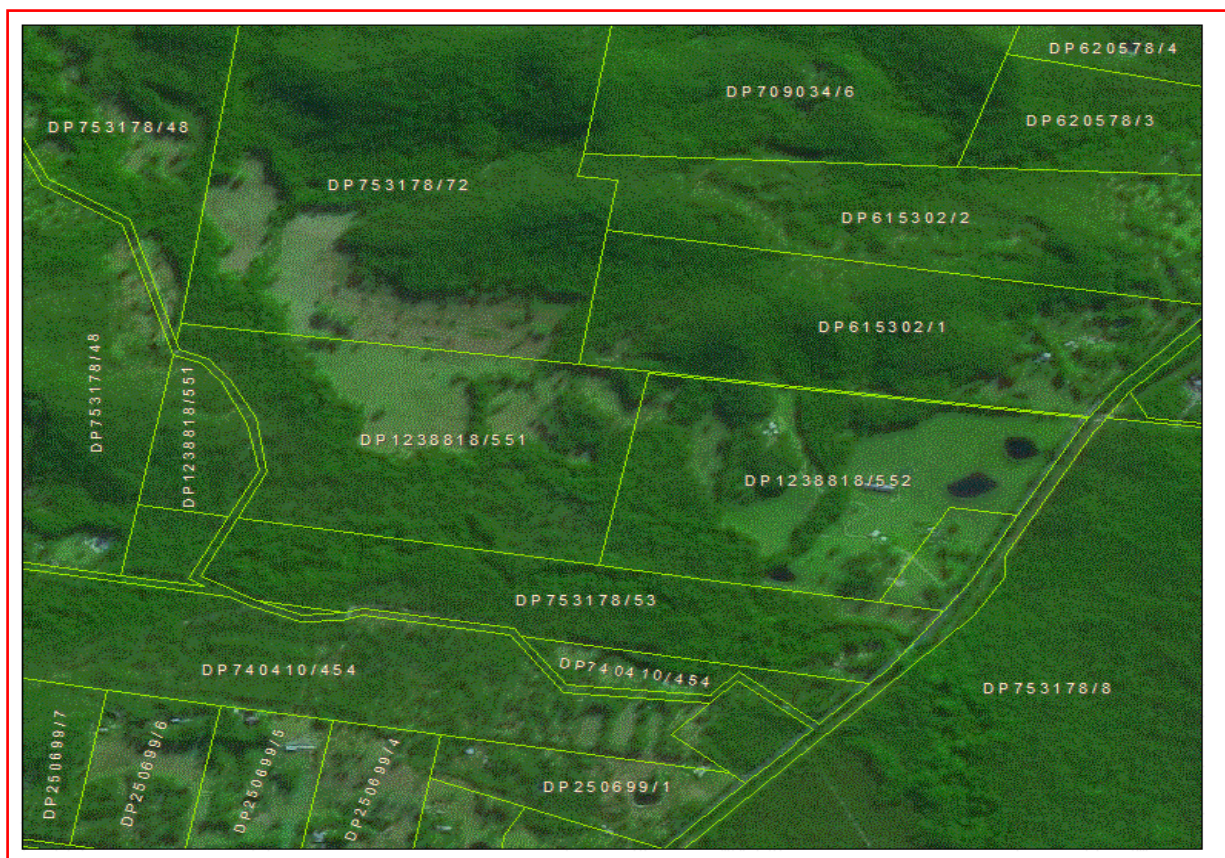
Kleinfelder
95 Mitchell Road
Cardiff New South Wales 2285
Attention: Bradley Deane
Email: bdeane@kleinfelder.com

Date: 09 July 2020

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 551, DP:DP1238818 with a Buffer of 200 meters, conducted by Bradley Deane on 09 July 2020.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



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APPENDIX 2. SCOPING REPORT

Environmental Impact Statement (EIS) scoping worksheet for:			New Quarry Project						Date:		3/11/2018			
What matters might be impacted?			What activities might cause an impact?		What are the characteristics of the impact?				How will the impact be managed?	What are the community and other stakeholder views?	What level of assessment and engagement is required in the EIS preparation phase?			
Social and environmental matters I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements Click on the matter for a description, or the link above for full glossary			Without any mitigation, is the proposal likely to impact on the matter? (Select from list)	If there is a 'likely' impact: 1. list the activities expected to cause the impact; and 2. if applicable, list the receptor being impacted and its status. E.g. construction noise will be heard at nearby school If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location? (Manual entry)	Is the impact, without mitigation, expected to cause a material effect with regard to its... (Answer 'Y', 'N' or '?') Click on characteristic for description, or the link above for further detail				Does the impact need assessment in the EIS? (Auto fills)	Is the impact, without mitigation, expected to have a material cumulative effect with other impacts (including from other projects)? (Select from list)	What safeguards and management measures are expected to be required to address the impact? (Select from list)	Are there community or other stakeholder concerns regarding the impact or activity? (Based on engagement with community and other stakeholders) (Select from list)	Expected level of assessment and/or engagement required (Auto fills)	
					extent?	duration?	severity?	sensitivity?						
What does the proposal mean for people?	AMENITY	acoustic	Likely	Quarry activities and trucks	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		visual	Likely	Limited visibility to quarry from public areas. The access road construction and operational use may be visible from 1 private property adjacent to access road.	Y	Y	N	N	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		odour	Unlikely	No odour generating activities.								No		
		microclimate	Unlikely	Development is remote from dwellings and is without structures likely to affect qualities or characteristics of the local environment.								No	Scoping Report	
		Dust	Likely	Dust deposition from Quarry activities and trucks	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
	ACCESS	access to property	Unlikely	Project proposes new access road, proposed road is likely to improve access for adjacent properties. Access agreements are currently in place with affected landowner.								Yes	Scoping Report + Explain avoidance	
		utilities	Unlikely	Site will have connections with electrical and telcommunication networks. No degradation of existing supply to customers. Onsite sewage disposal and importation of potable water to supplement onsite supplies.								No	Scoping Report	
		road and rail network	Likely	Access to Bucketts Way, intersection works required	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		offsite parking	Unlikely	Quarry will have adequate parking for all employees and visitors during construction and operation.								No		
		other - please specify	n/a										No assessment necessary - Worksheet only	
		BUILT ENVIRONMENT	public domain	Unlikely	There are no communal spaces in proximity of the quarry. Karuah National Park is located at a distance where users are unlikely to be adversely affected.								No	Scoping Report
	public infrastructure		Likely	Haulage will use public roads to access customers, via a private specially constructed haul road to avoid impacts to Deep Creek Road. Primary haulage will be via Arterial Roads and Highways (i.e. The Bucketts Way and Pacific Highway).	Y	Y	N	N	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
	other built assets		Unlikely	No built assets in close proximity of the quarry.								No	Scoping Report	
	other - please specify		n/a										No assessment necessary - Worksheet only	
	HERITAGE		natural	Unlikely	No natural heritage in close proximity of the quarry.Preliminary assessments have not identified any constraints.									Scoping Report
		cultural	Unlikely	No cultural heritage in close proximity of the quarry.Preliminary assessments have not identified any constraints.									Scoping Report	
		Aboriginal cultural	Likely	Landscape not especially sensitive though does cross creeks, preliminary assessments and AHIMS does not indicate any known sites within project area.	N	?	?	?	Unknown	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		built	Unlikely	No built heritage in close proximity of the quarry. Preliminary assessments have not identified any constraints.									Scoping Report	
		other - please specify	n/a										No assessment necessary - Worksheet only	
		COMMUNITY	health	Likely	Air quality and noise will change, however this is unlikely to be above criteria. Quarry developments in general may cause concern for some in the community.	Y	Y	N	Y	Yes	Yes	Standard	Yes	Other Issue + CIA + Focussed Engagement
	safety		Likely	Product haulage on The Bucketts Way will increase heavy vehicle traffic.	Y	Y	N	N	Yes	Yes	Standard	Yes	Other Issue + CIA + Focussed Engagement	
	services and facilities		Unlikely	Small workforce, likely to be local, is unlikely to change demand on services and facilities.								No	Scoping Report	
	cohesion, capital and resilience		Unlikely	Unlikely to change the cohesion, capital and resilience of local area.								No	Scoping Report	
	housing		Unlikely	Unlikely to change housing demand.								No	Scoping Report	
	other - please specify		n/a										No assessment necessary - Worksheet only	
	ECONOMIC		natural resource use	Unlikely	Specialist quarry materials to be recovered.								No	Scoping Report
		livelihood	Unlikely	Employment of 5-10 individuals over 30 years, quarry impacts are unlikely to change the use of neighbouring properties or affect the livelihood gained from those properties.								No	Scoping Report	
		opportunity cost	Likely	Land is not high value agricultural land, an 8 lot subdivision has been approved for the subject land. On completion of quarrying these uses may remain.	N	N	Y	N	No			No	Scoping Report	
		other - please specify	n/a										No assessment necessary - Worksheet only	
		environment?	AIR	particulate matter	Likely	Quarry activities and truck haulage may result in impacts to some dwellings in the absence of suitable controls.	Y	Y	Y	Y	Yes	No	Project Specific	Yes
	gases			Likely	Blasting (e.g. NOX) impacts may occur on some private land in the absence of suitable controls.	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement
	atmospheric emissions			Likely	Quarry will use diesel for mobile equipment that will generate some emissions to the atmosphere.	Y	Y	N	N	Yes	Yes	Standard	No	Other Issue + CIA

Environmental Impact Statement (EIS) scoping worksheet for:			New Quarry Project							Date:			3/11/2018	
What matters might be impacted?			What activities might cause an impact?		What are the characteristics of the impact?				How will the impact be managed?	What are the community and other stakeholder views?	What level of assessment and engagement is required in the EIS preparation phase?			
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					extent?	duration?	severity?	sensitivity?						
What does the proposal mean for the natural		other - please specify	n/a										No assessment necessary - Worksheet only	
	BIODIVERSITY	native vegetation	Likely	Vegetation will be cleared for the quarry proposal. Quarry is less than 30 ha, within a Subject Land holding of over 310 hectares.	N	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
		native fauna	Likely	Habitat will be removed.	N	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	
		other - please specify	n/a										No assessment necessary - Worksheet only	
	LAND	stability and/or structure	Likely	Quarry will modify the landform.	N	Y	Y	N	Yes	No	Standard	No	Other Issue	
		soil chemistry	Unlikely	Quarry will expose different rock unlikely to be chemically problematic.								No	Scoping Report	
		capability	Likely	Limited cability at present - steep slopes and vegetated	N	Y	Y	N	Yes	No	Standard	No	Other Issue	
		topography	Likely	Site has steep slopes	N	Y	Y	N	Yes	No	Standard	No	Other Issue	
		other - please specify	n/a										No assessment necessary - Worksheet only	
	WATER	water quality	Likely	Runoff and release of groundwater to surface drainage	Y	Y	Y	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	
		water availability	Likely	Quarry will modify the catchment and will use water for dust supression and will reduce runoff to the catchment.	Y	Y	N	N	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	
		hydrological flows	Likely	Quarry will modify catchment	Y	Y	N	N	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	
other - please specify		n/a										No assessment necessary - Worksheet only		
What risks does the proposal face?	RISKS	coastal hazards	Unlikely								No	Scoping Report		
		flood waters	Unlikely	The access road will be designed to accommodate flooding.							No	Scoping Report		
		bushfire	Likely	Heavily vegetated area - will require adequate controls	Y	N	N	N	No		Yes	Scoping Report + Focussed Engagement		
		undermining	Unlikely	No underground mining proposed.							No	Scoping Report		
		steep slopes	Likely	Quarry on steep slopes, managable for the quarry though.	N	Y	Y	N	Yes	No	Standard	No	Other Issue	
		other - please specify	n/a										No assessment necessary - Worksheet only	

Social impact assessment (SIA) scoping worksheet for:			0			Date:				
Scoping results from EIS Worksheet						Is there a social impact?		What information will be required to assess the social impact?		
Social and environmental matters Click on a matter below for brief description, or refer to full glossary			Outline of impact (Auto fill from EIS worksheet)	Is a material effect on the matter expected? (Auto fill from EIS worksheet)	Is there community or other stakeholder concerns regarding the impact or activity? (Auto fill from EIS worksheet)	With regard to the matter expected to be impacted, will there be a social impact? Select this cell for brief description, or click link above for further detail		Are impacts on the matter expected to require a non-SIA specialist study? (Auto fill from EIS worksheet, then manually enter non-SIA report type)	Will the non-SIA specialist study address the social impact? Click on link above for further detail on potential classifications (Select from list)	Level of assessment for the social impact in the SIA Click on link above for further detail on potential classifications (Auto fills)
						Yes/No (Select from list)	If yes, outline the social impact (Manual entry, if not already covered in column D) If no, outline why (Manual entry)			
What does the proposal mean for people?	AMENITY	acoustic	Quarry activities and trucks	Yes	Yes	Yes		Noise Impact Assessment	Yes - fully	Desktop SIA
		visual	Limited visibility to quarry from public areas. The access road construction and operational use may be visible from 1 private property adjacent to access road.	Yes	Yes	Yes		Visual Impact Assessment	Yes - fully	Desktop SIA
		other - please specify	Dust deposition from Quarry activities and trucks	Yes	Yes	Yes		Yes - AQIA	Yes - fully	Desktop SIA
	ACCESS	road and rail network	Access to Bucketts Way, intersection works required	Yes	Yes	Yes		Yes - Traffic Assessment	Yes - in part	Standard SIA
		BUILT ENVIRONMENT	public infrastructure	Haulage will use public roads to access customers, via a private specially constructed haul road to avoid impacts to Deep Creek Road. Primary haulage will be via Arterial Roads and Highways (i.e. The Bucketts Way and Pacific Highway).	Yes	Yes	Yes		Yes - Traffic Assessment	Yes - fully
	HERITAGE		Aboriginal cultural	Landscape not especially sensitive though does cross creeks, preliminary assessments and AHIMS does not indicate any known sites within project area.	Yes	Yes	Yes		ACHAR	Yes - fully
	COMMUNITY	health	Air quality and noise will change, however this is unlikely to be above criteria. Quarry developments in general may cause concern for some in the community.	Yes	Yes	Yes	Information from other specialist studies will be used in this section of the SIA (e.g. noise and air quality)	No	Yes - in part	Standard SIA
		safety	Product haulage on The Bucketts Way will increase heavy vehicle traffic.	Yes	Yes	Yes		Traffic Impact Assessment	Yes - in part	Standard SIA
What does the proposal mean for the natural environment?	AIR	particulate matter	Quarry activities and truck haulage may result in impacts to some dwellings in the absence of suitable controls.	Yes	Yes	Yes		AQIA	Yes - in part	Standard SIA
		gases	Blasting (e.g. NOX) impacts may occur on some private land in the absence of suitable controls.	Yes	Yes	Yes		AQIA	Yes - in part	Standard SIA
		atmospheric emissions	Quarry will use diesel for mobile equipment that will generate some emissions to the atmosphere.	Yes	No	No		No		No SIA required
	BIODIVERSITY	native vegetation	Vegetation will be cleared for the quarry proposal. Quarry is less than 30 ha, within a Subject Land holding of over 310 hectares.	Yes	Yes	Yes		BDAR and BOS	Yes - in part	Standard SIA
		native fauna	Habitat will be removed.	Yes	Yes	Yes		BDAR and BOS	Yes - in part	Standard SIA
	LAND	stability and/or structure	Quarry will modify the landform.	Yes	No	No		No		No SIA required
		capability	Limited cability at present - steep slopes and vegetated	Yes	No	No		Soil Assessment	Yes - fully	No SIA required
		topography	Site has steep slopes	Yes	No	No		No		No SIA required
	WATER	water quality	Runoff and release of groundwater to surface drainage	Yes	Yes	Yes		Water Assessment	Yes - in part	Standard SIA
water availability		Quarry will modify the catchment and will use water for dust supression and will reduce runoff to the catchment.	Yes	Yes	Yes		Water Assessment	Yes - in part	Standard SIA	
hydrological flows		Quarry will modify catchment	Yes	Yes	Yes		Water Assessment	Yes - in part	Standard SIA	

APPENDIX 3. NEWSLETTER

Deep Creek Quarry Project

Project Overview

About the proposal

Ironstone Developments is seeking to develop a new hard rock quarry called Deep Creek Quarry, located off The Bucketts Way north of Limeburners Creek in New South Wales.

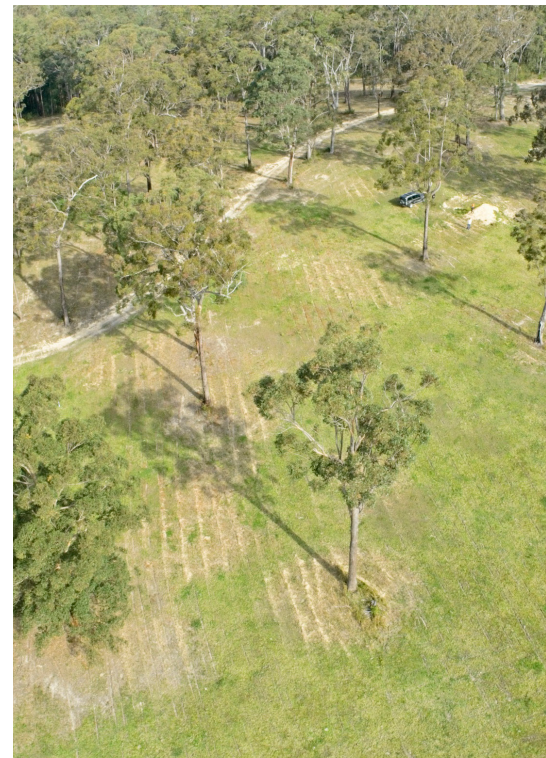
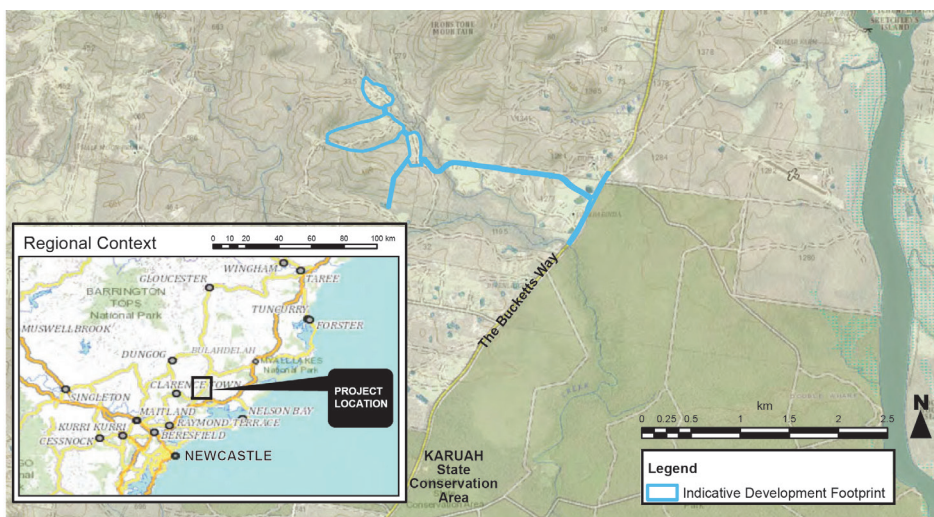
If approved, the quarry will produce up to 500,000 tonnes per annum of hard rock products and will be a source of quarry materials such as road base, high grip aggregates and decorative products. The quarry will service local construction and landscape industries, predominantly across the Hunter, Mid-Coast and Central Coast regions, and further afield for high grip and decorative materials.

The proposed project will include:

- Construction of a site access road off The Bucketts Way
- Site preparation and development of the quarry area
- Construction of infrastructure such as a weighbridge and workshop
- Stockpile and water management facilities
- Extraction and crushing of quarry material
- Transportation of the extracted material from the site
- Ongoing site maintenance and site rehabilitation at the end of the project life.

Location

The proposed quarry is located off Deep Creek Road, Limeburners Creek. The site is approximately 10km northeast of Clarence Town and 11km northwest of Karuah, within the Mid-Coast Local Government Area (LGA).



Get involved

Interested stakeholders are invited to provide feedback on the proposal.

There are a number of ways to have your say:

- Email or write to us
- Complete our online survey
- Attend an online information session

For details, visit our website at www.deepcreekquarry.com.au



Deep Creek Quarry will employ up to 10 full time employees and additional contractors to maintain equipment over an expected quarry life of up to 30 years.

It will support the local and regional construction industry and associated haulage contractors. The quarry will also create employment opportunities for qualified tradespeople during construction.

Environmental Impact Statement

The proposal is considered a State Significant Development (SSD) due to the amount of resource to be extracted over the life of the quarry. As a result, an Environmental Impact Statement (EIS) is being prepared to support the Deep Creek Quarry development application.

The EIS must assess the potential environmental and community impacts of the proposal, as well as the opportunities. As part of this process, expert consultants are completing a number of studies, including:

- Groundwater and surface water
- Aboriginal heritage
- Ecology (threatened flora, fauna and vegetation surveys)
- Air quality
- Soils and rehabilitation
- Noise
- Traffic
- Social impact
- Visual impact.

The social impact assessment will identify and define potential social impacts (positive and negative) of the proposal and make recommendations to help reduce and manage those impacts.

The development application and EIS will be submitted to the NSW Department of Planning, Industry and Environment (DPIE) for assessment. Once the EIS is lodged there will be a public exhibition period and interested members of the community will be able to provide formal feedback on the proposed development directly to DPIE.

Timeline



Mid 2020

- Technical studies and investigation
- Stakeholder consultation starts



Late 2020

- Community consultation starts
- Lodge environmental impact statement with DPIE



Early 2021

- Public exhibition of EIS
- Formal feedback period



Mid 2021

- Review submissions
- Determination (NSW & Australian governments)

If approved



Late 2021

- Construction begins
- Community engagement continues



Early 2022

- Quarry operations begin
- Community engagement ongoing

Get in touch



Visit our website at
www.deepcreekquarry.com.au



Email us at
community@deepcreekquarry.com.au