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Penrice Quarry

Miscellaneous Purposes Licence Application Scoping Report

Adbri Quarries

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PROJECT/DETAILS REPORT

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2	Update Scoping Report with Methodologies on Technical Studies as per request from DEM	June 2024	James Rowe	Matthew Jones
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Executive Summary

Adbri present this Scoping Report to support an upcoming Miscellaneous Purposes Licence Application (MPLA) for an area located to the north west of the current quarry site. To enable ongoing resource extraction, consideration has been given to immediate requirements to plan the relocation of critical support business items such as offices, workshop and laydown areas.

Planning for differing areas around the Site and in adjacent parcels of land is not a new concept and has been considered for some time. In the planning of the recently approved Mine Operations Plan / Program for Environment Protection and Rehabilitation (MOP PEPR), detailed modelling was undertaken of scenarios of where to locate a futuristic fixed crushing and screening plant. This outcome has enabled consideration of the location of ancillary buildings, infrastructure and potential locations to be considered.

Retention Lease (RL) 109 had to be drilled and analysed to fully appreciate the potential for a large scale futuristic pit shell that would encompass Kalimna Road. A second drilling campaign is approved currently under an Exploration Program for Environment Protection and Rehabilitation (EPEPR) and is likely to be undertaken in 2024. Within the MOP PEPR the current pit floor limit is RL 243 with a potential to extract down to RL 171. In order to achieve the full extent of both pit shells, relocation of the workshop, offices and ancillary items up to and including the current water fill points, water tank storage and fuel cells required consideration.

Internal and external engagement with stakeholders will be critical to the success of the project. Adbri have been and are continually engaging with their internal staff and externally through the Penrice Community Consultation Group (PCCG) and other forums to coexist in a community setting. The PCCG was developed approximately 15 years ago to aid in the two (2) way communication from the quarry to the community following an application and approval of Miscellaneous Purposes Licence (MPL) 118 to allow for overburden storage on the western aspect of the Site. The requirement for the Site to engage with stakeholders is formalised through the First Schedule of the Lease Conditions for MPL 118. Adbri undertake the engagement with the PCCG (and through alternate forums) as a part of their social licence to operate the Site and appreciate the communities feedback.

The external stakeholders and receptors are well known, and items of concern are also well known and the Site continually undertakes measures to minimise it's environmental impact to the surrounding community. The community is educated and Adbri will liaise early with stakeholders to understand each stakeholder's power and interest in the given development.

"The Gerlach Land" is located to the north of Jaeckeli Creek and parcels were acquired in the late 2000's. The dwelling near Kalimna Road has not been lived in for some 10 – 12 years and will be demolished in the short term. The dwelling in the southern area of the Proposed MPLA area is habited with a long-term tenant. There is the possibility for the dwelling to become an office area. For the purposes of development of conceptual plans separate office locations have been included.

Internal traffic flow and direction has been considered in the conceptual designs. The requirement to not impact on Jaeckeli Creek has been adhered to and entrance to the quarry pit has been best placed to the south of the topsoil within Private Mine (PM) 120. In addition, the entrance to the pit would need to achieve a gradient of no greater than 1:10 to be compliant with Heavy Mobile Equipment (HME) specifications, and for this reason a few different areas have been created for discussion. The design and thought process will also assist with external traffic flow and management offsite. Currently the entrance / exit from Penrice Road right through to the office is not ideal with the potential for Heavy

Vehicle (HV), Light Vehicle (LV), HME and pedestrians traffic all interacting. When busy, the Site can see up to 12,000 tonnes (t) of material exiting site each day, of which presents an increased safety risk to employees, contractors and visitors to the Site. Regarding offsite impacts, with the above considerations, there is likely to be an increase of Light Vehicle Traffic entering the Site along Kalimna Road, engagement has occurred with Barossa Council (owner of the road asset) and the requirement for a Traffic Impact Assessment (TIA) has been agreed to between Adbri and Council to define any potential impacts to road users along Kalimna Road.

As per the outcomes identified within the Preliminary Scoping Assessment Process, environmental aspects including Noise, Air Quality and Visual Amenity and considered to be the main environmental impacts that we believe to be of main focus with the development being successful.

Noise is a critical aspect. Overtime there has been encroachment against the quarry from a residential aspect and recently the Environmental Protection Authority (EPA) Noise Policy guidelines tightened the operating tolerances allowed to be emitted from the quarry. The quarry has had multiple assessments and models undertaken to understand and improve it's acoustic footprint. At times the start-up of HME has been an issue to some residents along Stockwell Road, this is largely due to the elevation of the HME Go Line currently in play and some engineering items that have been rectified in relation to exhaust systems used on a water truck. Noise modelling will be a key factor in determining the level of acoustic mitigations that is required to successfully operate within the Proposed MPLA area. For this purpose, an acoustic / visual buffer has been provided in the conceptual plans. Additionally, discussion has included the potential to plant additional trees to the western side of the MPLA area in order to provide a dense natural environment to assist with acoustic impacts being managed. The output of a noise model will also inform which way the trucks traffic the Go Line to the pit operational areas and whether a 'cut' will assist to mitigate noise propagating to stakeholders.

Air Quality is also an important aspect to manage from inception. There is a Beta Attenuation Monitor (BAM) on the Proposed MPLA area that assists in the management of dust onsite within a triangulated network. The entire MPLA area is currently mostly disturbed with a combination of historic grazing and viticulture activities that have taken place. The vineyard is not operational and topsoil has not been worked for some 10 years, therefore soils are somewhat consolidated. This will need management from inception. The model may inform additional matters and mitigations that will improve air quality management of the site.

Visual Amenity is another important value to the surrounding stakeholders. This aspect has been discussed at length and the final design will have stakeholder input to ensure that any potential concerns are listened to and potentially input into the design. Fortunately, there is some historical planting that has increased density to the east of the MPLA area. This is a positive and will assist in shielding particularly HME activities onsite. Likewise on the western side of the property, there is some minor planting of trees that partially screen the property. This may require further planting of multiple density species to assist in the reduction of visuals into the proposed area. The topography of the area has also been considered and therefore multiple designs have been provided as a concept plan, we understand that when the trucks get to the topographical high on the east side of the MPLA area the greater the potential visual aspect will become to receptors located on the Barossa Valley Floor. Visual Amenity has been considered in the development of the MOP PEPR and again is considered to be a key aspect that requires careful planning, consideration and engagement to ensure the operational and post operational outcomes are considered.

Noise, Air Quality and Visual Amenity are the main environmental aspects that have promoted a High Risk to the project in the Preliminary Impacts Assessment. However, additional environmental and social impacts have been identified and include:

- Surface Water

- Native Vegetation
- Traffic Management
- Public Safety
- Weeds & Pests
- Heritage
- Waste Management
- Light Spill

All of the abovementioned items will be further assessed as a part of the MPLA process.

Penrice Quarry is considered a Strategic Resource Area (SRA) to the state of South Australia, the planning of this MPLA area is critical to the ongoing development of the Site to ensure maximum reserves can be extracted whilst providing operational and safety improvements for the Site. In addition, the overall approval process is critical also, short term mine planning of the Site has been undertaken in lieu of the project and the Site has approximately two (2) to three (3) years to start moving the infrastructure prior to it becoming an operational issue onsite.

1 Introduction

Penrice Quarry is a limestone quarry comprising of PM 86, PM 120, Mineral Leases (ML) 6233, MPL 75 and MPL 118 located approximately 2.5 kilometres (km) north of the township of Angaston, South Australia (the Site).

The Site is owned by Adbri Limited (Adbri) and operated as Penrice Quarry and Mineral (PQM), **Drawing No. 1767.DRG.013R1 – Site Location Plan** highlights the location of the Site in relation to surrounding communities and Adelaide.

The Site is operated in accordance with an approved MOP PEPR, approved 11 November 2021 (ref 1767.610.002v5).

A review of the MOP PEPR is currently under assessment by the Department for Energy and Mining (DEM) to incorporate a series of updates to the operational areas for the extraction of material within the historically known 'Council Pit' and the Aggregate Plant to enable operational areas of the Site to be lowered and help to improve the social and environmental aspects of the Site.

In addition to the relocation of the Aggregate Plant, Adbri are currently undertaking a review of the operational requirements for the relocation of infrastructure within the future extraction area currently occupied by the Site Office, Workshop and HME laydown area.

1.1 Key project details

An overview of the key project details is provided within **Table 1 – Key Project Details**.

Table 1 – Key Project Details

Aspect	**Applicant Detail**
Applicant name(s)	Adelaide Brighton Cement Ltd
Name of proposed operation	Penrice Quarry
Applicant Details	
Postal address	16-18 Phillips Street Thebarton South Australia 5031
Company email	
Company website	https://www.adbri.com.au/
Company telephone number(s)	8223 8000
Name of contact person	Adam Schutz
Position of contact person	Manager – Quarry Operations SA
Email of contact person	Adam.schutz@adbri.com.au
Telephone number(s) of contact person	0447 466 817
Commodity Information	
Mineral type	None – MPL only
Primary mineral(s) sought	None – MPL only
Other minerals sought	None – MPL only
Site Details	
Site location, including Certificate of Title	Kalimna Road Light Pass Certificate of Title (CT) 5692 F464 CT 5320 F771 CT 5829 F256

Aspect	Applicant Detail
	CT 6067 F137 CT 6067 F136 (Easement only) All land parcels are owned by Adelaide Brighton Cement Ltd
Describe the site's location, including the distance (in km's) between the Site and: • the nearest town • the nearest residence or third-party property.	2.5 km north of the township of Angaston Closest residential property is approximately 104 metres (m) from the north eastern portion of the proposed MPL area.
Details of the existing Tenement(s) giving authority to apply for a tenement	A new MPL area is proposed as outlined within **Drawing No. 1767.DRG.150 – Proposed MPL Location Map**. Adjacent Quarry area comprised of PM 86, PM 120, ML 6233, MPL 75 and MPL 118.
Native title land	Land is held in fee simple and Native Title does not exist.
Details of relevant land ownership, notices, consents, and agreements	No notices or waivers of exemption have been sought at this stage.
Exempt land	Exempt land exists over a portion of the Site as outlined within **Drawing No. 1767.DRG.149 – MPL Exempt Land Map**. Exempt Land is triggered due to being in a historically viticulture area (vineyard), proximity to a sediment dam on Penrice Quarry MPL 118, Proximity to a bore and proximity to residential dwellings to the north and north east and onsite.
Restrictions or easements	The eastern portion of the Site contains an easement located within CT 6067 F 136 which is for the purposes of providing electricity to the adjacent quarry.
Local council area (if applicable)	The Barossa Council

1.2 Project Background

A series of Staged Quarry Development Plans (QDP's) have been developed to guide operations and provide clarity and transparency to internal and external stakeholders throughout development of the Site as outlined within the approved MOP PEPR. The Stages designed are developed with information gained on the proposed market dynamic within the area along with keeping within the proposed mine completion objective of providing a long term safe and stable landform of the area.

Based upon the footprint required to facilitate the mid to long term development of the Site and enable high grade resources to be accessed within the western portion of the Site, the existing workshop, site office, light vehicle and HME laydown areas are required to be relocated.

Due to the limited availability of unused operational areas within the existing Mining Tenure of the Site, Adbri propose to establish an additional MPL area to accommodate the Site office, light vehicle parking, workshop and HME laydown area.

Several options have been considered, however, the most suitable location for the establishment of an additional MPL area is located within three (3) parcels of land owned by Adbri adjacent to the north

eastern corner of the Site as outlined within **Drawing No. 1767.DRG.150 – Proposed MPL Location Map**. The complexity of the Site is the many stockpiles that are required to facilitate market delivery. The Site supports the aggregate, cement, civil, glass, animal nutrition and soil enhancement markets of which entails some 70 stockpiles. This takes up a large area and therefore relocation of the office, workshop, laydown point and amenities to a current "offsite" location makes most sense to maximise the resource whilst enabling safe and efficient operations to continue.

2 Existing Environment

2.1 Landscape, Soil, Geology, and Geochemistry

2.1.1 Topography and Landscape

The Site is situated on the foothills above the Barossa Valley with relatively flat topography to the west (valley floor) and undulating topography to the east and south.

Drawing No. 1767.DRG.073 – Topographic Map illustrates the topography found at the Site as surveyed on 18 April 2018 using an Unmanned Aerial Vehicle (UAV). The elevation is highest towards the east of the adjacent quarry with an approximate elevation of 430 metres Australian Height Datum (mAHD) on the overburden mound and the lowest value in the pit floor of 255 mAHD.

The existing quarry was initially situated on top of a hill and has progressively expanded downwards and outwards resulting in a footprint that is lowest in elevation in the pit and generally slopes down from the crest of the pit extent to the Site boundaries. The main exception for this is to east of the pit extent where the overburden mound has been constructed.

Within the proposed MPL, the topography gently slopes down towards the north east ranging in height from 350 mAHD adjacent PM 120 down to 314 mAHD near the railway line located to the west of the MPL area.

2.1.2 Soils

Drawing No. 1767.DRG.074R1 – Soils Map shows the general soil types at the Site and immediate surroundings. Majority of the western to central half of the Site has been mapped as having shallow red loam soil on limestone. The east of the Site is believed to be dominated by slightly acidic sandy loam over red clay on rock and or slightly acidic sandy loam over brown or grey clay on rock (Nature Maps, 2018).

Due to the historical intensive clearing and rural practices in the region, only a skeletal organic horizon exists. The overall soil depth varies depending on topographic location.

The area of which the MPL 118 overburden dump exists was excavated to a depth of up to 15 m of which loamy soil was encountered and stockpiled within the northeastern area of PM 120 and western aspect of PM 120 for future use.

To the proximity to the Jaeckeli Creek it is anticipated that any 'cut' required in the cut / fill balance will be of suitable quality for use in post use rehabilitation.

2.1.3 Geology

Further inspection of the regional geology using the South Australian Resource Information Gateway (*SARIG, 2018*) maps most of the central to western part of the Site as the Cambrian aged ''Angaston Marble''. This unit is described as being a coarse-grained, amphibolitic, white and crystalline marble. Past the pit extent to the east has been mapped as being part of the Cambrian aged ''Normanville

Group'' which is believed to be primarily made up of shale as well as some carbonate rocks and minor sandstone in this location (*SARIG, 2018*).

There are no known caves to exist within the Site.

The geology is largely irrelevant as the MPLA will not propose to 'extract' materials other than what is required in a cut / fill to host the planned activities on the MPL area.

2.1.4 Geochemistry

It is not proposed to undertake any extraction activities within the Site.

2.2 Groundwater

The Site is located within the Barossa Prescribed Water Resources Area (PWRA) and therefore the taking of groundwater requires a license. Adbri hold groundwater licence number 3778 and licence number 3724 which allow for the taking of 102,200 kilolitres (kL) and 19,600 kL respectively.

Groundwater in the Barossa PWRA is generally recharged via rainfall on the foothills of the Barossa Ranges that delineate the eastern boundary of the Barossa Basin. This rainfall recharges the fractured rock aquifer which in turn recharges the upper and lower aquifers of the Barossa Basin via lateral flow. Whilst there are no known natural groundwater discharge points within the Site, however, it is understood that natural groundwater discharge points may be located within the North Para River located approximately one (1) km to the north of the Site.

A search of the Bureau of Meteorology (BoM) Groundwater Dependent Ecosystem Atlas indicates that there are no mapped aquatic Groundwater Dependent Ecosystems (GDE) within 500 m of the Site and indicates that the surrounding water courses including the Jaeckeli Creek and the North Para River contain a low potential for terrestrial GDE's to be present. Natural discharge points may be present within the North Para River to the west of the Site, information regarding the significance of these discharge points and their ability to support GDE's was not available for review at the time of writing this report.

Notwithstanding the potential for natural groundwater discharge points within the North Para River, the vast majority of discharge from the Barossa Basin occurs from licenced groundwater extraction. Groundwater is currently used by a number of users within proximity to the Site, particularly on the valley floor. Generally, the taking of groundwater by adjacent landowners is used for the irrigation of vineyards with groundwater mostly sourced from the upper or lower aquifers of the Barossa Basin and not the fractured rock aquifer.

Based on the known groundwater levels onsite and surrounding the Site, the cut / fill is not proposed to intersect groundwater.

2.3 Surface Water

The location of watercourses and drainage patterns can be seen in **Drawing No. 1767.DRG.073 – Topographic Map**. The Site is located within the Barossa PWRA adjacent the North Para River within the upper reaches of the Gawler River Catchment (Barossa Valley Sub-Catchment). Surface water resources within the PWRA are prescribed within the requirements of the Water Allocation Plan for the region. Historically, Jaeckeli Creek flowed in an east west direction through the adjacent quarry, however, historical quarry development required the creek to be intercepted and incorporated within

the pit extraction and overburden disposal areas. A portion of Jaeckeli Creek has been retained within MPL 118 but does not currently receive any natural surface water flows. A proposal to return surplus water from the quarry sump to Jaeckeli Creek via a pumping system to be managed by Adbri is currently under assessment by the Department for Environment and Water (DEW).

Surface water within the Site flows westerly towards the rail line, where the built-up rail formation provides a barrier directing surface water south westerly towards Jaeckeli Creek. A series of culverts approximately 500 millimetre (mm) in diameter within Jaeckeli Creek which allow surface water to flow beneath the rail line towards the North Para River.

The Site is not located within the River Murray catchment area, areas covered by the *River Murray Act 2003 (SA),* or the Murray-Darling Basin boundary as defined by the *Water Act 2007 (Cth)*.

Methodology for Surface Water aspects (impact assessment) will include:

- A hydrology and peak discharge assessment will be undertaken to determine catchment demarcation and comparison of existing and future development scenarios, this will include the existing quarry and associated catchments.
- Erosion and Sediment Control risk assessment will be undertaken in accordance with EPA standards to determine potential inherent risks, sensitive receptors and appropriate risk management controls.
- Water Quality Objectives (WQOs) will be assessed against the relevant standards, with any new discharge point and harvesting of surface water being assessed in relation to any licencing requirements.
- Sediment Basin conceptual design and freeboard recommendations to meet industry best practice will be included, with the assumption that the existing silt pond to the south of the proposed lease area may be utilised, or alternatively a new sediment basin will be included.
- Water Balance Assessment will be undertaken for the existing and future scenarios to determine long term water level trends in order to demonstrate adequate supply for operations.
- Recommended operational procedures, inspections and monitoring protocols will be included.

Required inputs include:

- Proposed plans in CAD format (DWG, DXF preferred)
- Detailed survey or UAV survey over the subject site
- Soil testing data relating to erosion properties including particle size distribution, exchangeable sodium percentage (ESP) if available
- Water processing data

Deliverable will include a draft Surface Water Assessment (SWA) Report for review. Following review of consolidated comments, a final SWA Report will be issued in electronic format.

2.4 Vegetation and Fauna, Including Weeds, Plant Pathogens, and Pests

2.4.1 Vegetation

The Site has been historically cleared of native vegetation throughout the majority of the area during early settlement for agricultural and quarrying purposes. The only remnant native vegetation still onsite is found along Jaeckeli Creek within MPL 118. The vegetation along Jaeckeli Creek is dominated by River Red Gums (*Eucalyptus camaldulensis*) and planted understory species.

Native vegetation comprising of a woodlot and amenity vegetation has been established within the western portion of the MPL area. Due to the inhabitants of the vineyard over recent years some regrowth of eucalypts is present within the western area of the vineyard and would require assessment.

Native Vegetation Assessment Methodology will include:

- Undertake relevant searches of assessment area for threatened flora and fauna species
- Site Survey
    - Scattered Tree and or Bushland Assessment of the area containing the proposed development including collection of Global Positioning System (GPS) data and photography
    - Complete field data sheets
- (If Native Vegetation is to be cleared) Native Vegetation Clearance Data Report
    - Complete vegetation assessment datasheets including landscape context (i.e. density and proximity to bushland) and conservation significance (i.e. threatened plant species, habitat for threatened fauna)
    - Determine Significant Environmental Benefit (SEB) Offset/s
    - Compile photo plates
    - reparation of a detailed native vegetation data reports as per requirements of the South Australian *Native Vegetation Regulations 2017*.

2.4.2 Fauna

An *EPBC Act 1999* Protected Matters Search (2018) of the Site and immediate surrounds summarises the MNES (fauna) that may occur within three (3) km of the Site refer **Attachment 1 – *EPBC Act 1999* Protected Matters Search Report**.

The *EPBC Act 1999* Protected Matters Search Report (2018) identified nine (9) Listed Threatened Species (Birds), one (1) Listed Threatened Species (Mammals) and two (2) Listed Threatened Species (Reptiles).

A search of the Department for Environment and Water (DEW) and Biological Database of South Australia (BDBSA) for the area within one (1) km of the centre of the Site did not show any BDBSA fauna sites.

A search of the Government of South Australia Enviro Data (2018), application *NatureMaps* confirmed the absence of State or Nationally Rated Fauna Sites within the Site, however it recorded the presence of six (6) State Rated Fauna Sites and one (1) Nationally Rated Fauna Site within three (3) km of the Site. These seven (7) State or National Rated Fauna Sites corresponded to five (5) separate fauna species, which are summarised in **Table 2 – Fauna Species**.

Penrice undertake regular surveys on the current Site and based on the outcomes of the MNES, proposed offset distances to Jaeckeli Creek, use of previously cleared land (vineyards) it is unlikely that increased risk would be provided to local fauna as a result of the proposed development. Penrice will undertake a further self-assessment as part of the MPLA.

Known native and non-native fauna that coexist adjacent to the current quarry include foxes (Vulpes Vulpes), Kangaroos (Macropus Fuliginosus), Rabbits (Oryctolagus Cuniculus) Hares (Oryctolagus Cuniculus) and a range of different reptiles.

Table 2 – Fauna Species

Species	Common Name	State Rating	National Rating
Stagonopleura guttata	Diamond Firetail	V	
Petroica boodang boodang	Scarlet Robin (SE, MLR, FR, EP)	R	
Oxyura australis	Blue-billed Duck	R	
Trichosurus vulpecula	Common Brushtail Possum	R	
Lunulata halmaturina	Bassian Thrush (KI, MLR and southern FR)		V

V **–** Vulnerable, R – Rare, ssp - Rated Sub Species, E – Endangered *(Source: Enviro Data SA, 2018)*

Due to the historical clearing of vegetation that has taken place within the Site, there is no significant habitat for rare or endangered wildlife within the operational areas of the quarry and as such it is considered unlikely that these species would utilise the operational areas of the Site for refuge. Several Eastern Gray Kangaroos and Common Brushtail Possums are thought to occupy the rehabilitated areas along the eastern and southern Site boundaries.

A search of the *EPBC Act 1999* Protected Matters Search Report identified eight (8) Invasive Species (Birds) and 11 Invasive species (Mammals) potentially present in the area, including: Domestic Cattle *(Bos taurus*), Domestic Dog (*Canis lupus familiaris*), Goat (*Carpra hircus*), Cat (*Felis catus*), Brown Hare (*Lepus capensis*), Rabbit (*Oryctolagus cuniculus*), House Mouse (*Mus musculus*), Black Rat (*Rattus rattus*) and the Red Fox (*Vulpes vulpes*).

2.4.3 Weeds, Plant Pathogens, and Pests

A search of the Government of South Australia Enviro Data (2018), application *NatureMaps* confirmed *Phytophthora* is not present within the Site and immediate surrounds. No vegetation onsite is known to be affected or potentially affected by economically significant pathogens.

The *EPBC Act 1999* Protected Matters Report (2018) reported 15 declared *Weeds of National Significance* (WoNS) as likely to occur in the area refer **Attachment 1 – *EPBC Act 1999* Protected Matters Report**.

A weed and pest survey undertaken at the adjacent quarry in September 2018 identified the presence of 11 declared weed species onsite: *Rubus fruticosus* (Blackberry), *Opuntia spp.* (Prickly Pear), *Euphorbia terracina* (False Caper), *Ulex Europaeus* (Gorse), *Marrubium vulgare* (Horehound), *Olea europaea* (Olive), *Echium plantagineum* (Salvation Jane), *Oxalis pes-caprae* (Soursob), *Cynara cardunculus* (Wild Artichoke), *Tamarix aphylla* (Athel Pine) and Pinus halepensis (Aleppo Pine).

2.5 Local Community, Infrastructure, and Housing

2.5.1 Local Community

The Site is located near Angaston in the eastern Barossa Valley foothills at the northern end of the Barossa Valley as outlined in **Drawing No. 1767.DRG.013R1 – Site Location Plan**. The Barossa Valley is a famous wine and food region but also supports a diverse range of industry types, including viticulture, tourism and commercial sector operations. The local area has been developed through rural development in agriculture, viticulture and manufacturing. The closest township to the Site is Penrice, located approximately 2.5 kms to the south of the Site.

In the 2021 Census, there were 486 people in Penrice (State Suburbs), of these 48.8 percent were male and 51.2 percent were female. Aboriginal and Torres Strait Islander people made up 2.7 percent of the population. The median age of people in Penrice (State Suburbs) was 43 years. Children aged 0 - 14 years made up 18.2 percent of the population and people aged 65 years and over made up 17.2 percent of the population. The Employment status of the Penrice population is comprised of 53.3 percent full time, 35.3 percent part time, 7.3 percent away from work and 3.8 percent unemployed (*Australian Bureau of Statistics, 2021).*

The next largest town near the Site is Angaston, with a current population of 2,184 of which the employment status is comprised of 56 percent full time, 35.3 part time, five (5) percent away from work and 3.7 percent unemployed (2021 Census data, Australian Bureau of Statistics). Angaston is located approximately 62 km from Adelaide providing a hospital, primary school, post office and a retail sector to service the local community.

The adjacent quarry hosts an ongoing Penrice Community Consultative Group (PCCG) forum with an independent Chair. The meetings over the past 10 years have been attended by approximately five (5) or six (6) residents per meeting most of which reside on the committee. As a part of the Scoping Process, **Drawing No 1767.DRG.147 – MPLA Stakeholder Listing** is provided that highlights the nearby landholders along Kalimna Road to Stockwell Road to the west of the Site. Penrice owns the land to the immediate east of the MPLA area and to the north east of the area.

2.5.2 Proximity to Infrastructure and Housing

Rural Residential dwellings are located on adjacent land holdings to the north, north east and west of the Site, with the nearest residence located approximately 50 m to north east at the nearest point of the Site at the north eastern corner of the MPL, refer **Drawing No. 1767.DRG.147 – MPLA Stakeholder Listing**.

The location of utilities and associated infrastructure surrounding the Site is limited to the public road network, a SA Power Network (SAPN) transmission line and groundwater wells as outlined within **Drawing No. 1767.DRG.151 – Land Access Map**. The eastern portion of the Site contains an easement located within CT 6067 F 136 which is for the purposes of providing electricity to the adjacent quarry.

2.5.3 Exempt Land

A summary of land parcels, landowners, and reason for exemption of the land under *Section 9* of the *Mining Act 1971* is provided in **Table 3 – Exempt Land**. The exempt land within the Site is also outlined within **Drawing No. 1767.DRG.149 – MPL Exempt Land Map**.

Operational activity on and / or in proximity to this land requires a Waiver of Exemption (WoE) from the landowner prior to undertaking activities.

In accordance with *Section 9AA* of the *Mining Act 1971* WoE have been provided by the landowner(s) enabling encroachment within the exempt land for the operation of the quarry.

Table 3 – Exempt Land

Name of person entitled to exemption	Certificate of title or Crown Land details	Reason for exemption	Waiver obtained	Conditions
Mario Calabria	CT 5240/2	Residential dwelling	No	
Adelaide Brighton Cement Ltd	CT 5118/149	Residential dwelling, infrastructure	No	
Mark and Marie Waechter	CT 5347/267	Dam	No	
Adelaide Brighton Cement Ltd	CT 5320/771 CT 5829/256 CT 5962/464	Vineyard, groundwater wells and residential dwellings	No	
Adelaide Brighton Cement Ltd		Groundwater wells		

2.6 Landowners and Land Use, Including Pre-existing Site Contamination

The Site lies within The Barossa Council and falls within the Rural Extraction Zone and is owned by Adbri. Historical land uses of the Site and surrounding areas are predominantly for the purposes of Mineral Extraction and Primary Production.

Current land use to the north, west and south west is dominated by rural zoning used for agriculture (viticulture and orchards) whilst the south and east of the Site is zoned Rural Extraction and utilised for the adjacent quarry operations.

A historical railway (owned by the quarry to Stockwell Road) previously used by the quarry exists on a thin strip of land along the western boundary of the Site. The eastern portion of the Site contains an easement located within CT 6067 F136 which is for the purposes of providing electricity to the adjacent quarry.

There are no known pre-existing Site contamination or disturbance identified on the EPA contamination site index for the project area.

Previous disturbance of areas onsite are related to agricultural activities as well as a small area used for historical quarrying.

2.7 Amenity, Air Quality, and Noise

2.7.1 Amenity

An assessment of the landscape character and visual impact of the quarry operations was previously undertaken by Oxigen in 2011 as part of the development of the Strategic Visual Amenity Plan (SVAP) for the Site. The assessment summarised the visual character of the area as rural, with undulating topography rising from the Barossa Valley floor, with sparse to moderate tree cover and extensive vineyards. The visual aspect of the Site is dependent upon the particular aspect of the Site with viewing distance and line of sight providing the main influencing factor on the visibility of a particular feature of the quarry. Visibility is influenced by the undulating topography and existing vegetation cover within the Site.

The visual character of the area is rural, characterised by undulating topography rising from the Barossa Valley floor, with sparse to moderate tree cover and extensive vineyards. The predominately native tree cover tends to follow the lines of existing roads and creek lines within the district. Views open towards the foothills across the relatively flat and low vineyards.

The visual aspect of the Site is depending on the particular location, with viewing distance and line of site having a major influence on the visibility of a particular feature. Generally, the degree of view of the Site from the surrounding environment is quite limited due to the lower elevations of the Site. On this basis, most views of the site are limited to the immediate surroundings and adjacent land parcels.

Methodology for the Visual Amenity aspects will include:

Identify the nature and extent of the ancillary operations that are proposed to be carried out and, ascertain components likely to contribute to any visual impact.

Review of the planning context relevant to visual aspects related to impacts on the community, due to the change of visual attributes of an area, assessing any reduction to aesthetic / visual values. In addition, review of the PEPR and the SVAP 2011 prepared by Oxigen to determine relevance to the MPL. The landscape character was analysed at a local and regional scale in relation to the Character Preservation (Barossa Valley) Act 2012.

Evaluation of the visual impacts on public viewpoints and private receptors and provide a summary of the impact significance and cumulative effects on landscape character and sensitive receivers when viewing the ancillary operations at key locations. Including:

- Two (2) viewpoints
- Two (2) before and after visualisations for key locations
- One (1) zone of theoretical visibility (ZTV) map to demonstrate likely visibility from key viewpoints and any sensitive receivers.

Evaluate possible mitigation measures to manage, visual impacts of the proposed works. In addition, Penrice commit to undertaking a Light Spill Assessment to understand any light spill issues that the development may introduce.

2.7.2 Air Quality

The Site is located within a large viticultural area as well as a rural residential area of which ambient emissions of dust are expected to be typical of rural agricultural to rural residential settings with some influence from the adjacent quarry.

The adjacent quarry operates under an approved Dust Management Plan (DMP) (*Golder Associates, October 2019*) to address EPA Licence No. 45822 condition 1, to *Control of Emissions (U – 390) and prevent environmental harm through formally assessing risk related to any potential adverse health and amenity impacts posed by operations and identifying management actions to reduce risks.*

Three (3) fixed continuous dust monitors are located at the boundaries of the adjacent quarry to inform the effectiveness of controls being implements for the Site. Each monitoring location consists of a BAM and anemometer, measuring ambient PM_{10} concentrations and real time windspeed and direction. Dust monitoring units and weather stations were sited with reference to the Australian Standard (AS) 3580.14 – 2015 *Methods for the Sampling and Analysis of Ambient Air – Guide to Monitoring Equipment*.

The adjacent quarry operates in accordance with an approved DMP and Trigger Action and Response Plan (TARP). Triggers include visual cues and observations of meteorology forecasts and observations of airborne dust emissions. Dust mitigation measures implemented within the quarry area includes the utilisation of two (2) water trucks to dampen down areas of potential dust emissions along with the installation of an under-conveyor sprinkler system to supress ground borne dust in and around the crushing facility.

Methodology for the Air Quality aspects will include:

Air Quality Impact Assessment & Modelling

- Review of air quality complaints data for the previous five (5) years.

- Review WSP air quality impact assessment dated June 2023 to ensure consistency, where practicable and relevant.

- Processing of meteorological data for the dispersion model using TAPM/CALMET. A suitable year for the dispersion modelling will be selected. It is noted that the EPA typically requests assessment

for the data year of 2009. However, 2009 is not always suitable depending on data availability and / or regional conditions.
- Estimate dust emissions for the worst-case operations for TSP, PM10 and PM2.5 for two scenarios, namely:
  - Current operations
  - Proposed future operations.

- Complete dispersion modelling for the two scenarios and predict ground-level concentrations and dust deposition rates at the nearest sensitive receptors.

- The results will be analysed and assessed against the relevant SA Air EPP Schedule 2 assessment criteria and will include assumed background concentrations to allow for cumulative impacts. If a record of complaints data is available, this will also be considered as part of the results evaluation.

- A written report summarising the assessment, outcome, conclusion and recommendations related to dust management and ambient air monitoring will be prepared.

2.7.3 Noise

There are a number of sensitive receptors located within proximity to the Site outlined within **Drawing No 1767.DRG.147 – MPLA Stakeholder Listing** with the nearest residence located approximately 50 m north east of the MPL boundary.

Ambient emissions of noise are expected to be typical of rural agricultural to rural residential settings with some influence from the adjacent quarry. Noise modelling undertaken for the adjacent quarry has demonstrated that the adjacent quarry is able to operate within the noise criteria as defined by the *Environment Protection (Commercial and Industrial Noise) Policy 2021* formerly the *Environment Protection (Noise) Policy 2007*.

Methodology for the Noise aspects will include:

Desktop Study & Modelling
- Conduct qualitative desktop noise impact assessment of the proposed area
- Establish noise criteria for the nearest noise sensitive receivers in accordance with the EPA Noise Policy
- Review of previous noise modelling results and estimate the noise levels to the sensitive receivers and compare with the EPP Noise Criteria.
- Undertake SoundPlan modelling of proposed site expansion and surrounding and assess the noise emission from the site to the nearest noise sensitive receivers.
- Should there be any potential non-compliance, identify 'in principle' options to achieve compliance.
- Generate noise contours from modelling results, summarise findings and include recommendations in the revised report.

2.8 Heritage (Aboriginal, Non-Aboriginal, and Geological)

Background research and searches of South Australian and Commonwealth heritage registers did not identify objects and / or sites of National, State or Local heritage significance (Aboriginal and / or European) within the Site. A search of the Government of South Australia Enviro Data (2018), application *NatureMaps* confirmed the presence of one (1) State Heritage Place within one (1) km of the centre of the Site. This State Heritage Place is for a Former Butchers Shop and Dwelling (SHRCODE 14534). Site

operations are not expected to have an impact on this State Heritage Place due to the distance to Site operations.

A search of the Department of State Development Aboriginal Affairs and Reconciliation (DSD-AAR) Central Archive which includes the Register of Aboriginal Heritage sites and objects has no entries for Aboriginal sites in relation to the Site. Native Title within the Site has been extinguished as the land was granted as freehold prior to 1994.

2.9 Conservation areas

A list of conservation areas and their proximity to the Site is provided in **Table 4 – Proximity to Conservation Areas**. Due to historical vegetation clearing, the Site is not considered to act as any linkage or habitat corridor or have any direct impacts to surrounding habitat areas due to the degree of separation between Sites.

Table 4 – Proximity to Conservation Areas

Conservation Feature	Direction from Site	Approximate Distance from Site Boundary (km)
Sandy Creek Conservation Park	SW	17.5
Kaiserstuhl Conservation Park	SSW	11.5

(Source: *Enviro Data SA, 2017)*

3 Proposed Operations

The MPLA is designed to support activities occurring on the adjacent quarry Site. The parcels of land within the Proposed MPLA area were procured by Penrice Quarry & Mineral from approximately 2008 – 2012 prior to the acquisition of the company by Adbri. The residence near the Kalimna Road area has not been habited since approximately 2012. It is proposed that this dwelling and shedded areas will be demolished in the short term. The dwelling in the southern area of the MPLA is habited by a long-term tenant, the house is in reasonably good condition and therefore is considered an option to turn this dwelling into potential office space. Likewise, the sheds located near this dwelling are in good condition and currently store historical drillcore and chip samples from historical exploration activities, these sheds are also likely to stay.

Currently, three (3) conceptual options have been considered in order to provide discussion within Adbri, all three (3) options provide high level options to host a workshop, Go Line, Offices and LV parking. Conceptually a visual bund has been provided however it is anticipated that any bund (visual and / or acoustic) will be informed of its positioning and dimensions through technical modelling of visual and acoustic engineering. Likewise, a sediment basin area has conceptually been located in the south western area of the MPLA.

The three (3) conceptual options are provided below:

- **Drawing No. 1767.DRG.152A – Traffic Management Plan**
- **Drawing No. 1767.DRG.152B – Traffic Management Plan**
- **Drawing No. 1767.DRG.152C – Traffic Management Plan**

3.1 Project Opportunities and Objectives

The opportunities from this project include the following at a high level:

- Ability to maximise the life of the resource at Penrice Quarry
- Opportunity to delineate LV and Heavy Traffic that currently all enter and exit the Site from Penrice Road
- Reduction of LV traffic on Penrice Road of which many of the PCCG members have issues with at differing times over the past 10 years
- Potential to reduce emissions (Noise and Light Spill) to a reduced RL as opposed to the current high point. Currently the starting of HME in the mornings has been raised as an issue by some residents along Stockwell Road
- Reduce the volume of vehicles trafficking the problematic Stockwell Road / Penrice Road intersection (since redesign approx. three (3) years ago there has been many LV and HV collisions at this intersection.
- Ability to segregate HME and Workshop works from the main quarrying operations
- Ability to improve safety with having a dedicated workshop offsite and therefore reduce pedestrian traffic being conflicted with onsite operational HME traffic
- Removes 'non-operational' staff from the operational areas of the quarry
- Enables deepening of the quarry if required (RL 171 concept plan to be discussed)

3.2 Description of Proposed Mining Operations

Table 5 – Description of Mining Operations is provided below and summarises works to occur onsite, note that there is not planned extraction for sale purposes.

Table 5 – Description of Mining Operations

Proposal aspect	Proposal details
Reserve / resource and products	
Resource	NA
Production rate and products	NA
Mine life	NA
Exploration activities	
Exploration activities (if required)	NA
Mining operations	
Type or types of mining operations	NA
Sequence of mining and progressive rehabilitation	NA
Waste rock and tailings storage facilities (if required)	NA
Stockpiles	No stockpiles other than acoustic and visual bunds if required
Use of explosives	NA
Modes and hours of operation	As per the approved MOP PEPR
Processing	NA
Product transport	NA
Waste	NA other than domestic and hydrocarbon wastes from workshop to be distributed offsite via means consistent with the current MOP PEPR
Supporting surface infrastructure	Workshop, offices etc
Vegetation clearance	Not envisaged albeit a Native Vegetation Assessment with confirm if Native Vegetation removal is required and whether trees on the eastern aspect of the Site were planted or not.
Site water management	Sediment Basin to be designed and implemented as a part of the final design to treat surface water in accordance with the current MOP PEPR parameters prior to discharge
Description of site at completion	All infrastructure to be removed at cessation of quarrying activities unless a suitable purpose can be attained for use of a workshop and office buildings etc.
Project workforce	Same workforce as onsite currently.

3.3 Potential Alternatives

The western area of the Site (MPL118) was considered, however the results of the acoustic and air quality assessment found that the area would not be conducive to this development. Light spill was also considered, and currently the area has minimal shielding by way of natural vegetation to residents on the valley floor.

RL 109 was considered, located to the north of Kalimna Road. However, after recent exploration drilling, the resource report does not promote the viability to extend the current operation through Kalimna Road.

3.4 Other Approvals, Permits, and Planning Processes

Within the development of the proposed operations, the following initial approvals, permits and / or planning processes have been considered as likely:

- Water Balance and potential Water Affecting Activity Permit to DEW
- EPA Licence extended to include the Certificates of Title within the MPLA land
- Native Vegetation Assessment and potential Significant Environmental Benefit (SEB) Payment into the Native Vegetation Fund (NVF)
- Building Rules consent / DA for the development of offices / workshop etc
- No rezoning is likely.

4 Stakeholder and Community Engagement

The Stakeholder Interest and Community Engagement has not begun as a result of this project as yet.

The Project is in its infancy, however, the concept of relocating the office, workshop and amenities was introduced to the PCCG at their meeting on 8 February 2024. Further consultation with the PCCG is intended to occur throughout the delivery of the project.

Groundwork Plus is trained in IAP2 deliverables and will look forward to undertaking a full scoping assessment on community engagement with DEM to gauge the interest of stakeholders prior to commencement of any plans moving forward. A community Staff within both Groundwork Plus and Adbri have greater than 15 years involvement with the local community and PCCG group and have a good understanding of the potential concerns that may align with this project.

Based upon known historical concerns onsite, the main values that will be important to consider include:

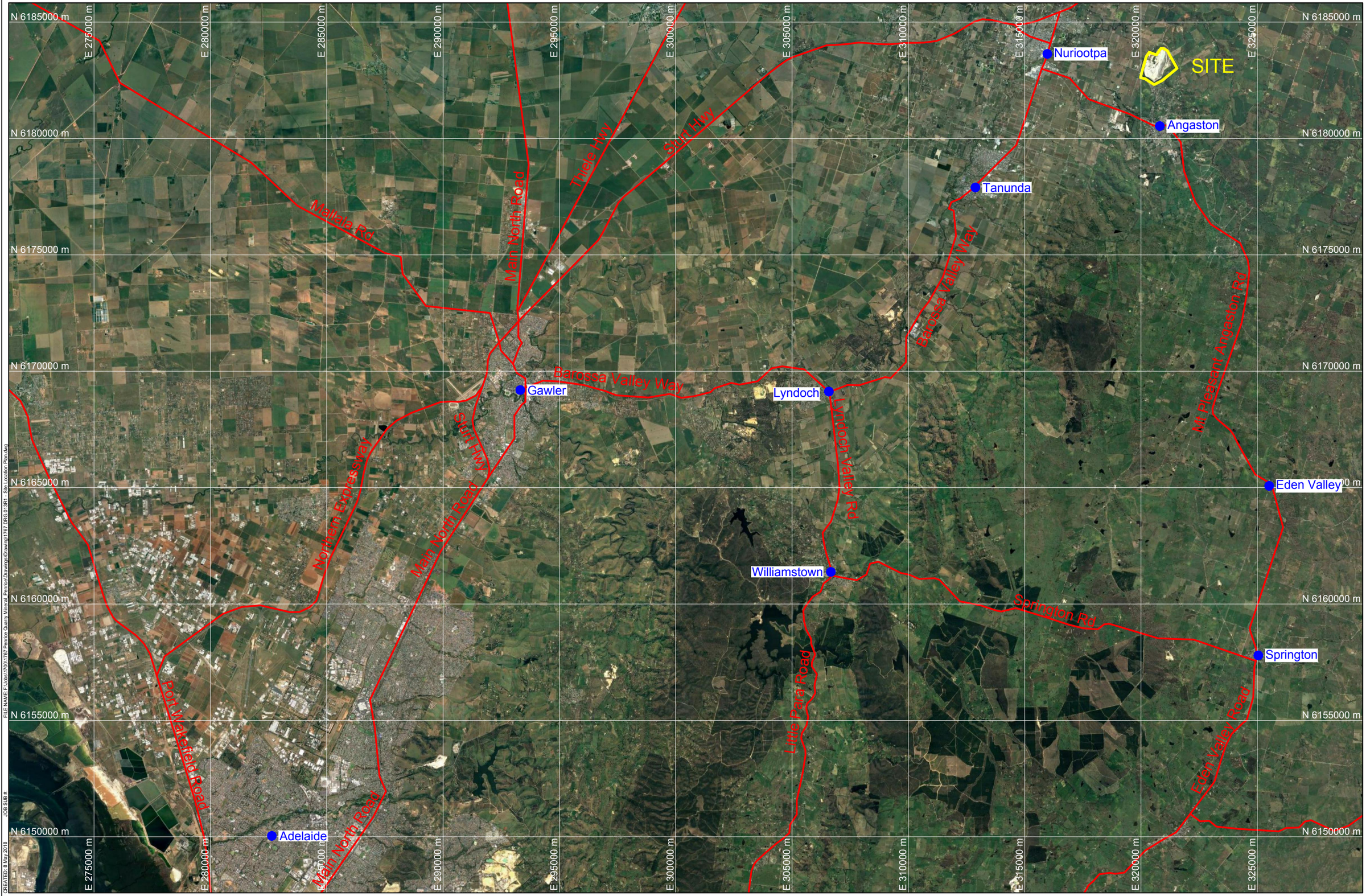
- Visual Amenity
- Air Quality
- Noise
- Retention of vegetation with Jaeckeli Creek

The three (3) concept plans are very conceptual and Adbri look forward to gaining stakeholder perspectives that could lead into the final design of the MPLA area.

4.1 Social and Community Context

As noted above, no community engagement has occurred as yet.

DRAWINGS



FILE NAME: F:\Jobs\1700\1767 Penrice Quarry Mineral Penrice\Drawings\Drawing\1767.DRG.013R1 - Site Location Plan.dwg
JOB SUB #
CREATED: 8 May 2018

REV	DESCRIPTION	DATE	BY
1	Project name & Plan title changed	08/05/18	MR

Data Sources:
Photography: Google Earth Image date: 2017/10/15
Topography:
Cadastre:
Ecosystem:
Other:

Legend:
- Site Boundary
- Major Road
- Town

PROJECT: Penrice

CLIENT: Penrice Quarry & Mineral

TITLE: Site Location Plan

GROUNDWORK plus
PH: +61 7 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1 : 150,000 When Printed On A3 — 0 3km
DRAWING NUMBER: 1767.DRG.013
REVISION: 1
DATE: 8 May 2018 DRAWN: MR
PRINTED: 3 September 2018 CHECKED: JR
DATUM: HORIZONTAL / VERTICAL / ZONE
MGA / / 54

320000E 320500E 321000E 321500E

6184000N 6183500N 6183000N 6182500N 6182000N

RL 109

MPL 118

PM 120

ML 6233

MPL 75

PM 86

REV	DESCRIPTION	DATE	BY

Data Sources:
Photography: ; Google Satellite Imagery accessed: 04-December-2023
Topography:
Cadastre: Data.sa.gov.au; Boundaries shown are indicative only
Ecosystem:
Other: SARIG, 2023

Legend:
- Private Mines
- Mineral leases
- Miscellaneous Purposes Leases
- Retention Leases
- Proposed MPL
- Cadastral Boundaries

N

PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: Proposed MPL Location Map

GROUNDWORK plus
PH +61 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1:7,000 When Printed On A3 — 0 30 60 90 120 m

DRAWING NUMBER: 1767.DRG.150

REVISION:

DATE: 04-December-2023 DRAWN: CL

PRINTED: 04-December-2023 CHECKED: MJ

DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54 EPSG:7854

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6184500N

6184000N

6183500N

672900985
WW

672900984
WW

672901649
WW

672901119
WW

672901098
WW

EML 4695

EML 6138

EML 6504

RL 109

PM 120

MPL 118

MPL 75

REV	DESCRIPTION	DATE	BY

Data Sources:
Photography: Google Satellite Imagery accessed: 06-December-2023
Topography:
Cadastre: Data.sa.gov.au,Boundaries are Indicative only, not all boundaries shown
Ecosystem:
Other: SARIG, 2023

Legend:

- Proposed MPL
- Exempt Land Commercial Infrastructure
- 150m Commercial structure buffer
- Powerlines
- 150m Powerlines Buffer
- Water wells
- 150m Water well buffer
- Waterbodies
- 150m Waterbody buffer
- Exempt Land Residential
- 400m Residential Buffer
- Vineyards
- Extractive Mineral Leases
- Miscellaneous Purposes Leases
- Private Mines

N

PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: MPL Exempt Land Map

GROUNDWORK plus
PH +61 3871 0411
WWW.GROUNDWORKPLUS.COM.AU

SCALE: 1:5,000 When Printed On A3 (0 20 40 60 80 m)

DRAWING NUMBER: 1767.DRG.149

REVISION:

DATE: 06-December-2023

DRAWN: EP

PRINTED: 06-December-2023

CHECKED: MJ

DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54

EPSG:7854

FILE NAME:F:\Jobs\1700\1767 Penrice Quarry Mineral Pennice\Drawings\Drawing\1767.DRG.073R1 - Topographic Map.dwg

CREATED: 26 October 2023 JOB SUB #:

REV	DESCRIPTION	DATE	BY
1	Updated Imagery and Topography, Updated Tenement Colours	2023/10/26	CP

Data Sources:
Photography: Groundwork Plus Pty Ltd UAV Survey, Captured 2023-10-04
Topography: Groundwork Plus Pty Ltd UAV Survey, Captured 2023-10-04
Cadastre: © The Government of South Australia (DIT) 2021
Ecosystem:
Other: © 2022 Microsoft Corporation; © 2021 Maxar; © CNES (2021) Distribution Airbus DS

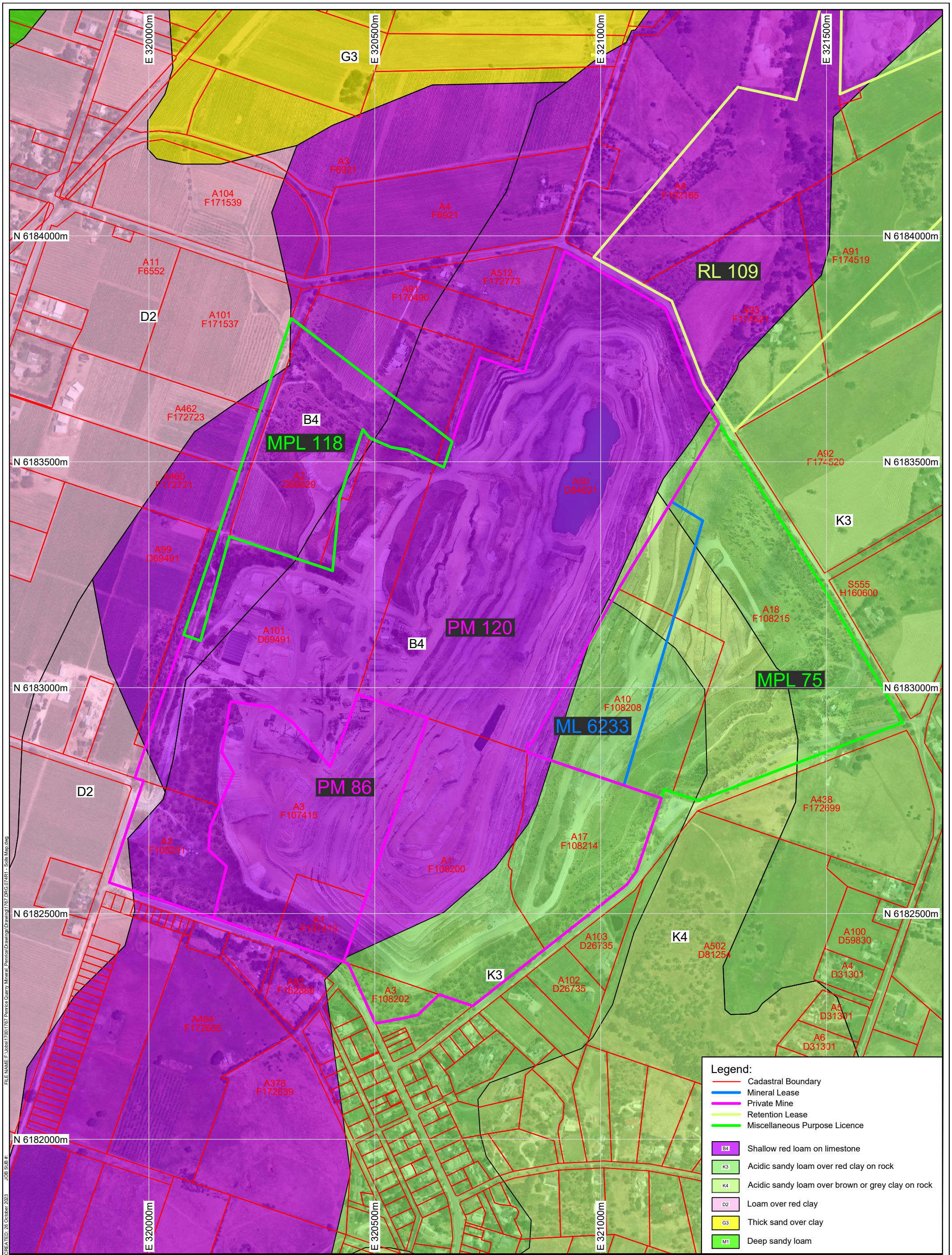
PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: Topographic Map

GROUNDWORK plus
PH: +61 7 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1:7,500 When Printed On A3	0 150m	DRAWING NUMBER: 1767.DRG.073	REVISION: 1
DATE: 26 October 2023	DRAWN: MR	DATUM: HORIZONTAL / VERTICAL / ZONE	
PRINTED: 26 October 2023	CHECKED: JR	GDA94 / MGA / AHD / 54	



FILE NAME: F:\Jobs\1700\1767 Penrice Quarry Mineral Penrice\Drawings\Drawing\1767.DRG.074R1 - Soils Map.dwg
JOB SUB #:
CREATED: 26 October 2023

REV	DESCRIPTION	DATE	BY
1	Updated Imagery, Updated Tenement Colours	2023/10/26	CP

Data Sources:
Photography: Groundwork Plus Pty Ltd UAV Survey, Captured 2023-10-04
Topography:
Cadastre: © The Government of South Australia (DIT) 2021
Ecosystem:
Other: © 2022 Microsoft Corporation; © 2021 Maxar; © CNES (2021) Distribution Airbus DS

PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: Soils Map

GROUNDWORK plus
PH: +61 7 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1:7,500 When Printed On A3 (0 – 150)
DRAWING NUMBER: 1767.DRG.074
REVISION: 1
DATE: 15 November 2023 DRAWN: MR
PRINTED: 15 November 2023 CHECKED: JR
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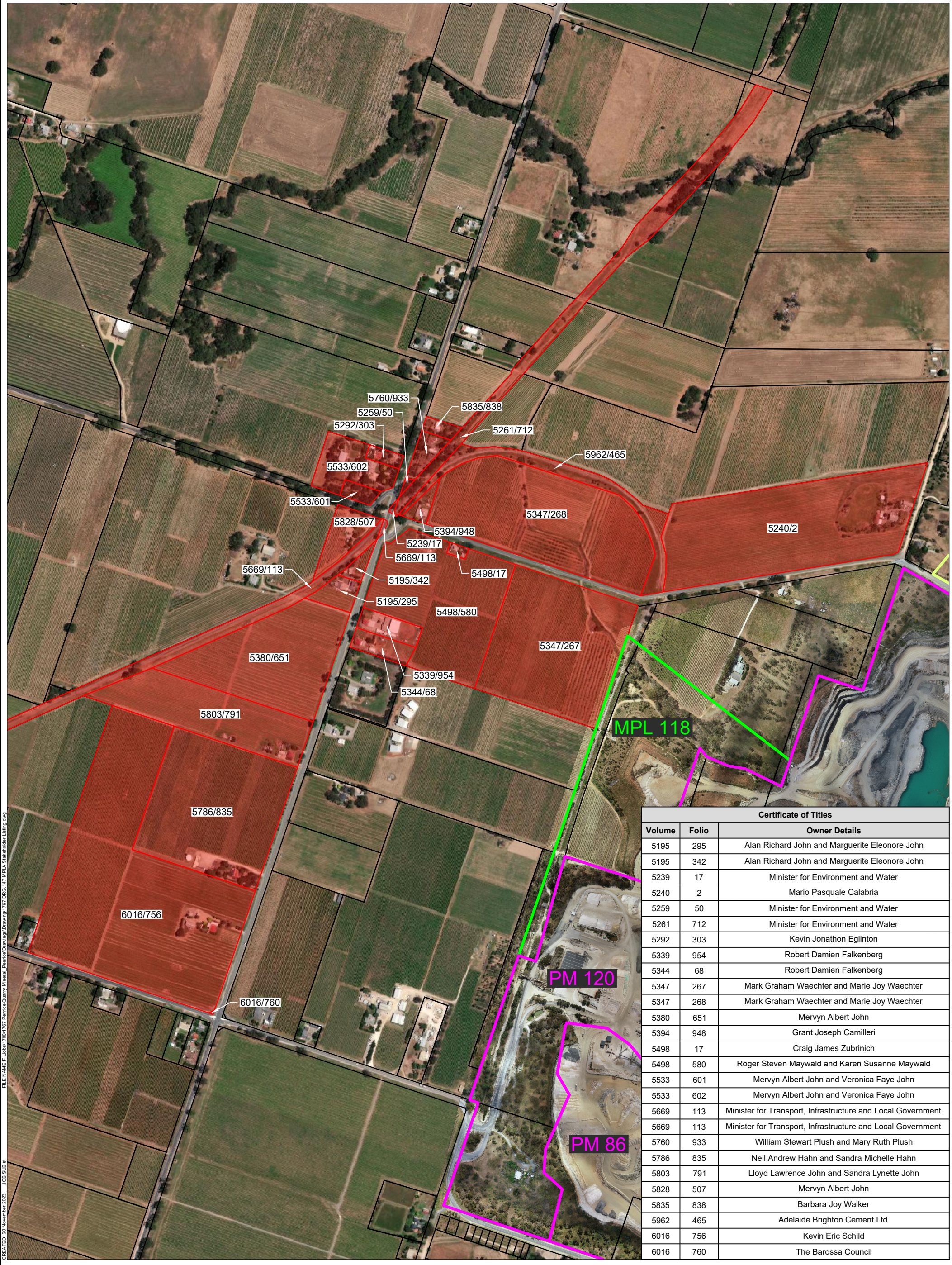
GDA94 / MGA / AHD / 54



Certificate of Titles		
Volume	**Folio**	**Owner Details**
5195	295	Alan Richard John and Marguerite Eleonore John
5195	342	Alan Richard John and Marguerite Eleonore John
5239	17	Minister for Environment and Water
5240	2	Mario Pasquale Calabria
5259	50	Minister for Environment and Water
5261	712	Minister for Environment and Water
5292	303	Kevin Jonathon Eglinton
5339	954	Robert Damien Falkenberg
5344	68	Robert Damien Falkenberg
5347	267	Mark Graham Waechter and Marie Joy Waechter
5347	268	Mark Graham Waechter and Marie Joy Waechter
5380	651	Mervyn Albert John
5394	948	Grant Joseph Camilleri
5498	17	Craig James Zubrinich
5498	580	Roger Steven Maywald and Karen Susanne Maywald
5533	601	Mervyn Albert John and Veronica Faye John
5533	602	Mervyn Albert John and Veronica Faye John
5669	113	Minister for Transport, Infrastructure and Local Government
5669	113	Minister for Transport, Infrastructure and Local Government
5760	933	William Stewart Plush and Mary Ruth Plush
5786	835	Neil Andrew Hahn and Sandra Michelle Hahn
5803	791	Lloyd Lawrence John and Sandra Lynette John
5828	507	Mervyn Albert John
5835	838	Barbara Joy Walker
5962	465	Adelaide Brighton Cement Ltd.
6016	756	Kevin Eric Schild
6016	760	The Barossa Council

FILE NAME:F:\Jobs\1700\1767 Penrice Quarry Mineral Penrice\Drawings\Drawings\1767.DRG.147 MPLA Stakeholder Listing.dwg
CREATED: 20 November 2023 JOB SUB #:

REV	DESCRIPTION	DATE	BY

Data Sources:
Photography: Groundwork Plus Pty Ltd UAV Survey, Captured 2023-10-04
Topography:
Cadastre:
Ecosystem:
Other: © 2023 Microsoft Corporation; © 2023 Maxar; © CNES (2023) Distribution Airbus DS

Legend:
- Miscellaneous Purposes Licence
- Private Mine
- Retention Lease
- Properties of Interest
- Cadastral Boundary

PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: MPLA Stakeholder Listing

GROUNDWORK plus
PH: +61 7 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1:7,500 When Printed On A3 — 0 — 150m
DRAWING NUMBER: 1767.DRG.147
REVISION:
DATE: 20 November 2023 DRAWN: CP
PRINTED: 20 November 2023 CHECKED: JR
DATUM: HORIZONTAL / VERTICAL / ZONE GDA94 / MGA / AHD / 54

315000E 320000E 325000E

6185000N

ML 4605
PM 101
PM 102
EML 4695
EML 6138
EML 6504
RL 109
MPL 118
PM 120
MPL 75
ML 6233
PM 86
PM 312
PM 311
PM 103
PM 26
PM 98
STURT
OLD STURT
MURRAY
TANUNDA
RAILWAY
BAROSSA VALLEY
ANGASTON
MURRAY
NORTH

315000E 320000E 325000E

REV	DESCRIPTION	DATE	BY

Data Sources:
Photography:
Topography:
Cadastre: Data.sa.gov.au;Boundaries are Indicative only, not all
Ecosystem:
Other: SARIG, 2023

Legend:
- 1 km buffer
- 2 km buffer
- 3 km buffer
- Commercial Structures
- Extractive Mineral Leases
- Mineral leases
- Miscellaneous Purposes Leases
- Powerlines
- Private Mines
- Proposed MPL
- Residences
- Residential Area
- Retention Leases
- Waterbodies
- WATER_Drillholes
- Watermains

N

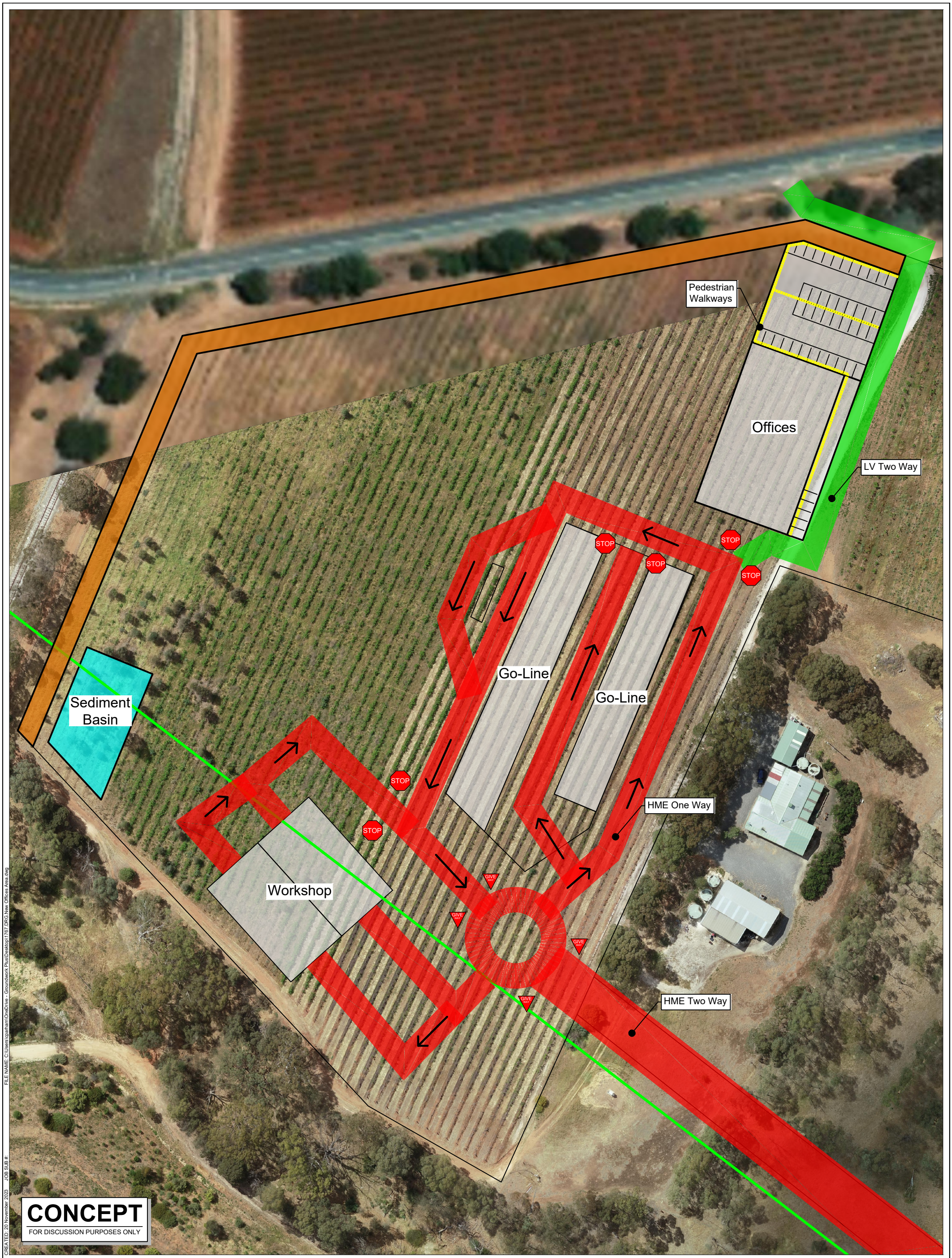
PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: MPL Land Access Map

GROUNDWORK plus
PH +61 3871 0411
WWW.GROUNDWORKPLUS.COM.AU

SCALE: 1:30,000 When Printed On A3 (0 100 200 300 400 m)
DRAWING NUMBER: 1767.DRG.151
REVISION:
DATE: 06-December-2023 DRAWN: EP
PRINTED: 06-December-2023 CHECKED:
DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54
EPSG:7854



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CREATED: 20 November 2023 JOB SUB #:

REV	DESCRIPTION	DATE	BY

Data Sources:
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Topography:
Cadastre:
Ecosystem:
Other:

PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: Traffic Management Plan

GROUNDWORK plus
PH: +61 7 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1:1,000 When Printed On A3 — 0 — 20m

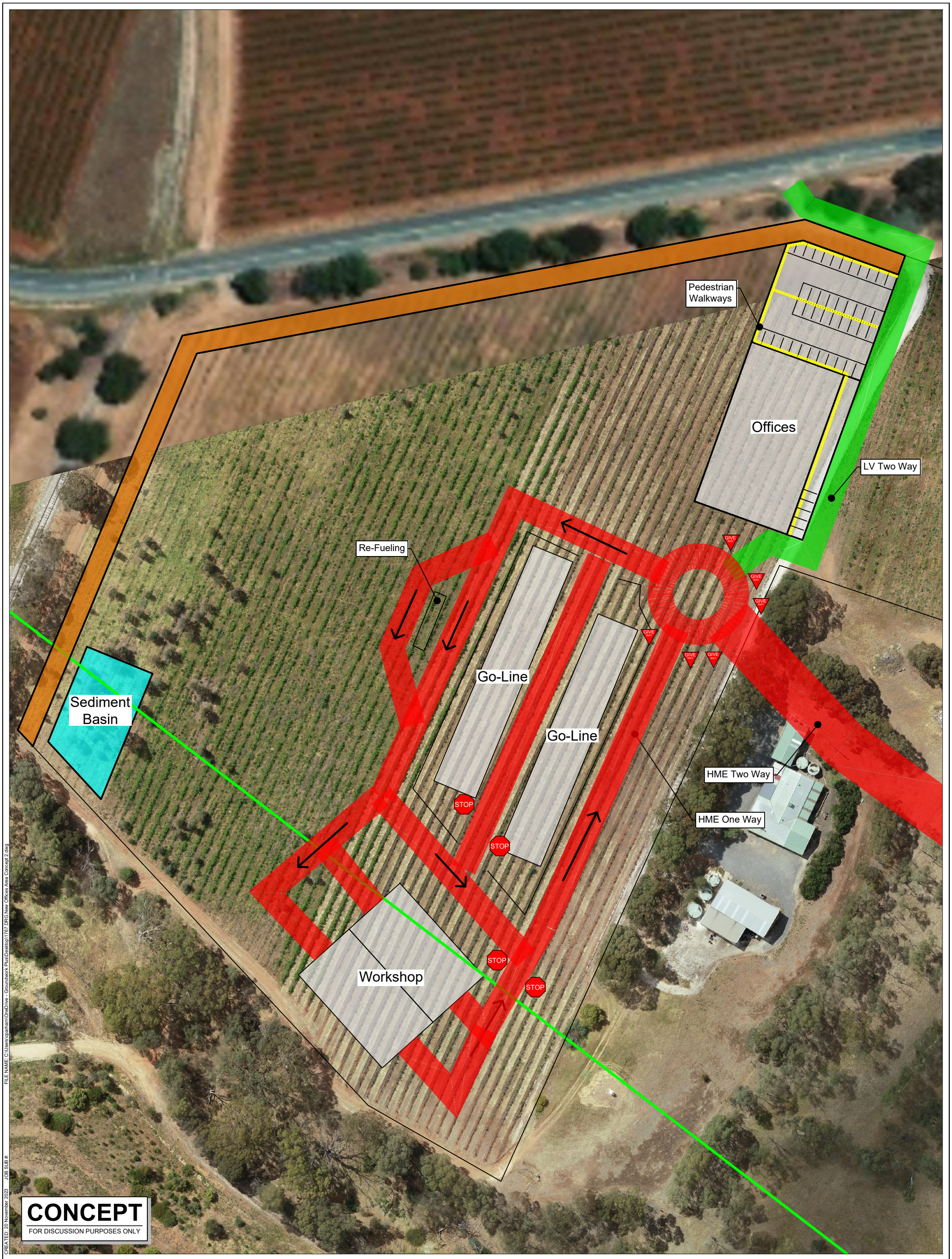
DRAWING NUMBER: 1767.DRG.152A

REVISION:

DATE: 20 November 2023 | DRAWN: CP

PRINTED: 20 November 2023 | CHECKED: JR

DATUM: HORIZONTAL / VERTICAL / ZONE
GDA94 / MGA / AHD / 54



CREATED: 20 November 2023 JOB SUB #: FILE NAME: C:\Users\gpaham\OneDrive - Groundwork Plus\Desktop\1767.DRG.New Offices Area Concept 2.dwg

REV	DESCRIPTION	DATE	BY

Data Sources:
Photography: Groundwork Plus Pty Ltd UAV Survey, Captured 2023-10-04
Topography:
Cadastre:
Ecosystem:
Other:

PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: Traffic Management Plan

GROUNDWORK plus
PH: +61 7 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1:1,000 When Printed On A3 — 0 — 20m

DRAWING NUMBER: 1767.DRG.152B

REVISION:

DATE: 20 November 2023 | DRAWN: CP

PRINTED: 20 November 2023 | CHECKED: JR

DATUM: HORIZONTAL / VERTICAL / ZONE
GDA94 / MGA / AHD / 54

ces

LV Two Way

Pedestrian Walkways

LV Two Way (Site Vehicles Only)

Go-Line

Go-Line

STOP

STOP

STOP

STOP

STOP

STOP

HME One Way

Re-Fueling

HME Two Way

p

CONCEPT

FOR DISCUSSION PURPOSES ONLY

FILE NAME: C:\Users\cpaham\OneDrive - Groundwork Plus\Desktop\1767.DRG.New Offices Area Concept 3.dwg

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Topography:
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Ecosystem:
Other:

PROJECT: Penrice Quarry

CLIENT: Adbri Quarries

TITLE: Traffic Management Plan

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ATTACHMENTS

Attachment 1

EPBC Act 1999 Protected Matters Search Report

Australian Government
Department of the Environment and Energy

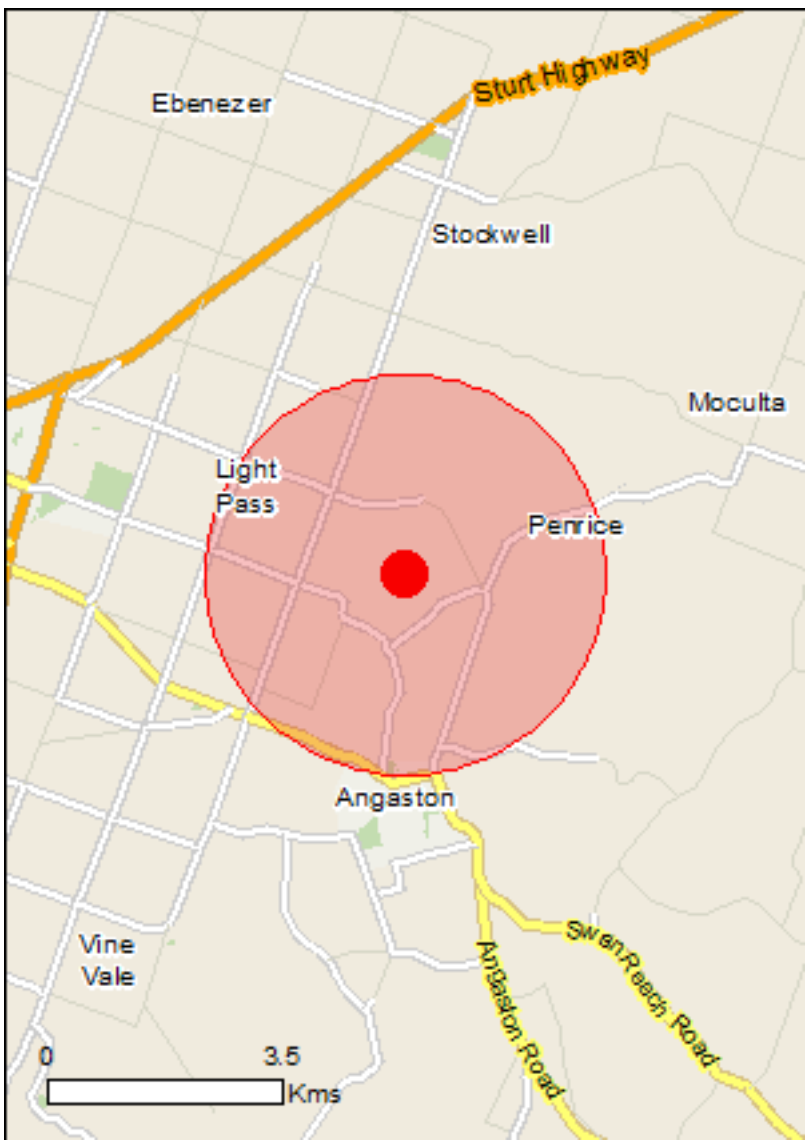
EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

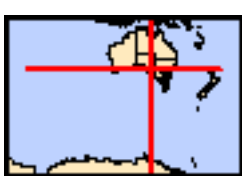
Information is available about Environment Assessments and the EPBC Act including significance guidelines, forms and application process details.

Report created: 28/06/18 14:32:30



Coordinates

Buffer: 3.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	21
Listed Migratory Species:	12

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	17
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	32
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Iron-grass Natural Temperate Grassland of South Australia	Critically Endangered	Community may occur within area
Peppermint Box (Eucalyptus odorata) Grassy Woodland of South Australia	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Cinclosoma punctatum anachoreta Mt Lofty Ranges Spotted Quail-thrush, Spotted Quail-thrush (Mt Lofty Ranges) [67099]	Critically Endangered	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Zoothera lunulata halmaturina Bassian Thrush (South Australian) [67121]	Vulnerable	Species or species habitat may occur within area
Mammals		
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area

Name	Status	Type of Presence
Plants		
Acacia menzelii Menzel's Wattle [9218]	Vulnerable	Species or species habitat may occur within area
Caladenia argocalla White-beauty Spider-orchid [54991]	Endangered	Species or species habitat may occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat likely to occur within area
Caladenia xantholeuca White Rabbits, Flinders Ranges White Caladenia [55025]	Endangered	Species or species habitat may occur within area
Euphrasia collina subsp. osbornii Osborn's Eyebright [3684]	Endangered	Species or species habitat may occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat may occur within area
Olearia pannosa subsp. pannosa Silver Daisy-bush, Silver-leaved Daisy, Velvet Daisy-bush [12348]	Vulnerable	Species or species habitat likely to occur within area
Prasophyllum pallidum Pale Leek-orchid [20351]	Vulnerable	Species or species habitat likely to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Aprasia pseudopulchella Flinders Ranges Worm-lizard [1666]	Vulnerable	Species or species habitat likely to occur within area
Tiliqua adelaidensis Pygmy Blue-tongue Lizard, Adelaide Blue-tongue Lizard [1270]	Endangered	Species or species habitat likely to occur within area

Listed Migratory Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Extra Information

Invasive Species [Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Alauda arvensis Skylark [656]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur

Name	Status	Type of Presence within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Olea europaea Olive, Common Olive [9160]		Species or species habitat likely to occur within area
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Solanum elaeagnifolium Silver Nightshade, Silver-leaved Nightshade, White Horse Nettle, Silver-leaf Nightshade, Tomato Weed, White Nightshade, Bull-nettle, Prairie-berry, Satansbos, Silver-leaf Bitter-apple, Silverleaf-nettle, Trompillo [12323]		Species or species habitat likely to occur within area
Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-34.47815 139.04818

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.

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