MP Drawing 24
Product transport and vehicle access map

Whittlesea Quarry
EML 5540 & MC 4569
Craig Haywood

20/12/2024

GDA2020 / MGA zone 54

266500
267000
6078000
6077500
MC 4569

Legend

- Mineral Claim 4569
- Property access point
- Proposed transport and vehicle access route

Orthophoto (2024)

Google imagery

N

0 50 100 150 200 250 m

MACRO ENVIRONMENTAL SOLUTIONS

MP Drawing 25
Provisional operational compliance monitoring map

Whittlesea Quarry
EML 5540 & MC 4569
Craig Haywood
22/01/2025
GDA2020 / MGA zone 54

Legend

- Mineral Claim 4569

Compliance monitoring points

- Blasting
- Groundwater
- Surface water
- Traffic / drag out
- Visual amenity
- NVMP clearance trees
- 66kV transmission line poles
- 66kV Transmission Line
- Eucalypt woodlands
- Proposed operating areas
- Soil stockpiling (all stages)

Road network

- ROAD

Orthophoto (2024)

Google imagery

0 200 400 600 m

MACRO ENVIRONMENTAL SOLUTIONS

Attachments

Attachment 1 – Certificate of Title for CT 5878/667

Attachment 2 – Monthly 3pm wind roses from BOM station 026021

Attachment 3 – Ecological Baseline Survey Report

Attachment 4 – EPBC Act Protected Matters Report

Attachment 5 – Aboriginal heritage search response letter (CONFIDENTIAL)

Attachment 6 – Water Licence 118706

Attachment 7 – MC 4569 Community Engagement Brief

Attachment 8 – Community petition

Attachment 9 – Aboriginal heritage discovery protocol.

Attachment 1

Certificate of Title for CT 5878/667

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5878 Folio 667

Parent Title(s)	CT 5782/716				
Creating Dealing(s)	RTD 9139195, TA 9339417, T 9339418, T 9339419				
Title Issued	31/08/2002	**Edition**	2	**Edition Issued**	26/02/2009 [Previous Edition]
Diagram Reference	D57690 01				

Estate Type

FEE SIMPLE

Registered Proprietor

SHIRLEY MAY WHITTLESEA
OF MAIN SOUTH ROAD MYPONGA SA 5202

Description of Land

ALLOTMENT 63 DEPOSITED PLAN 57690
IN THE AREA NAMED MYPONGA
HUNDRED OF MYPONGA

Easements

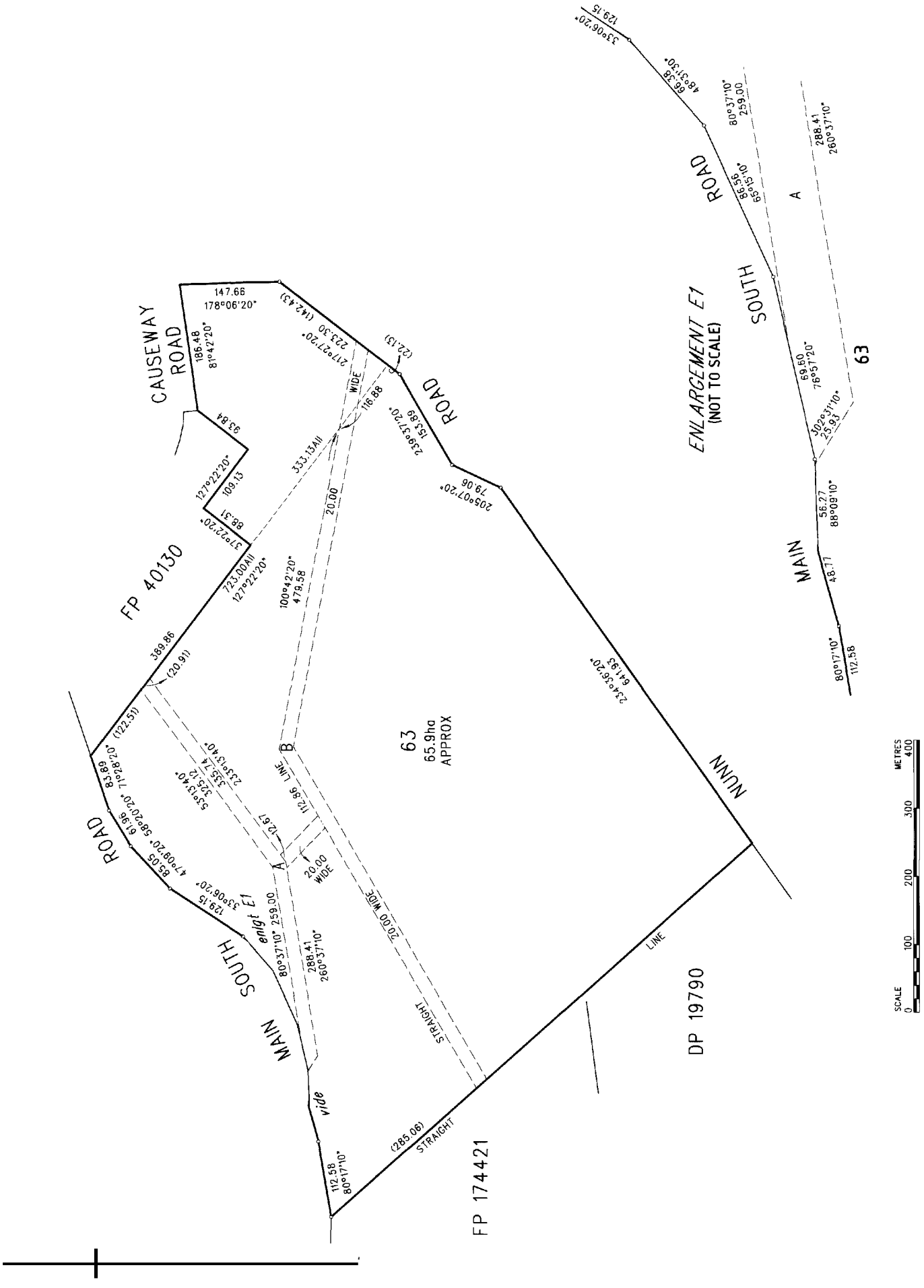
SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A AND B TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (T 2337772 AND T 3423363 RESPECTIVELY)

Schedule of Dealings

NIL

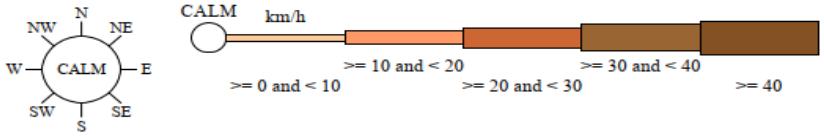
Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



Attachment 2

Monthly 3pm wind roses from BOM station 026021



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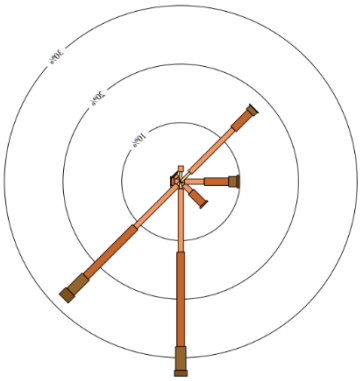
DECEMBER



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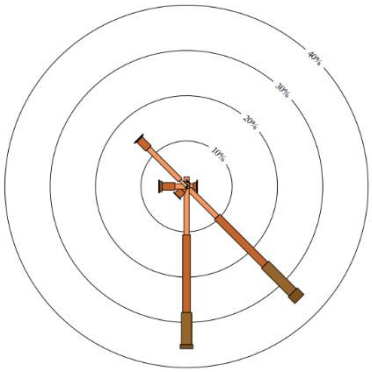

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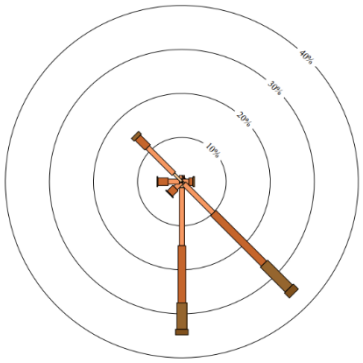

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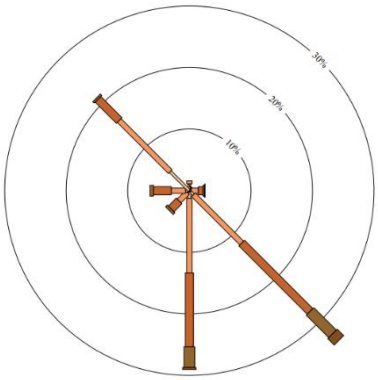

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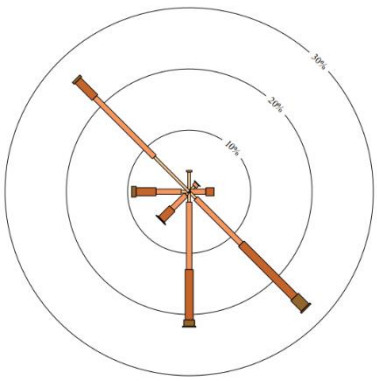

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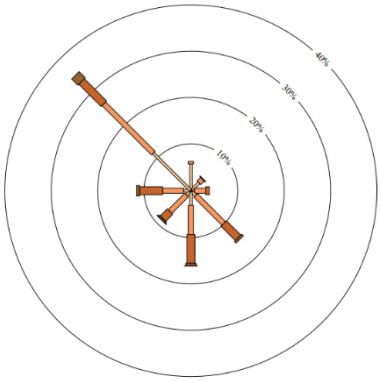

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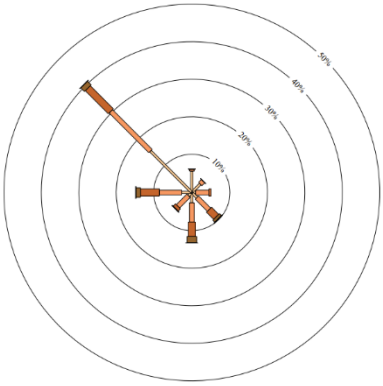

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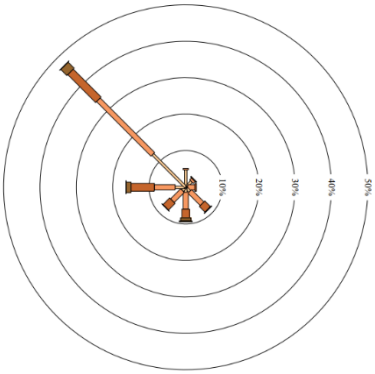

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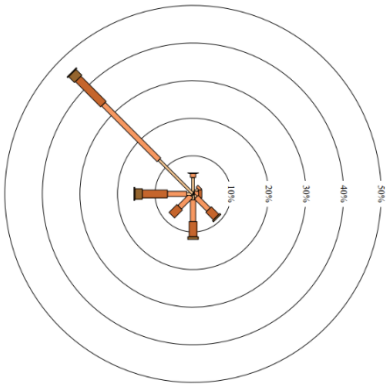

SPRING

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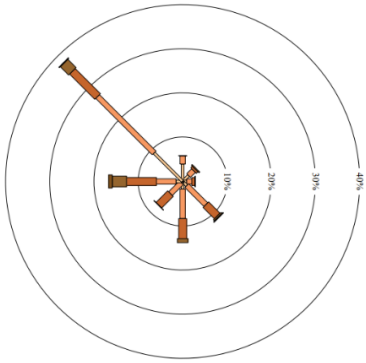

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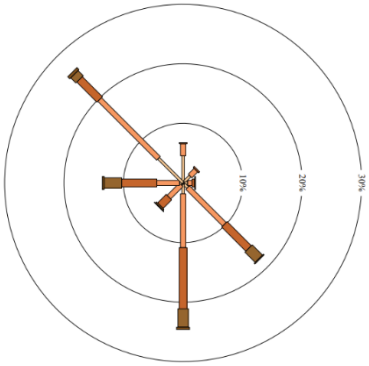

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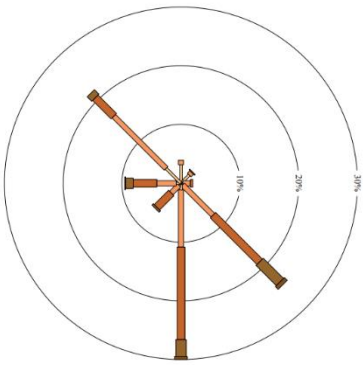

Attachment 3

Ecological Baseline Survey Report (Smith, 2025)

MC 4569 Ecological Baseline Survey and Native Vegetation Management Plan

January 2025

Prepared for Macro Environmental by GBS Consulting

ABN: 699 26 496 759
gregorsmith@internode.on.net

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Citation

Smith, G. B., 2025. *MC 4569 Ecological Baseline Survey and Native Vegetation Management Plan*, Report to Macro Environmental, GBS Consulting, Adelaide.

Executive Summary

The operators of Whittlesea Quarry, Extractive Mineral Lease (EML) 5542, are seeking to expand an existing pit on and establish a new mining area. To facilitate long term quarrying at the Site, a Mineral Claim 4569 (MC 4569) was registered on 30 January 2024. GBS Consulting was engaged by Macro Environmental to undertake a baseline flora and fauna survey of MC4569 and prepare a Native Vegetation Management Plan, including the calculation of a Significant Environmental Benefit cost for clearance of scattered trees as required under the Native Vegetation Act 1991. MC 4569 is an operating quarry and contains associated infrastructure for this activity. Sections of the claim adjacent to quarrying activities are covered by scattered trees with introduced pastures and patches of remnant native vegetation.

To achieve the objectives of the study, a desktop review of existing databases and previous studies was undertaken prior to a one-day field survey. The field study was undertaken using the methodologies detailed in the Native Vegetation Council Scattered Tree Methodology which is required to calculate an SEB in the agricultural zone of South Australia. Other standard survey flora and fauna survey methods were also used.

A flora list generated from NatureMaps for a radius of 5 km from the centre of the survey area produced a list of 784 species, of which 552 are native and 232 species are introduced. The flora is dominated by families and species typical of temperate woodlands, and agricultural areas such as Compositae (daisies), Gramineae (grasses), Leguminosae (peas and acacias) and Myrtaceae (eucalypts, tea-trees). A total of 22 species were recorded within MC 4569 during the field survey consisting of eight native species and 14 introduced species. Of this total 17 species were recorded within the disturbance area during the field survey, six native species and 11 introduced species.

Vegetation mapping in NatureMaps did not identify any Floristic Groups (vegetation communities) which remain within MC 4569 but identified the pre-european settlement vegetation community as being *Eucalyptus leucoxylon ssp.leucoxylon + E. fasciculosa* Woodland. All scattered trees in the survey area were *Eucalyptus leucoxylon ssp. leucoxylon* South Australian Blue Gum.

The Protected Matters Search results returned 19 flora species listed under the EPBC Act 1999 within the 5 km radius search area. The NatureMaps search results contain records in this search area for only five of these species, of which two are identified as 'Known' from the survey area with records since 1995, *Olearia pannosa ssp. pannosa Silver Daisy-bush and Correa calycina var. calycina* Hindmarsh Correas. The records for the three other EPBC listed flora species are all from before 1995. Of the 19 species EPBC species seven were identified as 'Likely' to occur and 10 are identified as 'May' occur. The NatureMaps search results an additional 63 species listed under the NPW Act 1971 of which three species are Endangered, six species are Vulnerable, and 54 species are identified as Rare at a state level. No Threatened Ecological Communities are known to occur within MC 4569.

The Protected Matters Search (PMS) results returned 47 threatened fauna species listed under the EPBC Act 1999 within the 5 km radius search area. Of these, 23 species were marine species such as whales, albatrosses, turtles and sea-lions (Appendix 2). A further 10 species are wetland birds for which there is no habitat in the project survey area as there are no wetlands present. Of the remaining 14 species, three are identified as 'Known' from the search area, eight species are identified as 'Likely' to occur and three species are identified as 'May' occur. The desktop review of the NatureMaps records for a 5 km radius of the project area returned records for a further 14 fauna species listed under the NPW Act 1971 of which five are listed as Vulnerable and nine are listed as Rare. The desktop review identified 19 species listed as threatened or uncommon that could use scattered trees within MC4569 and these were included the Scattered Tree Assessment Scoresheet.

The field survey recorded 20 species of native birds and one species of introduced bird. No amphibian, fish, reptiles, mammals or wetland birds were recorded during the survey.The most recorded species were Striated Thornbill which predominantly uses foliage of eucalypts and Tree Matins which are aerial birds that nest in small hollows of mature eucalypts. Parrots and cockatoos which are mobile and fairly ecologically tolerant were also prevalent and included a pair of Yellow-tailed Black Cockatoos (NPW Vulnerable) which were observe flying overhead. Four species were observed within or adjacent to MC4569 which are identified as uncommon (near-threatened) by the Scattered Tree Assessment Methodology; Yellow-rumped Thornbill, Dusky Woodswallow, Whistling Kite and Tree Martin. No EPBC listed species were recorded during the survey.

The development of Whittlesea Quarry is proposed to occur in three stages and would result in 2.52 hectares of new disturbance in addition to the current disturbance from the approved mining plan. Development would occur in three stages with Stage 1 resulting in 0.56 hectares of disturbance, Stage 2 resulting in 0.99 hectares of disturbance and stage 3 resulting in 0.97 hectares of disturbance. No remnant patches of native vegetation are to be cleared, and new clearance is solely of 18 scattered trees in addition to two trees currently approved for clearance under the existing mine plan.

A total (SEB) payment for clearance of 18 trees has been calculated at $86,826.63 which consists of an SEB Payment of $82,300.12 plus an administration fee of $4,526.51. Should an on-ground SEB offset be pursued a total of 70.61 SEB points would be required to be offset. The clearance summary tables for the project identifies that the proposed clearance is a Risk Level 3.

The possibility of undertaking an on-ground offset to deliver the Significant Environmental Benefit will be explored as suitable patches of degraded native vegetation are present in adjacent areas. This will require negotiation with landowners and the tenement holder. Should an on-ground offset prove not to be feasible then the SEB would be provided through payment into the Native Vegetation Fund.

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1. Introduction

The operators of Whittlesea Quarry, Extractive Mineral Lease (EML) 5542, are seeking to expand an existing pit on and establish a new mining area. To facilitate long term quarrying at the Site, EML 5542 has been 'over pegged' by Craig Haywood with Mineral Claim 4569 (MC 4569) which was registered on 30 January 2024.

To gain approval for the expanded development of the quarry, a Mining Proposal (MP) has been prepared by Macro Environmental Solutions to support a Mining Lease Application over Mineral Claim (MC) 4569. A requirement of approval is that Native Vegetation Management Plan, including the calculation of a Significant Environmental Benefit cost for clearance of native vegetation is included in the Mine Lease Application. GBS Consulting was engaged by Macro Environmental to undertake a baseline flora and fauna survey of MC 4569 and prepare the Native Vegetation Management Plan which meets the requirements of the:

- South Australian *Mining Act 1971*;
- Mining Regulations (2020);
- Terms of Reference for – Extractive mineral quarry lease/licence applications (TOR 003),
- Native Vegetation Regulations (DEW 2017);
- Guide for a Significant Environmental Benefit for the clearance of native vegetation associated with the Minerals and Petroleum Industry (DEW 2017); and
- Guide for calculating a Significant Environmental Benefit (DEW 2024).

1.1. Site location and description

Whittlesea Quarry (MC 4569) is located at 5203 Main South Road, Myponga approximately 3.5km south-west of the Myponga township, and approximately 63km south-west of Adelaide (Figure 1). The local area is predominantly used for grazing, rural residential, forestry and potable water storage and supply (at the nearby Myponga Reservoir).

MC 4569 is an operating quarry and contains associated infrastructure for this activity. Sections of the claim adjacent to quarrying activities are covered by scattered trees with introduced pastures and patches of remnant native vegetation. MC 4569 is fenced off from the adjacent property which also contains scattered trees, pasture and patches of native vegetation. The property is used for grazing and contains infrastructure associated with pastoral activities.

The site is located in the Kanmantoo IBRA bioregion, Fleurieu IBRA Sub-region and the Mt Compass IBRA Association. The topography of the project area is undulating hills, hillslopes and gullies. The Mt Compass Environmental Association contains approximately 13% of remnant vegetation of which 27% of remnant vegetation is

protected, equivalent to 4% of the area of the association (Enviro Data 2025). The Fleurieu Sub-region contains 12% of native vegetation of which 24% of remaining vegetation is protected (Enviro Data 2025). The survey area occurs in an area where native vegetation has been extensively cleared for agricultural purposes and 14% remnant native vegetation is left within a 5 km radius (Enviro Data SA 2025). Native vegetation is mostly present along roadsides and on hillsides as small patches in variable condition. Isolated trees and occasional larger patches also remain on farms and other properties.

The closest conservation reserves to the project are:

- The Nixon-Skinner Conservation Park is located on the northern side of Main South Road, approximately 320 m from the nearest point of the MC 4569 boundary and is 8 hectares in size.
- Myponga Conservation Park is located 2.3 km to the south;
- Yulte CP located approximately 3.3km east of the south-eastern
- Gum Tree Gully Conservation Park is located 7.2 km to the east;
- Spring Mount Conservation Park is located 8.7 km to the south-east.

The Myponga Reservoir is located approximately 600 m to the north.

1.2. Project Description

The proposed quarry will be a conventional open-cut pit with a bench profile typical of hard rock quarries. The quarry is planned to be operated on a campaign basis. Three stages of mining are proposed with progressive rehabilitation occurring following completion of each stage. Stage 1 includes the clearance of seven trees in total however two of these trees are approved for clearance in ADP 1995/027 and therefore no further approvals to clear the two trees are required. The other five trees (Trees 1 to 5) are considered in this Native Vegetation Management Plan.

Stage 1 will include additional disturbance of 0.56 hectares for mining. Stage 2 will include an additional disturbance area of approximately 0.99 ha, which includes 0.82 ha of active mining area and 0.17 ha of additional soil stockpiling areas. Eight scattered trees are proposed to be cleared during Stage 2 (Trees 6 to 13).

Stage 3 will include an additional disturbance area of approximately 0.97 ha, which includes 0.74 ha of active mining area, 0.13 ha of additional soil stockpiling areas and approximately 0.1 ha of additional access tracks to ensure each bench and the pit floor has two access options. Five scattered trees are proposed to be cleared during Stage 3 (Trees 14 to 18).

Rehabilitation of Stage 1 will commence once mining is finished, and Stage 2 has commenced. Rehabilitation of stage 2 will commence once Stage 2 is finished, and Stage 3 has commenced. Rehabilitation will include respreading of soil and planting and/or seeding with native vegetation species that are present in the adjacent woodland areas.

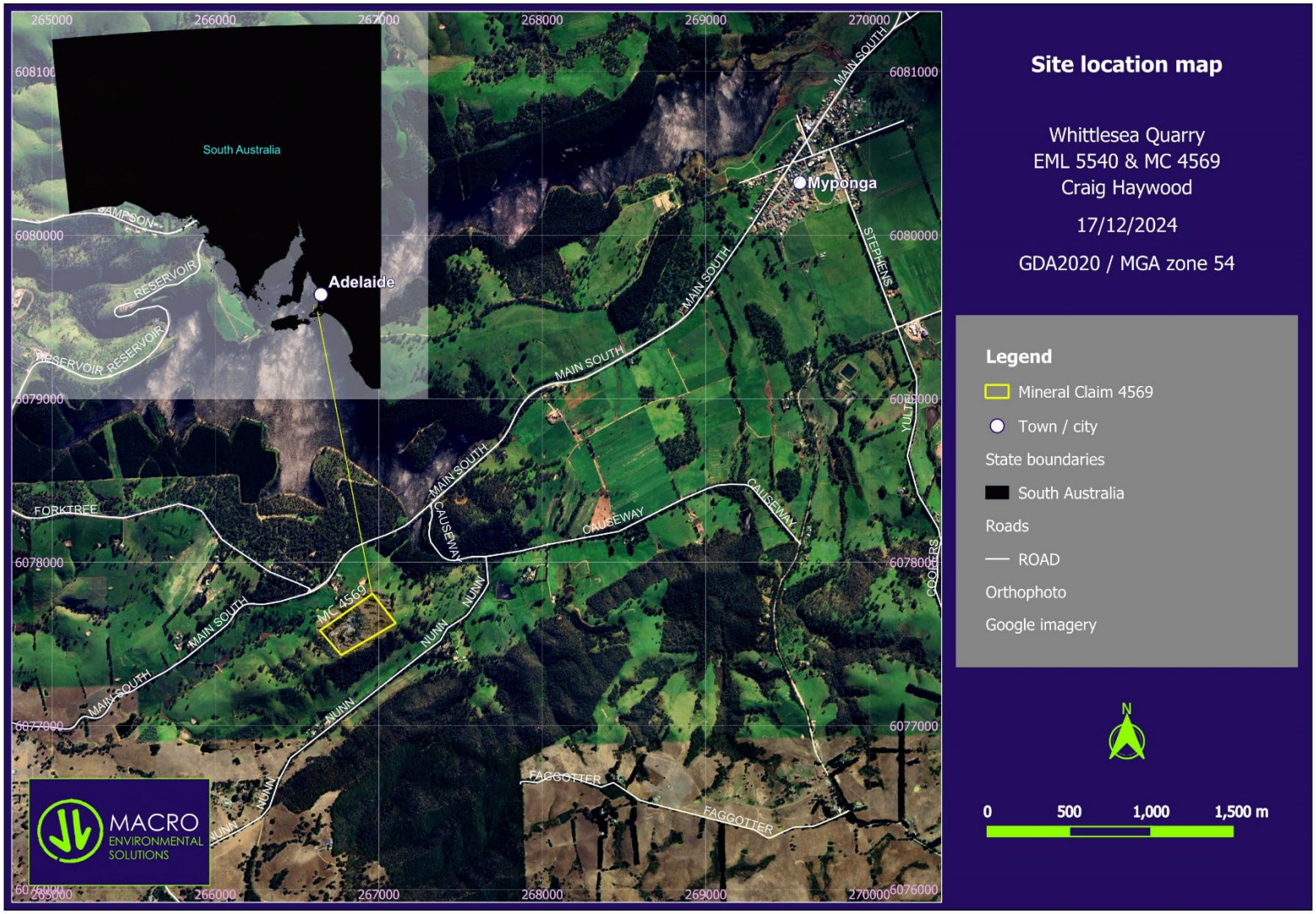

Figure 1: Site location for MC 4569.

2.Methodology

2.1. Desktop Surveys

A desktop survey was undertaken in accordance with requirements of the Native Vegetation Council (NVC) guidelines including the:

- Native Vegetation Council Scattered Tree Assessment Methodology (DEW 2024); and
- Guide for a Significant Environmental benefit for the clearance of native vegetation associated with the Minerals and Petroleum industry (DEW 2017).

A desktop review of flora and fauna occurrence for the project area was undertaken. In accordance with NVC requirements for calculating an SEB offset within the agricultural zone of South Australia (DEW 2017), desktop searches used a buffer of a 5 km radius from the centre of the survey area to assess flora and fauna records. The desktop review used the following sources:

- Department of Climate Change, Energy, the Environment and Water (DCCEEW); Protected Matters Search Tool (PMST) for potentially occurring EPBC listed species and communities;
- NatureMaps, incorporating records from Biological Database of South Australia (BDBSA), South Australian Department of Environment and Water (DEW 2023);
- the Atlas of Living Australia (ALA); and
- A Biological Survey of the Southern Mount Lofty Ranges, South Australia (Armstrong et al., South Australia, 2003).

The Scattered Tree Methodology requires that listed species recorded since 1995 within the project area with a 5 km buffer are considered in the listed species assessment.

2.2. Field Survey

The Spring Flora and Fauna survey of MC 4569 was undertaken on 13 January 2025 to collect data required for calculating the Significant Environmental Benefit (SEB), to offset native vegetation clearance within the project footprint. The aims of surveys were to:

- survey scattered trees within the disturbance footprint according to the Scattered Tree Assessment Manual (DEW 2024);
- document the fauna of the survey area,
- record any listed flora and fauna species, and
- identify the flora associations present in the survey area.

The field assessment was undertaken using the methodology detailed in the Scattered Tree Assessment Manual (DEW 2024) which assesses individual trees (termed scattered trees). A total of 18 'scattered' trees were assessed.

The following data was collected for each tree:

- Location co-ordinates,
- Species,
- Height,
- Trunk diameter at 1 metre above the ground,
- Tree health as determined by percent of foliage dieback,
- The number of small, medium and large hollows,
- Photograph.

All wildlife observed or heard was recorded and tracks and diggings were also documented as evidence. When listed species were observed GPS waypoints were taken and locations recorded. Observations were also recorded along with the location, date, time, number of animals and any pertinent comments.

2.3. SEB Calculation

Following completion of the field survey, Data for scattered trees was entered into the NVC scattered tree assessment scoresheet. Data entered included field data and suitability of each tree for fauna threatened species, as determined from the threatened species desktop search and ecological knowledge of these species.

This specifically includes fauna that the tree provides suitable habitat for which are identified as:

- Uncommon
- Rare species listed under the National Parks and Wildlife Act 1972
- Vulnerable or Endangered under the National Parks and Wildlife Act 1972 (exclude those listed under the Environmental Protection and Biodiversity Conservation Act 1999), and
- EPBC Act listed

The definition of habitat use includes roosting, perching and feeding, as well as nesting. Appendix 8 of the Scattered Tree Assessment Methodology lists birds and mammals that use scattered trees as habitat, and which should therefore be included in SEB calculation if recorded in the desktop search area or during the field survey.

The spreadsheet calculates a Total Biodiversity Score (TBS) for each tree along with the number of SEB points required for an on-ground offset, and a total SEB payment for each tree where the offset is to be achieved by a payment into the Native Vegetation Fund.

The NVC Clearance Summary Spreadsheet summarises the scoresheet data on a single spreadsheet including the UBS values. The spreadsheet also calculates a cost and an administration fee in dollars if a payment into the Native vegetation fund is the option taken to achieve the SEB.

3. Results

3.1. Flora

3.1.1. Desktop Reviews

A flora list generated from NatureMaps for a radius of 5 km from the centre of the survey area produced a list of 784 species, of which 552 are native and 232 species are introduced (Appendix 1). The flora is dominated by families and species typical of temperate woodlands, and agricultural areas such as Compositae (daisies), Gramineae (grasses), Leguminosae (peas and acacias) and Myrtaceae (eucalypts, tea-trees).

Vegetation mapping in NatureMaps did not identify any Floristic Groups (vegetation communities) which remain within MC 4569 however three floristic groups were identified in adjacent areas as follows:

- Floristic Group SM0101: *Eucalyptus obliqua* mid woodland over *Pultenaea daphnoides, +/- Hakea rostrata* tall shrubs over *Lepidosperma semiteres, Pteridium esculentum, Platylobium obtusangulum, Acrotriche serrulata, +/- Xanthorrhoea semiplana ssp. semiplana* mid shrubs.
- Floristic Group SM0801: *Eucalyptus obliqua, Eucalyptus fasciculosa* mid woodland over *Acacia pycnantha* over *Pultenaea daphnoides, Hakea rostrata* mid shrubs over *Lepidosperma semiteres, Acrotriche serrulata, +/-Hibbertia exutiacies* low shrubs.
- Floristic Group SM2602: *Eucalyptus cosmophylla, Eucalyptus fasciculosa* low open forest over *Hakea rostrata, Olearia ramulosa, +/-Leptospermum myrsinoides, Allocasuarina muelleriana ssp. muelleriana* tall shrubs over *Hibbertia riparia, +/-Astroloma humifusum, Hibbertia australis, +/-Gonocarpus mezianus, +/-Xanthorrhoea semiplana ssp. semiplana* low shrubs

Floristic group SM101 was located immediately to the east of MC 4569, floristic group SM0801 is present within Nixon Skinner Conservation Park and other areas. Floristic Group SM 2602 on a ridge line is present to the east on MC 4569.

The SML pre-european settlement vegetation mapping layer within NatureMaps identifies the original vegetation community of MC4569 as being *Eucalyptus leucoxylon ssp.leucoxylon + E. fasciculosa* Woodland.

The Protected Matters Search (PMS) results returned 19 flora species listed under the EPBC Act 1999 within the 5 km radius search area (Table 1). The NatureMaps search

results (Enviro Data 2025) contain records in this search area for only five of these species, (Table 1) of which two are identified as 'Known' from the survey area with records since 1995, *Olearia pannosa ssp. pannosa* Silver Daisy-bush and *Correa calycina var. calycina* Hindmarsh Correas. The records for the three other EPBC listed flora species are all from before 1995. Of the 19 species EPBC species seven were identified as 'Likely' to occur and 10 are identified as 'May' occur (Table 1).

The NatureMaps search results (Enviro Data 2025) an additional 63 species listed under the NPW Act 1971 of which three species are Endangered, six species are Vulnerable, and 54 species are identified as Rare at a state level (Table 1).

Table 1: Threatened Flora Species Likelihood Assessment for EPBC Listed Species and NPW Act Listed Species for the Study Area 5km radius from the centre of the Project Area. EPBC and NPW Act conservation ratings abbreviated as CE = Critically Endangered, E = Endangered, V = Vulnerable, R = Rare

FAMILY NAME	SPECIES	COMMON NAME	EPBC Status	EPBC Likelihood Rating	NPW Status	No of Records	Date of last record
AMARANTHACEAE	*Ptilotus erubescens*	Hairy-tails			R	2	27-Dec-1910
APIACEAE	*Eryngium vesiculosum*	Prostrate Blue Devil			R	3	15-Apr-1929
APIACEAE	*Xanthosia tasmanica*	Southern Xanthosia			R	2	09-Nov-1990
ASPHODELACEAE	*Xanthorrhoea semiplana ssp. tateana*	Tate's Grass-tree			R	13	03-Jun-2016
ASTERACEAE	*Brachyscome parvula*	Coast Daisy			R	5	12-Oct-1932
ASTERACEAE	*Olearia glandulosa*	Swamp Daisy-bush			V	6	05-Dec-1977
ASTERACEAE	*Olearia pannosa ssp. pannosa*	Silver Daisy-bush	VU	Known	V	1	06-Nov-2009
ASTERACEAE	*Senecio macrocarpus*	Large-fruit Fireweed	VU	May			
BLECHNACEAE	*Blechnum nudum*	Fishbone Water-fern			R	1	01-Jan-1927
BLECHNACEAE	*Blechnum wattsii*	Hard Water-fern			R	1	10-Feb-1917
CAMPANULACEAE	*Isotoma fluviatilis ssp. australis*	Swamp Isotome			R	3	02-Dec-1923
CARYOPHYLLACEAE	*Stellaria angustifolia ssp. tenella*	Swamp Starwort			R	1	01-Jan-1996
CASUARINACEAE	*Allocasuarina robusta*	Mount Compass Oak-bush	EN	Likely	E	7	11-Mar-1988
CYPERACEAE	*Carex gunniana*	Mountain Sedge			R	1	01-Jan-1929
CYPERACEAE	*Cladium procerum*	Leafy Twig-rush			R	2	08-Jan-1998
CYPERACEAE	*Machaerina laxa*	Lax Twig-rush			R	3	09-May-2006
CYPERACEAE	*Schoenus laevigatus*				R	3	05-Jan-1970
DENNSTAEDTIACEAE	*Hypolepis rugosula ssp. rugosula*	Ruddy Ground-fern			R	4	09-May-2006
DILLENIACEAE	*Hibbertia tenuis*	null	CE	Likely			
DROSERACEAE	*Drosera binata*	Forked Sundew			R	3	13-Jan-1907
ELATINACEAE	*Elatine gratioloides*	Waterwort			R	2	01-Jan-1996
ERICACEAE	*Sprengelia incarnata*	Pink Swamp-heath			R	11	05-Dec-1977

FABACEAE	*Glycine latrobeana*	Clover Glycine	VU	Likely	V	2	11-Oct-1939
FABACEAE	*Pultenaea dentata*	Clustered Bush-pea			V	1	01-Oct-1977
FABACEAE	*Sphaerolobium minus*	Leafless Globe-pea			R	2	08-Nov-1986
FABACEAE	*Viminaria juncea*	Native Broom			R	6	01-Jan-1996
GLEICHENIACEAE	*Gleichenia microphylla*	Coral Fern			R	6	01-Jan-1929
HALORAGACEAE	*Gonocarpus micranthus ssp. micranthus*	Creeping Raspwort			R	2	05-Nov-1909
HALORAGACEAE	*Myriophyllum amphibium*	Broad Milfoil			R	1	12-Nov-1906
HALORAGACEAE	*Myriophyllum crispatum*	Upright Milfoil			V	5	15-Feb-1987
HALORAGACEAE	*Myriophyllum papillosum*	Robust Milfoil			R	1	02-Dec-1923
HALORAGACEAE	*Myriophyllum variifolium*	Varied Milfoil			R	1	02-Dec-1923
HYPERICACEAE	*Hypericum japonicum*	Matted St John's Wort			R	2	11-Jan-1929
ISOETACEAE	*Isoetes drummondii ssp. drummondii*	Plain Quillwort			R	1	11-Oct-1934
JUNCACEAE	*Juncus prismatocarpus*	Branching Rush			E	2	05-Mar-1923
JUNCACEAE	*Juncus procerus*	Tall Rush			R	1	09-May-2006
LAMIACEAE	*Mentha diemenica*	Slender Mint			R	5	03-Mar-1996
LAMIACEAE	*Prostanthera chlorantha*	Green Mintbush			R	4	06-Nov-2009
LAMIACEAE	*Scutellaria humilis*	Dwarf Skullcap			R	6	28-Oct-2013
LOGANIACEAE	*Phyllangium distylis*	Tiny Mitrewort			R	1	23-Nov-1986
LYCOPODIACEAE	*Lycopodiella lateralis*	Slender Clubmoss			R	1	01-Apr-1979
LYTHRACEAE	*Lythrum salicaria*	Purple Loosestrife			R	3	10-Feb-1919
MONTIACEAE	*Montia australasica*	White Purslane			R	4	24-Nov-2017
MYRTACEAE	*Eucalyptus fasciculosa*	Pink Gum			R	94	03-Jun-2016
MYRTACEAE	*Eucalyptus paludicola*	Mount Compass Swamp Gum	EN	May			
MYRTACEAE	*Eucalyptus viminalis ssp. viminalis*	Manna Gum			R	2	06-Oct-2000
MYRTACEAE	*Melaleuca squamea*	Swamp Honey-myrtle			R	3	01-Oct-1932
ORCHIDACEAE	*Caladenia concolor*	Crimson Spider-orchid	VU	May			
ORCHIDACEAE	*Caladenia tensa*	Greencomb Spider-orchid	EN	May			

ORCHIDACEAE	*Caladenia leptochila ssp. leptochila*	Narrow-lip Spider-orchid			R	2	28-Oct-2013
ORCHIDACEAE	*Caladenia reticulata*	Veined Spider-orchid			R	2	20-Sep-1986
ORCHIDACEAE	*Corybas unguiculatus*	Small Helmet-orchid			R	2	05-Aug-2010
ORCHIDACEAE	*Diuris brevifolia*	Short-leaf Donkey-orchid			E	1	08-Nov-1986
ORCHIDACEAE	*Gastrodia sesamoides*	Potato Orchid			R	1	14-Nov-1964
ORCHIDACEAE	*Microtis atrata*	Yellow Onion-orchid			R	4	01-Nov-1930
ORCHIDACEAE	*Prasophyllum australe*	Austral Leek-orchid			R	1	01-Oct-1932
ORCHIDACEAE	*Prasophyllum murfetii*	Fleurieu Leek Orchid	CE	Likely			
ORCHIDACEAE	*Prasophyllum pallidum*	Pale Leek-orchid	VU	Likely			
ORCHIDACEAE	*Prasophyllum pruinosum*	Plum Leek-orchid	EN	May			
ORCHIDACEAE	*Pterostylis bryophila*	Hindmarsh Valley Greenhood	CE	May			
ORCHIDACEAE	*Pterostylis curta*	Blunt Greenhood			R	2	01-Sep-1941
ORCHIDACEAE	*Pterostylis foliata*	Slender Greenhood			R	1	14-Oct-1986
ORCHIDACEAE	*Spiranthes australis*	Austral Lady's Tresses			R	9	25-Jan-1909
ORCHIDACEAE	*Thelymitra epipactoides*	Metallic Sun-orchid	EN	May			
ORCHIDACEAE	*Thelymitra flexuosa*	Twisted Sun-orchid			R	1	13-Oct-1926
ORCHIDACEAE	*Thelymitra grandiflora*	Great Sun-orchid			R	1	14-Oct-1986
ORCHIDACEAE	*Thelymitra inflata*	Plum Sun-orchid			V	1	
ORCHIDACEAE	*Thelymitra matthewsii*	Spiral Sun-orchid	EN	Likely			
OROBANCHACEAE	*Euphrasia collina ssp. osbornii*	Osborn's Eyebright	EN	May	E	3	23-Jan-1988
PLANTAGINACEAE	*Gratiola pumilo*	Dwarf Brooklime			R	1	13-Jan-1909
PLANTAGINACEAE	*Veronica derwentiana subsp. homalodonta*	Mount Lofty Speedwell	CE	Likely			
PLANTAGINACEAE	*Veronica gracilis*	Slender Speedwell			V	3	22-Jan-2008
POACEAE	*Amphibromus archeri*	Pointed Swamp Wallaby-grass			R	1	14-Nov-1964
POACEAE	*Austrostipa oligostachya*	Fine-head Spear-grass			E	1	10-Oct-1946
POACEAE	*Deyeuxia densa*	Heath Bent-grass			R	1	01-Jan-1929
PTERIDACEAE	*Anogramma leptophylla*	Annual Fern			R	2	18-Sep-1990

RUTACEAE	*Correa aemula*	Hairy Correa			R	19	01-Mar-2017
RUTACEAE	*Correa calycina var. calycina*	Hindmarsh Correa	VU	Known	V	38	03-Oct-2012
RUTACEAE	*Correa eburnea*	Deep Creek Correa	EN	May			
SAPINDACEAE	*Dodonaea procumbens*	Trailing Hop-bush	VU	May			
SCHIZAEACEAE	*Schizaea fistulosa*	Narrow Comb-fern			V	1	22-Dec-1953
XYRIDACEAE	*Xyris operculata*	Tall Yellow-eye			R	4	05-Dec-1977

The EPBC Protected Matters Search (Appendix 2) identified that one Threatened Ecological Community (TEC) listed under the EPBC Act 1999 as potentially present within a 5 km buffer zone and potentially occurring within the survey area:

- *Swamps of the Fleurieu Peninsula TEC (SFP TEC*) was listed as Critically Endangered on 21 March 2003 (DAWE 2014) and is given an occurrence likelihood of 'Known' to occur within the search area.

The nearest identified SFP TEC is located approximately 2.5km south-west of the Site (Figure 2). A review of the surface water network identified that the nearby TEC is within the Carrickalinga Creek but not hydrologically connected to the Site. The Site is located at the headwaters of a drainage line that follows Main South Road that feeds into Carrickalinga Creek approximately 1.5km downstream of the SFP TEC location. Therefore, there is no surface water pathway between the Site and the nearby SFP TEC.

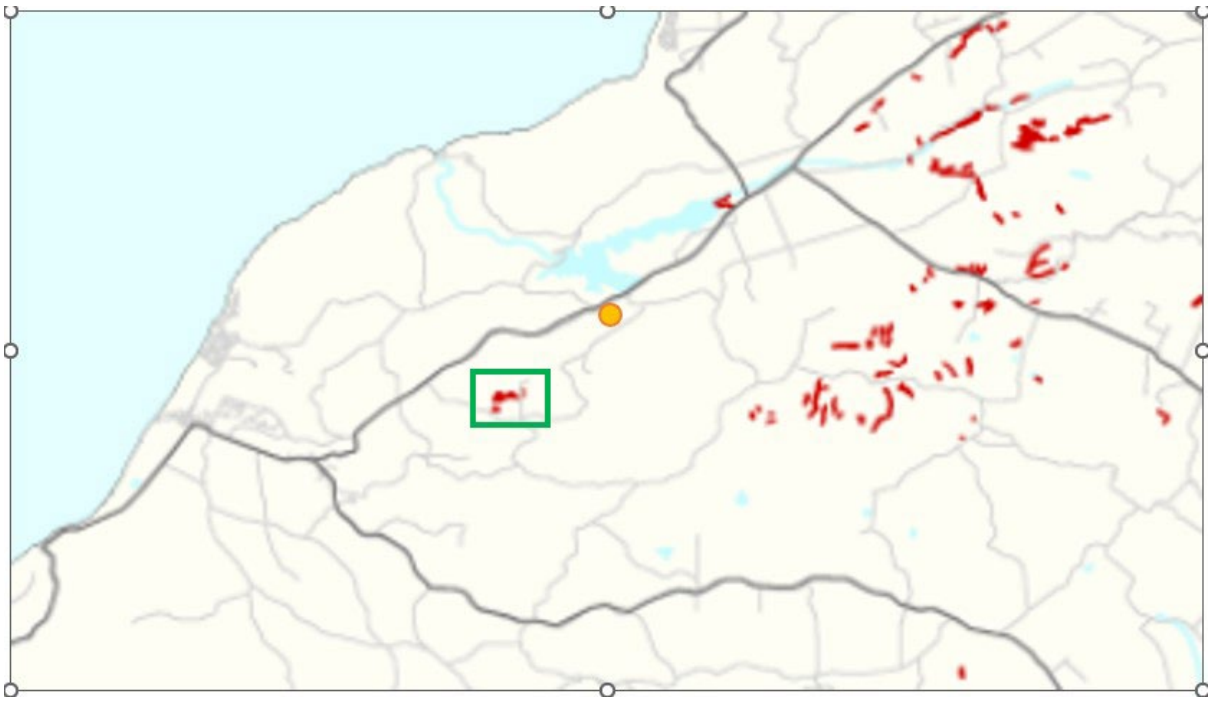

Figure 2 – SFP TEC location (green box) in reference to the Site (orange dot)

3.1.2.Field Survey

The majority of the survey area consists of areas disturbed by existing quarrying operations and grazing land with occasional scattered trees. Small patches of native vegetation in a poor to moderated condition are also present outside of the proposed disturbance area.

A total of 22 species were recorded within MC 4569 during the field survey consisting of eight native species and 14 introduced species (Table 2). Of this total 17 species were recorded within the disturbance area during the field survey, six native species and 11 introduced species (Table 2). All scattered trees in the survey area consist of a single species, *Eucalyptus leucoxylon ssp. leucoxylon* South Australian Blue Gum

(Figure 3). All trees were mature and all were assessed to contain hollows with all containing one or more small hollows, 12 trees containing medium sized hollows and 11 trees containing at least one large hollow. Tree heights ranged from 7.4 m to 17.0 m and the diameter at 1 m above ground level ranged from 47 cm to 112 cm.

Vegetation underneath scattered trees consists of pasture grasses, predominantly *Avena barbata/fatua* Wild Oat, *Ehrharta longiflora* Annual Veldt Grass and *Bromus hordeaceus ssp. hordeaceus* Soft Brome with native grasses *Rytidosperma setaceum* Small-flower Wallaby-grass in some areas (Figures 4 and 5). There are no shrubs in the areas of pasture with scattered trees however native regrowth is establishing at the edge of the existing quarry pit in areas where topsoil has been stripped (Figure 6). Regrowth consists predominantly of *Eucalyptus leucoxylon* and *Acacia pycnantha* with an understorey of *Acrotriche serrulata* Cushion Ground-berry, *Kennedia prostrata* Scarlet Runner and *Acaena novae-zelandiae* Biddy-biddy. Regrowth is estimated to be between 3 and 5 years old however two taller *Eucalyptus leucoxylon* shrubs about 3 meters tall are present at the very edge of the pit and may be between 5 and 10 years old. Areas of regeneration are within the currently approved mining pit and hence approved for clearance as the pit attains its currently approved size.

Remnant patches of native vegetation adjacent to the pit were identified as *Eucalyptus leucoxylon ssp.leucoxylon* Woodland with an understorey of *Xanthorrhoea semiplana ssp. semiplana* Yacca, *Acacia pycnantha* Golden Wattle, *Olearia ramulosa* Twiggy Daisy-bush and introduced species including *Genista monspessulana* Montpellier Broom and *Chrysanthemoides monilifera ssp. monilifera* Boneseed.

No threatened flora species listed under the EPBC Act 1999 or NPW Act 1971 were recorded within MC 4569 or adjacent areas.

3.1.3. Weeds

A total of 232 species of weeds have been identified as recorded within 5km of MC4569 in the desktop survey (Appendix 1) and 14 of these were recorded during the site visit (Table 3). Weeds recorded during the field survey included *Chrysanthemoides monilifera ssp. monilifera* Boneseed and *Genista monspessulana* Cape Broom which are both Weed of National Significance and Declared Plants under the *Landscapes South Australia Act 2019* in SA requiring control by landowners. A third recorded weed species, *Rosa canina* Dog Rose is also a Declared Plant under the Landscapes South Australia Act 2019 in SA requiring control by landowners.

3.1.4.Threatened Ecological Communities

The *Swamps of the Fleurieu Peninsula TEC* was not recorded within MC 4569 or in adjacent areas and there were no wetlands present in the survey area.

Table 2: Flora survey results summary.

Species	Common Name	Disturbance area	Outside disturbance area
Species diversity			
Total Species diversity		**17**	**22**
Native species diversity		6	8
Introduced species diversity		11	14
Native species recorded			
Acacia pycnantha	Golden Wattle	1	1
Acaena novae-zelandiae	Biddy-biddy	1	1
Acrotriche serrulata	Cushion Ground-berry	1	1
Eucalyptus leucoxylon ssp. leucoxylon	South Australian Blue Gum	1	1
Kennedia prostrata	Scarlet Runner	1	1
Olearia ramulosa	Twiggy Daisy-bush		1
Rytidosperma setaceum	Small-flower Wallaby-grass	1	1
Xanthorrhoea semiplana ssp. semiplana	Yacca		1
Introduced species recorded			
Avena barbata/fatua	Wild Oat	1	1
Bromus hordeaceus ssp. hordeaceus	Soft Brome	1	1
Chrysanthemoides monilifera ssp. monilifera	Boneseed		1
Ehrharta longiflora	Annual Veldt Grass	1	1
Genista monspessulana	Montpellier Broom		1
Hypericum perforatum ssp. veronense	St John's Wort	1	1
Onopordum acanthium	Scotch Thistle	1	1
Pinus radiata	Radiata Pine		1
Plantago lanceolata var.	Ribwort	1	1
Rosa canina	Dog Rose	1	1
Senecio pterophorus	African Daisy	1	1
Sixalix atropurpurea	Scabiosa, Pincushion	1	1
Sonchus oleraceus	Common Sow-thistle	1	1
Vulpia sp.	Fescue	1	1

Figure 3: Eucalyptus leucoxylon ssp. leucoxylon at the edge of the existing pit.

Figure 4: Understorey of introduced grasses beneath scattered tree in Stage 1 area.

Figure 5: Understorey of introduced grasses beneath scattered trees in Stage 2 area.

Figure 6: Regenerating occurring at the edge of the existing pit, estimated to be between 3 and 5 years old.

3.2. Fauna

3.2.1. Desktop Review

The Protected Matters Search (PMS) results returned 47 threatened fauna species listed under the EPBC Act 1999 within the 5 km radius search area (Appendix 2). Of these, 23 species were marine species such as whales, albatrosses, turtles and sea-lions (Appendix 2). A further 10 species are wetland birds for which there is no habitat in the project survey area as there are no wetlands present. These species are therefore not discussed or assessed further in this report and do not contribute to the SEB calculations.

Of the remaining 14 species, three are identified as 'Known' from the search area, eight species are identified as 'Likely' to occur and three species are identified as 'May' occur (Table 3). The desktop review of the NatureMaps records for a 5 km radius of the project area returned records since 1995 for four of these species Chestnut-rumped Heathwren (MLR) *Hylacola pyrrhopygia parkeri*, South Australian Bassian Thrush *Zoothera lunulata halmaturina*, Southern Brown Bandicoot *Isoodon obesulus obesulus* and Grey-headed Flying-fox *Pteropus poliocephalus*.

The desktop review of the NatureMaps records for a 5 km radius of the project area returned records for a further 14 fauna species listed under the NPW Act 1971 of which five are listed as Vulnerable and nine are listed as Rare (Table 3).

In all, the desktop review identified 19 species listed as threatened or uncommon (Table 3) that could use scattered trees within MC4569 and these were included the Scattered Tree Assessment Scoresheet. These include:

- One EPBC Vulnerable species, Grey-headed Flying-fox *Pteropus poliocephalus*.
- Three NPW Act listed species (Endangered or Vulnerable):
    - Yellow-tailed Black Cockatoo *Zanda funerea whiteae*,
    - Flame Robin *Petroica phoenicea*,
    - Yellow-footed Antechinus Antechinus flavipes.
- Four NPW Act Rare species;
    - Peregrine Falcon *Falco peregrinus macropus*,
    - Elegant Parrot *Neophema elegans elegans*,
    - Scarlet Robin *Petroica boodang boodang*,
    - Common Brushtail Possum *Trichosurus vulpecula*.
- 11 Uncommon (Near Threatened) species, as identified in Appendix 8 of the Scattered Tree Assessment Methodology:
    - Yellow-rumped Thornbill *Acanthiza chrysorrhoa*,
    - Yellow Thornbill *Acanthiza nana*,

- Dusky Woodswallow *Artamus cyanopterus*,
- Black-capped Sittella *Daphoenositta chrysoptera pileata*,
- Whistling Kite *Haliastur sphenurus*,
- Brown-headed Honeyeater *Melithreptus brevirostris*,
- White-naped Honeyeater *Melithreptus lunatus*,
- Australian Boobook *Ninox boobook*,
- Spotted Pardalote *Pardalotus punctatus*,
- Tree Martin *Petrochelidon nigricans*,
- Red-rumped Parrot (eastern SA except NE) *Psephotus haematonotus haematonotus*.

Table 3: Fauna species identified during the desktop search of the project area plus a 5 km buffer including previously recorded species within the search area and threatened species listed under the EPBC Act 1999 and the NPW Act 1971 as identified. EPBC and NPW Act conservation ratings abbreviated as CE = critically endangered, E = Endangered, V = Vulnerable, R = Rare, Mi = migratory.

Class	Species	Common Name	EPBC	EPBC Likelihood	NPW Act 1972	Uncommon (Scat Tree Meth)	No. of records	Field Survey Record	Date of last record	Use Scattered Trees in MC4569
Amphibian	*Pseudophryne bibronii*	Brown Toadlet			R		2		01-Jun-2009	
Bird	*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill				x	26	x	09-Nov-2019	x
Bird	*Acanthiza nana*	Yellow Thornbill				x	4		08-May-2020	x
Bird	*Aphelocephala leucopsis*	Southern Whiteface	V	Likely						
Bird	*Artamus cyanopterus*	Dusky Woodswallow				x	9	x	28-Jul-1985	x
Bird	*Daphoenositta chrysoptera pileata*	Black-capped Sittella				x	8		21-Jan-2020	x
Bird	*Falco hypoleucos*	Grey Falcon	V	Likely						
Bird	*Falco peregrinus macropus*	Peregrine Falcon			R		1		26-Apr-2013	x
Bird	*Falcunculus frontatus frontatus*	Eastern Shriketit			R		2		09-Mar-1985	
Bird	*Grantiella picta*	Painted Honeyeater	V	May						

Class	Species	Common Name	EPBC	EPBC Likelihood	NPW Act 1972	Uncommon (Scat Tree Meth)	No. of records	Field Survey Record	Date of last record	Use Scattered Trees in MC4569
Bird	*Haliastur sphenurus*	Whistling Kite				x	1	x	10-Jul-2013	x
Bird	*Hirundapus caudacutus*	White-throated Needletail	V, Mi	Likely						
Bird	*Hylacola pyrrhopygia parkeri*	Chestnut-rumped Heathwren (MLR)	E	Known	E		14		21-Jan-2020	
Bird	*Melanodryas cucullata cucullata*	South-eastern Hooded Robin, Hooded Robin (south-eastern)	E	Likely	R		1		01-Feb-1977	
Bird	*Melithreptus brevirostris*	Brown-headed Honeyeater				x	29		21-Jan-2020	x
Bird	*Melithreptus lunatus*	White-naped Honeyeater				x	19		09-Nov-2019	x
Bird	*Microeca fascinans*	Jacky Winter			R		1		14-May-1977	
Bird	*Myiagra inquieta*	Restless Flycatcher			R		1		12-Jun-1991	
Bird	*Neophema chrysostoma*	Blue-winged Parrot	V, Mi	Known						

Class	Species	Common Name	EPBC	EPBC Likelihood	NPW Act 1972	Uncommon (Scat Tree Meth)	No. of records	Field Survey Record	Date of last record	Use Scattered Trees in MC4569
Bird	*Neophema elegans elegans*	Elegant Parrot			R		12		21-Jan-2020	x
Bird	*Ninox boobook*	Australian Boobook				x	4		24-Feb-2000	x
Bird	*Pardalotus punctatus*	Spotted Pardalote				x	8		21-Jan-2020	x
Bird	*Petrochelidon nigricans*	Tree Martin				x	21	x	21-Jan-2020	x
Bird	*Petroica boodang boodang*	Scarlet Robin			R		62		31-Oct-2022	x
Bird	*Petroica phoenicea*	Flame Robin			V		1		25-Apr-1998	x
Bird	*Psephotus haematonotus haematonotus*	Red-rumped Parrot (eastern SA except NE)				x	4		24-Feb-2000	x
Bird	*Stagonopleura bella samueli*	Beautiful Firetail (MLR, KI)	E	May	R		3		14-Dec-1991	
Bird	*Stagonopleura guttata*	Diamond Firetail	V	Likely						
Bird	*Stipiturus malachurus intermedius*	Fleurieu Peninsula Southern Emu-wren, Mount Lofty	E	Likely						

Class	Species	Common Name	EPBC	EPBC Likelihood	NPW Act 1972	Uncommon (Scat Tree Meth)	No. of records	Field Survey Record	Date of last record	Use Scattered Trees in MC4569
		Southern Emu-wren								
Bird	*Zanda funerea whiteae*	Yellow-tailed Black Cockatoo			V		42	x	25-Oct-2024	x
Bird	*Zoothera lunulata halmaturina*	South Australian Bassian Thrush	E	Likely	R		6		13-Jun-2023	
Mammal	*Antechinus flavipes*	Yellow-footed Antechinus			V		5		18-May-2017	x
Mammal	*Isoodon obesulus obesulus*	Southern Brown Bandicoot	E	Known	V		19		13-Jan-2023	
Mammal	*Pteropus poliocephalus*	Grey-headed Flying-fox	V	Likely	R		4		06-Mar-2020	x
Mammal	*Rattus lutreolus*	Swamp Rat			R		2		04-Apr-2016	
Mammal	*Trichosurus vulpecula*	Common Brushtail Possum			R		5		18-May-2017	x
Reptile	*Aprasia pseudopulchella*	Flinders Ranges Worm-lizard	V	May						

Class	Species	Common Name	EPBC	EPBC Likelihood	NPW Act 1972	Uncommon (Scat Tree Meth)	No. of records	Field Survey Record	Date of last record	Use Scattered Trees in MC4569
Reptile	*Eulamprus heatwolei*	Yellow-bellied Water Skink			V		2		23-Nov-2009	
Reptile	*Varanus rosenbergi*	Heath Goanna			V		12		02-Dec-2020	

3.2.2.Field Survey Summary

The field survey recorded 20 species of native birds and one species of introduced bird (Table 4).

These results reflect the predominantly agricultural use of the area, the small size of the survey area and limited remnant native vegetation surveyed and the observational nature of the study with no trapping or electronic monitoring conducted.

No amphibian, fish or wetland birds were recorded during the survey which is consistent with the absence of any wetlands or farm dams in the survey area. No reptiles were observed during the survey which is likely due to the highly disturbed pasture beneath the scattered trees.

The most recorded species were Striated Thornbill which predominantly uses foliage of eucalypts and Tree Matins which are aerial birds that nest in small hollows of mature eucalypts. Parrots and cockatoos which are mobile and fairly ecologically tolerant were also prevalent and included a pair of Yellow-tailed Black Cockatoos (NPW Vulnerable) which were observe flying overhead. Four species were observed within or adjacent to MC4569 which are identified as uncommon (near-threatened) in Appendix 8 of the Scattered Tree Assessment Methodology; Yellow-rumped Thornbill, Dusky Woodswallow, Whistling Kite and Tree Martin. No EPBC listed species were recorded during the survey.

No native mammals were observed which is likely a reflection of the intensively used area and fencing which is generally in good condition and would discourage kangaroos. A herd of milking cows was observed in one of the paddocks in which scattered trees were surveyed.

Table 4: Fauna species recorded during the field survey

CLASS NAME	SPECIES	COMMON NAME	Introduced	EPBC	NPW	MC4569 and adjacent areas
Bird	*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill				8
Bird	*Acanthiza lineata*	Striated Thornbill				15
Bird	*Anthochaera carunculata clelandi*	Red Wattlebird				4
Bird	*Aquila audax audax*	Wedge-tailed Eagle				1
Bird	*Artamus cyanopterus*	Dusky Woodswallow				3
Bird	*Cacatua galerita*	Sulphur-crested Cockatoo				3
Bird	*Caligavis chrysops samueli*	Yellow-faced Honeyeater (MLR, southern FR)				2
Bird	*Carduelis carduelis britannica*	European Goldfinch	X			1
Bird	*Coracina novaehollandiae*	Black-faced Cuckooshrike				1
Bird	*Corvus mellori*	Little Raven				2
Bird	*Eolophus roseicapilla*	Galah				7
Bird	*Glossopsitta concinna*	Musk Lorikeet				2
Bird	*Gymnorhina tibicen*	Australian Magpie				5
Bird	*Haliastur sphenurus*	Whistling Kite				1
Bird	*Hirundo neoxena neoxena*	Welcome Swallow				3
Bird	*Malurus cyaneus leggei*	Superb Fairywren (Mainland SA)				4
Bird	*Pardalotus striatus substriatus*	Striated Pardalote				6
Bird	*Petrochelidon nigricans*	Tree Martin				15
Bird	*Rhipidura albiscapa*	Grey Fantail				1
Bird	*Platycercus elegans subadelaidae*	Adelaide Rosella (MN, AP, MLR)				9
Bird	*Zanda funerea whiteae*	Yellow-tailed Black Cockatoo			V	2

4. Native Vegetation Management Plan

4.1. Clearance Footprint

The development of Whittlesea Quarry is proposed to occur in three stages and would result in 2.52 hectares of new disturbance in addition to the current disturbance from the approved mining plan. Development would occur in three stages with Stage 1 resulting in 0.56 hectares of disturbance, Stage 2 resulting in 0.99 hectares of disturbance and stage 3 resulting in 0.97 hectares of disturbance. No remnant patches of native vegetation are to be cleared, and new clearance is solely of 18 scattered trees in addition to two trees currently approved for clearance under the existing mine plan (Figure 7). Clearance is primarily for the footprint of the open pits which is required to recover the resource. Associated stockpiles and infrastructure will be located in already cleared areas and/or within the pit where possible with 0.4 hectares 0.5 of clearance for stockpiles and new tracks.

4.2. SEB Calculations

The SEB was calculated using the following parameters:

- Landscapes Region: Hills and Fleurieu
- IBRA Association: Mt Compass
- Native vegetation remnancy for the IBRA Association: 13 %
- Is the vegetation associated with a Wetland: No
- Mean Annual Rainfall: 706 mm
- Economies of Scale Factor: 0.5
- Loss Factor: 1 (for all trees)
- Management Cost Factor: $24,764
- SEB Uplift Factor: 1.10
- SEB Points of Gain/ha Factor: 7.5

The Universal Biodiversity Scores (UBS), Total Biodiversity Score (TBS), SEB points required, cost per hectare and SEB payment cost are presented for each of the scattered trees in Table 5 and the full SEB scoresheets are provided in Appendix 3.

The SEB offset cost for clearance of 18 trees within Whittlesea Quarry (using the Scattered Tree Assessment Method) has been calculated at $86,826.63 which consists of an SEB Payment of $82,300.12 plus an administration fee of $4,526.51 (Table 6).

Should an on-ground SEB offset be pursued a total of 70.61 SEB points would be required to be offset.

The clearance summary tables for the project identifies that the proposed clearance is a Risk Level 3 (Appendix 4) and that the clearance is seriously at variance with regards to wildlife habitat and at variance with regards to trees.

4.3. Provision of Significant Environmental Benefit

The possibility of undertaking an on-ground offset to deliver the Significant Environmental Benefit will be explored as suitable patches of degraded native vegetation are present in adjacent areas. This will require negotiation with landowners and the tenement holder. Should an on-ground offset prove not to be feasible then the SEB would be provided through payment into the Native Vegetation Fund.

Figure 7: Clearance areas and scattered tress proposed to be cleared

Table 5. SEB calculations for scattered trees that are within the project footprint for Whittlesea Quarry. All trees are South Australian Blue Gum Eucalyptus leucoxylon ssp leucoxylon.

Tree No.	Height	Diameter	Dieback	Fauna Habitat score	Biodiversity score	SEB Points required	SEB Payment	Admin Fee	Total SEB Payment	Easting	Northing	Zone
1	11.2	76	20	1.80	3.44	3.78	$4,405.81	$242.32	$4,648.13	266818	6077486	54
2	13.2	59	60	1.80	2.04	2.24	$2,610.85	$143.60	$2,754.45	266833	6077509	54
3	14.3	111	15	1.80	6.81	7.49	$8,730.04	$480.15	$9,210.19	266853	6077503	54
4	12.5	77	60	1.80	2.03	2.23	$2,599.20	$142.96	$2,742.15	266889	6077525	54
5	16.3	103	20	1.80	5.89	6.48	$7,552.82	$415.41	$7,968.23	266896	6077535	54
6	9.6	66	10	1.80	3.65	4.02	$4,685.55	$257.71	$4,943.25	267033	6077629	54
7	10.5	76	25	1.80	2.32	2.55	$2,972.18	$163.47	$3,135.64	267031	6077633	54
8	10.2	64	10	1.80	3.69	4.06	$4,732.17	$260.27	$4,992.44	267007	6077619	54
9	11.1	68	40	1.80	2.55	2.81	$3,275.22	$180.14	$3,455.36	266971	6077627	54
10	16.8	112	50	1.80	6.23	6.85	$7,984.08	$439.12	$8,423.20	266974	6077644	54
11	15.9	74.5	30	1.80	4.20	4.62	$5,384.88	$296.17	$5,681.05	266962	6077637	54
12	12.9	85.5	80	1.80	2.53	2.78	$3,240.25	$178.21	$3,418.47	266958	6077644	54
13	9.2	72	60	1.80	1.42	1.56	$1,818.27	$100.00	$1,918.28	267030	6077665	54
14	12.9	74	25	1.80	3.66	4.03	$4,697.20	$258.35	$4,955.55	266996	6077685	54
15	10.9	47	60	1.80	1.01	1.11	$1,293.77	$71.16	$1,364.93	266944	6077688	54
16	7.4	61.5	50	1.80	1.99	2.19	$2,552.57	$140.39	$2,692.97	266979	6077687	54
17	10.8	90	10	1.80	4.52	4.97	$5,792.83	$318.61	$6,111.43	266954	6077722	54
18	17.0	109.5	35	1.80	6.22	6.84	$7,972.42	$438.48	$8,410.91	266972	6077729	54

Table 6. Total SEB offset required for clearance of scattered trees within the footprint of Whittlesea Quarry.

	No. of scattered trees	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Whittlesea Quarry MC 4569	18	64.2	70.6	$82,300.11	$4,526.52	$86,826.63

4.4. Mitigation Hierarchy

The Native Vegetation Regulations (DEW 2017) require the use of the Mitigation Hierarchy for applications to clear native vegetation which consists of the following:

a) Avoidance – measures should be taken to avoid clearance of native vegetation wherever possible.

The project area contains an existing quarry with associated infrastructure, and a mixture of remnant native vegetation and cleared paddocks with scattered trees. Clearance for mining is determined by the location of the resource and related factors such as depth to mining. Where the resource is economic to mine, opportunities for avoidance of native vegetation are limited however the shape of the pit has been designed to avoid remnant patches of native vegetation and limit the number of impacted scattered trees as far as practicable. Location of infrastructure and access corridors is more flexible and therefore offers the greatest opportunity to minimise vegetation clearance and infrastructure. Stockpiles of resource, topsoils and overburden are proposed to be located in areas which do not require clearance of trees where possible.

b) Minimisation – if clearance of native vegetation cannot be avoided, measures should be taken to minimise the extent, duration and intensity of impacts of the clearance on biological diversity to the fullest possible extent (whether the impact is direct, indirect or cumulative).

The vegetation clearance areas have been reduced through careful pit design and mine planning. Woody debris will be retained to use in rehabilitation and create habitat niches, for example retention of hollow logs which may provide cover and protection for fauna. As mining progresses rehabilitation will commence in sections of the quarry when they become available. This will allow the period between vegetation clearance and rehabilitation to be as short as practical.

c) Rehabilitation or restoration – measures should be taken to rehabilitate ecosystems that will be degraded, and to restore ecosystems that will be destroyed, due to impacts of clearance that cannot be avoided or minimised.

Rehabilitation and restoration of disturbed areas is required by the Mining Act 1971 both progressively during operations and finally at closure of operations. Plans for rehabilitation and restoration are required in the Program for Environment Protection and Rehabilitation (PEPR). Rehabilitation planning should aim to restore the pre-existing vegetation communities and habitats where practical. A range of techniques exist to maximize the possibility of successful restoration of pre-existing vegetation communities including appropriate storage of topsoil to retain the seedbank within the soil, and retention of large woody debris for use in rehabilitation.

d) Offset – any adverse impact on native vegetation or ecosystems that cannot be avoided or minimised should be offset by implementing an SEB that outweighs that impact.

The possibility of undertaking an on-ground offset to deliver the Significant Environmental Benefit will be explored as suitable patches of degraded native

vegetation are present in adjacent areas. This will require negotiation with landowners and the tenement holder. Should an on-ground offset prove not to be feasible then the SEB would be provided through payment into the Native Vegetation Fund.

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Appendix 1: Flora – Desktop search results

The desktop survey was undertaken for a 5 km radius of the centre of the survey area. Threatened status under the EPBC Act 1999 or NPW Act 1971 for each listed species is provided in relevant columns. EPBC and NPW Act conservation ratings are abbreviated as CE = critically endangered, E = endangered, V = Vulnerable, R = rare and Dec = Declared Plant. Introduced species are indicated in the 'Intro.' Column.

FAMILY NAME	SPECIES	COMMON NAME	EPBC	NPW	Intro
AIZOACEAE	Tetragonia decumbens	Sea Spinach			X
AMANITACEAE	Amanita bambra				
AMARANTHACEAE	Alternanthera denticulata	Lesser Joyweed			
AMARANTHACEAE	Atriplex paludosa ssp. cordata	Marsh Saltbush			
AMARANTHACEAE	Atriplex prostrata	Creeping Saltbush			X
AMARANTHACEAE	Chenopodium album	Fat Hen			X
AMARANTHACEAE	Dysphania glomulifera ssp. glomulifera	Red Crumbweed			
AMARANTHACEAE	Ptilotus erubescens	Hairy-tails		R	
AMARANTHACEAE	Rhagodia parabolica	Mealy Saltbush			
AMARYLLIDACEAE	Agapanthus praecox ssp. orientalis				X
AMARYLLIDACEAE	Allium ampeloprasum	Wild Leek			X
AMARYLLIDACEAE	Amaryllis belladonna	Belladonna Lily			X
AMARYLLIDACEAE	Calostemma purpureum	Pink Garland-lily			
AMARYLLIDACEAE	Leucojum aestivum	Snowflake			X
AMARYLLIDACEAE	Narcissus jonquilla	Jonquill			X
AMARYLLIDACEAE	Narcissus tazetta	Polyanthus Narcissus			X
APIACEAE	Apium graveolens	Celery			X
APIACEAE	Apium prostratum var. prostratum	Native Celery			
APIACEAE	Berula erecta	Water Parsnip			X
APIACEAE	Centella cordifolia	Native Centella			
APIACEAE	Daucus glochidiatus	Native Carrot			
APIACEAE	Eryngium vesiculosum	Prostrate Blue Devil		R	
APIACEAE	Foeniculum vulgare	Fennel			X
APIACEAE	Lilaeopsis polyantha	Australian Lilaeopsis			
APIACEAE	Platysace heterophylla var. heterophylla	Slender Platysace			
APIACEAE	Xanthosia huegelii	Hairy Xanthosia			
APIACEAE	Xanthosia tasmanica	Southern Xanthosia		R	
APOCYNACEAE	Gomphocarpus cancellatus	Broad-leaf Cotton-bush			X
APOCYNACEAE	Gomphocarpus physocarpus	Balloon Cotton-bush			X
APOCYNACEAE	Vinca major	Blue Periwinkle			X
ARACEAE	Lemna disperma	Common Duckweed			

ARACEAE	Zantedeschia aethiopica	White Arum Lily			X
ARALIACEAE	Hedera helix	Ivy			X
ARALIACEAE	Hydrocotyle callicarpa	Tiny Pennywort			
ARALIACEAE	Hydrocotyle capillaris	Thread Pennywort			
ARALIACEAE	Hydrocotyle foveolata	Yellow Pennywort			
ARALIACEAE	Hydrocotyle hirta	Hairy Pennywort			
ARALIACEAE	Hydrocotyle intertexta	Buttercup Pennywort			
ARALIACEAE	Hydrocotyle laxiflora	Stinking Pennywort			
ARALIACEAE	Hydrocotyle pterocarpa	Wing Pennywort			
ARALIACEAE	Hydrocotyle verticillata	Shield Pennywort			
ARALIACEAE	Trachymene pilosa	Dwarf Trachymene			
ASPARAGACEAE	Agave americana var. (NC)	Century Plant			X
ASPARAGACEAE	Arthropodium fimbriatum	Nodding Vanilla-lily			
ASPARAGACEAE	Arthropodium strictum	Common Vanilla-lily			
ASPARAGACEAE	Asparagus asparagoides	Bridal Creeper			X
ASPARAGACEAE	Asparagus declinatus				X
ASPARAGACEAE	Laxmannia orientalis	Dwarf Wire-lily			
ASPARAGACEAE	Laxmannia sessiliflora (NC)	Dwarf Wire-lily			
ASPARAGACEAE	Lomandra densiflora	Soft Tussock Mat-rush			
ASPARAGACEAE	Lomandra fibrata	Mount Lofty Mat-rush			
ASPARAGACEAE	Lomandra micrantha ssp. micrantha	Small-flower Mat-rush			
ASPARAGACEAE	Lomandra micrantha ssp. tuberculata	Small-flower Mat-rush			
ASPARAGACEAE	Lomandra multiflora ssp. dura	Hard Mat-rush			
ASPARAGACEAE	Lomandra nana	Small Mat-rush			
ASPARAGACEAE	Lomandra sororia	Sword Mat-rush			
ASPARAGACEAE	Thysanotus baueri	Mallee Fringe-lily			
ASPARAGACEAE	Thysanotus patersonii	Twining Fringe-lily			
ASPARAGACEAE	Thysanotus racemoides	Rush Fringe-lily			
ASPHODELACEAE	Asphodelus fistulosus	Onion Weed			X
ASPHODELACEAE	Bulbine bulbosa	Bulbine-lily			
ASPHODELACEAE	Caesia calliantha	Blue Grass-lily			
ASPHODELACEAE	Chamaescilla corymbosa var. corymbosa	Blue Squill			
ASPHODELACEAE	Dianella brevicaulis	Short-stem Flax-lily			

ASPHODELACEAE	Dianella revoluta var. revoluta	Black-anther Flax-lily			
ASPHODELACEAE	Tricoryne elatior	Yellow Rush-lily			
ASPHODELACEAE	Tricoryne tenella	Tufted Yellow Rush-lily			
ASPHODELACEAE	Xanthorrhoea semiplana ssp. semiplana	Yacca			
ASPHODELACEAE	Xanthorrhoea semiplana ssp. tateana	Tate's Grass-tree		R	
ASPLENIACEAE	Asplenium flabellifolium	Necklace Fern			
ASTERACEAE	Anthemis cotula	Stinking Mayweed			X
ASTERACEAE	Apalochlamys spectabilis	Showy Firebush			
ASTERACEAE	Arctotheca calendula	Cape Weed			X
ASTERACEAE	Argentipallium blandowskianum	Woolly Everlasting			
ASTERACEAE	Argentipallium obtusifolium	Blunt Everlasting			
ASTERACEAE	Brachyscome exilis	Slender Daisy			
ASTERACEAE	Brachyscome parvula	Coast Daisy		R	
ASTERACEAE	Brachyscome perpusilla	Tiny Daisy			
ASTERACEAE	Carduus pycnocephalus	Shore Thistle			X
ASTERACEAE	Carduus tenuiflorus	Slender Thistle			X
ASTERACEAE	Centaurea calcitrapa	Star Thistle			X
ASTERACEAE	Centipeda crateriformis ssp. compacta	Desert Sneezeweed			
ASTERACEAE	Centipeda cunninghamii	Common Sneezeweed			
ASTERACEAE	Centipeda elatinoides				
ASTERACEAE	Chrysanthemoides monilifera ssp. monilifera	Boneseed			X
ASTERACEAE	Chrysocephalum apiculatum	Common Everlasting			
ASTERACEAE	Chrysocephalum baxteri	White Everlasting			
ASTERACEAE	Cirsium vulgare	Spear Thistle			X
ASTERACEAE	Coronidium scorpioides	Button Everlasting			
ASTERACEAE	Cotula australis	Common Cotula			
ASTERACEAE	Cotula coronopifolia	Water Buttons			X
ASTERACEAE	Craspedia haplorrhiza	Billy-buttons			
ASTERACEAE	Craspedia variabilis	Billy-buttons			
ASTERACEAE	Cymbonotus preissianus	Austral Bear's-ear			
ASTERACEAE	Cynara cardunculus ssp. flavescens	Artichoke Thistle			X
ASTERACEAE	Dimorphotheca fruticosa	Trailing African Daisy			X
ASTERACEAE	Dittrichia graveolens	Stinkweed			X

ASTERACEAE	Erigeron bonariensis	Flax-leaf Fleabane			X
ASTERACEAE	Erigeron sumatrensis	Tall Fleabane			X
ASTERACEAE	Euchiton involucratus	Star Cudweed			
ASTERACEAE	Euchiton japonicus	Creeping Cudweed			
ASTERACEAE	Gazania linearis	Gazania			X
ASTERACEAE	Helichrysum scorpioides (NC)	Button Everlasting			
ASTERACEAE	Helminthotheca echioides	Ox-tongue			X
ASTERACEAE	Hyalosperma demissum	Dwarf Sunray			
ASTERACEAE	Hypochaeris glabra	Smooth Cat's Ear			X
ASTERACEAE	Hypochaeris radicata	Rough Cat's Ear			X
ASTERACEAE	Hypochaeris sp.	Cat's Ear			X
ASTERACEAE	Isoetopsis graminifolia	Grass Cushion			
ASTERACEAE	Ixodia achillaeoides ssp. alata	Hills Daisy			
ASTERACEAE	Lactuca serriola (NC)	Prickly Lettuce			X
ASTERACEAE	Lagenophora gunniana	Coarse Bottle-daisy			
ASTERACEAE	Leontodon saxatilis	Lesser Hawkbit			X
ASTERACEAE	Leptorhynchos squamatus ssp. squamatus	Scaly Buttons			
ASTERACEAE	Leucophyta brownii	Coast Cushion Bush			
ASTERACEAE	Microseris walteri	Yam Daisy			
ASTERACEAE	Millotia tenuifolia var. tenuifolia	Soft Millotia			
ASTERACEAE	Olearia axillaris	Coast Daisy-bush			
ASTERACEAE	Olearia glandulosa	Swamp Daisy-bush		V	
ASTERACEAE	Olearia grandiflora	Mount Lofty Daisy-bush			
ASTERACEAE	Olearia pannosa ssp. pannosa	Silver Daisy-bush	VU	V	
ASTERACEAE	Olearia ramulosa	Twiggy Daisy-bush			
ASTERACEAE	Olearia teretifolia	Cypress Daisy-bush			
ASTERACEAE	Olearia tubuliflora	Rayless Daisy-bush			
ASTERACEAE	Onopordum acanthium	Scotch Thistle			X
ASTERACEAE	Pseudognaphalium luteoalbum	Jersey Cudweed			?
ASTERACEAE	Quinetia urvillei	Quinetia			
ASTERACEAE	Senecio dolichocephalus	Woodland Groundsel			
ASTERACEAE	Senecio glomeratus ssp. glomeratus	Swamp Groundsel			
ASTERACEAE	Senecio hispidissimus	Rough Groundsel			

ASTERACEAE	Senecio hispidulus	Rough Groundsel			
ASTERACEAE	Senecio odoratus	Scented Groundsel			
ASTERACEAE	Senecio phelleus	Woodland Groundsel			
ASTERACEAE	Senecio picridioides	Purple-leaf Groundsel			
ASTERACEAE	Senecio pterophorus	African Daisy			X
ASTERACEAE	Senecio quadridentatus	Cotton Groundsel			
ASTERACEAE	Senecio spanomerus	Native Groundsel			
ASTERACEAE	Senecio squarrosus	Squarrose Groundsel			
ASTERACEAE	Siloxerus multiflorus	Small Wrinklewort			
ASTERACEAE	Silybum marianum	Variegated Thistle			X
ASTERACEAE	Sonchus asper	Rough Sow-thistle			X
ASTERACEAE	Sonchus hydrophilus	Native Sow-thistle			
ASTERACEAE	Sonchus oleraceus	Common Sow-thistle			X
ASTERACEAE	Stuartina muelleri	Spoon Cudweed			
ASTERACEAE	Symphyotrichum subulatum	Aster-weed			X
ASTERACEAE	Tanacetum parthenium	Feverfew			X
ASTERACEAE	Triptilodiscus pygmaeus	Small Yellow-heads			
ASTERACEAE	Urospermum picroides	False Hawkbit			X
ASTERACEAE	Vellereophyton dealbatum	White Cudweed			X
ASTERACEAE	Vittadinia cuneata var. cuneata	Fuzzy New Holland Daisy			
BLECHNACEAE	Blechnum minus	Soft Water-fern			
BLECHNACEAE	Blechnum nudum	Fishbone Water-fern		R	
BLECHNACEAE	Blechnum wattsii	Hard Water-fern		R	
BOLBITIACEAE	Descolea recedens				
BORAGINACEAE	Echium plantagineum	Salvation Jane			X
BORAGINACEAE	Hackelia suaveolens	Sweet Hound's-tongue			
BRASSICACEAE	Brassicaceae sp.	Cress Family			
BRASSICACEAE	Cardamine lineariloba				
BRASSICACEAE	Hirschfeldia incana	Hoary Mustard			X
BRASSICACEAE	Rorippa nasturtium-aquaticum	Watercress			X
BRASSICACEAE	Rorippa palustris	Yellow Marsh-cress			X
CAMPANULACEAE	Isotoma fluviatilis ssp. australis	Swamp Isotome		R	
CAMPANULACEAE	Lobelia anceps	Angled Lobelia			

CAMPANULACEAE	Lobelia gibbosa	Tall Lobelia			
CAMPANULACEAE	Lobelia rhombifolia	Tufted Lobelia			
CAMPANULACEAE	Wahlenbergia communis	Tufted Bluebell			
CAMPANULACEAE	Wahlenbergia gracilenta	Annual Bluebell			
CAMPANULACEAE	Wahlenbergia stricta ssp. stricta	Tall Bluebell			
CAPRIFOLIACEAE	Sixalix atropurpurea	Pincushion			X
CARYOPHYLLACEAE	Cerastium glomeratum	Common Mouse-ear Chickweed			X
CARYOPHYLLACEAE	Moenchia erecta	Erect Chickweed			X
CARYOPHYLLACEAE	Sagina apetala	Annual Pearlwort			X
CARYOPHYLLACEAE	Silene gallica var. gallica	French Catchfly			X
CARYOPHYLLACEAE	Stellaria angustifolia ssp. angustifolia	Swamp Starwort			
CARYOPHYLLACEAE	Stellaria angustifolia ssp. tenella	Swamp Starwort		R	
CARYOPHYLLACEAE	Stellaria media	Chickweed			X
CASUARINACEAE	Allocasuarina muelleriana ssp.	Common Oak-bush			
CASUARINACEAE	Allocasuarina muelleriana ssp. muelleriana	Common Oak-bush			
CASUARINACEAE	Allocasuarina robusta	Mount Compass Oak-bush	EN	E	
CASUARINACEAE	Allocasuarina striata	Stalked Oak-bush			
CASUARINACEAE	Allocasuarina verticillata	Drooping Sheoak			
CELASTRACEAE	Stackhousia aspericocca ssp.	Bushy Candles			
CELASTRACEAE	Stackhousia aspericocca ssp. Cylindrical inflorescence (W.R.E	Bushy Candles			
CELASTRACEAE	Stackhousia spathulata	Coast Candles			
CLADONIACEAE	Cladonia rigida				
COLCHICACEAE	Burchardia umbellata	Milkmaids			
COLCHICACEAE	Wurmbea dioica ssp. dioica	Early Nancy			
CONVOLVULACEAE	Convolvulus erubescens	Australian Bindweed			
CONVOLVULACEAE	Convolvulus remotus	Grassy Bindweed			
CONVOLVULACEAE	Convolvulus sp.	Bindweed			
CONVOLVULACEAE	Cuscuta campestris	Golden Dodder			X
CONVOLVULACEAE	Dichondra repens	Kidney Weed			
CONVOLVULACEAE	Ipomoea indica	Purple Morning-glory			X
COPRINACEAE	Coprinus sp.				
CRASSULACEAE	Crassula closiana	Stalked Crassula			
CRASSULACEAE	Crassula colligata ssp.				

CRASSULACEAE	Crassula colligata ssp. lamprosperma				
CRASSULACEAE	Crassula decumbens var. decumbens	Spreading Crassula			
CRASSULACEAE	Crassula helmsii	Swamp Crassula			
CRASSULACEAE	Crassula sieberiana ssp. tetramera (NC)	Australian Stonecrop			
CRASSULACEAE	Sedum praealtum	Green Cockscomb			X
CUPRESSACEAE	Cupressus macrocarpa	Monterey Cypress			X
CYPERACEAE	Bolboschoenus caldwellii	Salt Club-rush			
CYPERACEAE	Carex appressa	Tall Sedge			
CYPERACEAE	Carex bichenoviana	Notched Sedge			
CYPERACEAE	Carex breviculmis	Short-stem Sedge			
CYPERACEAE	Carex fascicularis	Tassel Sedge			
CYPERACEAE	Carex gaudichaudiana	Fen Sedge			
CYPERACEAE	Carex gunniana	Mountain Sedge		R	
CYPERACEAE	Carex inversa var. inversa	Knob Sedge			
CYPERACEAE	Carex tereticaulis	Rush Sedge			
CYPERACEAE	Chorizandra enodis	Black Bristle-rush			
CYPERACEAE	Cladium procerum	Leafy Twig-rush		R	
CYPERACEAE	Cyperus eragrostis	Drain Flat-sedge			X
CYPERACEAE	Cyperus exaltatus	Splendid Flat-sedge			
CYPERACEAE	Cyperus gunnii ssp. gunnii	Flecked Flat-sedge			
CYPERACEAE	Cyperus gymnocaulos	Spiny Flat-sedge			
CYPERACEAE	Cyperus pygmaeus	Pygmy Flat-sedge			
CYPERACEAE	Cyperus vaginatus	Stiff Flat-sedge			
CYPERACEAE	Eleocharis acuta	Common Spike-rush			
CYPERACEAE	Eleocharis gracilis	Slender Spike-rush			
CYPERACEAE	Eleocharis pusilla	Small Spike-rush			
CYPERACEAE	Eleocharis sphacelata	Tall Spike-rush			
CYPERACEAE	Ficinia nodosa	Knobby Club-rush			
CYPERACEAE	Gahnia sieberiana	Red-fruit Cutting-grass			
CYPERACEAE	Gahnia trifida	Cutting Grass			
CYPERACEAE	Isolepis cernua	Nodding Club-rush			
CYPERACEAE	Isolepis congrua	Slender Club-rush			
CYPERACEAE	Isolepis fluitans	Floating Club-rush			

CYPERACEAE	Isolepis inundata	Swamp Club-rush			
CYPERACEAE	Isolepis levynsiana	Tiny Flat-sedge			X
CYPERACEAE	Isolepis marginata	Little Club-rush			X
CYPERACEAE	Isolepis platycarpa	Flat-fruit Club-rush			
CYPERACEAE	Lepidosperma canescens	Hoary Rapier-sedge			
CYPERACEAE	Lepidosperma carphoides	Black Rapier-sedge			
CYPERACEAE	Lepidosperma concavum	Spreading Sword-sedge			
CYPERACEAE	Lepidosperma curtisiae	Little Sword-sedge			
CYPERACEAE	Lepidosperma laterale	Tall Sword-sedge			
CYPERACEAE	Lepidosperma longitudinale	Pithy Sword-sedge			
CYPERACEAE	Lepidosperma semiteres	Wire Rapier-sedge			
CYPERACEAE	Lepidosperma viscidum	Sticky Sword-sedge			
CYPERACEAE	Machaerina juncea	Bare Twig-rush			
CYPERACEAE	Machaerina laxa	Lax Twig-rush		R	
CYPERACEAE	Machaerina rubiginosa	Soft Twig-rush			
CYPERACEAE	Machaerina tetragona	Square Twig-rush			
CYPERACEAE	Schoenus apogon	Common Bog-rush			
CYPERACEAE	Schoenus breviculmis	Matted Bog-rush			
CYPERACEAE	Schoenus carsei	Wiry Bog-rush			
CYPERACEAE	Schoenus laevigatus			R	
DENNSTAEDTIACEAE	Hypolepis rugosula ssp. rugosula	Ruddy Ground-fern		R	
DENNSTAEDTIACEAE	Pteridium esculentum ssp. esculentum	Bracken Fern			
DILLENIACEAE	Hibbertia australis	Stalked Guinea-flower			
DILLENIACEAE	Hibbertia crinita	Velvet-leaf Guinea-flower			
DILLENIACEAE	Hibbertia devitata	Smooth Guinea-flower			
DILLENIACEAE	Hibbertia exutiacies	Prickly Guinea-flower			
DILLENIACEAE	Hibbertia radians	Scrambling Guinea-flower			
DILLENIACEAE	Hibbertia riparia	Bristly Guinea-flower			
DILLENIACEAE	Hibbertia sericea var. sericea	Silky Guinea-flower			
DILLENIACEAE	Hibbertia villifera				
DILLENIACEAE	Hibbertia virgata	Twiggy Guinea-flower			
DROSERACEAE	Drosera auriculata	Tall Sundew			
DROSERACEAE	Drosera binata	Forked Sundew		R	

DROSERACEAE	Drosera glanduligera	Scarlet Sundew			
DROSERACEAE	Drosera macrantha ssp. planchonii	Climbing Sundew			
DROSERACEAE	Drosera peltata	Swamp Sundew			
DROSERACEAE	Drosera pygmaea	Tiny Sundew			
DROSERACEAE	Drosera whittakeri	Scented Sundew			
ELAEOCARPACEAE	Tetratheca pilosa	Hairy Pink-bells			
ELATINACEAE	Elatine gratioloides	Waterwort		R	
ERICACEAE	Acrotriche serrulata	Cushion Ground-berry			
ERICACEAE	Brachyloma ciliatum	Fringed Brachyloma			
ERICACEAE	Epacris impressa	Common Heath			
ERICACEAE	Leucopogon concurvus	Scrambling Beard-heath			
ERICACEAE	Leucopogon parviflorus	Coast Beard-heath			
ERICACEAE	Leucopogon virgatus var. virgatus	Common Beard-heath			
ERICACEAE	Sprengelia incarnata	Pink Swamp-heath		R	
ERICACEAE	Stenanthera conostephioides	Flame Heath			
ERICACEAE	Styphelia humifusa	Cranberry Heath			
ERICACEAE	Styphelia rufa	Ruddy Beard-heath			
EUPHORBIACEAE	Euphorbia peplus	Petty Spurge			X
FABACEAE	Acacia acinacea	Wreath Wattle			
FABACEAE	Acacia baileyana	Cootamundra Wattle			X
FABACEAE	Acacia longifolia ssp. longifolia	Sallow Wattle			X
FABACEAE	Acacia longifolia ssp. sophorae	Coastal Wattle			
FABACEAE	Acacia mearnsii	Black Wattle			
FABACEAE	Acacia melanoxylon	Blackwood			
FABACEAE	Acacia myrtifolia	Myrtle Wattle			
FABACEAE	Acacia paradoxa	Kangaroo Thorn			
FABACEAE	Acacia provincialis	Swamp Wattle			
FABACEAE	Acacia pycnantha	Golden Wattle			
FABACEAE	Acacia retinodes	Wirilda			
FABACEAE	Acacia rupicola	Rock Wattle			
FABACEAE	Acacia saligna	Golden Wreath Wattle			X
FABACEAE	Acacia spinescens	Spiny Wattle			
FABACEAE	Acacia verticillata ssp. ovoidea	Prickly Moses			

FABACEAE	Bossiaea prostrata	Creeping Bossiaea			
FABACEAE	Chamaecytisus palmensis	Tree Lucerne			X
FABACEAE	Cullen australasicum	Tall Scurf-pea			
FABACEAE	Cytisus scoparius	English Broom			X
FABACEAE	Daviesia arenaria	Sand Bitter-pea			
FABACEAE	Daviesia brevifolia	Leafless Bitter-pea			
FABACEAE	Daviesia leptophylla	Narrow-leaf Bitter-pea			
FABACEAE	Daviesia ulicifolia (NC)	Gorse Bitter-pea			
FABACEAE	Daviesia ulicifolia ssp. incarnata	Gorse Bitter-pea			
FABACEAE	Daviesia ulicifolia ssp. ulicifolia	Gorse Bitter-pea			
FABACEAE	Dillwynia hispida	Red Parrot-pea			
FABACEAE	Dillwynia sericea	Showy Parrot-pea			
FABACEAE	Eutaxia microphylla	Common Eutaxia			
FABACEAE	Genista monspessulana	Montpellier Broom			X
FABACEAE	Glycine latrobeana	Clover Glycine	VU	V	
FABACEAE	Glycine rubiginosa	Twining Glycine			
FABACEAE	Gompholobium ecostatum	Dwarf Wedge-pea			
FABACEAE	Hardenbergia violacea	Native Lilac			
FABACEAE	Kennedia prostrata	Scarlet Runner			
FABACEAE	Lotus australis	Austral Trefoil			
FABACEAE	Lotus uliginosus	Greater Bird's-foot Trefoil			X
FABACEAE	Medicago polymorpha	Burr-medic			X
FABACEAE	Medicago scutellata	Snail Medic			X
FABACEAE	Medicago sp.	Medic			X
FABACEAE	Melilotus indicus	King Island Melilot			X
FABACEAE	Paraserianthes lophantha	Cape Leeuwin Wattle			
FABACEAE	Phyllota pleurandroides	Heathy Phyllota			
FABACEAE	Platylobium obtusangulum	Holly Flat-pea			
FABACEAE	Pultenaea acerosa	Bristly Bush-pea			
FABACEAE	Pultenaea canaliculata	Soft Bush-pea			
FABACEAE	Pultenaea canaliculata var. canaliculata (NC)	Soft Bush-pea			
FABACEAE	Pultenaea daphnoides	Large-leaf Bush Pea			
FABACEAE	Pultenaea dentata	Clustered Bush-pea		V	

FABACEAE	Pultenaea involucrata	Mount Lofty Bush-pea			
FABACEAE	Pultenaea largiflorens	Twiggy Bush-pea			
FABACEAE	Pultenaea laxiflora	Loose-flower Bush-pea			
FABACEAE	Pultenaea trinervis	Three-nerve Bush-pea			
FABACEAE	Pultenaea viscidula	Dark Bush-pea			
FABACEAE	Sphaerolobium minus	Leafless Globe-pea		R	
FABACEAE	Trifolium angustifolium	Narrow-leaf Clover			X
FABACEAE	Trifolium arvense var. arvense	Hare's-foot Clover			X
FABACEAE	Trifolium campestre	Hop Clover			X
FABACEAE	Trifolium dubium	Suckling Clover			X
FABACEAE	Trifolium fragiferum var. fragiferum	Strawberry Clover			X
FABACEAE	Trifolium repens	White Clover			X
FABACEAE	Trifolium resupinatum var. resupinatum	Shaftal Clover			X
FABACEAE	Trifolium scabrum	Rough Clover			X
FABACEAE	Trifolium sp.	Clover			X
FABACEAE	Trifolium subterraneum	Subterranean Clover			X
FABACEAE	Ulex europaeus	Gorse			X
FABACEAE	Vicia sativa ssp.	Common Vetch			X
FABACEAE	Vicia sativa ssp. nigra	Narrow-leaf Vetch			X
FABACEAE	Vicia sativa ssp. sativa	Common Vetch			X
FABACEAE	Viminaria juncea	Native Broom		R	
GENTIANACEAE	Centaurium erythraea	Common Centaury			X
GENTIANACEAE	Centaurium sp.	Centaury			X
GENTIANACEAE	Centaurium tenuiflorum	Branched Centaury			X
GENTIANACEAE	Centaurium tenuiflorum (NC)	Branched Centaury			X
GENTIANACEAE	Cicendia filiformis	Slender Cicendia			X
GENTIANACEAE	Schenkia australis	Spike Centaury			
GENTIANACEAE	Sebaea ovata	Yellow Sebaea			
GERANIACEAE	Erodium botrys	Long Heron's-bill			X
GERANIACEAE	Geranium dissectum	Cut-leaf Geranium			X
GERANIACEAE	Geranium molle	Soft Geranium			X
GERANIACEAE	Geranium potentilloides var. potentilloides	Downy Geranium			
GERANIACEAE	Geranium retrorsum	Grassland Geranium			

GERANIACEAE	Geranium solanderi	Austral Geranium			
GERANIACEAE	Pelargonium littorale	Native Pelargonium			
GLEICHENIACEAE	Gleichenia microphylla	Coral Fern		R	
GOODENIACEAE	Brunonia australis	Blue Pincushion			
GOODENIACEAE	Dampiera dysantha	Shrubby Dampiera			
GOODENIACEAE	Goodenia blackiana	Native Primrose			
GOODENIACEAE	Goodenia geniculata	Bent Goodenia			
GOODENIACEAE	Goodenia ovata	Hop Goodenia			
GOODENIACEAE	Scaevola albida	Pale Fanflower			
GOODENIACEAE	Scaevola linearis ssp. confertifolia	Bundled Fanflower			
HALORAGACEAE	Gonocarpus mezianus	Broad-leaf Raspwort			
HALORAGACEAE	Gonocarpus micranthus ssp. micranthus	Creeping Raspwort		R	
HALORAGACEAE	Gonocarpus tetragynus	Small-leaf Raspwort			
HALORAGACEAE	Haloragis heterophylla	Variable Raspwort			
HALORAGACEAE	Myriophyllum amphibium	Broad Milfoil		R	
HALORAGACEAE	Myriophyllum crispatum	Upright Milfoil		V	
HALORAGACEAE	Myriophyllum papillosum	Robust Milfoil		R	
HALORAGACEAE	Myriophyllum simulans	Amphibious Milfoil			
HALORAGACEAE	Myriophyllum variifolium	Varied Milfoil		R	
HYGROPHORACEAE	Hygrocybe anomala				
HYPERICACEAE	Hypericum gramineum	Small St John's Wort			
HYPERICACEAE	Hypericum japonicum	Matted St John's Wort		R	
HYPERICACEAE	Hypericum perforatum ssp. veronense	St John's Wort			X
HYPOXIDACEAE	Pauridia vaginata var. vaginata	Yellow Star			
IRIDACEAE	Chasmanthe floribunda	African Corn-flag			X
IRIDACEAE	Freesia leichtlinii	Freesia			X
IRIDACEAE	Gladiolus carneus	Broad-leaf Painted Lady			X
IRIDACEAE	Gladiolus undulatus	Wild Gladiolus			X
IRIDACEAE	Homeria sp.	Cape Tulip			X
IRIDACEAE	Ixia maculata	Yellow Ixia			X
IRIDACEAE	Ixia paniculata				X
IRIDACEAE	Moraea flaccida	One-leaf Cape Tulip			X
IRIDACEAE	Moraea setifolia	Thread Iris			X

IRIDACEAE	Patersonia occidentalis	Long Purple-flag			
IRIDACEAE	Romulea rosea var. australis	Common Onion-grass			X
IRIDACEAE	Sparaxis bulbifera	Sparaxis			X
IRIDACEAE	Watsonia meriana cv. Bulbillifera (NC)	Bulbil Watsonia			X
IRIDACEAE	Watsonia meriana var. bulbillifera	Bulbil Watsonia			X
IRIDACEAE	Watsonia meriana var. meriana	Bulbil Watsonia			X
ISOETACEAE	Isoetes drummondii ssp. drummondii	Plain Quillwort		R	
JUNCACEAE	Juncus aridicola	Inland Rush			
JUNCACEAE	Juncus articulatus	Jointed Rush			X
JUNCACEAE	Juncus bufonius	Toad Rush			
JUNCACEAE	Juncus caespiticius	Grassy Rush			
JUNCACEAE	Juncus capitatus	Dwarf Rush			X
JUNCACEAE	Juncus effusus	Soft Rush			X
JUNCACEAE	Juncus flavidus	Yellow Rush			
JUNCACEAE	Juncus holoschoenus	Joint-leaf Rush			
JUNCACEAE	Juncus kraussii	Sea Rush			
JUNCACEAE	Juncus pallidus	Pale Rush			
JUNCACEAE	Juncus pauciflorus	Loose-flower Rush			
JUNCACEAE	Juncus planifolius	Broad-leaf Rush			
JUNCACEAE	Juncus prismatocarpus	Branching Rush		E	
JUNCACEAE	Juncus procerus	Tall Rush		R	
JUNCACEAE	Juncus sarophorus				
JUNCACEAE	Juncus subnodulosus	Blunt-flowered Rush			X
JUNCACEAE	Juncus subsecundus	Finger Rush			
JUNCACEAE	Juncus usitatus	Common Rush			X
JUNCACEAE	Luzula densiflora	Dense Wood-rush			
JUNCACEAE	Luzula meridionalis	Common Wood-rush			
LAMIACEAE	Lycopus australis	Australian Gipsywort			
LAMIACEAE	Marrubium vulgare	Horehound			X
LAMIACEAE	Mentha australis	River Mint			
LAMIACEAE	Mentha diemenica	Slender Mint		R	
LAMIACEAE	Mentha spicata f. B (B.Copley 1119)	Spearmint			X
LAMIACEAE	Prostanthera chlorantha	Green Mintbush		R	

LAMIACEAE	Prunella vulgaris	Self-heal			X
LAMIACEAE	Scutellaria humilis	Dwarf Skullcap		R	
LAMIACEAE	Stachys byzantina	Woolly Stachys			X
LAURACEAE	Cassytha glabella f. dispar	Slender Dodder-laurel			
LAURACEAE	Cassytha melantha	Coarse Dodder-laurel			
LAURACEAE	Cassytha pubescens	Downy Dodder-laurel			
LENTIBULARIACEAE	Utricularia dichotoma	Purple Bladderwort			
LENTIBULARIACEAE	Utricularia tenella	Pink Bladderwort			
LINACEAE	Linum strictum ssp. strictum	Upright Yellow Flax			X
LINACEAE	Linum trigynum	French Flax			X
LINDSAEACEAE	Lindsaea linearis	Screw Fern			
LOGANIACEAE	Logania linifolia	Flax-leaf Logania			
LOGANIACEAE	Mitrasacme paradoxa	Wiry Mitrewort			
LOGANIACEAE	Phyllangium distylis	Tiny Mitrewort		R	
LOGANIACEAE	Phyllangium divergens	Wiry Mitrewort			
LORANTHACEAE	Amyema miquelii	Box Mistletoe			
LORANTHACEAE	Amyema pendula ssp. pendula	Drooping Mistletoe			
LORANTHACEAE	Amyema preissii	Wire-leaf Mistletoe			
LORANTHACEAE	Lysiana exocarpi ssp. exocarpi	Harlequin Mistletoe			
LYCOPODIACEAE	Lycopodiella lateralis	Slender Clubmoss		R	
LYTHRACEAE	Lythrum hyssopifolia	Lesser Loosestrife			
LYTHRACEAE	Lythrum salicaria	Purple Loosestrife		R	
MALVACEAE	Malva parviflora	Small-flower Marshmallow			X
MALVACEAE	Modiola caroliniana	Red-flowered Mallow			X
MALVACEAE	Thomasia petalocalyx	Paper-flower			
MARSILEACEAE	Marsilea costulifera	Narrow-leaf Nardoo			
MARSILEACEAE	Marsilea hirsuta	Short-fruit Nardoo			
MENYANTHACEAE	Ornduffia reniformis	Running Marsh-flower			
MONTIACEAE	Calandrinia calyptrata	Pink Purslane			
MONTIACEAE	Montia australasica	White Purslane		R	
MYRTACEAE	Callistemon sieberi	River Bottlebrush			
MYRTACEAE	Callistemon sp.	Bottlebrush			
MYRTACEAE	Calytrix tetragona	Common Fringe-myrtle			

MYRTACEAE	Eucalyptus baxteri	Brown Stringybark			
MYRTACEAE	Eucalyptus camaldulensis ssp.	River Red Gum			
MYRTACEAE	Eucalyptus camaldulensis ssp. camaldulensis	River Red Gum			
MYRTACEAE	Eucalyptus cosmophylla	Cup Gum			
MYRTACEAE	Eucalyptus fasciculosa	Pink Gum		R	
MYRTACEAE	Eucalyptus leucoxylon ssp.	South Australian Blue Gum			
MYRTACEAE	Eucalyptus leucoxylon ssp. leucoxylon	South Australian Blue Gum			
MYRTACEAE	Eucalyptus obliqua	Messmate Stringybark			
MYRTACEAE	Eucalyptus odorata (NC)	Peppermint Box			
MYRTACEAE	Eucalyptus ovata ssp. ovata	Swamp Gum			
MYRTACEAE	Eucalyptus viminalis ssp. cygnetensis	Rough-bark Manna Gum			
MYRTACEAE	Eucalyptus viminalis ssp. viminalis	Manna Gum		R	
MYRTACEAE	Euryomyrtus ramosissima ssp. ramosissima	Rosy Baeckea			
MYRTACEAE	Leptospermum continentale	Prickly Tea-tree			
MYRTACEAE	Leptospermum laevigatum	Coast Tea-tree			X
MYRTACEAE	Leptospermum lanigerum	Silky Tea-tree			
MYRTACEAE	Leptospermum myrsinoides	Heath Tea-tree			
MYRTACEAE	Melaleuca armillaris ssp. armillaris	Bracelet Honey-myrtle			X
MYRTACEAE	Melaleuca decussata	Totem-poles			
MYRTACEAE	Melaleuca squamea	Swamp Honey-myrtle		R	
OLEACEAE	Fraxinus angustifolia ssp. angustifolia	Narrow-leaved Ash			X
OLEACEAE	Olea europaea ssp.	Olive			X
ONAGRACEAE	Epilobium billardierianum ssp. billardierianum	Robust Willow-herb			
ONAGRACEAE	Epilobium billardierianum ssp. cinereum	Variable Willow-herb			
ONAGRACEAE	Epilobium hirtigerum	Hairy Willow-herb			
ONAGRACEAE	Epilobium pallidiflorum	Showy Willow-herb			
ONAGRACEAE	Oenothera drummondii ssp. drummondii				X
ORCHIDACEAE	Acianthus caudatus	Mayfly Orchid			
ORCHIDACEAE	Acianthus pusillus	Mosquito Orchid			
ORCHIDACEAE	Caladenia carnea	Pink Fingers			
ORCHIDACEAE	Caladenia leptochila ssp. leptochila	Narrow-lip Spider-orchid		R	
ORCHIDACEAE	Caladenia prolata	Shy Caladenia			
ORCHIDACEAE	Caladenia reticulata	Veined Spider-orchid		R	

ORCHIDACEAE	Caladenia tentaculata	King Spider-orchid			
ORCHIDACEAE	Calochilus robertsonii	Purplish Beard-orchid			
ORCHIDACEAE	Corybas diemenicus	Veined Helmet-orchid			
ORCHIDACEAE	Corybas unguiculatus	Small Helmet-orchid		R	
ORCHIDACEAE	Cyrtostylis reniformis	Small Gnat-orchid			
ORCHIDACEAE	Cyrtostylis robusta	Robust Gnat-orchid			
ORCHIDACEAE	Dipodium roseum	Pink Hyacinth Orchid			
ORCHIDACEAE	Disa bracteata	South African Weed Orchid			X
ORCHIDACEAE	Diuris brevifolia	Short-leaf Donkey-orchid		E	
ORCHIDACEAE	Diuris orientis	Wallflower Donkey-orchid			
ORCHIDACEAE	Diuris pardina	Spotted Donkey-orchid			
ORCHIDACEAE	Eriochilus cucullatus	Parson's Bands			
ORCHIDACEAE	Gastrodia sesamoides	Potato Orchid		R	
ORCHIDACEAE	Glossodia major	Purple Cockatoo			
ORCHIDACEAE	Leporella fimbriata	Fringed Hare-orchid			
ORCHIDACEAE	Leptoceras menziesii	Hare Orchid			
ORCHIDACEAE	Microtis arenaria	Notched Onion-orchid			
ORCHIDACEAE	Microtis atrata	Yellow Onion-orchid		R	
ORCHIDACEAE	Microtis frutetorum				
ORCHIDACEAE	Microtis parviflora	Slender Onion-orchid			
ORCHIDACEAE	Microtis sp. Short-leaf (R.J.Bates 54342)				
ORCHIDACEAE	Orthoceras strictum	Horned Orchid			
ORCHIDACEAE	Prasophyllum australe	Austral Leek-orchid		R	
ORCHIDACEAE	Prasophyllum elatum	Tall Leek-orchid			
ORCHIDACEAE	Prasophyllum odoratum	Scented Leek-orchid			
ORCHIDACEAE	Pterostylis curta	Blunt Greenhood		R	
ORCHIDACEAE	Pterostylis foliata	Slender Greenhood		R	
ORCHIDACEAE	Pterostylis nana	Dwarf Greenhood			
ORCHIDACEAE	Pterostylis nutans	Nodding Greenhood			
ORCHIDACEAE	Pterostylis pedunculata	Maroon-hood			
ORCHIDACEAE	Pterostylis sanguinea	Blood Greenhood			
ORCHIDACEAE	Pterostylis vittata	Banded Greenhood			
ORCHIDACEAE	Pyrorchis nigricans	Black Fire-orchid			

ORCHIDACEAE	Spiranthes australis	Austral Lady's Tresses		R	
ORCHIDACEAE	Thelymitra antennifera	Lemon Sun-orchid			
ORCHIDACEAE	Thelymitra benthamiana	Leopard Sun-orchid			
ORCHIDACEAE	Thelymitra bracteata	Slender Sun-orchid			
ORCHIDACEAE	Thelymitra flexuosa	Twisted Sun-orchid		R	
ORCHIDACEAE	Thelymitra grandiflora	Great Sun-orchid		R	
ORCHIDACEAE	Thelymitra inflata	Plum Sun-orchid		V	
ORCHIDACEAE	Thelymitra juncifolia	Spotted Sun-orchid			
ORCHIDACEAE	Thelymitra luteocilium	Yellow-tuft Sun Orchid			
ORCHIDACEAE	Thelymitra pauciflora	Slender Sun-orchid			
ORCHIDACEAE	Thelymitra rubra	Salmon Sun-orchid			
OROBANCHACEAE	Bellardia latifolia	Red Bartsia			X
OROBANCHACEAE	Euphrasia collina ssp. osbornii	Osborn's Eyebright	EN	E	
OXALIDACEAE	Oxalis corniculata	Creeping Wood-sorrel			X
OXALIDACEAE	Oxalis flava	Finger-leaf Oxalis			X
OXALIDACEAE	Oxalis perennans	Native Sorrel			
OXALIDACEAE	Oxalis perennans/exilis	Native Oxalis			
OXALIDACEAE	Oxalis pes-caprae	Soursob			X
OXALIDACEAE	Oxalis purpurea	One-o'clock			X
PAPAVERACEAE	Fumaria capreolata	White-flower Fumitory			X
PAPAVERACEAE	Fumaria muralis ssp. muralis	Wall Fumitory			X
PHYLLANTHACEAE	Micrantheum demissum	Dwarf Micrantheum			
PHYLLANTHACEAE	Poranthera huegelii	Heath Poranthera			
PHYLLANTHACEAE	Poranthera microphylla	Small Poranthera			
PINACEAE	Pinus halepensis	Aleppo Pine			X
PINACEAE	Pinus radiata	Radiata Pine			X
PITTOSPORACEAE	Billardiera cymosa ssp.	Sweet Apple-berry			
PITTOSPORACEAE	Billardiera cymosa ssp. cymosa	Sweet Apple-berry			
PITTOSPORACEAE	Billardiera uniflora	One-flower Apple-berry			
PITTOSPORACEAE	Bursaria spinosa ssp. spinosa	Sweet Bursaria			
PITTOSPORACEAE	Cheiranthera alternifolia	Hand-flower			
PITTOSPORACEAE	Cheiranthera sp.	Finger-flower			
PITTOSPORACEAE	Marianthus bignoniaceus	Orange Bell-climber			

PITTOSPORACEAE	Pittosporum tenuifolium				X
PITTOSPORACEAE	Pittosporum undulatum	Sweet Pittosporum			X
PLANTAGINACEAE	Callitriche stagnalis	Common Water Starwort			X
PLANTAGINACEAE	Gratiola peruviana	Austral Brooklime			
PLANTAGINACEAE	Gratiola pumilo	Dwarf Brooklime		R	
PLANTAGINACEAE	Kickxia elatine ssp. crinita	Twining Toadflax			X
PLANTAGINACEAE	Kickxia elatine ssp. elatine	Woolly Toadflax			X
PLANTAGINACEAE	Plantago coronopus ssp.	Bucks-horn Plantain			X
PLANTAGINACEAE	Plantago lanceolata var.	Ribwort			X
PLANTAGINACEAE	Plantago lanceolata var. lanceolata	Ribwort			X
PLANTAGINACEAE	Plantago major	Greater Plantain			X
PLANTAGINACEAE	Plantago varia	Variable Plantain			
PLANTAGINACEAE	Veronica arvensis	Wall Speedwell			X
PLANTAGINACEAE	Veronica gracilis	Slender Speedwell		V	
PLANTAGINACEAE	Veronica hederifolia	Ivy-leaf Speedwell			X
PLANTAGINACEAE	Veronica hillebrandii	Rigid Speedwell			
POACEAE	Aira cupaniana	Small Hair-grass			X
POACEAE	Aira elegantissima	Delicate Hair-grass			X
POACEAE	Amphibromus archeri	Pointed Swamp Wallaby-grass		R	
POACEAE	Amphipogon caricinus var. caricinus	Long Grey-beard Grass			
POACEAE	Amphipogon strictus	Spreading Grey-beard Grass			
POACEAE	Anthosachne scabra	Native Wheat-grass			
POACEAE	Anthoxanthum odoratum	Sweet Vernal Grass			X
POACEAE	Austrostipa hemipogon	Half-beard Spear-grass			
POACEAE	Austrostipa mollis	Soft Spear-grass			
POACEAE	Austrostipa mollis group	Soft Spear-grass			
POACEAE	Austrostipa muelleri	Tangled Spear-grass			
POACEAE	Austrostipa nodosa	Tall Spear-grass			
POACEAE	Austrostipa oligostachya	Fine-head Spear-grass		E	
POACEAE	Austrostipa pubinodis	Long-shaft Spear-grass			
POACEAE	Austrostipa scabra ssp. falcata	Slender Spear-grass			
POACEAE	Austrostipa scabra ssp. scabra	Rough Spear-grass			
POACEAE	Austrostipa semibarbata	Fibrous Spear-grass			

POACEAE	Austrostipa setacea	Corkscrew Spear-grass			
POACEAE	Avellinia festucoides	Avellinia			X
POACEAE	Avena barbata	Bearded Oat			X
POACEAE	Brachypodium distachyon	False Brome			X
POACEAE	Briza maxima	Large Quaking-grass			X
POACEAE	Briza minor	Lesser Quaking-grass			X
POACEAE	Bromus catharticus	Prairie Grass			X
POACEAE	Bromus diandrus	Great Brome			X
POACEAE	Bromus hordeaceus ssp. hordeaceus	Soft Brome			X
POACEAE	Bromus madritensis	Compact Brome			X
POACEAE	Bromus rubens	Red Brome			X
POACEAE	Catapodium rigidum	Rigid Fescue			X
POACEAE	Cenchrus clandestinus	Kikuyu			X
POACEAE	Cortaderia selloana ssp. selloana	Common Pampas Grass			X
POACEAE	Cynodon dactylon	Couch			X
POACEAE	Cynosurus echinatus	Rough Dog's-tail Grass			X
POACEAE	Dactylis glomerata	Cocksfoot			X
POACEAE	Deyeuxia densa	Heath Bent-grass		R	
POACEAE	Deyeuxia quadriseta	Reed Bent-grass			
POACEAE	Dichelachne crinita	Long-hair Plume-grass			
POACEAE	Dichelachne micrantha	Short-hair Plume-grass			
POACEAE	Dichelachne rara	Loose Plume-grass			
POACEAE	Ehrharta calycina	Perennial Veldt Grass			X
POACEAE	Ehrharta longiflora	Annual Veldt Grass			X
POACEAE	Eragrostis brownii	Bentham's Love-grass			
POACEAE	Gastridium phleoides	Nit-grass			X
POACEAE	Glyceria australis	Australian Sweet-grass			
POACEAE	Holcus lanatus	Yorkshire Fog			X
POACEAE	Hordeum leporinum	Wall Barley-grass			X
POACEAE	Hordeum vulgare ssp.				X
POACEAE	Isachne globosa	Swamp Millet			
POACEAE	Lachnagrostis aemula	Blown-grass			
POACEAE	Lachnagrostis filiformis	Common Blown-grass			

POACEAE	Lagurus ovatus	Hare's Tail Grass			X
POACEAE	Lolium arundinaceum	Tall Meadow Ryegrass			X
POACEAE	Lolium loliaceum	Stiff Ryegrass			X
POACEAE	Lolium multiflorum	Italian Ryegrass			X
POACEAE	Lolium rigidum	Wimmera Ryegrass			X
POACEAE	Microlaena stipoides var. stipoides	Weeping Rice-grass			
POACEAE	Neurachne alopecuroidea	Fox-tail Mulga-grass			
POACEAE	Parapholis incurva	Curly Ryegrass			X
POACEAE	Paspalum dilatatum	Paspalum			X
POACEAE	Paspalum distichum	Water Couch			X
POACEAE	Pentameris pallida	Pussy Tail			X
POACEAE	Phalaris aquatica	Phalaris			X
POACEAE	Phalaris arundinacea ssp.				X
POACEAE	Phalaris canariensis	Canary-grass			X
POACEAE	Phalaris minor	Lesser Canary-grass			X
POACEAE	Phragmites australis	Common Reed			
POACEAE	Piptatherum miliaceum	Rice Millet			X
POACEAE	Poa annua	Winter Grass			X
POACEAE	Poa clelandii	Matted Tussock-grass			
POACEAE	Poa crassicaudex	Thick-stem Tussock-grass			
POACEAE	Polypogon monspeliensis	Annual Beard-grass			X
POACEAE	Polypogon viridis	Water Bent			X
POACEAE	Rostraria cristata	Annual Cat's-tail			X
POACEAE	Rytidosperma auriculatum	Lobed Wallaby-grass			
POACEAE	Rytidosperma caespitosum (NC)	Common Wallaby-grass			
POACEAE	Rytidosperma geniculatum	Kneed Wallaby-grass			
POACEAE	Rytidosperma pilosum	Velvet Wallaby-grass			
POACEAE	Rytidosperma racemosum var. racemosum	Slender Wallaby-grass			
POACEAE	Rytidosperma setaceum	Small-flower Wallaby-grass			
POACEAE	Sporobolus africanus	Rat-tail Grass			X
POACEAE	Stenotaphrum secundatum	Buffalo Grass			X
POACEAE	Themeda triandra	Kangaroo Grass			
POACEAE	Triticum aestivum	Wheat			X

POACEAE	Vulpia bromoides	Squirrel-tail Fescue			X
POACEAE	Vulpia myuros f. megalura	Fox-tail Fescue			X
POACEAE	Vulpia myuros f. myuros	Rat's-tail Fescue			X
POLYGALACEAE	Comesperma calymega	Blue-spike Milkwort			
POLYGONACEAE	Muehlenbeckia adpressa	Climbing Lignum			
POLYGONACEAE	Muehlenbeckia gunnii	Coastal Climbing Lignum			
POLYGONACEAE	Muehlenbeckia sp.	Lignum			
POLYGONACEAE	Persicaria decipiens	Slender Knotweed			
POLYGONACEAE	Persicaria lapathifolia	Pale Knotweed			
POLYGONACEAE	Persicaria prostrata	Creeping Knotweed			
POLYGONACEAE	Polygonum aviculare	Wireweed			X
POLYGONACEAE	Polygonum plebeium	Small Knotweed			
POLYGONACEAE	Rumex acetosella	Sorrel			X
POLYGONACEAE	Rumex bidens	Mud Dock			
POLYGONACEAE	Rumex brownii	Slender Dock			
POLYGONACEAE	Rumex conglomeratus	Clustered Dock			X
POLYGONACEAE	Rumex crispus	Curled Dock			X
POLYGONACEAE	Rumex obtusifolius	Broad-leaf Dock			X
POTAMOGETONACEAE	Potamogeton crispus	Curly Pondweed			
PRIMULACEAE	Lysimachia arvensis	Pimpernel			X
PRIMULACEAE	Samolus repens	Creeping Brookweed			
PROTEACEAE	Banksia marginata	Silver Banksia			
PROTEACEAE	Banksia ornata	Desert Banksia			
PROTEACEAE	Conospermum patens	Slender Smoke-bush			
PROTEACEAE	Grevillea lavandulacea ssp. lavandulacea	Spider-flower			
PROTEACEAE	Grevillea lavandulacea var. (NC)	Spider-flower			
PROTEACEAE	Grevillea rosmarinifolia ssp. rosmarinifolia	Rosemary Grevillea			X
PROTEACEAE	Hakea carinata	Erect Hakea			
PROTEACEAE	Hakea rostrata	Beaked Hakea			
PROTEACEAE	Hakea rugosa	Dwarf Hakea			
PROTEACEAE	Isopogon ceratophyllus	Horny Cone-bush			
PROTEACEAE	Persoonia juniperina	Prickly Geebung			
PTERIDACEAE	Adiantum aethiopicum	Common Maiden-hair			

PTERIDACEAE	Anogramma leptophylla	Annual Fern		R	
PTERIDACEAE	Cheilanthes austrotenuifolia	Annual Rock-fern			
PTERIDACEAE	Cheilanthes sieberi ssp. sieberi	Narrow Rock-fern			
RAMARIACEAE	Ramaria australiana				
RAMARIACEAE	Ramaria lorithamnus				
RANUNCULACEAE	Clematis microphylla	Old Man's Beard			
RANUNCULACEAE	Ranunculus amphitrichus	Small River Buttercup			
RANUNCULACEAE	Ranunculus lappaceus	Native Buttercup			
RANUNCULACEAE	Ranunculus pachycarpus	Thick-fruit Buttercup			
RANUNCULACEAE	Ranunculus repens	Creeping Buttercup			X
RANUNCULACEAE	Ranunculus trilobus	Three-lobed Buttercup			X
RESTIONACEAE	Aphelia pumilio	Dwarf Aphelia			
RESTIONACEAE	Apodasmia brownii	Coarse Twine-rush			
RESTIONACEAE	Centrolepis aristata	Pointed Centrolepis			
RESTIONACEAE	Centrolepis fascicularis	Tufted Centrolepis			
RESTIONACEAE	Centrolepis strigosa ssp. strigosa	Hairy Centrolepis			
RESTIONACEAE	Empodisma minus	Tangled Rope-rush			
RESTIONACEAE	Hypolaena fastigiata	Tassel Rope-rush			
RESTIONACEAE	Lepidobolus drapetocoleus	Scale Shedder			
RESTIONACEAE	Leptocarpus tenax	Slender Twine-rush			
RHAMNACEAE	Cryptandra hispidula	Rough Cryptandra			
RHAMNACEAE	Cryptandra tomentosa	Heath Cryptandra			
RHAMNACEAE	Spyridium subochreatum	Velvet Spyridium			
RHAMNACEAE	Spyridium thymifolium	Thyme-leaf Spyridium			
ROSACEAE	Acaena echinata	Sheep's Burr			
ROSACEAE	Acaena novae-zelandiae	Biddy-biddy			
ROSACEAE	Acaena ovina	Downy Sheep's Burr			
ROSACEAE	Aphanes australiana	Australian Piert			
ROSACEAE	Crataegus sp.	Hawthorn			X
ROSACEAE	Malus pumila	Apple			X
ROSACEAE	Prunus armeniaca	Apricot			X
ROSACEAE	Prunus cerasifera	Cherry-plum			X
ROSACEAE	Rosa canina	Dog Rose			X

ROSACEAE	Rosa luciae				X
ROSACEAE	Rosa rubiginosa	Sweet Briar			X
ROSACEAE	Rubus anglocandicans				X
ROSACEAE	Rubus fruticosus aggregate	Blackberry			X
ROSACEAE	Rubus parvifolius	Native Raspberry			
ROSACEAE	Rubus ulmifolius var. ulmifolius	Blackberry			X
RUBIACEAE	Asperula conferta	Common Woodruff			
RUBIACEAE	Galium aparine	Cleavers			X
RUBIACEAE	Galium divaricatum	Slender Bedstraw			X
RUBIACEAE	Galium gaudichaudii (NC)	Rough Bedstraw			
RUBIACEAE	Galium gaudichaudii ssp. gaudichaudii	Rough Bedstraw			
RUBIACEAE	Galium migrans ssp. migrans	Loose Bedstraw			
RUBIACEAE	Galium murale	Small Bedstraw			X
RUBIACEAE	Opercularia ovata	Broad-leaf Stinkweed			
RUBIACEAE	Opercularia scabrida	Stalked Stinkweed			
RUBIACEAE	Opercularia sp.	Stinkweed			
RUBIACEAE	Opercularia turpis	Twiggy Stinkweed			
RUBIACEAE	Opercularia varia	Variable Stinkweed			
RUBIACEAE	Sherardia arvensis	Field Madder			X
RUTACEAE	Boronia edwardsii	Edwards' Boronia			
RUTACEAE	Boronia nana var. nana	Dwarf Boronia			
RUTACEAE	Correa aemula	Hairy Correa		R	
RUTACEAE	Correa aemula s.str.	Hairy Correa			
RUTACEAE	Correa calycina var. calycina	Hindmarsh Correa	VU*	V	
RUTACEAE	Correa reflexa var. scabridula	Common Correa			
RUTACEAE	Philotheca pungens	Prickly Wax-flower			
SANTALACEAE	Exocarpos cupressiformis	Native Cherry			
SANTALACEAE	Santalum murrayanum	Bitter Quandong			
SAPINDACEAE	Dodonaea hexandra	Horned Hop-bush			
SAPINDACEAE	Dodonaea viscosa ssp.	Sticky Hop-bush			
SAPINDACEAE	Dodonaea viscosa ssp. spatulata	Sticky Hop-bush			
SCHIZAEACEAE	Schizaea fistulosa	Narrow Comb-fern		V	
SCROPHULARIACEAE	Myoporum petiolatum	Sticky Boobialla			

SCROPHULARIACEAE	Verbascum virgatum	Twiggy Mullein			X
SOLANACEAE	Nicotiana glauca	Tree Tobacco			X
SOLANACEAE	Solanum elaeagnifolium	Silver-leaf Nightshade			X
SOLANACEAE	Solanum laciniatum	Cut-leaf Kangaroo-apple			
SOLANACEAE	Solanum nigrum	Black Nightshade			X
SPHAGNACEAE	Sphagnum novo-zelandicum				
STYLIDIACEAE	Levenhookia dubia	Hairy Stylewort			
STYLIDIACEAE	Levenhookia pusilla	Tiny Stylewort			
STYLIDIACEAE	Stylidium armeria ssp. armeria	Grass Trigger-plant			
STYLIDIACEAE	Stylidium calcaratum	Spurred Trigger-plant			
STYLIDIACEAE	Stylidium despectum	Hundreds And Thousands			
STYLIDIACEAE	Stylidium graminifolium	Grass Trigger-plant			
STYLIDIACEAE	Stylidium graminifolium (NC)	Grass Trigger-plant			
TELOSCHISTACEAE	Teloschistes sieberianus				
THYMELAEACEAE	Pimelea flava ssp. flava	Yellow Riceflower			
THYMELAEACEAE	Pimelea glauca	Smooth Riceflower			
THYMELAEACEAE	Pimelea humilis	Low Riceflower			
THYMELAEACEAE	Pimelea linifolia ssp. linifolia	Slender Riceflower			
THYMELAEACEAE	Pimelea octophylla	Woolly Riceflower			
THYMELAEACEAE	Pimelea phylicoides	Heath Riceflower			
TYPHACEAE	Typha domingensis	Narrow-leaf Bulrush			
VERBENACEAE	Verbena bonariensis	Purple-top Verbena			X
VIOLACEAE	Pigea floribunda	Shrub Spade Flower			
VIOLACEAE	Viola cleistogamoides	Shy Violet			
VIOLACEAE	Viola hederacea (NC)	Ivy-leaf Violet			
VIOLACEAE	Viola sieberiana	Tiny Violet			
XYRIDACEAE	Xyris operculata	Tall Yellow-eye		R	

Appendix 2 EPBC Protected Matters Search for the Survey Area with a 5km buffer zone.

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. Please see the caveat for interpretation of information provided here.

Report created: 10-Jan-2025

Summary

Matters of National Environment 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 (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	66
Listed Migratory Species:	40

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 https://www.dcceew.gov.au/parks-heritage/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 Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	73
Whales and Other Cetaceans:	8
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	11
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	5
Key Ecological Features (Marine):	None
Biologically Important Areas:	3
Bioregional Assessments:	None
Geological and Bioregional Assessments:	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.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Swamps of the Fleurieu Peninsula	Critically Endangered	Community known to occur within area	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hylacola pyrrhopygia parkeri listed as Calamanthus pyrrhopygius parkeri Chestnut-rumped Heathwren (Mt Lofty Ranges) [67071]	Endangered	Species or species habitat known to occur within area	In feature area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura bella samueli Western Beautiful Firetail, Beautiful Firetail (Mt Lofty Range and Kangaroo Island) [80202]	Endangered	Species or species habitat may occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Stipiturus malachurus intermedius Fleurieu Peninsula Southern Emu-wren, Mount Lofty Southern Emu-wren [26005]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche carteri			
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta			
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Thinornis cucullatus cucullatus			
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
Zoothera lunulata halmaturina			
South Australian Bassian Thrush, Western Bassian Thrush [67121]	Endangered	Species or species habitat likely to occur within area	In feature area
FISH			
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In buffer area only
MAMMAL			
Eubalaena australis			
Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Isoodon obesulus obesulus			
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area	In feature area
Neophoca cinerea			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In buffer area only
Pteropus poliocephalus			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
PLANT			
Allocasuarina robusta			
Mount Compass Oak-bush [16377]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Caladenia concolor			
Crimson Spider-orchid, Maroon Spider-orchid [5505]	Vulnerable	Species or species habitat may occur within area	In feature area
Caladenia tensa			
Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat may occur within area	In feature area
Correa calycina			
Hindmarsh Correa [7226]	Vulnerable	Species or species habitat known to occur within area	In feature area
Correa eburnea			
Deep Creek Correa [83820]	Endangered	Species or species habitat may occur within area	In buffer area only
Dodonaea procumbens			
Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area	In feature area
Eucalyptus paludicola			
Mount Compass Swamp Gum, Fleurieu Swamp Gum, Marsh Gum [64276]	Endangered	Species or species habitat may occur within area	In feature area
Euphrasia collina subsp. osbornii			
Osborn's Eyebright [3684]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hibbertia tenuis [76189]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Olearia pannosa subsp. pannosa Silver Daisy-bush, Silver-leaved Daisy, Velvet Daisy-bush [12348]	Vulnerable	Species or species habitat known to occur within area	In feature area
Prasophyllum murfetii Fleurieu Leek Orchid [81621]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Prasophyllum pallidum Pale Leek-orchid [20351]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Prasophyllum pruinosum Plum Leek-orchid [11821]	Endangered	Species or species habitat may occur within area	In feature area
Pterostylis bryophila Hindmarsh Valley Greenhood [75722]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat may occur within area	In feature area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat may occur within area	In feature area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Endangered	Species or species habitat likely to occur within area	In feature area
Veronica derwentiana subsp. homalodonta Mount Lofty Speedwell [82836]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
REPTILE			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aprasia pseudopulchella			
Flinders Ranges Worm-lizard [1666]	Vulnerable	Species or species habitat may occur within area	In feature area
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In buffer area only

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Ardenna grisea			
Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Migratory Marine Species			
[Balaenoptera edeni](#) Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
[Caperea marginata](#) Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only
[Carcharias taurus](#) Grey Nurse Shark [64469]		Species or species habitat may occur within area	In buffer area only
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In buffer area only
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In buffer area only
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Vulnerable	Species or species habitat may occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica			
Bar-tailed Godwit [844]		Species or species habitat may occur within area	In buffer area only
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pandion haliaetus			
Osprey [952]		Species or species habitat known to occur within area	In feature area
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat known to occur within area	In buffer area only
[Pandion haliaetus](#) Osprey [952]		Species or species habitat known to occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat may occur within area overfly marine area	In feature area
[Rostratula australis as Rostratula benghalensis (sensu lato)](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Sternula albifrons as Sterna albifrons](#) Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Thinornis cucullatus as Thinornis rubricollis](#) Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Fish			
[Acentronura australe](#) Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area	In buffer area only
[Campichthys tryoni](#) Tryon's Pipefish [66193]		Species or species habitat may occur within area	In buffer area only
[Filicampus tigris](#) Tiger Pipefish [66217]		Species or species habitat may occur within area	In buffer area only
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In buffer area only
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In buffer area only
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In buffer area only
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In buffer area only
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In buffer area only
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In buffer area only
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In buffer area only
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In buffer area only
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In buffer area only
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In buffer area only
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In buffer area only
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In buffer area only
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In buffer area only
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In buffer area only
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In buffer area only
Vanacampus vercoi Verco's Pipefish [66286]		Species or species habitat may occur within area	In buffer area only
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In buffer area only
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In buffer area only
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In buffer area only
Reptile			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Encounter	Marine Park	SA	In buffer area only
Myponga	Conservation Park	SA	In buffer area only
Nixon-Skinner	Conservation Park	SA	In feature area
Unnamed (No.HA1351)	Heritage Agreement	SA	In buffer area only
Unnamed (No.HA1370)	Heritage Agreement	SA	In buffer area only
Unnamed (No.HA1580)	Heritage Agreement	SA	In buffer area only
Unnamed (No.HA429)	Heritage Agreement	SA	In buffer area only
Unnamed (No.HA493)	Heritage Agreement	SA	In buffer area only
Unnamed (No.HA77)	Heritage Agreement	SA	In buffer area only
Unnamed (No.HA95)	Heritage Agreement	SA	In buffer area only
Yulte	Conservation Park	SA	In buffer area only

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV,	2015/7522	Not Controlled Action	Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
sthrn two thirds of Australia				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Kemmiss Hill Road Wind Farm	2004/1611	Not Controlled Action	Completed	In buffer area only
Wind farm	2001/519	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Biologically Important Areas			[Resource Information]
Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Eudyptula minor			
Little Penguin [1085]	Foraging (provisioning young)	Known to occur	In buffer area only
Seals			
Neophoca cinerea			
Australian Sea Lion [22]	Foraging (male)	Known to occur	In buffer area only
Neophoca cinerea			
Australian Sea Lion [22]	Foraging (male and female)	Known to occur	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

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

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

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

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

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

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

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.

Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111

Appendix 3: Scattered Tree Assessment Scoresheet

SEB Required for Scattered Trees

(Version - 1 September 2024)

Landscapes Region	**H&F**
Mean Annual Rainfall (mm)	**706**
Economies of Scale Factor	**0.5**
Management Cost Factor	$24,764
SEB Uplift Factor	1.10
SEB Points of Gain/ha Factor	7.5

IBRA Association	**Mt Compass**

Total Biodiversity Score	64.20
Total SEB Points required	70.61
Payment $ (GST exclusive)	$82,300.12
Admin fee (GST inclusive)	$4,526.51
Total SEB $ required	**$86,826.63**

Surveyors	Greg Smith
Survey Date	13/01/2025
Datum	WGS84

Tree Species	Number of Trees (total)	Number of trees (proposed removed)	Number of trees (proposed pruning)	Total SEB Points required	Payment in NV Fund (GST Exclusive)	Administration fee (GST Inclusive)	Total
Eucalyptus leucoxylon ssp. leucoxylon	18	18	0	70.61	$82,300.12	$4,526.51	$86,826.63
0	0	0	0	0.00	$0.00	$0.00	$0.00

Tree No.	Species name (plus form and location description)	Number of trees in a clump (enter 1 for individual trees)	Height (m)	Diameter at 1m above ground level (cm)	Dieback %	Number of Hollows			Suitability for fauna threatened species				Threatened sp. Tree species is; R = Rare V = Vulnerable E = Endangered	Remnancy IBRA Assoc. % veg remaining	Loss Factor	Species	Fauna habitat Score	Threatened flora score	Biodiversity score (Max 15) (Score per tree)	Total biodiversity score	SEB Points Req.	Total SEB Payment $	Optional Unique tree ID	Optional Photo No.	Easting (6 digits)	Northing (7 digits)	Zone (52, 53 or 54)
									Number of species																		
						Small	Medim	Large	Uncommon	NP&W Act - Rare	NP&W Act - Endangered or Vulnerable (exclude EBPC Spp)	EPBC Listed spp.														
1	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	11.2	76	20	2	4	3	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	3.44	3.44	3.78	$4,648.13			**266818**	**6077486**	54
2	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	13.2	59	60	5	3		11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	2.04	2.04	2.24	$2,754.45			**266833**	**6077509**	54
3	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	14.3	111	15	3	5	1	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	6.81	6.81	7.49	$9,210.19			**266853**	**6077503**	54
4	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	12.5	77	60	2			11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	2.03	2.03	2.23	$2,742.15			**266889**	**6077525**	54
5	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	16.3	103	20	6	4	1	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	5.89	5.89	6.48	$7,968.23			**266896**	**6077535**	54
6	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	9.6	66	10	2	1		11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	3.65	3.65	4.02	$4,943.25			**267033**	**6077629**	54
7	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	10.5	76	25	2			11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	2.32	2.32	2.55	$3,135.64			**267031**	**6077633**	54
8	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	10.2	64	10	1		1	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	3.69	3.69	4.06	$4,992.44			**267007**	**6077619**	54
9	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	11.1	68	40	2		1	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	2.55	2.55	2.81	$3,455.36			**266971**	**6077627**	54
10	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	16.8	112	50	3	3	2	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	6.23	6.23	6.85	$8,423.20			**266974**	**6077644**	54
11	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	15.9	74.5	30	2	1		11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	4.20	4.20	4.62	$5,681.05			**266962**	**6077637**	54
12	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	12.9	85.5	80	4	1	1	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	2.53	2.53	2.78	$3,418.47			**266958**	**6077644**	54
13	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	9.2	72	60	4	6	3	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	1.42	1.42	1.56	$1,918.28			**267030**	**6077665**	54
14	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	12.9	74	25	2		1	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	3.66	3.66	4.03	$4,955.55			**266996**	**6077685**	54
15	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	10.9	47	60	2			11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	1.01	1.01	1.11	$1,364.93			**266944**	**6077688**	54
16	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	7.4	61.5	50	3	1	1	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	1.99	1.99	2.19	$2,692.97			**266979**	**6077687**	54
17	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	10.8	90	10	3	1		11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	4.52	4.52	4.97	$6,111.43			**266954**	**6077722**	54
18	*Eucalyptus leucoxylon ssp leucoxylon (see map)*	1	17.0	109.5	35	5	8	3	11	4	3	1		13	1.0	Eucalyptus leucoxylon ssp. leucoxy	**1.80**	**0.00**	6.22	6.22	6.84	$8,410.91			266972	6077729	54
19																											
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Appendix 4: Clearance Summary Table

Clearance Summary Table - Agricultural Region

(Version_1 September 2024)

Bushland Assessment

Block	Site	Native species diversity score	Threatened Ecological community Score	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings	Reductions	SEB Points required	SEB payment	Admin Fee
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
								0.00				0.00	$0.00	$0.00
Consult with Native Veg Branch if more rows required						**Total**	**0**	**0**				**0.00**	**$0.00**	**$0.00**

Scattered Tree assessment

Tree or Cluster ID	Number of trees	Fauna Habitat score	Threatened flora score	Biodiversity score	Loss factor	SEB Points required	SEB Payment	Admin Fee
1	1	1.8	0	3.44	1	3.78	$4,405.81	$242.32
2	1	1.8	0	2.04	1	2.24	$2,610.85	$143.60
3	1	1.8	0	6.81	1	7.49	$8,730.04	$480.15
4	1	1.8	0	2.03	1	2.23	$2,599.20	$142.96
5	1	1.8	0	5.89	1	6.48	$7,552.82	$415.41
6	1	1.8	0	3.65	1	4.02	$4,685.55	$257.71
7	1	1.8	0	2.32	1	2.55	$2,972.18	$163.47
8	1	1.8	0	3.69	1	4.06	$4,732.17	$260.27
9	1	1.8	0	2.55	1	2.81	$3,275.22	$180.14
10	1	1.8	0	6.23	1	6.85	$7,984.08	$439.12
11	1	1.8	0	4.2	1	4.62	$5,384.88	$296.17
12	1	1.8	0	2.53	1	2.78	$3,240.25	$178.21
13	1	1.8	0	1.42	1	1.56	$1,818.27	$100.00
14	1	1.8	0	3.66	1	4.03	$4,697.20	$258.35
15	1	1.8	0	1.01	1	1.11	$1,293.77	$71.16
16	1	1.8	0	1.99	1	2.19	$2,552.57	$140.39
17	1	1.8	0	4.52	1	4.97	$5,792.83	$318.61
18	1	1.8	0	6.22	1	6.84	$7,972.42	$438.48
Total	**18**			**64.2**		**70.61**	**$82,300.11**	**$4,526.52**

Consult with Native Vegetation Branch if more rows required

IBRA Association percent vegetation remnancy (%)	13.0
IBRA Subregion percent vegetation remnancy (%)	12.0

Is the vegetation associated with a Wetland	No
Economies of Scale Factor	0.50
Rainfall (mm) Factor	706
SEB Points of Gain/ha Factor	7.5

SEB Uplift Factor	1.10
Management Cost ($/ha)	$24,764.00

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	64.20	70.61	$82,300.11	$4,526.52	$86,826.63

Risk level Level 2, 3 or 4	3

Principle	Seriously at variance	Vegetation Assocation	Trees	At variance	Vegetation Assocation	Trees
a - Plant species diversity						
b - Wildlife habitat	Yes		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18			
c - Rare plant species						
d - Rare plant communities						
e - Remnancy				Yes		All
f - Wetland						

Attachment 4

EPBC Act Protected Matters Search

See Appendix 2 of Attachment 3

Attachment 5

Aboriginal heritage search response letter (CONFIDENTIAL)

Provided to DEM separately

Attachment 6

Water Licence 118706

09 Jan 2025 8:15 AM

mywater

Government of South Australia
Department for Environment and Water

Extract from the South Australian Water Register

Water Licence

Water Licence number	**WL-118706**
Water Licence Type	**Transitional water licence**
Water area	**Western Mt Lofty Ranges PWRA WAP**
Date of issue	**13 Nov 2023**
Date of expiry	
Security Interest on licence or its entitlements	**No**

Entitlements

Total active entitlement: 5520

Entitlement number	Management Unit	Entitlement Pool	Allocation Category	Quantity	Expiry Date
E-008772	Fleurieu Permian	Western Mt Lofty Ranges groundwater	Taking	5520 kL	N/A

Allocation Transactions (year to date)

Entitlement number	Quantity	Date Allocation	Transaction Type
E-008772	5520 kL	01 Jul 2024	Announcement

Works for the taking of water

Works number	Management Unit	Location	Works Type	Works Description
WKD-016784	Fleurieu Permian		Well	109593 WILMA ID

Site Use

Site Use number	Management Unit	Site	Use Limit	Purpose

SUD-006765	Fleurieu Permian	Site Map	0 kL	Irrigation

Conditions

Conditions on the Water Licence

136663	WL1-04 - Meters used to measure water used at the site(s) specified on this licence must be installed consistent with the South Australian Licensed Water Use Metering Specification published on the Department's website.

Conditions on the Entitlement(s)

Conditions on the Works for the taking of water

WKD-016784	191444	WKD2-01 - Annual meter readings must be taken during the first fourteen calendar days following the reporting period. These meter readings must be provided to the Department by the end of the month that they are required to be taken, in a form specified by the Minister or the Minister's authorised representative.

Conditions on Site Use

SUD-006765	162029	SUD1-01 - The application of water at the site(s) specified on this approval can only be for the following purpose(s): Irrigation
SUD-006765	162030	SUD1-03 - The water allocation(s) on this licence must only be used on the following land: CT5878/667 D57690 A63

About this extract

Attachment 7

MC 4569 Community Engagement Brief

COMMUNITY CONSULTATION BRIEF – MINERAL CLAIM 4569

Dear landholder,

The following information is provided to you as a summary of proposed quarrying operations on Mineral Claim (MC) 4569, which is located at 5203 Main South Road, Myponga (see location in the image below).

You are invited to raise any concerns in relation to the proposed operations in writing by completing the concerns and feedback form in **Appendix B**, and returning this form via the stamped return envelope included with this brief.

Thank you in advance for taking the time to review this document, and for any feedback provided.

1. Proposed location of mining lease

The proposed mining lease covers approximately 8.25 hectares over the central section of the 5203 Main South Road, Myponga and is a continuation to the existing Whittlesea Quarry, which operates under Extractives Mineral Lease (EML) 5542, approved under the *Mining Act, 1971* in 1995.

The larger and more regularly shaped proposed Mining Lease will replace the existing irregularly shaped, 2.82 hectare EML, and is intended to facilitate improved rehabilitation outcomes and extend the life of the quarry on the property.

The proposed operations would be a continuation of the existing operations that have occurred for several decades on the property and using the same methods and equipment.

Local earthmoving contractor, Craig Haywood, is the tenement holder and operator of EML 5542 and is the applicant for the proposed Mining Lease.

The Mining Proposal is being prepared by Macro Environmental Solutions.

2. Quarrying methods

Mining operations will initially continue in the existing pit. Rock will be extracted using conventional machinery and occasionally using drill and blast methods for harder sections. Blasting would be infrequent, and the community will be notified of blasts at least 24-hours prior to the blast occurring.

Extracted material is then processed into smaller sizes by the crushing and screening plant located on the quarry pit floor. These operations will occur on a campaign basis to create product stockpiles that will be accessed throughout the year as required. As the stockpiles become depleted, the process of extraction, processing and stockpiling re-occurs.

The tenement will continue to be accessed via Main South Road.

3. Duration of mining operations

The estimated annual production will continue to be 25,000 to 30,000 tonnes per annum.

Operations will predominantly occur from Monday to Friday starting no earlier than 7:00am and finishing no later than 6:00pm. If market demand is high, operations may also occur on Saturdays from 7:00am to 3:00pm.

No work will occur on Sundays or Public Holidays.

4. Sequence and staging of quarrying and rehabilitation

Proposed quarrying will initially continue in the existing western pit for approximately 11 years. The pit is proposed to extend back into the hill towards the south by 25m – 45m and to have 3 benches formed, each with 10m high faces.

During this period of quarrying in the western pit it is proposed to plant additional trees on the northern side of the quarry.

Once quarrying is completed in the western pit, work is proposed to commence on the eastern pit, starting on the plateau area at the top of the hill. Soil will be stripped ahead of quarrying for rock and used to create visual screening mounds.

As quarrying commences in the eastern pit, rehabilitation of the western pit will commence. This will include tree plantings to link the adjacent woodlands together and creating a small grazing surface on the pit floor.

The eastern pit will then be extended to the north as the top benches on the southern side of the pit are rehabilitated to reduce visual impacts.

The total mine life for the eastern pit will be approximately 19 years.

The eastern pit will also be rehabilitated to have a mix of native vegetation plantings on the benches, and a grazing area on the pit floor.

5. Rehabilitation outcomes including conceptual final landform and land use

A compliance outcome to be achieved by mining is proposed to be 'All land disturbed by mining operations is rehabilitated to achieve the post mining land use'.

The proposed final land use is the current land use of grazing land with sections of native woodlands.

Soils are stripped from the surface ahead of quarrying commencing and temporarily stockpiled next to the quarry, and then utilised for the rehabilitation of the Site at the completion of quarrying operations.

The final landform will include a pit floor and shaped ancillary mining areas that will be returned to grazing activities.

The quarry pit will have benches approximately 10m high and will be covered in soils and converted into the native vegetation seeding/planting area. This native vegetation will link existing patches of woodland to create a corridor for native animals living at the property.

A conceptual plan of the final landform is provided as **Appendix A**.

6. Environmental management and regulation

Potential impacts to the environment and the community are assessed within the Mining Proposal document that is submitted to the Department for Energy and Mining (DEM) for assessment.

The Mining Proposal must be prepared in accordance with DEM Terms of Reference (TOR) 003.

TOR 003 requires that an impact assessment be undertaken, and control and management strategies to ensure unacceptable impacts do not occur as a result of the proposed operations.

The Mining Proposal considers impacts, and includes control strategies for the following:

- Air quality
- Blasting
- Caves
- **Drag out and traffic**
- **Fire prevention**
- Groundwater
- Heritage
- Land use and third-party property
- Light spill
- Native fauna
- **Native vegetation**
- **Noise**
- Public safety
- Soil
- **Surface water**
- **Visual amenity**
- Waste-derived fill
- Waste disposal, and
- Weeds, pests and pathogens.

Scoping undertaken for the Mining Proposal has identified a range of key environmental and community risks that will be treated as a priority in the development of effective control and management strategies. These items are shown in **bold** in the list above.

7. Community concerns and feedback

It would be greatly appreciated if you could provide a description of any concerns or feedback that you have in relation to the proposed quarry operations in the form provided as **Appendix B**.

Please return this form via post in the return envelope provided, or via email to admin@macroes.com.au.

The Mining Proposal must be submitted by 29 January 2025, and responses received prior to **17 January 2025** will be incorporated within the consultation section of the Mining Proposal.

Please note that another opportunity to provide a public submission in relation to the proposed quarrying operations will occur during the Mining Proposal assessment process undertaken by DEM.

8. Contact details

Tenement Holder: Craig Haywood – 0429 880 032.

Appendix A

MC 4569 Final Landform Design Map

Appendix A
MC 4569 final landform design

Whittlesea Quarry
EML 5540 & MC 4569
Craig Haywood

16/12/2024

GDA2020 / MGA zone 54

Legend

- Mineral Claim 4569
- Pit floor & ancillary mining area (grass)
- Battered area (1v:3h)
- Bench area (8m wide & trees planted)
- Bench face (10m high & 2m wide)

Roads

- ROAD

Orthophoto

Google imagery

N

0 50 100 150 m

MACRO ENVIRONMENTAL SOLUTIONS

Appendix B

Community concerns and feedback form

Proposed Quarry Extension Feedback Form – MC 4569

Name(s)

Address

Topic (e.g. noise, visual amenity etc)	Concerns / feedback

Attachment 8

Community petition

PROTECT MYPONGA STOP THE PROPOSED SAND MINE!

Purpose: This petition seeks to gain support from people that use and enjoy the Myponga area to stop the proposal of a sand mine near the Myponga Reserviour and conservation parks.

Name	Signature	Phone or Email	Date
Stella	FOR: UCL3-402		30/12
Glenda	G Russell		30/12
Dianne	D Russell		31/12
Leah Craig		mslechsarahcraig@gmail.com	31/12
Grace Martin			31/12
Alex O'keefe			31/12
Shaun		Arnby Shaun@Comcast	31/12
DAMO		KILLAWATT180@Comcast.net	31/12
Cristie		cristie.bayford@hotmail.com	31/12
Nicola Q		0422 993 485	31/12
Anna R.		annarigosi@yahoo.it	31/12
Autumn Kirk		autumnkirk@gmail.com	31/12
Sheridan Rossi		sheri-2510@hotmail.com	31/12
Harriet Hemmings			31/12
William Ashby			31/12

PROTECT MYPONGA STOP THE PROPOSED SAND MINE!

Purpose: This petition seeks to gain support from people that use and enjoy the Myponga area to stop the proposal of a sand mine near the Myponga Reserviour and conservation parks.

Name	Signature	Phone or Email	Date
Emilie Nisyrios	EN	X	1.25
Stephanie Nisyrios	SN	0413241515	1.1.25
ADA MORETTI	AMoretti	X	1:1
Sarah Marenkovic	Sarah	x	1:1
JORDAN APKORN	JA.	x	1.1.25
LOUISE SMITH	LSmith	x	1-1-25
ALLIS NOLAN	AN	x	1/1/25
Tjimon Sanderson-Mills	TSM	x	1/1/25
Shay Allen	SA	x	1/1/25
Savanna Allen	SA	Savannakate22@gmail.com	1/1/25
Kay Hauxwell.	KHauxwell.	0424854973.	1/1/25
Rino Mutsuka	RM	x	1/1/25
Georgie P.	Georgie	x	1/1/25
Liam M	LM	X	1/1/25.

PROTECT MYPONGA STOP THE PROPOSED SAND MINE

Purpose: This petition seeks to gain support from people that use and enjoy the Myponga area to stop the proposal of a sand mine near the Myponga Reservio and conservation parks.

Name	Signature	Phone or Email	Date
Desera Daws		mddaws@gmail.com	31/12/24.
Louise Woodhouse		louwoodhouse@gmail.com	2.1.25
Tayla Hulst		tayfezjane@gmail.com	2/1/25
Olivia Hooper		oliviahooper023@gmail.com	2/1/25.
Telissa Smith		tily_008@hotmail.com	3/1/25
Zoe Sallis		zsallis@outbook.com.au	3/1
BECCHARA PALMER		becchara@gmail.com	3/1/25
Hannah Wardill		0476870643	3/1/25
Penne Zmuck		0401371468	3/1/25.
Kaitlyn Thomas		0458076830	3/1/25
Geoff Frayne		annamarie@gmail.com	3/1/25
Sarah Harney		sarah@sarahharney.com	3/1/25
Steven Gebert		Gebert.Steven@gmail.com	4/1/25
Elliott Ross		ElliottRossi1995@Gmail.com	4/1/25
Tom Martin		tomarto86@hotmail.com	

PROTECT MYPONGA STOP THE PROPOSED SAND MINE!

Purpose: This petition seeks to gain support from people that use and enjoy the Myponga area to stop the proposal of a sand mine near the Myponga Reserviour and conservation parks.

Name	Signature	Phone or Email	Date
Ash		-	4/1/25
Sarah		0424837764	4/1/25
Lyn		-	4/1/25
Hayley		0430791175	4/1/25
Dance		-	4/1/25
HAYLEE		0402139272	4/1/25
LEEANNE		0439683199	4/1/25
Jessica		0406795275	4/1/25
Abbie			4/1/25
Bern HEATHERING		0484380088	4/1/25
Rosa Elischer		0468479794	4/1/25
MARK MacWILLIAMS		0459 515 165	4/1/25
JOANNE MacWILLIAMS		0418 568 606	4/1/25
Sally Grottner		0422 611 717	4/1/25
TOM GAME	TG	0419 809 361	4/1/25

PROTECT MYPONGA STOP THE PROPOSED SAND MINE!

Purpose: This petition seeks to gain support from people that use and enjoy the Myponga area to stop the proposal of a sand mine near the Myponga Reserviour and conservation parks.

Name	Signature	Phone or Email	Date
Beau & Laura Winkel		[redacted]	05/1/25
Dixi Molamus		...178 584	07/01/25
Tim Morris		–	5/1/25
BEC FLETCHER		–	5/1/25
Trinity Krix		-	05/01/25
Laehy Mills		–	05/1/25
Sharon Drury		–	5/1/25
Kasey Bailey		-	06/01/25
Julianne Rylstone		-	6/1/25
Jolanda NAARDING		–	06.01.25
Leara Leslie			6-01-25
Alex Boksem		–	6-1-25
Michael Heard			6-1-25
Lars Heldmann		–	7-1-25
Jenny Spencer			7/1-25
Bonnie Lubiana			7/1/25

PROTECT MYPONGA STOP THE PROPOSED SAND MINE!

Purpose: This petition seeks to gain support from people that use and enjoy the Myponga area to stop the proposal of a sand mine near the Myponga Reserviour and conservation parks.

Name	Signature	Phone or Email	Date
Addie Hutchinson		0401320118	7/01/25
Stephanie PORTER	S. Porter	sporter@gmail.com	7 Jan 25
Meg Carson		0452080 776	7/1/25
Ruby Harris		0450 849 778	7/1/25
		0402642736	7/1/25
BOB ENGLAND		0427327880	8/1/25
Jann Rubenhold		0406 498 220	8/1/25
Kit Withers.		0401549359	9/1/25
Matt Timms		0435 611 028	9/1/25
Sam Hewett		0410 400 778	9.1.25
Vera Dreyer.		OH00275674	10.1.25
Tess Greens.		0413 000 042	10.1.25
Clay Jones		0492927830	10/1/25
Melinda Chilmeat		0491118376	10/1/25
Alex Kilos		0426891085	10/1/25

PROTECT MYPONGA STOP THE PROPOSED SAND MINE!

Purpose: This petition seeks to gain support from people that use and enjoy the Myponga area to stop the proposal of a sand mine near the Myponga Reserviour and conservation parks.

Name	Signature	Phone or Email	Date
Angie Mitchell			11/1
Tanka Rai			11\1
Aruna Rai			11\1
Merina Rai			11\1
Glen Avery			11/1/25
PAIGE APPLEGATE			11/1/25
Marcus Hocky			11/1/25
Ryan Adams			12/9/25
Brett Bennett			12/1/25
Maddy Holmes			12/1/25
Max Beckett			12/1/25
Telissa Smith			12/1/25
Molly Pattison-White			12/1/25
Amy Edgar-Barcelo			12.1.25
Alex OBrien			12.1.25

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Name	Signature	Phone or Email	Date
Wendy McMillan			12/1/25
Deva Elischer			12/1/25
grace Ternent			13/1/25
Paula Beattie			15/1/25.
Dee BASINSKI			16/1/25
Maddie. Barrett			16/1/25
ALISON JOSEPH			16-1-25
DARRELL JOSEPH			16-1-25
VIVIENNE BRAUN			16-1-25
Janet Richards			16/1/25
Kate Oliver :)			16/1/25
Chloe Reynolds			17/1/25
Andy Gulliver			17/1/25
Izzie Hutchinson		Izziehutchinson@gmail.com	17/1/25
Rebecca Robinson		0407390306	17/1/25

Attachment 9

Aboriginal heritage discovery protocol

Discovery of suspected archaeological material

STOP all work in that location

The discovery **does** include human skeletal remains

Mark the location with a safety cone or other appropriate marker and notify the Site supervisor of the observation immediately and **do not interfere with the remains in any way**

Site supervisor to contact the WQ Mine Manager and SAPOL (131 444) immediately and then establish a physical barrier

WQ Mine Manager to notify DEM, AAR, KYAC and SANTS immediately

Follow instructions from SAPOL in relation to the matter

The remains are identified as an Aboriginal burial

WQ to follow instructions from SAPOL, AAR and DEM in relation to the matter

WQ to review surveying and monitoring requirements and mining sequence in consultation with KYAC and RCHAI for future extraction

WQ to propose an amended mining sequence to DEM to avoid the area as appropriate (no request to relocate the remains will be made)

WQ may proceed with works (subject to DEM authorisation) on amended mining sequence.

WQ to facilitate appropriate ceremonial activities with the local Aboriginal community

The remains are not identified as an Aboriginal burial

WQ to propose temporary amendment to the mining sequence to avoid the area to allow a SAPOL investigation if required

WQ may proceed with works (subject to SAPOL authorisation) on original mining sequence and update the PEPR with learnings from the process as approrpiate

Contact details

SAPOL – 131 444

Department for Energy and Mining (DEM) – 08 8463 3000

Aboriginal Affairs and Reconciliation (AAR) – 08 7133 8855

Kaurna Yerta Aboriginal Corporation (KYAC) – 08 8110 2800

South Australian Native Title Services (SANTS) – 08 8110 2800

The discovery **does not** include human skeletal remains

Mark the location with a safety cone or other appropriate marker and notify the Site supervisor of the observation immediately

Site supervisor to establish a physical barrier around the area

Site supervisor to contact the WQ Mine Manager immediately after establishing a physical barrier

WQ Mine Manager to notify DEM, AAR, KYAC and SANTS within 48-hours

WQ Mine Manager to Contact a suitably qualified Aboriginal Monitor or Archaeologist to assess the discovery

Archaeological material and advise on nature and significance

The discovery is a suspected **Aboriginal object**

Artefact to be left undisturbed until Aboriginal Monitor/Archaeologist can record, bag and label finds

Aboriginal Monitor/Archaeologist to oversee the storage of the object at the secure holding place on the property

WQ to provide a discovery report to DEM, AAR, KYAC and SANTS, and consider feedback

WQ may proceed with works in the area and are to update the PEPR with learnings from the process as approrpiate

The discovery is a suspected **Aboriginal site**

Aboriginal monitor/Archaeologist make recommendations to WQ (e.g. salvage, excavation, research, do not disturb)

WQ to decide further action based on the recommendations and scope of project

WQ to provide a discovery report with proposed actions to DEM, AAR, KYAC and SANTS and consider feedback on the sites significance (minimum 4-weeks for feedback to be provided, and further consultation to occur as appropriate)

WQ to execute salvage, excavation and/or research project prior to recommencing work in the area, or to establish a physical barrier if the site is to remain undisturbed