Native Vegetation Clearing Permit Supporting document

Lady Herial Project

Prepared for Lunnon Metals Limited

18 July 2025

Project Number: TE25045

DOCUMENT CONTROL					
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Approval for Release

Name	**Position**	**File Reference**
Louisa Carlsson	Senior Environmental Consultant - Biodiversity	TE25045_Lady Herial Project_NVCP_Supporting Documentation_3.0
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Table of Contents

1 Introduction 4
1.1 Project Background 4
1.2 Purpose of this Document 4
1.3 Proposed Timeframe 4
1.4 Responsible Applicant 4
2 Site Information 7
2.1 Biogeographic location 7
2.2 Climate 7
2.3 Topography 8
2.4 Soil Landscape Mapping 8
2.5 Pre-European Vegetation 11
2.6 Hydrology 13
2.6.1 Groundwater Dependent Ecosystems (GDEs) 13
2.7 Significant Lands 13
3 Flora and Vegetation Survey 14
3.1.1 Flora14
3.1.2 Vegetation Types 14
3.1.3 Vegetation Condition 16
4 Fauna Survey 18
4.1.1 Fauna Assemblage 18
4.1.2 Habitat Types 18
5 Environmental Management Measures 21
5.1 Avoidance 21
5.2 Mitigation 21
6 Assessment Against the Ten Clearing Principles 22
7 Summary of Assessment 23
8 References 24

Tables

Table 2-1: Land Systems of the MDE (DPIRD 2025) 8
Table 2-2: Pre-European Vegetation Units of the MDE (DPRID 2019) 11

Table 2-3: Pre-European Vegetation Extents (DBCA 2019) 11
Table 3-1: Vegetation Types within the MDE 14
Table 3-2: Vegetation Condition within the MDE 16
Table 4-1: Fauna Habitat Types within the MDE 18
Table 6-1: Assessment of the proposed Project against the 10- Clearing Principles 22

Figures

Figure 1-1: Project Location 5
Figure 1-2: Proposed Site Layout 6
Figure 2-1: Climate of the project area (BoM, 2025) 8
Figure 2-2: Project Topography 9
Figure 2-3: Soil Landscape Mapping 10
Figure 2-4: Pre-European Vegetation Units 12
Figure 3-1: Vegetation Types 15
Figure 3-2: Vegetation Condition 17
Figure 4-1: Fauna Habitat 20

Appendices

APPENDIX A Botanica Consulting (2024) Kambalda Gold and Nickel Project Detailed Flora and Basic Fauna Assessment

1 Introduction

1.1 Project Background

Talis Consultants (Talis) have been engaged by Lunnon Metals Limited (Lunnon Metals) to prepare this Native Vegetation Clearing Permit (NVCP) and associated supporting documentation for the clearing associated with the development of the Lady Herial project located south-east of Kalgoorlie.

The project is located approximately 73 km south-east of Kalgoorlie in the Shire of Coolgardie in Western Australia (Figure 1-1). The proposed project includes the construction of an open pit gold mine, waste rock landform, hardstand areas, run of mine pad, magazine hut, workshops and associated infrastructure.

The Mine Development Envelope (MDE) encompasses 174.84 ha and the Indicative Disturbance Footprint (IDF) 42.02 ha (Figure 1-2). Within the IDF 4.28 ha are already cleared and 37.73 ha require clearing.

Under Section 51C of the *Environmental Protection Act 1986* (EP Act), the clearing of any native vegetation requires an approved NVCP, unless an exemption applies.

This NVCP is to clear 37.73 ha of native vegetation within the MDE, situated on mining tenements M14/1549, M15/1553, M15/1576 and M15/1590.

1.2 Purpose of this Document

The purpose of this NVCP supporting document is to outline the results of an assessment of the clearing impacts of this proposal against the 10 clearing principles as outlined in the (then) Department of Environmental Regulation's (DER) *A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the EP Act 1986* (2014). This document outlines the potential environmental impacts associated with the proposal based on the best available data. This document and the accompanying NVCP Purpose Permit application form will be submitted to the Department of Mines, Petroleum and Exploration (DMPE) for assessment.

1.3 Proposed Timeframe

Clearing is proposed to start in 01/09/2025 and is expected to be completed by 31/03/ 2026.

1.4 Responsible Applicant

Lunnon Metals is responsible for the clearing described in this document. Correspondence relating to this NVCP applications should be addressed to:

Mr Maxwell Sheppard

Development Manager – Lunnon Metals Ltd

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Phone: (08) 6424 8848 Email: msheppard@lunnonmetals.com.au

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360,000 370,000 380,000 390,000 400,000

6,550,000 6,540,000 6,530,000 6,520,000

Kambalda East

Kambalda West

LAKE LEFROY

Goldfields Hwy

Coolgardie-Esperance Hwy

LADY HERIAL MINE SITE

M 15/1549 M 15/1550 M 15/1553 M 15/1576 M 15/1590

Data source: Roads - Landgate, 2025. Lakes - Geoscience Australia, 2025. Tenements - DEMIRS, 2025 | Imagery: ESRI, 2023.

Document Path: \\server\talis\SECTIONS\Environment\Projects\TE2025\TE25045 - Lunnon Lady Herial Approvals\GIS\Maps\TE25045 - Lunnon Lady Herial Approvals\TE25045 - Lunnon Lady Herial NVCP.aprx

LEGEND

- Development Envelope
- Mining Tenements
- Lakes

Rail Network

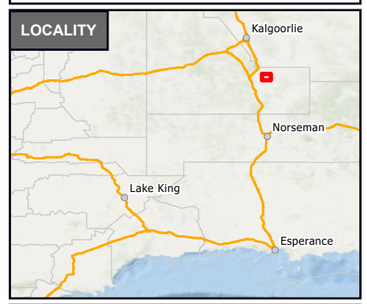
- Railway Stations
- Railway Lines

Western Australian Roads

- Freeway / Highway

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LOCALITY



0 100 200 300 400 500 km

PROJECT LOCALITY

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N

0 2 4 6 km

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:150,000

Prepared:	E Jackson	Date:	11/06/2025
Reviewed:	L Carlsson	Revision:	A
Project:	TE25045		

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Figure 1-1

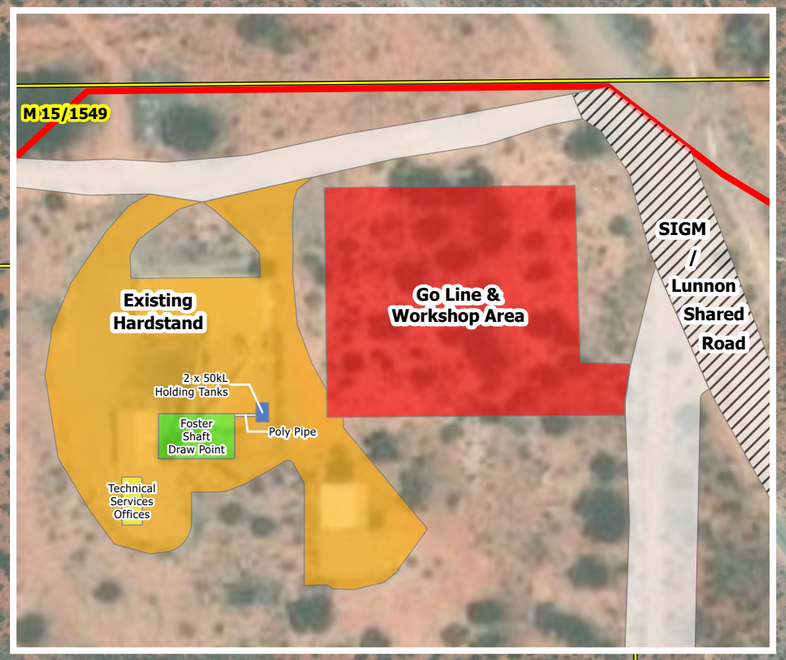
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382,400 383,200 384,000 384,800

6,530,400 6,529,600 6,528,800

M 15/1549 M 15/1550 M 15/1553 M 15/1576 M 15/1590

Existing Hardstand
Go Line & Workshop Area
Haul Road
Pit Hardstand Area
ROM Pad
Pit Crest
WRL
North Abandonment Bund
Zone of Instability
South Abandonment Bund
Magazine
Magazine Road



Data source: Roads - Landgate, 2025; Tenements - DEMIRS, 2025; Imagery: ESRI, 2023.

LEGEND

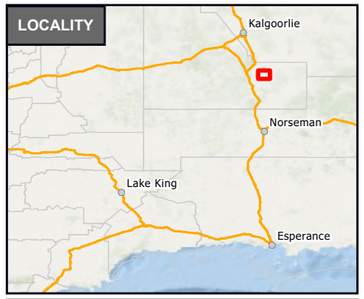
- Development Envelope
- Mining Tenements

Proposed Site Layout

- Building (other than workshop) or camp-site
- Laydown or hardstand area
- Run-of-mine (ROM) pad
- Workshop
- Other cleared land
- Magazine
- Water Storage
- Mining Void (with a depth of at leats 5 metres)
- Waste dump or overburden stockpile
- Transport or service infrastructure corridor
- Shared Infrastructure

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LOCALITY



0 100 200 300 400 500 km

PROPOSED SITE LAYOUT

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N

0 100 200 300 400 m

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:10,000

Prepared:	E Jackson	Date:	12/06/2025
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Figure 1-2

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2 Site Information

2.1 Biogeographic location

The Interim Biogeographic Regionalisation of Australia (IBRA) classifies the whole of Australia into 89 regions and 419 subregions based on similar climate conditions, geological units, landforms, flora and vegetation communities and fauna assemblages (Department of Climate Change, Energy, the Environment and Water (DCCEEW), 2025).

The project is located in the Eastern Goldfields (Coolgardie 3/C003) sub-region within the Coolgardie IBRA region.

The subregion is described as: *lying on the Yilgarn Craton's 'Eastern Goldfields Terrains'. The relief is subdued and comprises of gently undulating plains interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying geology is of gneisses and granites eroded into a flat plane (sic) covered with tertiary soils and with scattered exposure of bedrock. Calcareous earths are the dominant soil group and cover much of the plains and greenstone areas. A series of large playa lakes in the western half are the remnants of an ancient major drainage line. The vegetation is of Mallees, Acacia thickets and shrub-heaths on sandplains. Diverse Eucalyptus woodlands occur around salt lakes, on ranges and in valleys. Salt lake (sic) support dwarf shrublands of samphire. Woodlands and Dodonaea shrubland occur on basic graninulites(sic) of the Fraser Range. The area is rich in endemic Acacias. The climate is Arid to Semi-arid with 200-300 mm of rainfall, sometimes in summer but usually in winter. The subregional area is 5,102,428 ha* (Cowan, 2001).

2.2 Climate

The Climate of the Eastern Goldfields regions is described as arid to semi-arid with 200-300 mm of mainly winter rainfall (Cowan, 2001).

The closest Bureau of Meteorology weather station with rainfall data is Kambalda-West (Station Number 12117, operating since 2004) located approximately 20.5 km north-west of the project and for temperature Kalgoorlie Boulder Airport (Station Number 12038, operating since 1939) located approximately 70.9 km north-west of the project.

The mean annual rainfall is 286.7 mm, temperatures peak in January reaching up to 33.7 °C and are lowest in July (BoM, 2025; Figure 2-1).

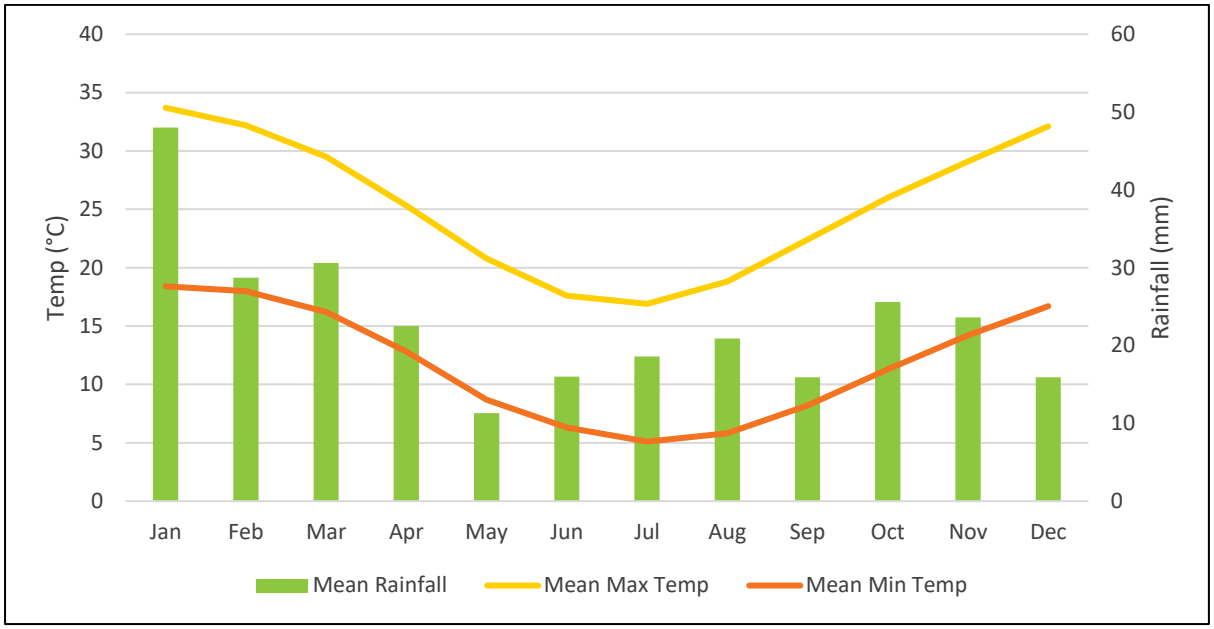


Figure 2-1: Climate of the project area (BoM, 2025)

2.3 Topography

The topography across the MDE does not vary significantly with elevation ranging from 320 metres Australian Height Datum (mAHD) in the majority of the MDE to 340 mAHD in the north-easter section (Figure 2-2).

2.4 Soil Landscape Mapping

Soil landscape mapping describes broad soil and landscape characteristics of Western Australia at different scales, depending on available information. According to the Department of Primary Industries and Regional Development (DPIRD) soil landscape systems mapping the MDE encompasses three land systems, further detailed in Table 2-1 and displayed on Figure 2-3 (DPIRD, 2025).

Table 2-1: Land Systems of the MDE (DPIRD 2025)

Land System	Description	Extent within MDE
Graves System	Basalt and greenstone rises and low hills supporting Eucalypt woodlands with prominent saltbush and bluebush understoreys.	36.79 ha (21.04 %)
Gumland System	Extensive pedeplains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys.	23.06 ha (13.19 %)
Moriarty System	Low greenstone rises and stony plains supporting Chenopod shrubland with patchy Eucalypt overstoreys.	114.99 ha (65.77 %)

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382,400 383,200 384,000 384,800

6,530,400 6,529,600 6,528,800

320 340 300

Silvest Rd

LEGEND

Development Envelope

Ground Surface Topography

Major Contour

Minor Contour

Western Australian Roads

Minor Road

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LOCALITY



0 100 200 300 400 500 km

TOPOGRAPHY

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N 0 100 200 300 400 m

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:10,000

Prepared:	E Jackson	Date:	11/06/2025
Reviewed:	L Carlsson	Revision:	A
Project:	TE25045		

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Figure 2-2

Data source: Roads, Topography - Landgate, 2025. Imagery: ESRI, 2023.

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382,400 383,200 384,000 384,800

6,530,400 6,529,600 6,528,800

265Mo
265Gr
265Gm
265Ls
St Ives Rd

Data source: Roads - Landgate, 2025. Soil Landscape Systems - DPIRD, 2025. Imagery: ESRI, 2023.

LEGEND

Development Envelope

Soil Landscape Mapping

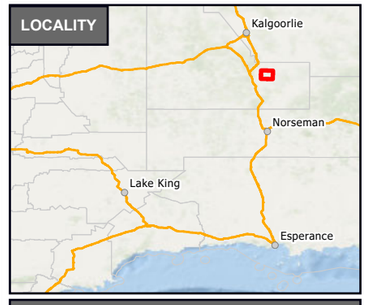
- Graves System (265Gr): Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys.
- Gumland System (265Gm): Extensive pedeplains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys.
- Lakeside System (265Ls): Sandplains with occasional sand dunes and prominent claypans, supporting mallee eucalypts and spinifex.
- Moriarty System (265Mo): Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys.

Western Australian Roads

Minor Road

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LOCALITY



0 100 200 300 400 500 km

SOIL CHARACTERISATION

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N 0 100 200 300 400 m

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:10,000

Prepared:	E Jackson	Date:	12/06/2025
Reviewed:	L Carlsson	Revision:	A
Project:	TE25045		

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Figure 2-3

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2.5 Pre-European Vegetation

The Pre-European vegetation mapping aims to depict the natural vegetation of Western Australia as presumed to have existed prior to European settlement. The majority of this work was conducted by John Beard in the 1970s. Since then, it has been updated to include previously unmapped areas and is published in its most current form by DPIRD (2019). The Department of Biodiversity, Conservation and Attractions (DBCA) infrequently updates the associated extents (2019).The MDE encompasses two Pre-European vegetation detailed in Table 2-2, extents detailed in Table 2-3 and displayed on Figure 2-4.

Table 2-2: Pre-European Vegetation Units of the MDE (DPRID 2019)

Vegetation Association	Description	Extent within MDE
Binneringe_936	Structural: Woodland other Flora: Goldfields; Gimlet, Redwood etc. *Eucalyptus salubris, E. oleosa*.	137.38 ha (78.57 %)
Binneringe_9	Structural description: Woodland other Flora: Goldfields; Gimlet, Redwood etc. *Eucalyptus salubris, E. oleosa.*	37.46 (21.43 %)

Table 2-3: Pre-European Vegetation Extents (DBCA 2019)

Scale	Vegetation Association	Original extent (ha)	Current extent (ha)	% remaining
Western Australia	9	240,509.33	235,161.94	97.78
	936	698,752.00	676,689.18	96.84
IBRA region: Coolgardie	9	240,441.99	235,100.97	97.78
	936	586,792.23	584,336.14	99.58
IBRA sub-region: Eastern Goldfield	9	235,047.15	229,757.07	97.75
	936	310,897.74	308,459.61	99.22
Local Government Area: Shire of Coolgardie	9	166,572.37	163,720.39	98.29
	936	359,112.73	356,674.60	99.32

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382,400
383,200
384,000
384,800
6,530,400
6,529,600
6,528,800
St Ives Rd
936
9

LEGEND

Development Envelope

Pre-European Vegetation

BINNERINGE 936: Woodland other

BINNERINGE 9: Woodland other

Western Australian Roads

Minor Road

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LOCALITY



0 100 200 300 400 500 km

PRE-EUROPEAN VEGETATION

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N

0 100 200 300 400 m

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:10,000

Prepared:	E Jackson	Date:	2/07/2025
Reviewed:	L Carlsson	Revision:	A
Project:	TE25045		

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Figure 2-4

Data source: Roads - Landgate, 2025. Pre-European Vegetation - DPIRD, 2025. Imagery: ESRI, 2023.

2.6 Hydrology

The MDE is located in the Lake Lefroy catchment (Department of Water and Environmental Regulation (DWER), 2024), with Lake Lefroy located approximately 2.1 km west of the MDE.

The MDE does not intersect or is located close to any important wetlands or perennial or non-perennial drainage lines.

2.6.1 Groundwater Dependent Ecosystems (GDEs)

There is no potential for terrestrial GDEs to occur within the MDE according to the Groundwater Dependent Ecosystem Atlas (BoM, 2025b).

2.7 Significant Lands

The MDE does not intersect any significant lands i.e. Environmentally Sensitive Areas, conservation lands or lands proposed for conservation (Department of Water and Environmental Regulation, 2021; Department of Biodiversity Conservation and Attractions, 2025a, 2025b). The closest conservation area is Kambalda Timber/Nature Reserve located approximately 17.2 km north-west of the MDE (*ibid*).

The MDE is located within the Great Western Woodlands (GWW). The GWW are considered to be of global biological and conservation importance, however, no specific management strategy or conservation status applies.

3 Flora and Vegetation Survey

Botanica Consulting (Botanica) conducted a two-phase Detailed Flora and Vegetation survey over a suite of Lunnon Metals tenements totalling 1,501.3 ha during May and October 2024. The full survey report can be found in Appendix A. The following discussion is centred around the flora and vegetation values of the MDE.

3.1.1 Flora

The desktop assessment identified a possible 774 vascular flora taxa as occurring within a 40 km buffer surrounding the survey area, including 18 weed/introduced species. A DBCA *Threatened and Priority Flora Search, Protected Matters Search Tool* (PMST) and *Atlas of Living Australia* search identified 29 conservation-listed species from within 40 km of the survey area. None of these species have previously been recorded from within the survey area or were considered 'Likely' to occur. Five species were considered as 'Possible' occurring. A DBCA *Threatened and Priority Ecological Communities* and PMST search did not identify any Threatened or Priority Ecological Community (TEC/PEC) as possibly occurring within the survey area (Botanica, 2024).

The flora and vegetation survey identified 97 vascular flora taxa from the whole survey area including five weed species of no particular significance i.e. no Declared Pest Plants or Weeds of National Significance. No threatened, priority or otherwise significant flora taxa was recorded from within the survey area (*ibid).*

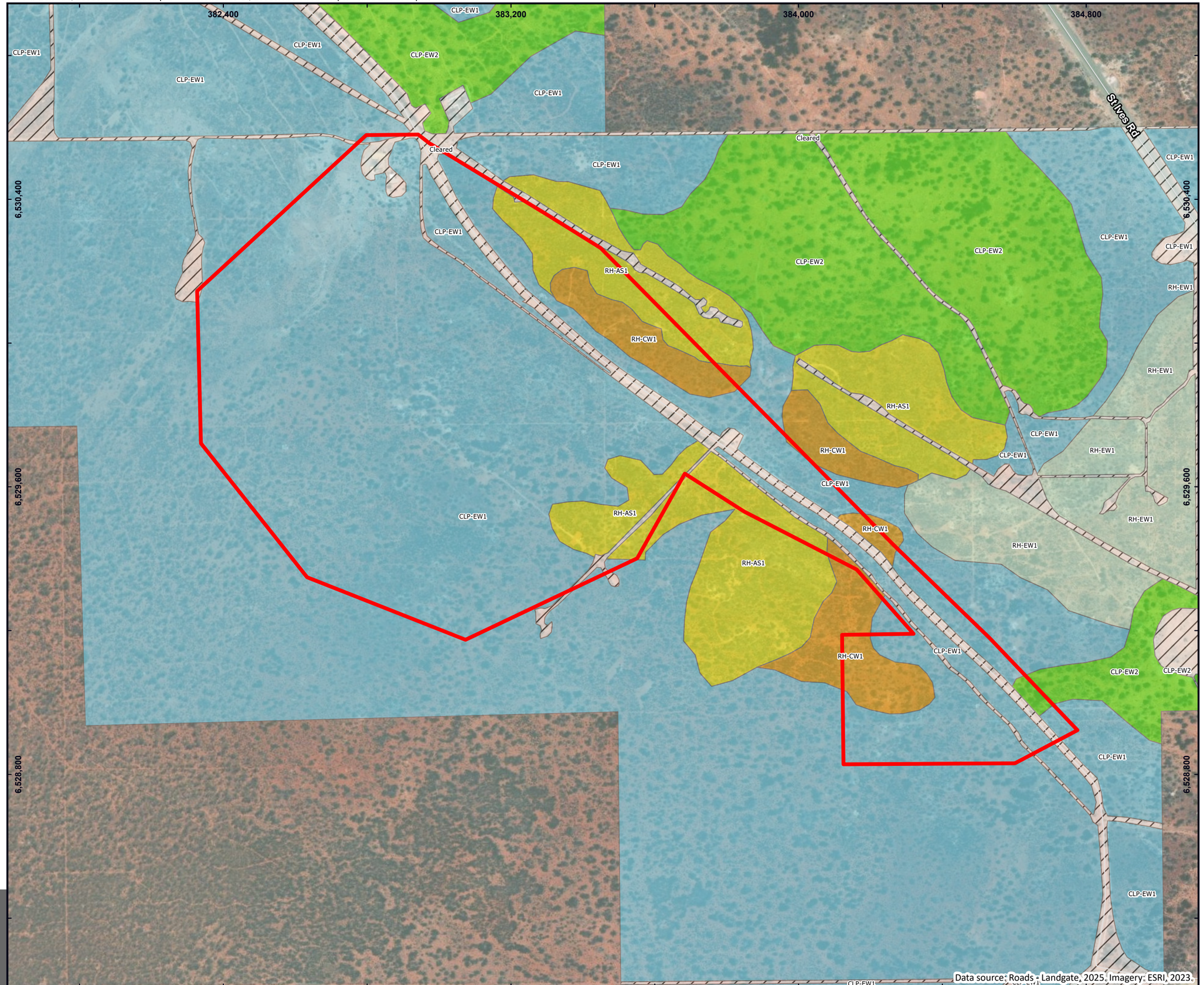
3.1.2 Vegetation Types

Seven vegetation types were identified from within the whole survey area. No recorded vegetation type is representative of any known TEC, PEC or of other significance (Botanica, 2024). Four vegetation types have been recorded from the MDE detailed in Table 3-1 and displayed on Figure 3-1, 10.37 ha are already cleared.

Table 3-1: Vegetation Types within the MDE

Code	Vegetation Type	Extent within MDE
RH-AS1	*Acacia collegialis* tall open shrubland over *Scaevola spinescens, Dodonaea lobulata, Eremophila clarkei* mid open shrubland over *Cheilanthes sieberi, Leichhardtia australis* low sparse forbland	14.73 ha (8.43 %)
RH-CW1	*Casuarina pauper, Santalum acuminatum* woodland over *Alyxia buxifolia, Senna artemisioides subsp. filifolia, Scaevola spinescens* shrubland over *Westringia rigida, Eremophila glabra, Olearia muellerii* low open shrubland	10.50 ha (6.00 %)
CLP-EW2	*Eucalyptus salmonophloia* woodland over *Senna artemisioides* subsp. *filifolia* mid sparse shrubland over *Atriplex vesicaria, A. nummularia, Sclerolaena diacantha* low sparse shrubland	0.57 ha (0.33 %)
CLP-EW1	*Eucalyptus salubris* open woodland over *Eremophila scoparia, Scaevola spinescens, Senna artemisioides* subsp. *filifolia* mid open shrubland over *Atriplex vesicaria, Ptilotus obovatus, Olearia muellerii* low sparse shrubland	138.67 ha (79.31 %)

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LEGEND

Development Envelope

Vegetation Units (Botanica Consulting, 2024)

RH-AS1: Acacia collegialis tall open shrubland over Scaevola spinescens, Dodonaea lobulata, Eremophila clarkei mid open shrubland over Cheilanthes sieberi, Leichhardtia australia low sparse forbland

RH-CW1: Casuarina pauper, Santalum acuminatum woodland over Alyxia buxifolia, Senna artemisioides subsp. filifolia, Scaevola spinescens shrubland over Westringia rigida, Eremophila glabra, Olearia muellerii low open shrubland

CLP-EW2: Eucalyptus salmonophloia woodland over Senna artemisioides subsp. filifolia mis sparse shrubland over Atriplex vesicaria, A. nummularia, Sclerolaena diacantha low sparse shrubland

CLP-EW1: Eucalyptus salubris open woodland over Eremophila scoparia, Scaevola spinescens, Senna artemisioides subsp. filifolia mid open shrubland over Atriplex vesicaria, Ptilotus obovatus, Olearia muellerii low sparse shrubland

RH-EW1: Eucalyptus lesouffii, E. torquata over Eremophila scoparia, Dodonaea lobulata, Senna artemisioides subsp. filifolia mid sparse shrubland over Eremophila parviflora, Westringia rigida, Cratystylis conocephala low open shrubland

Cleared: Cleared

Western Australian Roads

Minor Road

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LOCALITY



0 100 200 300 400 500 km

VEGETATION TYPES

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N

0 100 200 300 400 m

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:10,000

Prepared:	E Jackson	Date:	12/06/2025
Reviewed:	L Carlsson	Revision:	A
Project:	TE25045		

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Figure 3-1

Data source: Roads - Landgate, 2025. Imagery: ESRI, 2023.

3.1.3 Vegetation Condition

The vegetation of the whole survey area ranged from Very Good to Degraded (Botanica, 2024). Five weed species of no particular significance (i.e. none are Weeds of National Significance or Declared Pest Plants) were recorded during the survey, disturbance in the survey is associated with active and historical mining/exploration activities and grazing from livestock (*ibid*).

Table 3-2: Vegetation Condition within the MDE

Vegetation Condition	Extent within MDE
Very Good	76.83 ha (43.94%)
Good	54.62 ha (31.24%)
Poor	22.72 ha (13.00%)
Degraded	10.30 ha (5.89%)

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382,400
383,200
384,000
384,800
6,530,400
6,529,600
6,528,800
St Ives Rd

LEGEND

- Development Envelope

Vegetation Condition (Botanica Consulting, 2024)

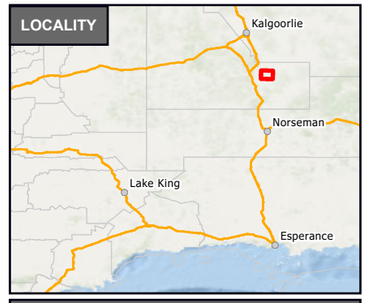
- Very Good
- Good
- Poor
- Degraded
- Cleared

Western Australian Roads

- Minor Road

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LOCALITY



0 100 200 300 400 500 km

VEGETATION CONDITION

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N 0 100 200 300 400 m

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:10,000

Prepared:	E Jackson	Date:	12/06/2025
Reviewed:	L Carlsson	Revision:	A
Project:	TE25045		

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Figure 3-2

Data source: Roads - Landgate, 2025. Imagery: ESRI, 2023.

4 Fauna Survey

A Basic terrestrial vertebrate fauna survey was undertaken concurrently with the Detailed Flora and Vegetation survey by Botanica during May and October 2024 (Botanica, 2024).

4.1.1 Fauna Assemblage

The desktop assessment identified a total of 216 terrestrial vertebrate species (native and introduced) consisting of 11 mammals, 135 birds, 69 reptiles and one amphibian as having been previously recorded from within 40 km of the survey area (Botanica, 2024). Two conservation-listed species the Grey Falcon (*Falco hypoleucos)* and Malleefowl (*Leipoa ocellata*) both listed as VU under the EPBC and BC Act were considered as "Possibly" occurring within the survey area (*ibid*).

During the field survey a fauna inventory was collated, consisting of 28 species either observed, captured by motion cameras or identified from secondary evidence including: six mammals (two introduced), 20 birds and two reptiles. No evidence of utilisation of the survey area by conservation-listed species was recorded during the survey. The Malleefowl and Grey Falcon retain their status of "Possibly" using the survey area, post-survey (Botanica, 2024).

4.1.1.1 *Conservation-listed Butterflies*

The MDE is situated within the potential distribution of the ant *Camponotus* sp. nr. *terebrans* (sugar ant) which has an obligate association with the Arid Bronze Azure Butterfly ((ABAB) *Ogyris subterrestris petrina*) listed as Critically Endangered under the EPBC and BC Act (DBCA, 2020). An ant survey in line with the recent guidelines (DBCA, 2020) was undertaken in July 2025 (Invertebrate Solutions, 2025 *in preparation*). A single small nest (0.2 x 0.2 m) of *Camponotus* sp. nr. *terebrans* was located at a single tree at the western extremity of the Project area. No other *Camponotus* sp. nr. *terebrans* nests were recorded within the survey area. Therefore, the area is not considered to be habitat for the *Ogyris subterrestris petrina* (T. Moulds, Invertebrate Solutions, pers. comms.).

4.1.2 Habitat Types

During the field survey five fauna habitat types were recorded from within the survey area, of these three occur within the MDE (detailed in Table 4-1 and Figure 4-1) (Botanica, 2024).

Table 4-1: Fauna Habitat Types within the MDE

Fauna Habitat type	Characteristics	Extent within the MDE
Acacia shrubland on rocky hillslope	• ground provides rocky microrelief habitat, not suited to burrowing species • low to moderate diversity vegetation strata supporting avifauna assemblage • low to moderate vegetation density and low leaf litter	14. 73 ha (8.43 %)

Casuarina open woodland on rocky hillslope	• ground provides rocky microrelief habitat, not suited to burrowing species • low to moderate diversity vegetation strata supporting avifauna assemblage • low vegetation density and low leaf litter	10.50 ha (6.00 %)
Eucalyptus woodland on clay-loam plain	• ground partially suited to burrowing species • moderate diversity vegetation strata supporting significant avifauna assemblage • moderate vegetation density and moderate leaf litter	1398.24 ha (79.64 %))

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382,400
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384,800
6,530,400
6,529,600
6,528,800
St Ives Rd

Data source: Roads - Landgate, 2025. Imagery: ESRI, 2023.

LEGEND

Development Envelope

Fauna Habitats (Botanica Consulting, 2024)

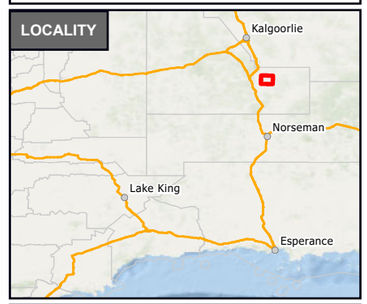
- Acacia shrubland on rocky hillslope
- Casuarina open woodland on rocky hillslope
- Eucalyptus woodland on clay-loam plain
- Cleared

Western Australian Roads

- Minor Road

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LOCALITY



km
0 100 200 300 400 500

FAUNA HABITATS

Lady Herial Open Pit

Native Vegetation Clearing Permit

Lunnon Metals Pty Ltd

N
m
0 100 200 300 400

Coordinate System: GDA2020 MGA Zone 51
Scale @ A3: 1:10,000

Prepared:	E Jackson	Date:	12/06/2025
Reviewed:	L Carlsson	Revision:	A
Project:	TE25045		

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Figure 4-1

Document Path: \\server\talis\SECTIONS\Environment\Projects\TE2025\TE25045 - Lunnon Lady Herial Approvals\GIS\Maps\TE25045 - Lunnon Lady Herial Approvals\TE25045 - Lunnon Lady Herial NVCP.aprx

5 Environmental Management Measures

5.1 Avoidance

The site layout has been carefully designed to make as much use as possible of already disturbed areas and/or areas of lower vegetation condition rating. Where possible, clearing of vegetation of 'Very Good' condition has been avoided.

5.2 Mitigation

To reduce the impact of introduced flora species (weeds) to the proposed clearing area and surrounding native vegetation, the proponent will ensure all vehicles and machinery are clean of soil, mud and vegetative material prior to site access.

6 Assessment Against the Ten Clearing Principles

Table 6-1: Assessment of the proposed Project against the 10- Clearing Principles

Principle	Assessment	Outcome
Principle (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.	The vegetation within the proposed clearing area is considered to be of low biological diversity and is well represented outside of the clearing area. No Threatened, Priority or otherwise significant flora taxa or ecological communities were identified from within the clearing area (Botanica, 2024).	Clearing is unlikely to be a variance to this Principle
Principle (b) Native vegetation should not be cleared if it comprises the while or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	The fauna survey recorded no conservation-listed or otherwise significant fauna species or secondary evidence of such. Furthermore, no critical habitat for conservation-listed species occurring within the wider local area has been recorded from the survey area (Botanica, 2024).	Clearing is unlikely to be a variance to this Principle
Principle (c) Native Vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	No conservation-listed flora taxa under the EPBC or BC Act was identified from within the survey area (Botanica, 2024).	Clearing is unlikely to be at variance with this Principle
Principle (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.	No Threatened Ecological Community was identified during the desktop assessment or field survey as potentially occurring within the survey area (Botanica, 2024).	Clearing is unlikely to be at variance with this Principle
Principle (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	The two pre-European vegetation units recorded from within the MDE retain more than 96% of their original extent on various scales (i.e. State wide, IBRA region ...).	Clearing is unlikely to be at variance with this Principle

Principle	Assessment	Outcome
Principle (f) Native vegetation should not be cleared if it is growing in, or in association with a watercourse or wetland.	No surface water features i.e. drainage lines and/or wetlands were identified from within the survey area (Botanica, 2024).	Clearing is unlikely to be at variance with this Principle
Principle (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	DER (2014) has defined land degradation as: • the clearing of vegetation; • decline in vegetation condition; • soil erosion and soil acidity (caused by wind and water erosion due to vegetation clearing); • salinity; and/or • waterlogging/flooding. The MDE has been partially cleared the surrounding region has not been extensively cleared (Botanica, 2024). Clearing of native vegetation within the MDE is not considered likely to lead to land degradation as defined above.	Clearing is unlikely to be at variance with this Principle
Principle (h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have impact on the environmental values of any adjacent of nearby conservation area.	The survey area does not intersect, is adjacent to or in close proximity to any conservation area, the proposed activity within the MDE is therefore unlikely to have a significant impact on any such area.	Clearing is unlikely to be at variance with this Principle
Principle (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	No surface water features (i.e. drainage lines and/or wetlands) or GDES were identified from within the MDE or immediately adjacent therefore the proposed clearing is unlikely to results in water quality deterioration in the area.	Clearing is unlikely to be at variance with this Principle

Principle	Assessment	Outcome
Principle (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.	Rainfall in the Eastern Goldfields subregion has an average rainfall of 200-300 mm and an evaporation rate of 2400 mm. Rainfall data indicates that rainfall is spread throughout the year and rainfall events are unlikely to result in localised flooding (Botanica, 2024). Clearing of native vegetation within the MDE is unlikely to increase the intensity or incidence of flooding within the area.	Clearing is unlikely to be at variance with this Principle

7 Summary of Assessment

The assessment concludes that the clearing of 37.73 ha of native vegetation for the development of the Project is not at variance with the 10 Clearing Principles.

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APPENDIX A

Botanica Consulting (2024) Kambalda Gold and Nickel Project Detailed Flora and Basic Fauna Assessment

KAMBALDA GOLD AND NICKEL PROJECT

Detailed Flora and Basic Fauna Assessment

Prepared for Lunnon Metals Ltd
November 2024



Prepared by
BOTANICA CONSULTING
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Document Information

Prepared for: Lunnon Metals Limited.
Project Name: Kambalda Gold and Nickel Project
Job Reference: Detailed Flora and Basic Fauna Assessment
Job Number: 2024/045
Date: 28 November 2024
Version: FINAL

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Cover Photo: Vegetation within the Kambalda Gold and Nickel project area (taken 07/10/2024)

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Contents

EXECUTIVE SUMMARY 5
1 INTRODUCTION 6
1.1 Objectives 6
1.1.1 Detailed Flora and Vegetation Survey 6
1.1.2 Basic Fauna Survey 7
2 BIOPHYSICAL ENVIRONMENT 9
2.1 Regional Environment 9
2.2 Land Use 9
2.3 Soil Landscape Systems 9
2.4 Regional Vegetation 12
2.5 Conservation Values 12
2.5.1 Great Western Woodlands 13
2.6 Climate 14
2.7 Hydrology 14
3 Survey Methodology 16
3.1 Desktop Assessment 16
3.2 Flora and Vegetation Field Assessment 18
3.2.1 Flora Assessment 20
3.2.2 Data Analysis Tools 20
3.2.3 PATN Analysis 20
3.2.4 EstimateS 21
3.3 Terrestrial Fauna Field Assessment 21
3.4 Scientific Licences 22
3.5 Survey Limitations and Constraints 22
4 Results 25
4.1 Desktop Assessment 25
4.1.1 Flora 25
4.1.2 Introduced Flora 25
4.1.3 Significant Flora 26
4.1.4 Vegetation Associations 28
4.1.5 Significant Ecological Communities 28
4.1.6 Fauna 30
4.2 Field Assessment 31
4.2.1 Flora 31
4.2.2 Vegetation Communities 32
4.2.3 Floristic Composition 38
4.2.4 Species Richness and Accumulation Estimates 38
4.2.5 Vegetation Condition 39
4.2.6 Fauna Habitat 41

4.2.7 Significant Fauna 47
4.3 Matters of National Environmental Significance 47
4.3.1 Environment Protection and Biodiversity Conservation Act 1999 47
4.4 Matters of State Environmental Significance. 48
4.4.1 Environmental Protection Act WA 1986 48
4.4.2 Biodiversity Conservation Act 2016 48
4.5 Other Areas of Conservation Significance 49
4.6 Native Vegetation Clearing Principles 51
5 Bibliography 53

Tables

Table 2-1: Soil landscape systems within the survey area 10
Table 3-1: Scientific Licenses of Botanica Staff coordinating the survey 22
Table 3-2: Limitations and constraints associated with the flora/ vegetation and fauna survey 23
Table 4-1: Previous flora and fauna surveys in the local and regional area 25
Table 4-2: Potentially occurring significant weed species 25
Table 4-3: Significant flora potentially occurring within the survey area 26
Table 4-4: Pre-European vegetation associations within the survey area 28
Table 4-5: Potentially occurring introduced fauna 30
Table 4-6: Potentially occurring significant fauna 31
Table 4-7: Vegetation communities within the survey area 33
Table 4-8: Vegetation condition rating within the survey area 39
Table 4-9: Fauna species observed during the field survey 41
Table 4-10: Main terrestrial fauna habitats within the survey area 43
Table 4-11: Assessment against native vegetation clearing principles 51

Figures

Figure 1-1: Regional map of the desktop survey area/ survey area 8
Figure 2-1: Soil landscape systems within the survey area 11
Figure 2-2: Climate data of Kalgoorlie-Boulder Airport (#12038) weather station 14
Figure 2-3: Regional hydrology of the survey area 15
Figure 3-1: Quadrat locations and GPS track log of the survey effort 19
Figure 4-1: Significant flora within the desktop search area 27
Figure 4-2: Pre-European vegetation systems within the survey area 29
Figure 4-3: Vegetation communities within the survey area 37
Figure 4-4: Species accumulation curve 39
Figure 4-5: Vegetation condition within the survey area 40
Figure 4-6: Fauna habitats within the survey area 46
Figure 4-7: Areas of conservation significance 50

APPENDICES

Appendix A: Atlas of Living australia desktop Search (40km)

Appendix B: EPBC Protected Matters Search (40km buffer)

Appendix C: Conservation Ratings BC Act and EPBC Act

Appendix D: Quadrat Locations (GDA2020, Zone 50)

Appendix E: Quadrat Data Sheets

Appendix F: Quadrat Photos

Appendix G: Introduced Flora of the Desktop Assessment

Appendix H: Significant Flora Likelihood Assessment

Appendix I: Significant Fauna Likelihood Assessment

Appendix J: List of species identified within the survey area

Appendix K: PATN Analysis

Appendix L: Vegetation Condition Rating

EXECUTIVE SUMMARY

Botanica Consulting Pty Ltd (Botanica) undertook a two-phase detailed flora and basic fauna survey of the Kambalda Gold and Nickel Project survey area, 1,501.3 ha in extent and located approximately 18 km south-east of Kambalda, Western Australia. The survey is intended to support applications for a Mining Proposal and Mine Closure Plan, and a Programme of Works (PoW) application within the Kambalda Gold and Nickel Project area.

The survey area lies within the Eastern Goldfields (COO3) subregion of the Coolgardie Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA). The survey area is located in the Shire of Coolgardie.

Botanica conducted a two-stage detailed flora and vegetation field survey in Autumn and Spring 2024. The Autumn survey (Phase 1) was conducted on the 8th-9th May 2024 and the Spring survey (Phase 2) was conducted on the 7th-8thOctober 2024. A total of 26 quadrats (20m x 20m) were installed during the field survey, with an additional four historical quadrats also surveyed.

A total of seven broad-scale vegetation communities were identified within the survey area, consisting predominantly of *Eucalyptus* woodland on clay-loam plains (with some areas of sand), with areas of rocky hillslope with Casuarina woodlands and Acacia shrublands.

The field survey identified 97 vascular flora taxa within the survey area, represented 47enera across 27 families. Of these, five taxa (5.2%) were introduced flora (weed) species. None are listed as a Weed of National Significance or a Declared Pest in Western Australia.

Native vegetation within the survey area was categorized as ‘very good’ to ‘degraded’. Disturbances within the survey area include recent and historical mining and exploration activities, historical grazing and feral animal impact, changed fire regimes and cumulative historical impacts.

No Threatened, Priority or otherwise significant flora species were recorded within the survey area. No Threatened, Priority or otherwise significant vegetation assemblages was identified as possibly occurring within the survey area.

No evidence of significant fauna was observed during the field survey. No evidence of Malleefowl activity (active mounds, tracks, feathers, direct bird observations etc.) or other conservation significant fauna were identified during the field survey.

There are no Environmentally Sensitive Areas, Ramsar Wetlands, or Australian Nature Conservation Agency Wetlands within the survey area. The survey area is not located in or in close proximity to a gazetted/proposed conservation reserves.

The results of the desktop and field survey were assessed against the native vegetation clearing principles listed under Schedule 5 of the EP Act. The assessment found that the proposed vegetation clearing activities are unlikely to be at variance with any of the clearing principles.

1 INTRODUCTION

Botanica Consulting Pty Ltd (Botanica) undertook a two-phase detailed flora and basic fauna survey of the Kambalda Gold and Nickel Project area (hereafter referred to as the 'survey area'), 1,501.3 ha in extent and located approximately 18 km southeast of Kambalda, Western Australia (Figure 1-1). The survey is intended to support applications for a Mining Proposal and Mine Closure Plan, and a Programme of Works (PoW) application within the Kambalda Gold and Nickel Project area.

1.1 Objectives

1.1.1 Detailed Flora and Vegetation Survey

The flora and vegetation assessment was conducted in accordance with the requirements of a detailed survey as defined in *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016* (EPA, 2016a). The objectives of the assessment were to:

- Define and map vegetation communities of the survey area to a scale appropriate for the bioregion and described according to the National Vegetation Information System (NVIS) classification (NVIS Level III– Vegetation Association);
- Record the species composition (abundance and diversity) of each vegetation community within the survey area and compile a species list for the survey area by vegetation type;
- Provide quadrat-based data from plots representative of each vegetation type (minimum of three quadrats per vegetation type) according to EPA guidelines;
- Assess the species composition of each quadrat using statistical analysis (PATN analysis);
- Determine the local and regional conservation significance of flora and vegetation within the survey area;
- Identify and record the locations of any conservation significant flora/vegetation within the survey area;
- Identify and record the locations of any introduced flora species (including Declared Plants) within the survey area;
- Provide a map showing the distribution of conservation significant flora/vegetation within the survey area;
- Define and map the condition of vegetation within the survey area in accordance with the vegetation condition rating scale specified in the Technical Guidance (EPA, 2016a);
- Determine the State legislative context of environmental aspects required for the assessment; and
- Assess Matters of National Environmental Significance (MNES) and indicate whether potential impacts on MNES as protected under the EPBC Act are likely to require referral of the project to the Commonwealth (DCCEEW).

1.1.2 Basic Fauna Survey

The fauna assessment was conducted in accordance with the requirements of a basic terrestrial fauna survey as defined in *Technical Guidance - Terrestrial Fauna Surveys for Environmental Impact Assessment – June 2020* (EPA, 2020). The objectives of the assessment were to:

- Undertake a literature review, including map-based information searches of all current and relevant literature sources and databases relating to the survey area;
- Undertake a desktop investigation to identify any previously recorded occurrences of or potentially occurring Threatened and Priority listed fauna within the survey area;
- Undertake searches on available databases for details relating to any Threatened and Priority listed fauna previously identified as occurring or potentially occurring within the survey area;
- Conduct fauna habitat mapping and identify habitat types which are suitable for each significant fauna considered likely or possible to occur, or fauna recorded in the survey area;
- Compile an inventory of fauna species occurrences within the survey area;
- Undertake opportunistic, low intensity sampling of fauna; and
- Report on the conservation status of species present using the Western Australian Museum and Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) databases for presence of Threatened and Priority listed fauna species within the survey area.



Figure 1-1: Regional map of the desktop survey area/ survey area

2 BIOPHYSICAL ENVIRONMENT

2.1 Regional Environment

The survey area lies within the Eastern Goldfields (COO3) subregion of the Coolgardie Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA) version 7 (DCCEEW, 2020).

The Eastern Goldfields subregion (5,102,428 ha) lies on the Yilgarn Craton's Eastern Goldfields Terrain, which is described as gently undulating plains with a subdued relief, interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying geology is of gneisses and granites eroded into a flat plane covered with tertiary soils and with scattered exposures of bedrock. Calcareous earths are the dominant soil group and cover much of the plains and greenstone areas. A series of large playa lakes in the western half are the remnants of an ancient major drainage line. (Cowan, 2001a). The vegetation consists of Mallees, Acacia thickets and shrub-heaths on sandplains, with diverse Eucalyptus woodlands occurring around salt lakes, on ranges, and in valleys. Salt lake support dwarf shrublands of samphire. Woodlands and Dodonaea shrubland occur on basic granulites of the Fraser Range, and the area is rich in endemic Acacias (Cowan, 2001).

2.2 Land Use

The dominant land uses of the Eastern Goldfields subregion include Unallocated Crown Land (UCL) and Crown reserves and pastoral grazing, with conservation areas and mining leases also present (Cowan, 2001). The survey area is not located within any pastoral lease.

2.3 Soil Landscape Systems

The survey area lies within the Kalgoorlie Province, located in the southern Goldfields between Paynes Find, Menzies, Southern Cross and Balladonia. The landscape consists of undulating plains (with some sandplains, hills and salt lakes) on the granitic rocks and greenstone of the Yilgarn Craton. Soils range from calcareous loamy earths and red loamy earths with some salt lake soils to red deep sands, yellow sandy earths, shallow loams and loamy duplexes. Vegetation communities are predominately Eucalypt woodlands with some acacia-casuarina thickets, mulga shrublands, halophytic shrublands and spinifex grasslands.

The Kalgoorlie Province is further divided into six soil-landscape zones, with the survey area located within the Kambalda Zone (265). This zone is located in the south-eastern Goldfields between Menzies, Norseman and the Fraser Range and contains flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton. Soils consist of calcareous loamy earths and red loamy earths with salt lakes soils and some redbrown hardpan shallow loams and red sandy duplexes. Vegetation includes red mallee, blackbutt-salmon gum-gimlet woodlands with mulga and halophytic shrublands and some spinifex grasslands (Tille, 2006).

In accordance with soil landscape system mapping data (Government of Western Australia, 2019), the survey areas located is within four landscape systems, as described in Table 2-1 and shown in Figure 2-1.

Table 2-1: Soil landscape systems within the survey area

Soil Landscape System	Description	Area and %
Graves System	Basalt and greenstone rises and low hills supporting eucalypt woodlands with prominent saltbush and bluebush understoreys.	272.5 ha (18.2%)
Gumland System	Extensive pedeplains supporting eucalypt woodlands with halophytic and non-halophytic shrub understoreys.	389 ha (25.9%)
Lakeside System	Sandplains with occasional sand dunes and prominent claypans, supporting mallee eucalypts and spinifex.	196.6 ha (13.1%)
Moriarty System	Low greenstone rises and stony plains supporting chenopod shrublands with patchy eucalypt overstoreys.	643.2 ha (42.8%)
Total		**1501.3 ha (100%)**



Figure 2-1: Soil landscape systems within the survey area

2.4 Regional Vegetation

The vegetation of the Kalgoorlie Province is described by Tille (2006) as woodlands of redwood (*Eucalyptus transcontinentalis*), red mallee (*E. oleosa*), Dundas blackbutt (*E. dundasii*), merrit (*E. flocktoniae*) and salmon gum (*E. salmonophloia*), found on undulating plains over granite. There are also some hummock grasslands with red mallee over spinifex (*Triodia scariosa*) and thickets of *Acacia*, *Casuarina* and *Melaleuca* spp. Plains on greenstone have woodlands of York gum (*E. loxophleba*), salmon gum and gimlet (*E. salubris*). The valley plains have woodlands of salmon gum, red mallee, Goldfields blackbutt (*E. lesouefii*), gimlet, York gum and morrel (*E. longicornis*). These sometimes have an understorey of saltbush (*Atriplex* spp.), pearl bluebush (*Maireana sedifolia*), sago bluebush (*M. pyramidata*) and *Eremophila* spp. There are areas of spinifex grasslands with red mallee, mallees (e.g. *E. youngiana*) and marble gum (*E. gongylocarpa*). Low woodlands of mulga (*Acacia aneura*) and black sheoak (*Casuarina cristata*) over bluebush and saltbush are also present. Apart from the bare salt lake surfaces, saline valley floors have shrublands of samphire (*Halosarcia* spp.) and *Frankenia* spp. in lower areas, shrublands of saltbush and bluebush on red deep sandy duplexes, and woodlands of salmon gum, merrit, red mallee, gimlet and York gum. *Acacia neurophylla*, *A. beauverdiana* and *A. resinimarginea* thickets grow on gently sloping uplands on granite, with thickets of acacia, casuarina and melaleuca. There are also scrub-heaths and York gum-salmon gum-gimlet woodlands on these uplands. The hilly terrain on greenstone supports woodlands of salmon gum, Goldfields blackbutt, coral gum (*E. torquata*), York gum, gimlet, morrel, Dundas blackbutt and black sheoak. Thickets of granite wattle (*Acacia quadrimarginea*) are also present. The stony plains support scattered woodlands of Goldfields blackbutt, gimlet and salmon gum, along with shrublands of saltbush and bluebush. Sandplains in the west have acacia (*A. coolgardiensis, A. ramulosa, A. aneura, A. burkittii* and *A. tetragonophylla*) shrublands, commonly with patchy native pine (*Callitris glaucophylla, C. preissii*) and mallees (*E. leptopoda, E. longicornis* and *E. loxophleba*). Native box (*Bursaria occidentalis*), *Melaleuca uncinata* and *Hakea recurva* may also be present. Hard spinifex (*T. basedowii*) grasslands with mulga, marble gum and mallees (e.g. *E. kingsmillii*) are found on sandplains to the east. The sandy-surfaced plains support acacia, casuarina and melaleuca thickets; woodlands of York gum, cypress pine (*Callitris columellaris*), salmon gum, gimlet and mulga; and shrublands of bowgada (*A. ramulosa*).

2.5 Conservation Values

The Eastern Goldfields subregion contains 16 vegetation associations, predominately open Eucalyptus woodlands, which have at least 85 per cent of their total extent in the bioregion (Cowan 2001). The subregion is considered a centre of endemism for Eucalypts in the Goldfields Woodlands region and is also noted for the diversity of *Acacia* spp. and ephemeral flora communities of the tertiary sandplain shrublands and the valley floors of woodland areas.

The Eastern Goldfields subregion contains one wetland of national importance; Rowles Lagoon System, located approximately 134 km northwest of the survey area. In addition, there are seven

wetlands of subregional importance (Cowan, 2001). Other significant assemblages in the region include plant assemblages of the Fraser Range and the Woodline Hills.

No ecosystems are listed as threatened under WA State legislation occur within the Eastern Goldfields, but 18 communities and vegetation associations are thought to be at risk for a variety of reasons. Grazing from livestock, goats and rabbits and impacts from mining are the main threatening processes in the region, with changed fire regimes, erosion and sedimentation also causing significant impacts.

2.5.1 Great Western Woodlands

The survey area lies within the Great Western Woodlands, considered by The Wilderness Society of WA to be of global biological and conservation importance as one of the largest and healthiest temperate woodlands on Earth, containing many endemic taxa. The region covers almost 16 million ha (160,000 km^2), from the southern edge of the Western Australian Wheatbelt to the pastoral lands of the Mulga country in the north, the inland deserts to the northeast, and the treeless Nullarbor Plain to the east.

The Great Western Woodlands provides a connection between southwest forests and inland deserts (Gondwana Link) as well as linking the north-west passage to Shark Bay. The majority of the Great Western Woodlands is unallocated crown land (61.1%) with other interests including pastoral leases (20.4%), conservation reserves (15.4%) unallocated crown land, ex pastoral (2%) managed by the Department of Biodiversity, Conservation and Attractions (DBCA) and private land (approximately 1%).

No specific management strategy or formal conservation status applies to the Great Western Woodlands. The Great Western Woodlands currently includes towns, highways, roads, railways, private property, Crown Reserves, agricultural activities and mining tenements.

2.6 Climate

The climate of the Eastern Goldfield subregion is characterised as arid to semi-arid with 200-300 mm of rainfall, sometimes in summer but usually in winter (Cowan 2001). Rainfall data for the Kalgoorlie-Boulder Airport (#12038) weather station, located approximately 67 km north-west of the survey area, is shown in Graph 2-1. Mean monthly rainfall ranges from 13.4 mm in September to 31.7 mm in February, with a mean annual rainfall of 263.4 mm. The survey was conducted in October 2024, with the preceding months of June and July being characterised by above-average winter rainfall. Climate conditions are unlikely to represent a survey constraint, as sufficient rainfall was recorded to facilitate the emergence of flowering material and ephemeral species within the survey area.

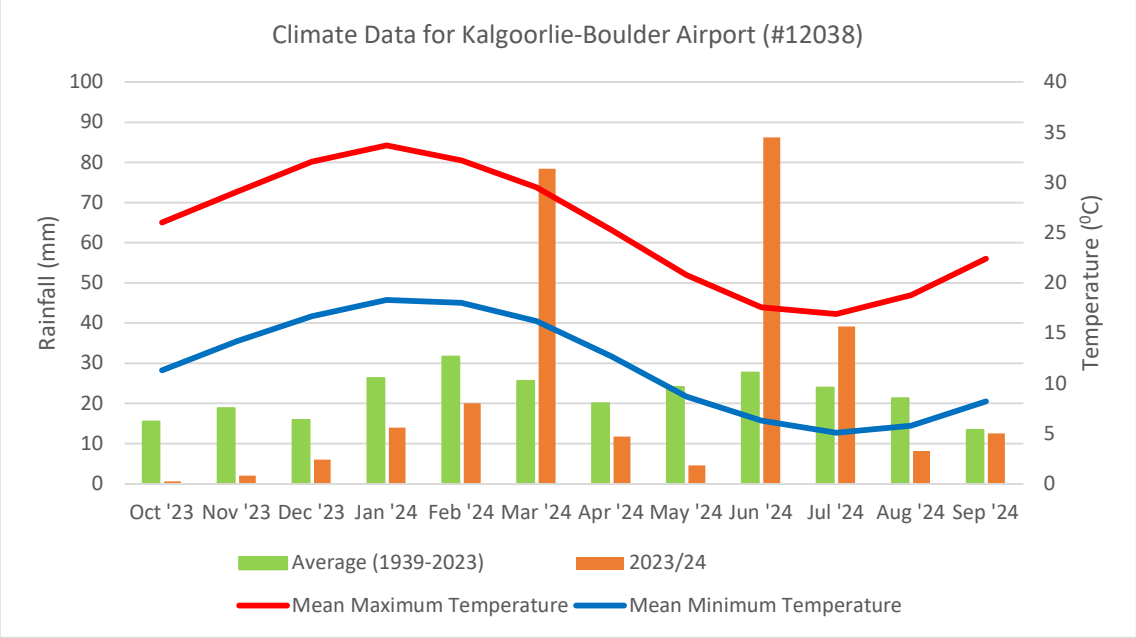


Figure 2-2: Climate data of Kalgoorlie-Boulder Airport (#12038) weather station

2.7 Hydrology

According to the Geoscience Australia database (2015), no surface water bodies or drainage lines within the survey area (Figure 2-3).

Groundwater Dependent Ecosystems (GDE) includes biological assemblages of species such as wetlands or woodlands that use groundwater either opportunistically or as their primary water source. For the purposes of this report, a GDE is defined as any vegetation community that derives part of its water budget from groundwater and must be assumed to have some degree of groundwater dependency. In accordance with the BoM Atlas of Groundwater Dependent Ecosystems (BoM, 2024) database, there are no potential terrestrial nor aquatic GDEs within the survey area (Figure 2-3).

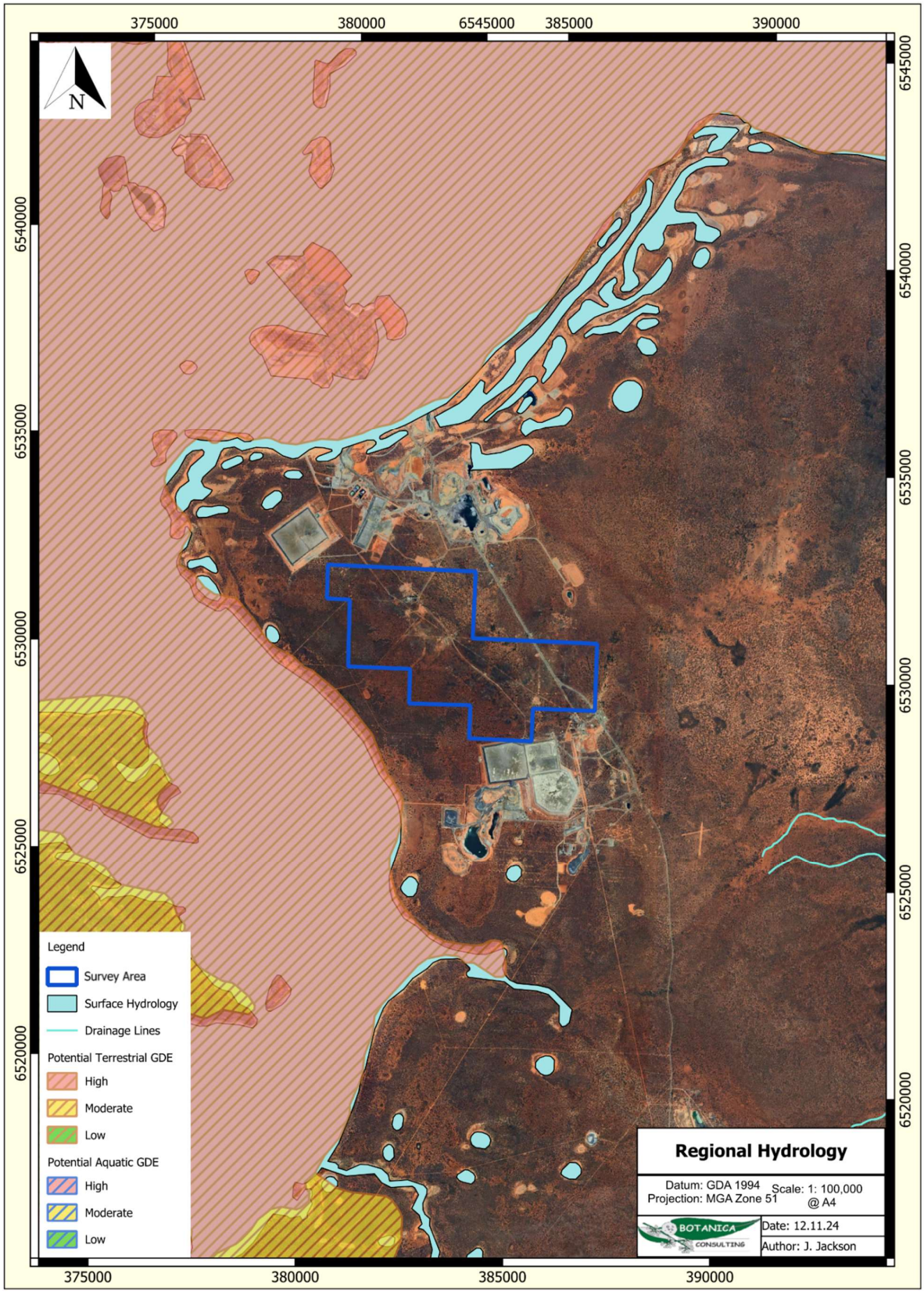


Figure 2-3: Regional hydrology of the survey area

3 SURVEY METHODOLOGY

3.1 Desktop Assessment

Prior to the field assessment a literature review was undertaken of previous flora and fauna assessments conducted within the local region. Documents reviewed included:

- Botanica Consulting, (2021). *Mt Edwards Project: Flora, Vegetation and Fauna Assessment*. Prepared for Widgie Nickel Ltd., December 2021.
- Botanica Consulting, (2022). *Baker Project: Detailed Flora and Basic Fauna Assessment*. Prepared for Lunnon Metals Ltd., November 2022
- Botanica Consulting (2023a). *Kalgoorlie Nickel Smelter: Reconnaissance Flora/Vegetation and Basic Fauna Assessment*. Prepared for BHP Nickel West Pty Ltd., April 2023.
- Botanica Consulting, (2023b). North Dam Project: Detailed Flora/Vegetation Survey and Targeted Fauna Survey. Prepared for CuFe Ltd., December 2023.
- Botanica Consulting, (2023c). *South Kalgoorlie Operations: Reconnaissance Flora/Vegetation Survey and Basic Fauna Assessment.* Prepared for Northern Star Resources Ltd., October 2023.
- Keighery, G.J., Milewski, A.V. and Hnatiuk, R.J. (1992). Vegetation and flora. In: N.L. McKenzie and N.J. Hall (eds) *The Biological Survey of the Eastern Goldfields of Western Australia: Part 8 Kurnalpi-Kalgoorlie Study Area*. Records of the Western Australian Museum, Supplement No. 41.
- Phoenix Environmental Services (2018). *Flora and vegetation survey for the St Ives Gold Mine Beyond 2018 Project*. Prepared on behalf of St. Ives Gold Mining Company Pty. Ltd., January 2018.
- Phoenix Environmental Services (2017). *Regional flora and vegetation survey for St Ives Gold Mine.* Prepared on behalf of St. Ives Gold Mining Company Pty. Ltd., November 2017.
- Waddell, P. A., and Galloway, P. D. (2023). *Land systems, soils and vegetation of the southern Goldfields and Great Western Woodlands of Western Australia.* Technical bulletin 99, vol 1, Department of Primary Industries and Regional Development, Western Australian Government.

In addition to the literature review, searches of the following databases were undertaken to aid in the compilation of a list of significant flora within the survey area:

- DBCA Threatened/ Priority Flora, Fauna and Ecological communities spatial data (DBCA, 2024);
- Atlas of Living Australia (ALA) database (ALA, 2024); and
- EPBC Protected Matters search tool (DCCEEW, 2024).

The DBCA database searches, ALA spatial portal search (Appendix A) and EPBC Protected Matters search (Appendix B) were conducted with a 40 km buffer from the survey area.

Significant flora species identified by the desktop review were assessed with regards to their population extent and distribution and preferred habitat to determine their likelihood of occurrence within the survey area.

The assessment categorised flora species as follows:

- Unlikely- Suitable habitat is not expected to occur and/or the survey area is outside the known range of the species.
- Possible- Suitable habitat may be present, and the area is within the known range of the species. This option is also used when there is insufficient information to determine the preferred habitat of a species.
- Likely- Suitable habitat is expected to occur and there are records within 10 km of the survey area.
- Previously Recorded- A record for this species is located within the survey area. Field survey will ground-truth currently occurring individuals and populations.

It should be noted that these lists are based on observations from a broader area than the assessment area (40 km radius) and therefore may include taxa not present. The databases also often include very old records that may be incorrect or in some cases the taxa in question have become locally or regionally extinct. Information from these sources should therefore be taken as indicative only and local knowledge and information also needs to be taken into consideration when determining what actual species may be present within the specific area being investigated.

The conservation significance of flora taxa was assessed using data from the following sources:

- *Environment Protection and Biodiversity and Conservation* (EPBC) *Act 1999*. Administered by the Australian Government (DCCEEW);
- *Biodiversity Conservation* (BC) *Act 2016*. Administered by the WA Government (DBCA);
- Red List produced by the Species Survival Commission (SSC) of the World Conservation Union (also known as the IUCN Red List – the acronym derived from its former name of the International Union for Conservation of Nature and Natural Resources). The Red List has no legislative power in Australia but is used as a framework for State and Commonwealth categories and criteria; and
- Priority Flora and Fauna lists. Non-legislative lists maintained by DBCA for management purposes (Flora current as of: September 2024, Fauna current as of: October 2024).

Descriptions of conservation significant species and communities are provided in Appendix C.

3.2 Flora and Vegetation Field Assessment

Botanica conducted a two-stage detailed flora and vegetation field survey in Autumn and Spring 2024. The Autumn survey (Phase 1) was conducted on the 8th-9th May 2024, with the survey undertaken by Jim Williams (Principal Botanist) and Jennifer Jackson (Senior Botanist, BSc (Honours) Environmental Management). The Spring survey (Phase 2) was conducted on the 7th-8thOctober 2024, with the survey undertaken by Jennifer Jackson (Senior Botanist, BSc (Honours) Environmental Management) and Amy Johnston (Field Technician). A total of 26 quadrats (20m x 20m) were installed during the field survey, with an additional four historical quadrats also surveyed.

The survey area was traversed using a four-wheel drive vehicle and on foot, with a handheld GPS unit used to record quadrat locations, track log of the survey effort and significant flora, fauna and vegetation. The location of quadrat locations in the survey area and the GPS track log of the survey effort is shown in Figure 3-1.

Quadrat corner coordinates (NW corner, GDA 2020 Zone 51) are listed in Appendix D. Quadrat data sheets for the Phase 1 and Phase 2 surveys are listed in Appendix E, and photos of the quadrats are listed in Appendix F.

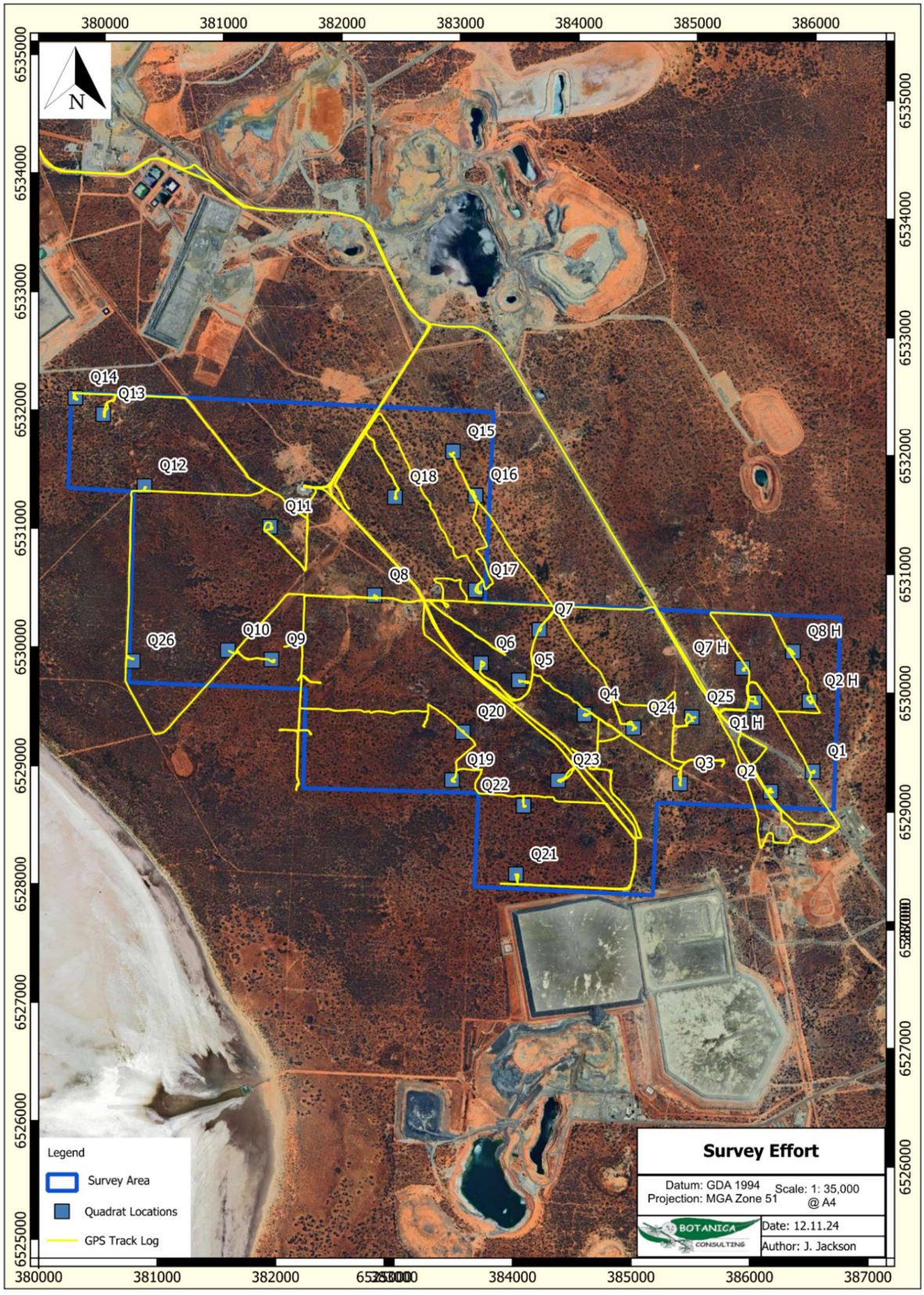


Figure 3-1: Quadrat locations and GPS track log of the survey effort

3.2.1 Flora Assessment

Prior to the commencement of field work, aerial photography was inspected and obvious differences in the vegetation assemblages were identified. The different vegetation communities identified were then inspected during the field survey to assess their validity. A handheld GPS unit was used to record the coordinates of the boundaries between existing vegetation communities. At each sample point, the following information was recorded:

- GPS location;
- Photograph of vegetation;
- Dominant taxa for each stratum;
- All vascular taxa (including annual taxa);
- Landform classification;
- Vegetation condition rating;
- Collection and documentation of unknown plant specimens; and
- GPS location, photograph and collection of flora of conservation significance if encountered.

Unknown specimens collected during the survey were identified with the aid of samples housed at the Botanica Herbarium and Western Australian Herbarium. Vegetation was classified in accordance with NVIS classifications.

3.2.2 Data Analysis Tools

Following field assessments, vegetation types and condition were mapped using the GIS program QGIS, and the hectare area/ percentage area of each vegetation type and condition within the survey area was calculated. Spatial maps illustrating the location of vegetation types and any significant flora/ vegetation and fauna were generated using QGIS.

3.2.3 PATN Analysis

The PATN software package was used to assess the similarities/ dissimilarities between quadrats based on presence/absence of species. A total of nine weed taxa, four annual taxa and one unidentified species (Parmeliaceae sp.) were excluded from the analysis. A total of 32 taxa recorded within the quadrats were included in the analysis.

The analysis produced a quantitative estimate of the relationship between species composition of each quadrat. The classifications were based upon a Bray-Curtis association matrix using a flexible Unweighted Pair Group Arithmetic Mean (UPGMA) method (with a beta value of -0.1) which standardises the data enabling the analysis to be completed. Semi-strong hybrid (SSH) ordination of the quadrat is then undertaken to show spatial relationships between groups and to elucidate possible environmental correlates with the classification.

The analysis also produced a stress value which is a measure of the 'strength' of the analysis (i.e. how well the quadrats are grouped together into the appropriate floristic groups). The lower the stress value the greater the strength of the analysis with a value of less than 0.3 showing that the analysis appropriately grouped quadrats. A stress value greater than 0.3 suggests that the analysis was unable to group quadrats appropriately due to extraneous variables (i.e. other factors influencing differences in floristic groups other than species composition e.g. fire, clearing disturbance etc.).

3.2.4 EstimateS

EstimateS software was used to estimate species richness present using the Chao2 richness estimator. For any number of samples, the estimator uses the existing pattern of species accumulation to estimate the true number of species at a site. The estimators tend to under-estimate species number when sample size is small, hence the estimated number of true species can be seen to increase with sample size. This software was also used to compute Coleman rarefaction curves estimates which were used to calculate species accumulation curves.

3.3 Terrestrial Fauna Field Assessment

Fauna habitat types were identified across the survey area based on broad major vegetation groups and associated landform. A handheld GPS unit was used to record the coordinates of the boundaries between fauna habitats and each habitat was photographed.

The main aim of the fauna habitat assessment was to determine the likelihood of a species of conservation significance utilising habitat within the survey area. The habitat information obtained was also used to aid in finalising the overall potential fauna list.

Available information on the habitat requirements of the species of conservation significance listed as possibly occurring in the area (determined from the desktop assessment) was researched. During the field survey, the habitats within the survey area were assessed and specific elements identified, if present, to determine the likelihood of listed Threatened and Priority species utilising habitat within the survey area.

Opportunistic observations of fauna species were made during all field survey work.

Fauna of conservation significance identified during the literature review and database searches as previously being recorded in the general area were assessed and ranked for their likelihood of occurrence within the survey area. The rankings and criteria used were:

- Would Not Occur: There is no suitable habitat for the species in the survey area and/or there is no documented record of the species in the general area since records have been kept and/or the species is generally accepted as being locally/regionally extinct (supported by a lack of recent records).

- Locally Extinct: Populations no longer occur within a small part of the species natural range, in this case within 10 or 20 km of the survey area. Populations do however persist outside of this area.
- Regionally Extinct: Populations no longer occur in a large part of the species natural range, in this case within the Eastern Goldfields subregion. Populations do however persist outside of this area.
- Unlikely to Occur: The survey area is outside of the currently documented distribution for the species in question, or no suitable habitat (type, quality and extent) was identified as being present during the field assessment. Individuals of some species may occur occasionally as vagrants/transients especially if suitable habitat is located nearby but the site itself would not support a population or part population of the species.
- Possibly Occurs: Survey area is within the known distribution of the species in question and habitat of at least marginal quality was identified as likely to be present during the field survey and literature review, supported in some cases by recent records being documented in literature from within or near the survey area. In some cases, while a species may be classified as possibly being present at times, habitat may be marginal (e.g. poor quality, fragmented, limited in extent) and therefore the frequency of occurrence and/or population levels may be low.
- Known to Occur: The species in question has been positively identified as being present (for sedentary species) or as using the survey area as habitat for some other purpose (for non-sedentary/mobile species) during field surveys within or near the survey area. This information may have been obtained by direct observation of individuals or by way of secondary evidence (e.g. tracks, foraging debris, scats). In some cases, while a species may be classified as known to occur, habitat may be marginal (e.g. poor quality, fragmented, limited in extent) and therefore the frequency of occurrence and/or population levels may be low.

3.4 Scientific Licences

Table 3-1: Scientific Licenses of Botanica Staff coordinating the survey

Licensed Staff	Permit Number	Date of Expiry
Jim Williams	FB62000457(licence to take flora for scientific purposes)	04/08/2025
Jennifer Jackson	FB62000309-2 (licence to take flora for scientific purposes)	11/01/2027

3.5 Survey Limitations and Constraints

It is important to note that flora surveys will entail limitations notwithstanding careful planning and design. Potential limitations are listed in Table 3-2.

The conclusions presented in this report are based upon field data and environmental assessments and/or testing carried out over a limited period of time and are therefore merely indicative of the environmental condition of the site at the time of the field assessments. Also, it should be recognised that site conditions can change with time. Information not available at the time of this assessment which may subsequently become available may alter the conclusions presented.

Some species are reported as potentially occurring based on there being suitable habitat (quality and extent) within the survey area or immediately adjacent. The habitat requirements and ecology of many of the species known to occur in the wider area are however often not well understood or documented. It can therefore be difficult to exclude species from the potential list based on a lack of a specific habitats or microhabitats within the survey area. As a consequence of this limitation, the potential species list produced is most likely an overestimation of those species that actually utilise the survey area for some purpose.

In recognition of survey limitations, a precautionary approach has been adopted for this assessment. Any flora species that would possibly occur within the survey area (or immediately adjacent), as identified through ecological databases, publications, discussions with local experts/residents and the habitat knowledge of the author, has been listed as having the potential to occur.

Table 3-2: Limitations and constraints associated with the flora/ vegetation and fauna survey

Variable	Potential Impact on Survey	Details
Access problems	Not a constraint	The survey was conducted via 4WD and on foot. Numerous access tracks were present within the survey area providing ease of access.
Competency/ Experience	Not a constraint	The Botanica personnel that conducted the survey were regarded as suitably qualified and experienced. **Coordinating Staff**: Jennifer Jackson (Senior Botanist) and Amy Johnston (Field Technician) **Data Interpretation**: Jennifer Jackson (Senior Botanist), Kelby Jennings and Jim Williams (Director/ Senior Botanist).
Timing of survey, weather & season	Not a constraint	Two surveys were undertaken, in Autumn and Spring. Ephemeral species and flowering material were present within the survey area.
Area disturbance	Not a constraint	The majority of vegetation in the survey area was intact and in good or higher condition.
Survey Effort/ Extent	Not a constraint	Survey intensity was appropriate for the size/significance of the area with a detailed flora survey and basic fauna survey completed to identify vegetation types/ fauna habitats and significant flora, fauna and vegetation.
Availability of contextual information at a regional and local scale	Not a constraint	BoM, DWER, DPIRD, DBCA and DCCEEW databases were reviewed to obtain appropriate regional desktop information on the biophysical environment of the local region. Botanica has conducted numerous surveys within the Eastern Goldfields bioregion and was also able to obtain information about the area from previous research conducted within the area. Results of previous assessments in the local area were reviewed to provide context on the local environment.

Variable	Potential Impact on Survey	Details
Completeness	Not a constraint	In the opinion of Botanica, the survey area was covered sufficiently in order to identify vegetation assemblages. All observed flora individuals were able to be identified to species level. The vegetation associations for this study were based on visual descriptions of locations in the field. The distribution of these vegetation associations outside the survey area is not known, however vegetation associations identified were categorised via comparison to vegetation distributions throughout WA given on NVIS (DotEE, 2017).

4 RESULTS

4.1 Desktop Assessment

Table 4-1: Previous flora and fauna surveys in the local and regional area

Author & Year	Title	Vegetation	Flora/ Communities of Conservation Significance
Botanica Consulting (2022)	*Baker Project: Detailed Flora and Basic Fauna Assessment*	Four vegetation types, comprised of *Eucalyptus* woodland and *Acacia* shrubland communities	*Eremophila praecox* (P2)
Botanica Consulting (2021)	*Mt. Edwards Project: Flora, Vegetation and Fauna Assessment*	Four vegetation types, comprised of *Eucalyptus* woodland communities	*Philotheca apiculata* (P1)
Phoenix Environmental Sciences (2018)	*Flora and vegetation survey for the St Ives Gold Mine Beyond 2018 Project*	20 vegetation types, comprised of seven woodland communities, 10 shrublands and three riparian vegetation communities	*Calandrinia lefroyensis* (P1) *Ptilotus rigidus* (P1) *Tecticornia mellarium* (P1)
Phoenix Environmental Sciences (2017)	*Regional flora and vegetation survey for St Ives Gold Mine*	34 vegetation types, comprising 24 woodland communities and 10 shrublands	*Allocasuarina eriochlamys* subsp. *grossa* (P3) *Calandrinia lefroyensis* (P1) *Cryptandra crispula* (P3) *Cyathostemon divaricatus* (P1) *Pityrodia scabra* subsp. *dendrotricha* (P3)

4.1.1 Flora

The ALA desktop search (Appendix A) identified 774 vascular flora species as occurring within 40 km of the survey area, representing 258 genera from 77 families. The most diverse families were Myrtaceae (119 species), Fabaceae (87 species) and Asteraceae (84 species). The most dominant genera were *Eucalyptus* (63 species), *Acacia* (53 species) and *Eremophila* (40 species). Of these, 18 taxa, representing 2.3% of floristic diversity, were introduced (weed) species.

4.1.2 Introduced Flora

The desktop review identified 18 introduced flora (weed) species, representing 17 genera from 11 families, as potentially occurring in the vicinity of the survey area (Table 4-2). Of these species, four are listed as a Declared Pest on the Western Australian Organism List (WAOL) under the *Biosecurity and Agriculture Management (BAM) Act 2007* and/or as a Weed of National Significance (Table 4-2).

The full list of introduced flora species identified in the desktop assessment is contained in Appendix G.

Table 4-2: Potentially occurring significant weed species

Family	Taxon	Common Name	WAOL Status	Control Category	WONS
Asteraceae	*Xanthium spinosum*	Spiny Cockleburr, Bathurst Burr	Declared Pest - s22(2)	C3 Management, Whole of State	No
Boraginaceae	*Echium plantagineum*	Paterson's Curse	Declared Pest - s22(2)	No Control Category	No

Family	Taxon	Common Name	WAOL Status	Control Category	WONS
Cactaceae	*Cylindropuntia fulgida* var. *mamillata*	Prickly Pear	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
Verbenaceae	*Lantana camara*	Common Lantana	Declared Pest - s22(2)	C3 Management, Whole of State	Yes

4.1.3 Significant Flora

The assessment of the DBCA Priority/ Threatened flora database records (DBCA, 2024), ALA (ALA, 2024) and Protected Matters searches (DCCEEW, 2024a), and previous relevant literature identified 29 flora species of conservation significance recorded within a 40 km radius of the survey area. These consist of two Threatened, 12 Priority 1, five Priority 2, seven Priority 3 and three Priority 4 taxa (Appendix H).

These taxa were assessed for distribution and known habitat to determine their likelihood of occurrence within the survey area. No taxa were identified as likely to occur or previously recorded within the survey area. A total of five taxa were identified as possibly occurring in the survey area, consisting of two Priority 1, two Priority 2 and one Priority 3 taxa (Table 4-3). The full flora likelihood assessment is listed in Appendix H. The locations of the DBCA database records are illustrated spatially in Figure 4-1.

Table 4-3: Significant flora potentially occurring within the survey area

Status			Taxon	Habitat	Assessment	Likelihood
EPBC	BC Act	DBCA				
-	-	P1	*Austrostipa* sp. Carlingup Road (S. Kern & R. Jasper LCH 18459)	Shrub, 1.2-5 m high, bark fibrous. Fl. yellow. Red sand, clay or loam. Low-lying areas, flats.	At extreme of known range, habitat may be present.	Possible
-	-	P1	*Philotheca apiculata*	Erect shrub, 0.5-1.5 m high. Fl. white-pink, Aug to Nov. Stony clay loam. Rocky outcrops, hillsides.	At extreme of known range, habitat may be present.	Possible
-	-	P2	*Eremophila praecox*	Broom-like shrub, 1.5-3 m high. Fl. purple, Oct or Dec. Red/brown sandy loam. Undulating plains.	At extreme of known range, habitat may be present.	Possible
-	-	P2	*Trachymene pyrophila*	Annual, herb, 0.1-0.5 m high, Fl. white, Nov to Dec or Jan to Mar. Yellow or orange sand. Sandplains; germinating after fire or other disturbances such as mining.	Within known range, habitat may be present.	Possible
-	-	P3	*Pityrodia scabra* subsp. *dendrotricha*	Flats, sand dunes and lake edges.	Within known range, habitat may be present.	Possible

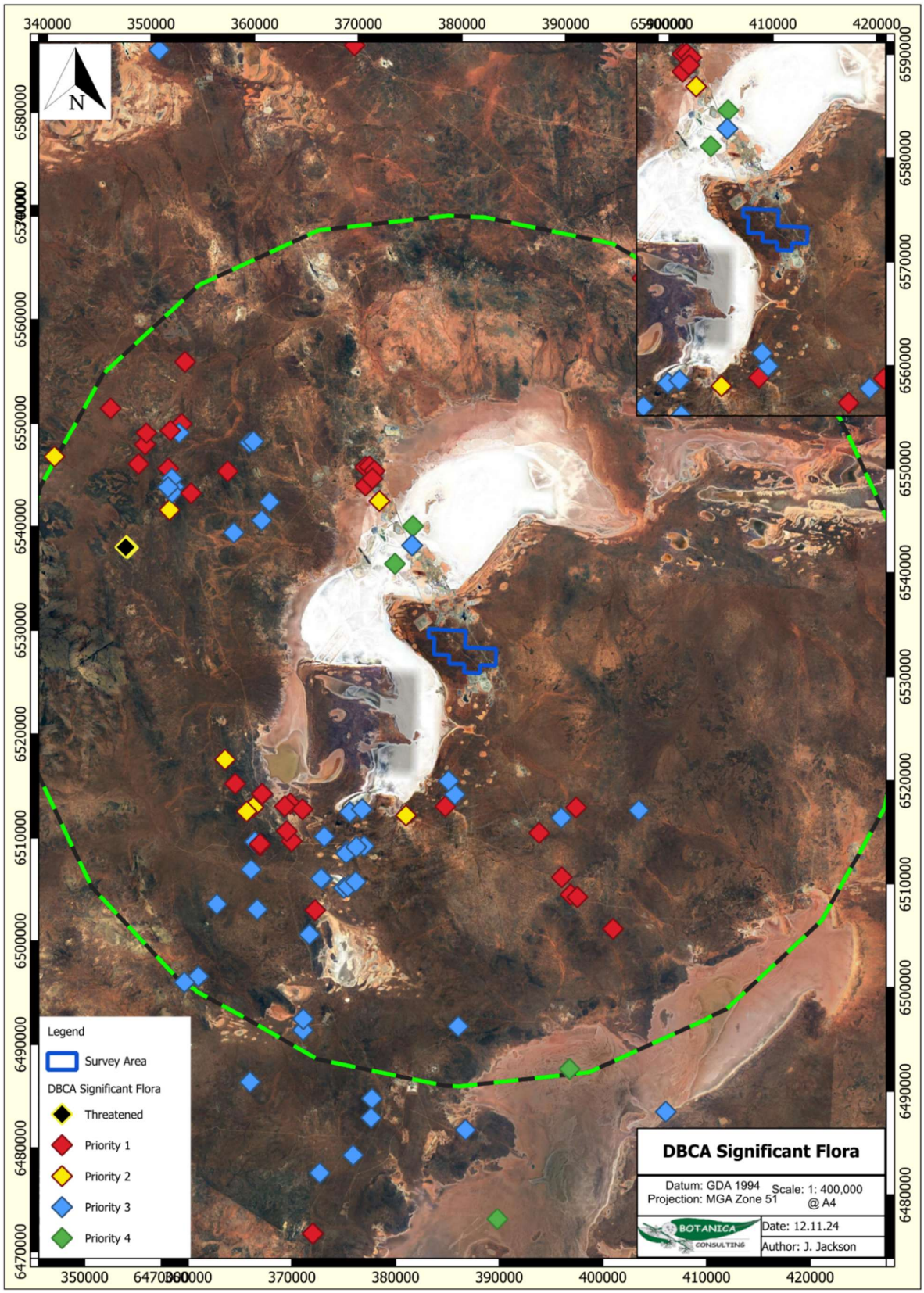


Figure 4-1: Significant flora within the desktop search area

4.1.4 Vegetation Associations

The pre-European vegetation association spatial mapping dataset (DPIRD, 2018) identified three vegetation associations as occurring within the survey area (Figure 4-2). The association descriptions and their remaining extent, as specified in the 2018 Statewide Vegetation Statistics (DBCA, 2019b) are provided in Table 4-4. Areas retaining less than 30% of their pre-European vegetation extent generally experience exponentially accelerated species loss, while areas with less than 10% are considered "endangered" (EPA, 2000). All vegetation associations retain over 98% of their pre-European extent, and development within the survey area will not significantly reduce the current extent of these vegetation associations.

Table 4-4: Pre-European vegetation associations within the survey area

Vegetation Association	Current Extent	Pre-European extent remaining	Protected for Conservation	Floristic Description	Extent within Survey Area
Binneringe 521	90,020 ha	98.82%	2.47%	Medium woodland; salmon gum & red mallee	1.2 ha (0.1%)
Binneringe 9	100,103 ha	100%	-	Medium woodland; coral gum (*Eucalyptus torquata*) & goldfields blackbutt (*E. lesouefii*)	737.2 ha (49.1%)
Binneringe 936	127,819 ha	98.48&	1.04%	Medium woodland; salmon gum	762.9 ha (50.8%)
Total					**1501.3 ha (100%)**

4.1.5 Significant Ecological Communities

The Protected Matters search (DCCEEW, 2024) did not identify any Threatened Ecological Communities (TECs) as occurring within the survey area.

Analysis of the Priority Ecological Communities within Western Australia (DBCA, 2024) did not identify any additional significant vegetation assemblages as likely or possibly occurring within the survey area.

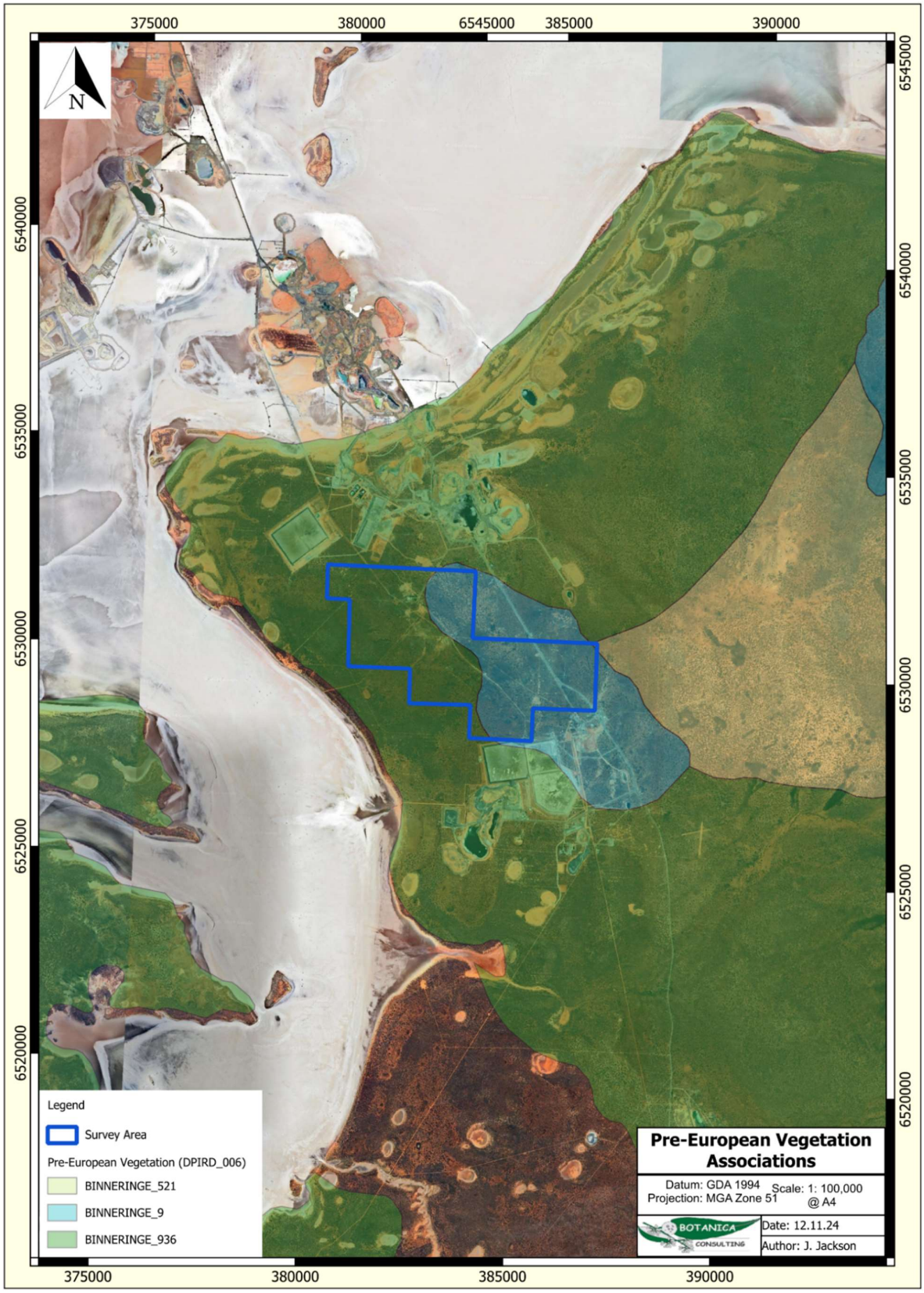


Figure 4-2: Pre-European vegetation systems within the survey area

4.1.6 Fauna

According to the results of the ALA database search (ALA, 2024), a total of 216 terrestrial vertebrate fauna taxa have been recorded within 40 km of the survey area, consisting of 135 bird, 11 mammal, 69 reptile and one amphibian taxa. Of these, three species, representing 1.4% of faunal diversity, are introduced (non-native) species.

4.1.6.1 Introduced (Feral) Fauna

The desktop review identified 11 feral fauna species, representing eight families, as potentially occurring in the survey area (Table 4-5).

Table 4-5: Potentially occurring introduced fauna

Family	Taxon	Common Name
Bovidae	*Capra hircus*	Goat
Camelidae	*Camelus dromedarius*	Dromedary Camel
Canidae	*Canis lupus familiaris*	Domestic Dog
	Vulpes vulpes	Red Fox
Columbidae	*Columba livia*	Domestic Pigeon
	Streptopelia senegalensis	Laughing Turtle-Dove
Equidae	*Equus asinus*	Donkey, Ass
	Equus caballus	Horse
Felidae	*Felis catus*	Cat
Leporidae	*Oryctolagus cuniculus*	Rabbit
Muridae	*Mus musculus*	House Mouse

4.1.6.2 Conservation Significant Fauna

The desktop review identified seven terrestrial vertebrate fauna species of conservation significance as previously being recorded in the regional area, consisting of five Threatened and two migratory species. In addition, several migratory wading/shorebird species were assessed collectively due to their similar habitat requirements. The full fauna likelihood assessment is listed in Appendix I.

Habitat and distribution data was used to determine the likelihood of occurrence within the survey area. The assessment identified two significant fauna species, consisting of two Vulnerable (VU) taxa, as potentially occurring in the survey area (Table 4-6).

Table 4-6: Potentially occurring significant fauna

Species	Conservation Status			Habitat Description	Assessment	Likelihood
	EPBC Act	BC Act	DBCA			
Grey Falcon *Falco hypoleucos*	VU	VU	-	The Grey Falcon occurs at low densities across inland Australia. The species frequents timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined water courses. The species has been observed hunting in treeless areas and frequents tussock grassland and open woodland, especially in winter. Prey species are predominately birds, including doves, pigeons, small parrots and cockatoos and finches, but also hunt small mammals and lizards.	Survey area may form part of larger home range.	Possible
Malleefowl *Leipoa ocellata*	VU	VU	-	Scrublands and woodlands dominated by mallee and wattle species (DAWE, 2020b).	Few regional records, suitable habitat may be present.	Possible

4.2 Field Assessment

4.2.1 Flora

The field survey identified 97 vascular flora taxa within the survey area, represented 47enera across 27 families. The most diverse families were Chenopodiaceae (16 species), Scrophulariaceae (14 species) and Myrtaceae and Fabaceae (11 species each). Dominant genera include *Eremophila* (14 species), *Acacia* (seven species) and *Eucalyptus* (nine species). The full field species inventory is listed in Appendix J.

4.2.1.1 Introduced Flora

Five introduced flora (weed) species, representing 5.2% of the total floristic diversity, were recorded in the survey area (Appendix J). Of these, none are listed as a Weed of National Significance or a Declared Pest in Western Australia.

4.2.1.2 Significant Flora

According to the EPA Environmental Factor Guideline for Flora and Vegetation (EPA, 2016b) significant flora includes:

- flora being identified as threatened or priority species;
- locally endemic flora or flora associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems);
- new species or anomalous features that indicate a potential new species;
- flora representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);
- unusual species, including restricted subspecies, varieties or naturally occurring hybrids; and

- flora with relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

No Threatened, Priority or otherwise significant flora species were recorded within the survey area.

4.2.2 Vegetation Communities

A total of seven broad-scale vegetation communities were identified within the survey area. Vegetation community descriptions and extent are listed below in Table 4-7 and illustrated spatially in Figure 4-3. Vegetation community descriptions and extents were determined from field survey results, aerial imagery interpretation, PATN analysis and extrapolation of the communities.

The survey found CLP-EW2 was the most widespread community in the survey area, occupying 793.0 ha (52.8%), while RH-CW1 was the most restricted with 35.9 ha (2.4%). The most diverse vegetation type was CLP-EW1 with 51 species (55.4%), while the least diverse was CLP-EW2 with 34 species (37.0%).

Table 4-7: Vegetation communities within the survey area

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Landform	Image
CLP-EW1 793.0 ha (52.8%)	*Eucalyptus* open woodland	*Eucalyptus salubris* open woodland over *Eremophila scoparia, Scaevola spinescens, Senna artemisioides* subsp. *filifolia* mid open shrubland over *Atriplex vesicaria, Ptilotus obovatus, Olearia muelleri* low sparse shrubland	Clay-loam plain	
CLP-EW2 243.8 ha (16.2%)	*Eucalyptus* woodland	*Eucalyptus salmonophloia* woodland over *Senna artemisioides* subsp. *filifolia* mid sparse shrubland over *Atriplex vesicaria, A. nummularia, Sclerolaena diacantha* low sparse shrubland	Clay-loam plain	

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Landform	Image
CLP-EW3 41 ha (2.7%)	*Eucalyptus* low open woodland	*Eucalyptus stricklandii, E. celastroides* low open woodland over *Eremophila scoparia, E. parvifolia* mid sparse shrubland over *Olearia muelleri, Maireana triptera, Sclerolaena cuneata* low open shrubland	Clay-loam plain	
RH-AS1 51.8 ha (3.5%)	*Acacia* tall open woodland	*Acacia collegialis* tall open shrubland over *Scaevola spinescens, Dodonaea lobulata, Eremophila clarkei* mid open shrubland over *Cheilanthes sieberi, Leichhardtia australis* low sparse forbland	Rocky hillslope	

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Landform	Image
RH-CW1 35.9 ha (2.4%)	*Casuarina* low open woodland	*Casuarina pauper, Santalum acuminatum* low open woodland over *Alyxia buxifolia, Senna artemisioides* subsp. *filifolia, Scaevola spinescens* shrubland over *Westringia rigida, Eremophila glabra, Olearia muelleri* low open shrubland	Rocky hillslope	
RH-EW1 75.2 ha (5.0%)	*Eucalyptus* low open woodland	*Eucalyptus lesouefii, E. torquata* low open woodland over *Eremophila scoparia, Dodonaea lobulata, Senna artemisioides* subsp. *filifolia* mid sparse shrubland over *Eremophila parviflora, Westringia rigida, Cratystylis conocephala* low open shrubland	Rocky hillslope	

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Landform	Image
SP-EW1 163.5 ha (10.9%)	*Eucalyptus* low woodland	*Eucalyptus oleosa, E. horistes, E. griffithsii* low woodland over *Eremophila scoparia, Exocarpos aphyllus* mid sparse shrubland over *Triodia irritans* low open hummock grassland	Sandy plain	
Cleared 97.1 ha (6.5%)	N/A	N/A	N/A	N/A

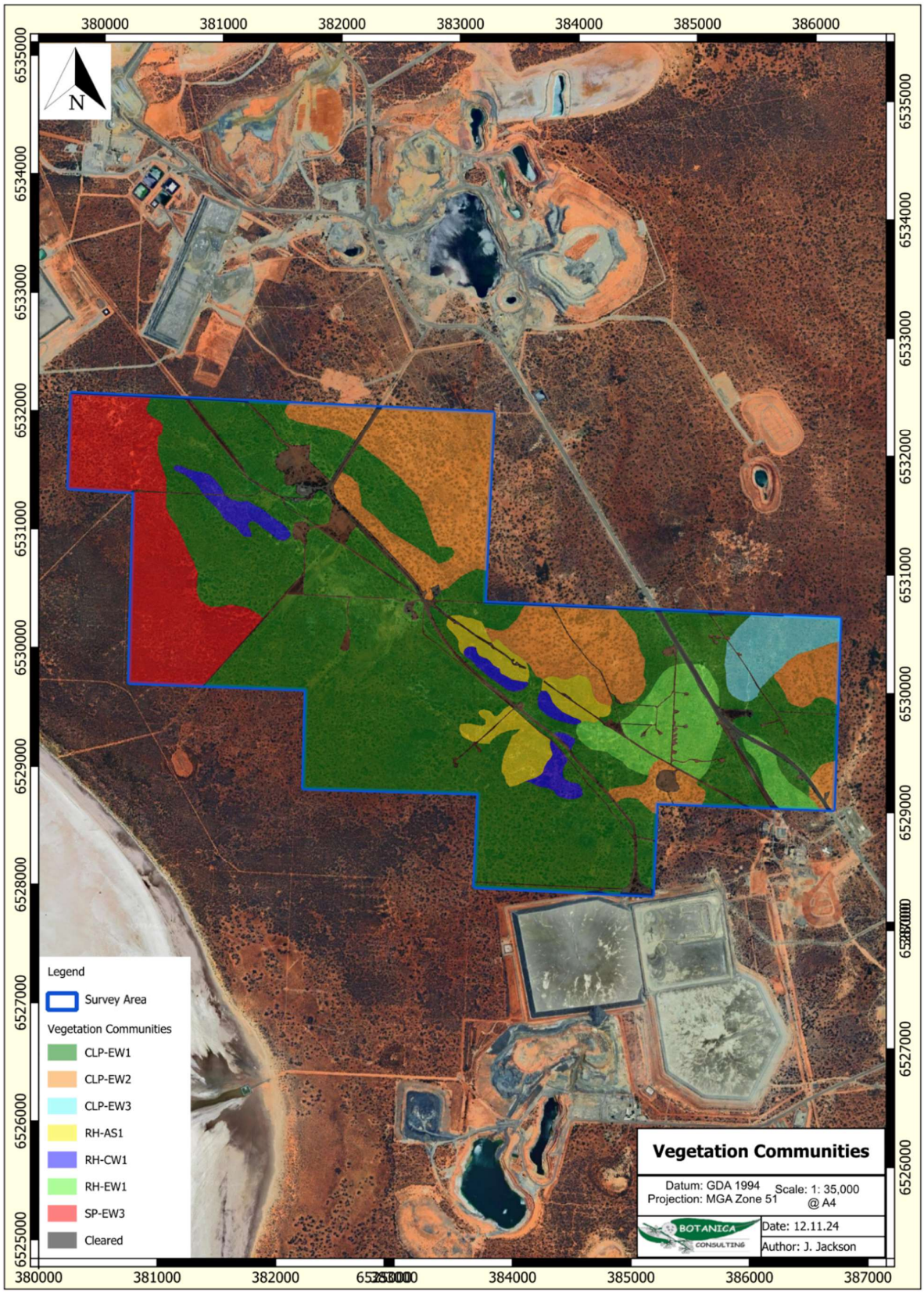


Figure 4-3: Vegetation communities within the survey area

4.2.3 Floristic Composition

Statistical analysis was conducted on quadrat data obtained from the survey to determine the similarities or differences in floristic composition between vegetation associations. The dendrogram, two-way table and ordination graph generated from the PATN statistical analysis is provided in Appendix K. The PATN analysis produced a stress value of 0.1841.

A total of six species groups were identified in the analysis (species group A to E) as shown in the two-way table (Appendix K). Field based observations of vegetation type delineations were broadly supported by the results of the PATN analysis.

- The first floristic group was characterised by species groups B, C, D and E (see two-way table provided in Appendix K) and was represented by two quadrats, with an average species richness of 11.5 taxa per quadrat (ranged from nine to 14 taxa per quadrat).
- The second floristic group was characterised by species groups B, C and F and was represented by 1w quadrats, with an average species richness of 19.2 taxa per quadrat (ranged from 14 to 26 taxa per quadrat).
- The third floristic group was predominantly characterised by species groups C, D and E. This floristic group was represented by 10 quadrats, with a species richness of 17.9 taxa (ranged from 16 to 22 taxa per quadrat).
- The fourth floristic group was characterised by species groups A, C and E and was represented by two quadrats, with an average species richness of 13.5 taxa per quadrat (ranged from seven to 20 taxa per quadrat).
- The fifth floristic group was predominately characterised by species group A and was represented by four quadrats, with an average species richness of 11 taxa per quadrat (ranged from seven to 13 taxa per quadrat).
- The sixth floristic group was predominately characterised by species group F and was represented by just one quadrat, with a species richness of 12 taxa.

4.2.4 Species Richness and Accumulation Estimates

A total of 92 species were recorded within the 30 quadrats. The Chao 2 richness estimator provided an estimated species richness of 98 species in 40 sample sites (quadrats). A species accumulation curve was created to display the rate of species accumulation. The R^2 value (0.97) suggests that the data “fits” the species accumulation curve shown in Figure 4-4. Species accumulation ranged from 11 to five species per quadrat for 1-5 sample sites, four to three species per quadrat for 6-10 sample sites and two to one species for 11-40 sample sites. Botanica has determined that according to this data, a sufficient number of quadrats were established in the survey area to adequately assess the floristic composition of the area.

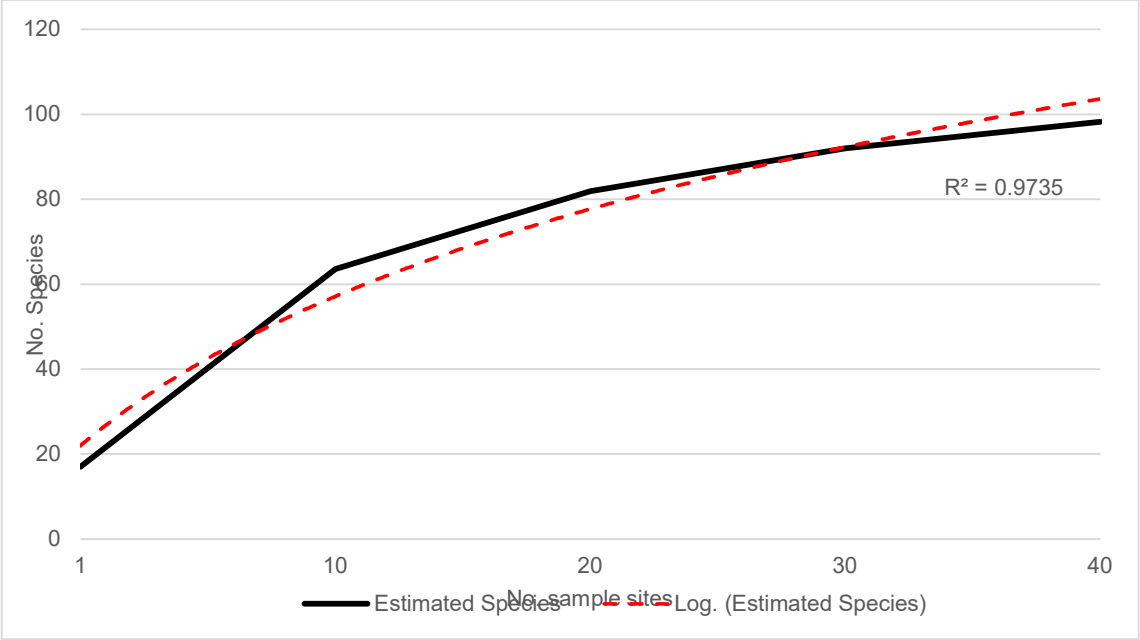


Figure 4-4: Species accumulation curve

4.2.5 Vegetation Condition

Based on the vegetation condition rating scale adapted from Keighery (1994) and Trudgen, (1988), native vegetation within the survey area was categorized as 'Very Good' to 'Degraded' (Table 4-8, Figure 4-5). Vegetation condition rating descriptions are listed in Appendix L. Disturbances within the survey area include recent and historical mining and exploration activities, historical grazing and feral animal impact, changed fire regimes and cumulative historical impacts.

Table 4-8: Vegetation condition rating within the survey area

Condition Rating	Description	Area
Very Good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.	532.5 ha (35.4%)
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	535 ha (35.6%)
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.	319.3 ha (21.3%)
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	17.4 ha (1.2%)
Cleared	No vegetation present.	97.1 ha (6.5%)
TOTAL		**1,501.3 ha (100%)**

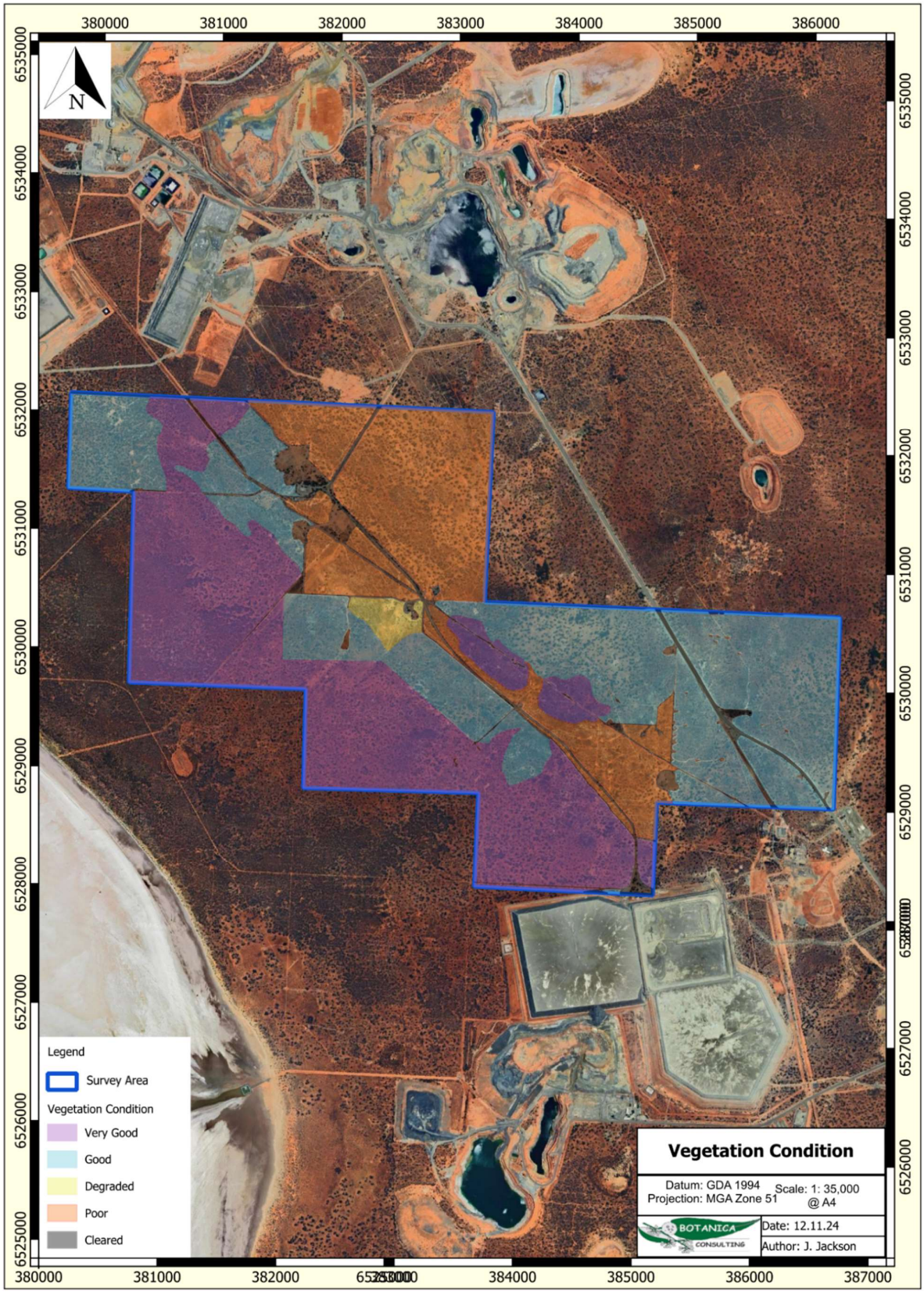


Figure 4-5: Vegetation condition within the survey area

4.2.6 Fauna Habitat

Based on vegetation and associated landforms identified during the flora and vegetation assessment, five broad scale terrestrial fauna habitats were identified as occurring within the survey area. Table 4-10 provides the area and a visual representation of fauna habitat types, and the extent of fauna habitats is shown spatially in Figure 4-6.

The survey found 'Eucalyptus open woodland on clay-loam plain' was the most widespread fauna habitat in the survey area, occupying 1,077.8 ha (71.8%), while '*Casuarina* open woodland on rocky hillslope' was the most restricted with 35.9 ha (2.4%).

4.2.6.1 Opportunistic Fauna Observations

During the field survey opportunistic observations of fauna species were made with nineteen fauna species observed. Three remote cameras were installed in the survey area between the Autumn and the Spring surveys and thirteen species were observed on these, totaling 28 species. Two introduced fauna were also observed (Table 4-9).

Table 4-9: Fauna species observed during the field survey

Taxon	Common Name	In-Field Observation	Observed On Camera
Birds			
Anthochaera carunculata	Red wattlebird	Heard	
Barnardius zonarius	Australian ringneck	Observed	Yes
Cinclosoma castanotum	Chestnut quail-thrush	Observed	Yes
Climacteris rufus	Rufous Treecreeper		Yes
Corvus coronoides	Australian raven	Observed	
Dromaius novahollandiae	Emu	Tracks observed	Yes
Eurostopodus argus	Spotted night jar		Yes
Grallina cyanoleuca	Magpie-Lark	Observed	
Gymnorhina tibicen	Australian magpie	Observed	
Lichmera indistincta	Brown honeyeater	Observed	
Malurus splendens	Splendid Fairy-wren	Heard	
Manorina flavigula	Yellow-throated miner		Yes
Melopsittacus undulatus	Budgerigar	Observed	
Nesoptilotis leucotis	White-Eared Honeyeater		Yes
Oreoica gutturalis	Crested Bellbird	Observed	
Pardalotus striatus	Striated pardalote	Heard	
Pomatostomus superciliosus	White-browed babbler	Heard	
Rhipidura leucophrys	Willie Wagtail	Observed	
Strepera versicolor	Grey Currawong		Yes
Todiramphus pyrrhopygius	Red-Backed Kingfisher	Observed	
Mammals			
*Bos taurus**	Cattle	Tracks observed	
Macropus fuliginosus	Western grey kangaroo	Observed	

Taxon	Common Name	In-Field Observation	Observed On Camera
Notomys mitchellii	Mitchell's Hopping-Mouse		Yes (Likely ID)
Oryctolagus cuniculus *	Rabbit	Scats and burrows seen	Yes
Sminthopsis dolichura	Little Long-Tailed Dunnart		Yes (Likely ID)
Tachyglossus aculeatus	Short-beaked echidna		Yes
Reptiles			
Ctenophorus cristatus	Crested dragon		Yes
Pogona minor	Western Bearded Dragon	Observed	

* Denotes introduced fauna

Table 4-10: Main terrestrial fauna habitats within the survey area

Fauna Habitat	Description	Representative Fauna Attributes	Possibly Occurring Conservation Significant Species	Example Image
Acacia shrubland on rocky hillslope 51.8 ha (3.4%)	*Acacia* tall open shrubland	• Ground provides rocky microrelief habitat, not suited to burrowing species. • Low to moderate diversity vegetation strata supporting avifauna assemblage. • Low to moderate vegetation density and low leaf litter.	Malleefowl *Leipoa ocellata*	
Casuarina open woodland on rocky hillslope 35.9 ha (2.4%)	*Casuarina* woodland over mixed open shrubland	• Ground provides rocky microrelief habitat, not suited to burrowing species. • Low to moderate diversity vegetation strata supporting avifauna assemblage. • Low vegetation density and low leaf litter.	Malleefowl *Leipoa ocellata* Grey Falcon *Falco hypoleucos*	

Fauna Habitat	Description	Representative Fauna Attributes	Possibly Occurring Conservation Significant Species	Example Image
Eucalyptus open woodland on rocky hillslope 75.2 ha (5.0%)	*Eucalyptus* open woodland over mixed mid to tall shrubland	• Ground not particularly suited to burrowing species. • Moderate diversity vegetation strata supporting significant avifauna assemblage, • Low to moderate vegetation density and low leaf litter.	Malleefowl *Leipoa ocellata* Grey Falcon *Falco hypoleucos*	
Eucalyptus woodland on clay-loam plain 1,077.8 ha (71.8%)	*Eucalyptus* open woodland over *Eremophila and Senna* shrubland with low chenopod shrubs	• Ground partially suited to burrowing species. • Moderate diversity vegetation strata supporting significant avifauna assemblage. • Moderate vegetation density and moderate leaf litter.	Malleefowl *Leipoa ocellata* Grey Falcon *Falco hypoleucos*	

Fauna Habitat	Description	Representative Fauna Attributes	Possibly Occurring Conservation Significant Species	Example Image
Eucalyptus woodland on sandy plain 163.5 ha (10.9%)	*Eucalyptus* woodland over *Triodia* grassland	Ground suited to burrowing species. Low vegetation strata, moderate vegetation density and moderate leaf litter.	Grey Falcon *Falco hypoleucos*	
Cleared 97.1 ha (65.5%)	n/a	n/a	n/a	n/a

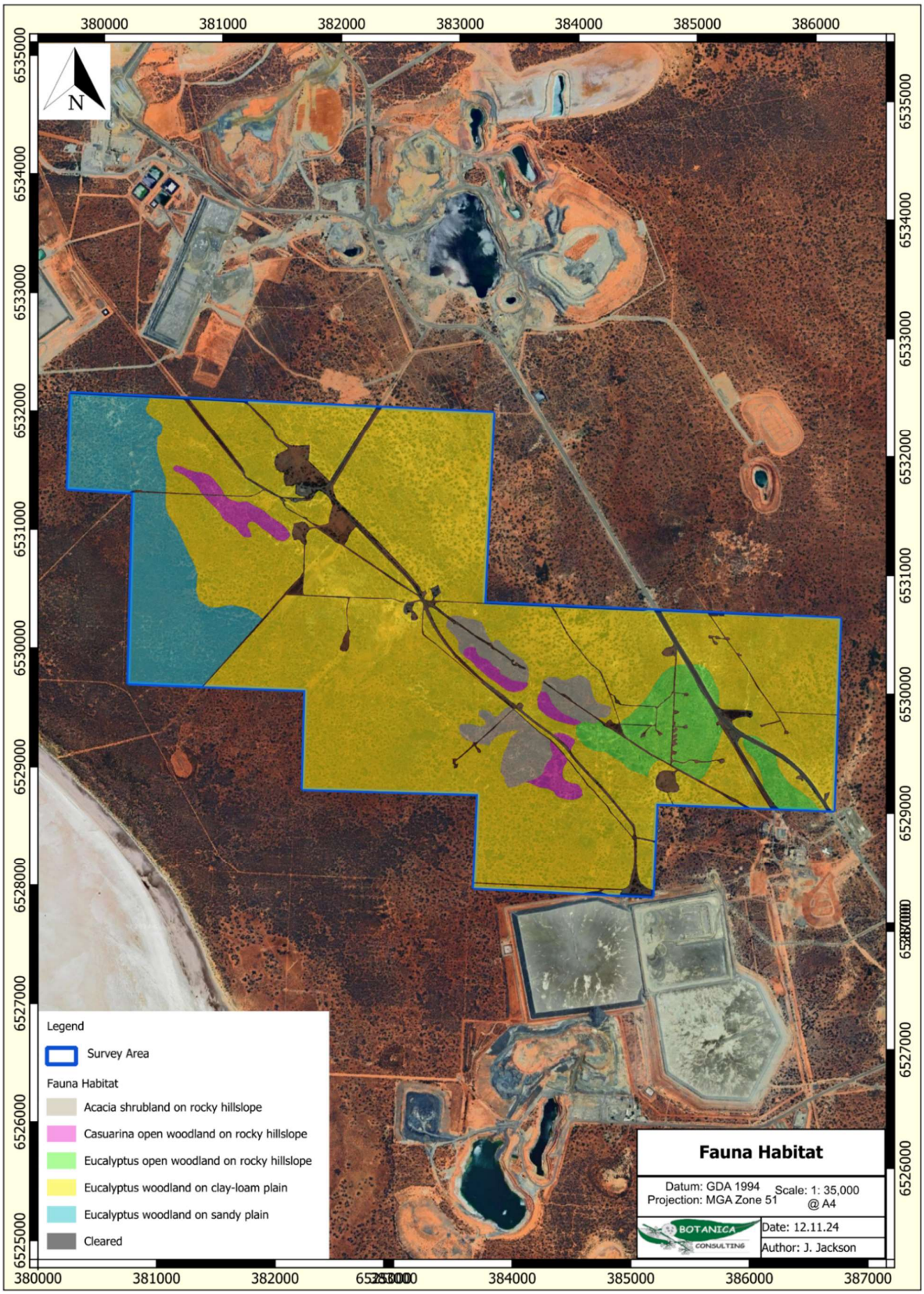


Figure 4-6: Fauna habitats within the survey area

4.2.7 Significant Fauna

According to the EPA Environmental Factor Guideline for Terrestrial Fauna (EPA, 2016c) significant fauna includes:

- Fauna being identified as a Threatened or Priority species;
- Fauna species with restricted distribution;
- Fauna subject to a high degree of historical impact from threatening processes; and
- Fauna providing an important function required to maintain the ecological integrity of a significant ecosystem.

No evidence of significant fauna was observed during the field survey.

The current status of some species on site and/or in the general area is difficult to determine, however, based on the habitats present and, in some cases, direct observations or recent nearby records, the following species of conservation significance can be regarded as possibly utilising the survey area for some purpose at times, these being:

- **Malleefowl (*Leipoa ocellata)* - Vulnerable (EPBC Act and BC Act)**

  This species is occasionally recorded in the Eastern Goldfields subregion. Vegetation does not broadly represent critical breeding habitat, and no evidence of malleefowl activity (active mounds, tracks, feathers or bird observations etc.) were observed within the survey area. Significant impact unlikely.

- **Grey Falcon (*Falco hypoleucos)* - Vulnerable (EPBC Act and BC Act)**

  This species is sparsely recorded throughout inland Australia. Suitable habitat may be present but is unlikely to represent critical habitat. The species may inhabit the area as part of its larger home range. Significant impact unlikely.

4.3 Matters of National Environmental Significance

4.3.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act protects matters of national environmental significance and is used by the Commonwealth DCCEEW to list threatened taxa and ecological communities into categories based on the criteria set out in the Act (www.environment.gov.au/epbc/index.html). The Act provides a national environmental assessment and approval system for proposed developments and enforces strict penalties for unauthorised actions that may affect matters of national environmental significance. Matters of national environmental significance as defined by the Commonwealth EPBC Act include:

- Nationally threatened flora and fauna species;

- World heritage properties;
- National heritage places;
- Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed);
- Nationally threatened ecological communities;
- Commonwealth marine area;
- The Great Barrier Reef Marine Park; and
- Nuclear actions (including uranium mining) a water resource, in relation to coal seam gas development and large coal mining development.

No Matters of National Environmental Significance were identified within the survey area.

4.4 Matters of State Environmental Significance.

4.4.1 Environmental Protection Act WA 1986

The EP Act provides for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment. The Act is administered by The Department of Water and Environment Regulation (DWER), which is the State Government's environmental regulatory agency.

Under Section 51C of the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations (Regulations) WA 2004*, any clearing of native vegetation in Western Australia that is not eligible for exemption under Schedule 6 of the EP Act 1986 or under the Regulations 2004 requires a clearing permit from the DWER or DEMIRS. Under Section 51A of the EP Act 1986 native vegetation includes aquatic and terrestrial vegetation indigenous to Western Australia, and intentionally planted vegetation declared by regulation to be native vegetation, but not vegetation planted in a plantation or planted with commercial intent. Section 51A of the EP Act 1986 defines clearing as "the killing or destruction of; the removal of; the severing or ringbarking of trunks or stems of; or the doing of substantial damage to some or all of the native vegetation in an area, including the flooding of land, the burning of vegetation, the grazing of stock or an act or activity that results in the above". Exemptions under Schedule 6 of the EP Act and the EP Regulations do not apply in ESAs as declared under Section 51B of the EP Act or TEC listed under State and Commonwealth legislation.

No Matters of State Environmental Significance were identified within the survey area.

4.4.2 Biodiversity Conservation Act 2016

This Act is used by the Western Australian DBCA for the conservation and protection of biodiversity and biodiversity components in Western Australia and to promote the ecologically sustainable use

of biodiversity components in the State. Taxa are classified as 'Threatened" when their populations are geographically restricted or are threatened by local processes (see following sections for Threatened definitions). Under this Act all native flora and fauna are protected throughout the State. Financial penalties are enforced under this Act if threatened species are collected without an appropriate license.

Under Section 54(1) of the BC Act, habitat is eligible for listing as critical habitat if:

a) it is critical to the survival of a threatened species or a threatened ecological community; and

b) its listing is otherwise in accordance with the ministerial guidelines.

No threatened species or critical habitat listed under the BC Act were recorded within the survey area.

4.5 Other Areas of Conservation Significance

There are no Environmentally Sensitive Areas mapped as occurring within the survey area.

There are no wetlands of international importance (Ramsar Wetlands) or national importance (Australian Nature Conservation Agency Wetlands) within the survey area.

There are no proposed nor gazetted conservation reserves within the survey area.

The closest conservation reserve is Kambalda Timber Reserve (R33300), which is vested with the Conservation Commission of WA for the conservation of flora and fauna. This area is located approximately 14 km north-west of the survey area, and activities within the survey area are unlikely to impact this reserve.

Both proposed and gazetted conservation reserves are managed by DBCA, with gazetted conservation reserves vested with the Conservation and Parks Commission of Western Australia. The Conservation and Parks Commission is an independent statutory authority that was established under the Conservation and Land Management (CALM) Act 1984 in November 2000 and is the controlling body in which the State's conservation estate, including national parks, conservation parks, nature reserves, state forests and timber reserves, are vested. The Conservation and Parks Commission develops policies and provides independent advice to the Minister for Environment with respect to conservation, the management of ecological biodiversity and the application of ecologically sustainable forest management. The DBCA manages land on behalf of the Conservation and Parks Commission.

The location of proposed and gazetted conservation reserves, ESAs and Nationally Important Wetlands in relation to the survey area is provided in Figure 4 3.

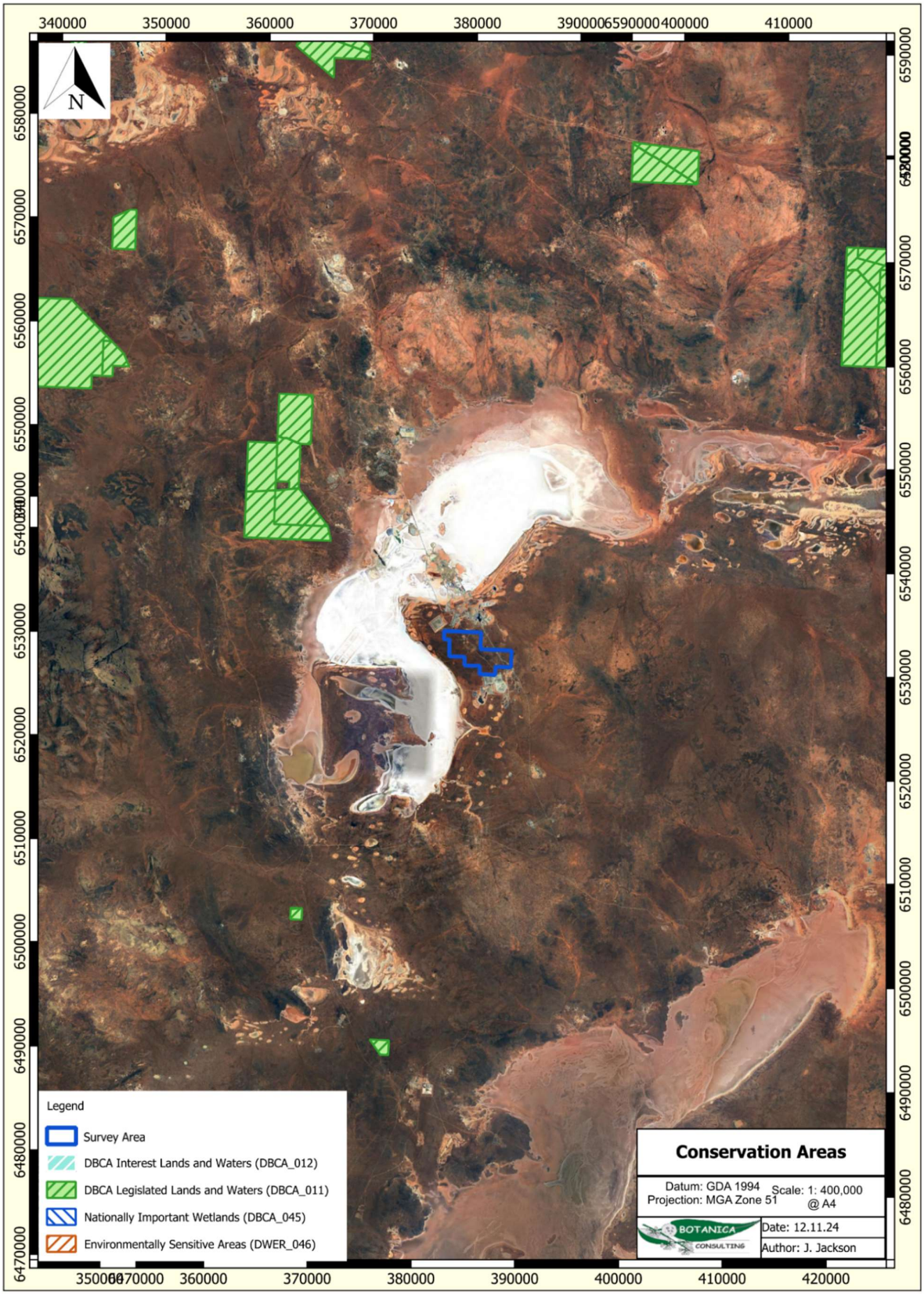


Figure 4-7: Areas of conservation significance

4.6 Native Vegetation Clearing Principles

Based on the outcomes from the survey undertaken, Botanica assessed the results of the desktop and field survey with regards to the native vegetation clearing principles listed under Schedule 5 of the EP Act (Table 4-11). The assessment found that the proposed vegetation clearing activities are unlikely to be at variance with any of the clearing principles.

Table 4-11: Assessment against native vegetation clearing principles

Letter	Principle Native vegetation should not be cleared if it:	Assessment	Outcome
(a)	comprises a high level of biological diversity.	Vegetation within the survey area is considered to be of low biological diversity and is well represented outside the survey area. No Threatened, Priority or otherwise significant flora or ecological communities were identified within the survey area.	Clearing is unlikely to be at variance with this principle
(b)	comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to WA.	The basic fauna search did not record any evidence for the presence of significant fauna or habitat within the survey area.	Clearing is unlikely to be at variance with this principle
(c)	includes, or is necessary for the continued existence of rare flora.	No Threatened Flora taxa, pursuant to the BC Act and the EPBC Act were identified within the survey area.	Clearing is unlikely to be at variance with this principle
(d)	comprises the whole or part of or is necessary for the maintenance of a threatened ecological community (TEC).	No Threatened Ecological Communities were identified as potentially occurring within the survey area.	Clearing is unlikely to be at variance with this principle
(e)	is significant as a remnant of native vegetation in an area that has been extensively cleared	All vegetation associations retain over 98% of their pre-European extent.	Clearing is unlikely to be at variance with this principle
(f)	is growing, in, or in association with, an environment associated with a watercourse or wetland	No surface water bodies or drainage lines were identified within the survey area.	Clearing is unlikely to be at variance with this principle
(g)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The survey area and surrounding region has not been extensively cleared. Clearing within the survey area is not considered likely to lead to land degradation issues such as salinity, water logging or acidic soils.	Clearing is unlikely to be at variance with this principle
(h)	Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	The survey area is not located within or adjacent to a conservation areas, and activity within the survey area is unlikely to impact any conservation reserves.	Clearing is unlikely to be at variance with this principle
(i)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	No surface water bodies, drainage lines or GDEs were identified within the survey area. Clearing activities are unlikely to impact hydrological systems.	Clearing is unlikely to be at variance with this principle

Letter	Principle Native vegetation should not be cleared if it:	Assessment	Outcome
(j)	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	Rainfall in the Eastern Goldfields subregion has an average rainfall of 200-300mm and an evaporation rate of 2400mm. Rainfall data indicates that rainfall is spread throughout the year and rainfall events are unlikely to result in localised flooding. Clearing within the survey area is not likely to increase the incidence or intensity of flooding within the survey area or surrounds.	Clearing is unlikely to be at variance with this principle

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APPENDIX A:
ATLAS OF LIVING AUSTRALIA DESKTOP SEARCH (40KM)

VASCULAR FLORA

Family	Taxon
Aizoaceae	*Gunniopsis glabra*
Aizoaceae	*Gunniopsis quadrifida*
Aizoaceae	*Gunniopsis rodwayi*
Amaranthaceae	*Ptilotus divaricatus*
Amaranthaceae	*Ptilotus eremita*
Amaranthaceae	*Ptilotus exaltatus*
Amaranthaceae	*Ptilotus helichrysoides*
Amaranthaceae	*Ptilotus holosericeus*
Amaranthaceae	*Ptilotus obovatus*
Amaranthaceae	*Ptilotus polystachyus*
Amaranthaceae	*Ptilotus remotiflora*
Amaranthaceae	*Ptilotus rigidus*
Amaranthaceae	*Surreya diandra*
Apiaceae	*Actinotus superbus*
Apiaceae	*Daucus glochidiatus*
Apiaceae	*Platysace effusa*
Apocynaceae	*Alyxia buxifolia*
Apocynaceae	*Leichhardtia australis*
Apocynaceae	*Vincetoxicum lineare*
Araliaceae	*Hydrocotyle intertexta*
Araliaceae	*Hydrocotyle rugulosa*
Araliaceae	*Trachymene cyanopetala*
Araliaceae	*Trachymene pyrophila*
Asparagaceae	*Arthropodium* sp. Goldfields (H.Pringle 2188)
Asparagaceae	*Chamaexeros fimbriata*
Asparagaceae	*Lomandra effusa*
Asparagaceae	*Sowerbaea multicaulis*
Asparagaceae	*Thysanotus dichotomus*
Asparagaceae	*Thysanotus manglesianus*
Asparagaceae	*Thysanotus speckii*
Asphodelaceae	*Bulbine semibarbata*
Aspleniaceae	*Asplenium subglandulosum*
Asteraceae	*Actinobole uliginosum*
Asteraceae	*Angianthus preissianus*
Asteraceae	*Angianthus tomentosus*
Asteraceae	*Argentipallium niveum*
Asteraceae	*Asteridea athrixioides*
Asteraceae	*Blennospora drummondii*
Asteraceae	*Brachyscome ciliaris*
Asteraceae	*Brachyscome iberidifolia*
Asteraceae	*Brachyscome lineariloba*
Asteraceae	*Brachyscome trachycarpa*
Asteraceae	*Calocephalus multiflorus*
Asteraceae	*Calotis hispidula*
Asteraceae	*Calotis multicaulis*
Asteraceae	*Calotis plumulifera*
Asteraceae	*Centaurea melitensis*
Asteraceae	*Cephalipterum drummondii*
Asteraceae	*Chrysocephalum apiculatum*

Family	Taxon
Asteraceae	*Chrysocephalum apiculatum* subsp. *norsemanense*
Asteraceae	*Chrysocephalum puteale*
Asteraceae	*Chthonocephalus pseudevax*
Asteraceae	*Cratystylis centralis*
Asteraceae	*Cratystylis conocephala*
Asteraceae	*Cratystylis conocephala* x *Cratystylis microphylla*
Asteraceae	*Cratystylis microphylla*
Asteraceae	*Cratystylis* subsp*inescens*
Asteraceae	*Erymophyllum ramosum* subsp. *ramosum*
Asteraceae	*Gazania linearis*
Asteraceae	*Gnephosis angianthoides*
Asteraceae	*Gnephosis tridens*
Asteraceae	*Hyalochlamys globifera*
Asteraceae	*Hyalosperma demissum*
Asteraceae	*Hyalosperma glutinosum*
Asteraceae	*Hyalosperma glutinosum* subsp. *glutinosum*
Asteraceae	*Hypochaeris glabra*
Asteraceae	*Isoetopsis graminifolia*
Asteraceae	*Leiocarpa semicalva*
Asteraceae	*Leucochrysum fitzgibbonii*
Asteraceae	*Millotia myosotidifolia*
Asteraceae	*Minuria cunninghamii*
Asteraceae	*Monoculus monstrosus*
Asteraceae	*Myriocephalus pygmaeus*
Asteraceae	*Olearia adenolasia*
Asteraceae	*Olearia exiguifolia*
Asteraceae	*Olearia homolepis*
Asteraceae	*Olearia muelleri*
Asteraceae	*Olearia muricata*
Asteraceae	*Olearia pimeleoides*
Asteraceae	*Olearia* sp. Eremicola (Diels & Pritzel s.n. PERTH 00449628)
Asteraceae	*Olearia* subsp*icata*
Asteraceae	*Olearia trifurcata*
Asteraceae	*Oligocarpus calendulaceus*
Asteraceae	*Oncosiphon suffruticosum*
Asteraceae	*Ozothamnus cassiope*
Asteraceae	*Podolepis aristata* subsp. *affinis*
Asteraceae	*Podolepis capillaris*
Asteraceae	*Podolepis kendallii*
Asteraceae	*Podolepis lessonii*
Asteraceae	*Podolepis rugata* subsp. *rugata*
Asteraceae	*Podotheca wilsonii*
Asteraceae	*Rhodanthe battii*
Asteraceae	*Rhodanthe charsleyae*
Asteraceae	*Rhodanthe chlorocephala*
Asteraceae	*Rhodanthe chlorocephala* subsp. *rosea*
Asteraceae	*Rhodanthe floribunda*
Asteraceae	*Rhodanthe haigii*
Asteraceae	*Rhodanthe laevis*
Asteraceae	*Rhodanthe oppositifolia* subsp. *oppositifolia*
Asteraceae	*Rhodanthe pygmaea*
Asteraceae	*Rhodanthe rubella*
Asteraceae	*Rhodanthe stricta*
Asteraceae	*Rhodanthe stuartiana*
Asteraceae	*Schoenia cassiniana*
Asteraceae	*Senecio glossanthus*
Asteraceae	*Senecio lacustrinus*
Asteraceae	*Sonchus oleraceus*
Asteraceae	*Streptoglossa liatroides*
Asteraceae	*Thiseltonia gracillima*

Family	Taxon
Asteraceae	*Trichanthodium skirrophorum*
Asteraceae	*Triptilodiscus pygmaeus*
Asteraceae	*Vittadinia dissecta* var. *hirta*
Asteraceae	*Vittadinia humerata*
Asteraceae	*Waitzia acuminata*
Asteraceae	*Waitzia acuminata* var. *acuminata*
Asteraceae	*Xanthium spinosum*
Boraginaceae	*Echium plantagineum*
Boraginaceae	*Halgania andromedifolia*
Boraginaceae	*Halgania cyanea*
Boraginaceae	*Halgania cyanea* var. Charleville (R.W.Purdie+ 111)
Boraginaceae	*Halgania integerrima*
Boraginaceae	*Halgania lavandulacea*
Boraginaceae	*Heliotropium curassavicum*
Boryaceae	*Borya constricta*
Brassicaceae	*Arabidella chrysodema*
Brassicaceae	*Arabidella trisecta*
Brassicaceae	*Carrichtera annua*
Brassicaceae	*Lepidium africanum*
Brassicaceae	*Lepidium oxytrichum*
Brassicaceae	*Lepidium platypetalum*
Brassicaceae	*Menkea australis*
Brassicaceae	*Phlegmatospermum eremaeum*
Brassicaceae	*Sisymbrium erysimoides*
Brassicaceae	*Stenopetalum filifolium*
Brassicaceae	*Stenopetalum lineare*
Cactaceae	*Cylindropuntia fulgida* var. *mamillata*
Campanulaceae	*Isotoma petraea*
Campanulaceae	*Wahlenbergia gracilenta*
Caryophyllaceae	*Stellaria filiformis*
Casuarinaceae	*Allocasuarina acuaria*
Casuarinaceae	*Allocasuarina acutivalvis* subsp. *acutivalvis*
Casuarinaceae	*Allocasuarina campestris*
Casuarinaceae	*Allocasuarina eriochlamys* subsp. *grossa*
Casuarinaceae	*Allocasuarina helmsii*
Casuarinaceae	*Casuarina obesa*
Casuarinaceae	*Casuarina pauper*
Celastraceae	*Psammomoya ephedroides*
Celastraceae	*Stackhousia georgei*
Celastraceae	*Stackhousia* sp. Mt Keith (G.Cockerton & G.O'Keefe 11017)
Centrolepidaceae	*Centrolepis cephaloformis* subsp. *cephaloformis*
Centrolepidaceae	*Centrolepis polygyna*
Chenopodiaceae	*Atriplex acutibractea*
Chenopodiaceae	*Atriplex acutibractea* subsp. *karoniensis*
Chenopodiaceae	*Atriplex codonocarpa*
Chenopodiaceae	*Atriplex eardleyae*
Chenopodiaceae	*Atriplex hymenotheca*
Chenopodiaceae	*Atriplex nana*
Chenopodiaceae	*Atriplex nummularia*
Chenopodiaceae	*Atriplex nummularia* subsp. *spathulata*
Chenopodiaceae	*Atriplex quadrivalvata* var. *quadrivalvata*
Chenopodiaceae	*Atriplex spongiosa*
Chenopodiaceae	*Atriplex stipitata* subsp. *stipitata*
Chenopodiaceae	*Atriplex vesicaria*
Chenopodiaceae	*Atriplex vesicaria* subsp. *appendiculata*
Chenopodiaceae	*Chenopodium curvispicatum*
Chenopodiaceae	*Dissocarpus paradoxus*
Chenopodiaceae	*Enchylaena tomentosa*
Chenopodiaceae	*Eriochiton sclerolaenoides*
Chenopodiaceae	*Maireana amoena*

Family	Taxon
Chenopodiaceae	*Maireana appressa*
Chenopodiaceae	*Maireana brevifolia*
Chenopodiaceae	*Maireana erioclada*
Chenopodiaceae	*Maireana eriosphaera*
Chenopodiaceae	*Maireana georgei*
Chenopodiaceae	*Maireana marginata*
Chenopodiaceae	*Maireana oppositifolia*
Chenopodiaceae	*Maireana pentatropis*
Chenopodiaceae	*Maireana pyramidata*
Chenopodiaceae	*Maireana radiata*
Chenopodiaceae	*Maireana sedifolia*
Chenopodiaceae	*Maireana suaedifolia*
Chenopodiaceae	*Maireana tomentosa*
Chenopodiaceae	*Maireana tomentosa* subsp. *tomentosa*
Chenopodiaceae	*Maireana trichoptera*
Chenopodiaceae	*Maireana triptera*
Chenopodiaceae	*Osteocarpum salsuginosum*
Chenopodiaceae	*Rhagodia crassifolia*
Chenopodiaceae	*Rhagodia drummondii*
Chenopodiaceae	*Rhagodia preissii* subsp. *preissii*
Chenopodiaceae	*Rhagodia spinescens*
Chenopodiaceae	*Salsola australis*
Chenopodiaceae	*Salsola tragus*
Chenopodiaceae	*Sclerolaena articulata*
Chenopodiaceae	*Sclerolaena brevifolia*
Chenopodiaceae	*Sclerolaena cuneata*
Chenopodiaceae	*Sclerolaena diacantha*
Chenopodiaceae	*Sclerolaena drummondii*
Chenopodiaceae	*Sclerolaena eurotioides*
Chenopodiaceae	*Sclerolaena obliquicuspis*
Chenopodiaceae	*Sclerolaena parviflora*
Chenopodiaceae	*Tecticornia disarticulata*
Chenopodiaceae	*Tecticornia flabelliformis*
Chenopodiaceae	*Tecticornia halocnemoides*
Chenopodiaceae	*Tecticornia halocnemoides* subsp. *halocnemoides*
Chenopodiaceae	*Tecticornia indica* subsp. *leiostachya*
Chenopodiaceae	*Tecticornia lepidosperma*
Chenopodiaceae	*Tecticornia lylei*
Chenopodiaceae	*Tecticornia mellarium*
Chenopodiaceae	*Tecticornia moniliformis*
Chenopodiaceae	*Tecticornia peltata*
Chenopodiaceae	*Tecticornia pergranulata* subsp. *pergranulata*
Chenopodiaceae	*Tecticornia pruinosa*
Chenopodiaceae	*Tecticornia syncarpa*
Chenopodiaceae	*Tecticornia triandra*
Colchicaceae	*Wurmbea tenella*
Convolvulaceae	*Wilsonia humilis*
Crassulaceae	*Bryophyllum delagoense*
Crassulaceae	*Crassula closiana*
Crassulaceae	*Crassula colorata* var. *colorata*
Crassulaceae	*Crassula exserta*
Cucurbitaceae	*Citrullus amarus*
Cucurbitaceae	*Citrullus colocynthis*
Cupressaceae	*Callitris columellaris*
Cupressaceae	*Callitris glaucophylla*
Cupressaceae	*Callitris preissii*
Cupressaceae	*Callitris verrucosa*
Cyperaceae	*Isolepis congrua*
Cyperaceae	*Lepidosperma lyonsii*
Cyperaceae	*Lepidosperma sanguinolentum*

Family	Taxon
Cyperaceae	*Lepidosperma sieberi*
Cyperaceae	*Lepidosperma* sp. Kambalda (A.A.Mitchell 5156)
Cyperaceae	*Lepidosperma* sp. Parker Range (N.Gibson & M.Lyons 2094)
Cyperaceae	*Schoenus subaphyllus*
Dasypogonaceae	*Calectasia grandiflora*
Dilleniaceae	*Hibbertia glomerosa*
Dilleniaceae	*Hibbertia huegelii*
Dilleniaceae	*Hibbertia subvaginata*
Droseraceae	*Drosera macrantha* subsp. *macrantha*
Droseraceae	*Drosera moorei*
Droseraceae	*Drosera* sp. Branched styles (S.C.Coffey 193)
Elaeocarpaceae	*Tetratheca spenceri*
Ericaceae	*Andersonia carinata*
Ericaceae	*Leucopogon insularis*
Ericaceae	*Leucopogon* sp. Boorabbin (K.R.Newbey 8374)
Ericaceae	*Leucopogon* sp. Clyde Hill (M.A.Burgman 1207)
Ericaceae	*Leucopogon* sp. Coolgardie (M.Hislop & F.Hort MH3197)
Ericaceae	*Leucopogon* sp. Kambalda (J.Williams s.n. PERTH 07305028)
Ericaceae	*Melichrus* sp. Bungalbin Hill (F.H. & M.P.Mollemans 3069)
Euphorbiaceae	*Bertya dimerostigma*
Euphorbiaceae	*Bertya virgata*
Euphorbiaceae	*Beyeria brevifolia*
Euphorbiaceae	*Beyeria lechenaultii*
Euphorbiaceae	*Beyeria sulcata* var. *brevipes*
Euphorbiaceae	*Beyeria sulcata* var. *sulcata*
Euphorbiaceae	*Euphorbia tannensis* subsp. *eremophila*
Euphorbiaceae	*Monotaxis grandiflora*
Euphorbiaceae	*Monotaxis grandiflora* var. *obtusifolia*
Euphorbiaceae	*Ricinocarpos muricatus*
Euphorbiaceae	*Ricinocarpos* sp. Eastern Goldfields (A.Williams 3)
Euphorbiaceae	*Ricinocarpos stylosus*
Fabaceae	*Acacia acuminata*
Fabaceae	*Acacia aneura*
Fabaceae	*Acacia aptaneura*
Fabaceae	*Acacia burkittii*
Fabaceae	*Acacia calcarata*
Fabaceae	*Acacia camptoclada*
Fabaceae	*Acacia chrysella*
Fabaceae	*Acacia collegialis*
Fabaceae	*Acacia colletioides*
Fabaceae	*Acacia crenulata*
Fabaceae	*Acacia cylindrica*
Fabaceae	*Acacia dempsteri*
Fabaceae	*Acacia donaldsonii*
Fabaceae	*Acacia dorsenna*
Fabaceae	*Acacia duriuscula*
Fabaceae	*Acacia enervia* subsp. *explicata*
Fabaceae	*Acacia ephedroides*
Fabaceae	*Acacia eremophila* var. *eremophila*
Fabaceae	*Acacia erinacea*
Fabaceae	*Acacia fragilis*
Fabaceae	*Acacia fraternalis*
Fabaceae	*Acacia gibbosa*
Fabaceae	*Acacia hemiteles*
Fabaceae	*Acacia inaequiloba*
Fabaceae	*Acacia inamabilis*
Fabaceae	*Acacia inceana* subsp. *inceana*
Fabaceae	*Acacia jennerae*
Fabaceae	*Acacia kalgoorliensis*
Fabaceae	*Acacia kerryana*

Family	Taxon
Fabaceae	*Acacia lasiocalyx*
Fabaceae	*Acacia ligulata*
Fabaceae	*Acacia longispinea*
Fabaceae	*Acacia masliniana*
Fabaceae	*Acacia merrallii*
Fabaceae	*Acacia mulganeura*
Fabaceae	*Acacia murrayana*
Fabaceae	*Acacia nyssophylla*
Fabaceae	*Acacia pachypoda*
Fabaceae	*Acacia prainii*
Fabaceae	*Acacia pritzeliana*
Fabaceae	*Acacia quadrimarginea*
Fabaceae	*Acacia rendlei*
Fabaceae	*Acacia resinimarginea*
Fabaceae	*Acacia resinistipulea*
Fabaceae	*Acacia resinosa*
Fabaceae	*Acacia sp. (Townsville)*
Fabaceae	*Acacia tetragonophylla*
Fabaceae	*Acacia triptycha*
Fabaceae	*Acacia uncinella*
Fabaceae	*Acacia warramaba*
Fabaceae	*Acacia websteri*
Fabaceae	*Acacia xerophila*
Fabaceae	*Acacia xerophila* var. *brevior*
Fabaceae	*Bossiaea cucullata*
Fabaceae	*Bossiaea walkeri*
Fabaceae	*Cullen cinereum*
Fabaceae	*Daviesia aphylla*
Fabaceae	*Daviesia croniniana*
Fabaceae	*Daviesia grahamii*
Fabaceae	*Daviesia pachyloma*
Fabaceae	*Gastrolobium laytonii*
Fabaceae	*Gastrolobium spinosum*
Fabaceae	*Glycine peratosa*
Fabaceae	*Glycyrrhiza acanthocarpa*
Fabaceae	*Gompholobium gompholobioides*
Fabaceae	*Gompholobium shuttleworthii*
Fabaceae	*Indigofera occidentalis*
Fabaceae	*Jacksonia arida*
Fabaceae	*Kennedia prorepens*
Fabaceae	*Leptosema cervicornu*
Fabaceae	*Lotus australis*
Fabaceae	*Mirbelia microphylla*
Fabaceae	*Mirbelia multicaulis*
Fabaceae	*Senna artemisioides*
Fabaceae	*Senna artemisioides* subsp. *filifolia*
Fabaceae	*Senna artemisioides* subsp. *x artemisioides*
Fabaceae	*Senna artemisioides* subsp. *x coriacea*
Fabaceae	*Senna cardiosperma*
Fabaceae	*Senna pleurocarpa* var. *angustifolia*
Fabaceae	*Senna pleurocarpa* var. *pleurocarpa*
Fabaceae	*Senna stowardii*
Fabaceae	*Swainsona beasleyana*
Fabaceae	*Swainsona canescens*
Fabaceae	*Swainsona colutoides*
Fabaceae	*Swainsona formosa*
Fabaceae	*Swainsona oligophylla*
Fabaceae	*Templetonia ceracea*
Frankeniaceae	*Frankenia cinerea*
Frankeniaceae	*Frankenia desertorum*

Family	Taxon
Frankeniaceae	*Frankenia glomerata*
Frankeniaceae	*Frankenia interioris*
Frankeniaceae	*Frankenia interioris* var. *interioris*
Frankeniaceae	*Frankenia interioris* var. *parviflora*
Frankeniaceae	*Frankenia irregularis*
Frankeniaceae	*Frankenia pauciflora*
Frankeniaceae	*Frankenia setosa*
Frankeniaceae	*Frankenia sp. (aff. confusa)*
Geraniaceae	*Erodium cicutarium*
Geraniaceae	*Erodium crinitum*
Geraniaceae	*Erodium cygnorum*
Goodeniaceae	*Brunonia australis*
Goodeniaceae	*Brunonia* sp. Goldfields (K.R. Newbey 6044)
Goodeniaceae	*Coopernookia strophiolata*
Goodeniaceae	*Dampiera angulata*
Goodeniaceae	*Dampiera latealata*
Goodeniaceae	*Dampiera linearis*
Goodeniaceae	*Dampiera luteiflora*
Goodeniaceae	*Dampiera oligophylla*
Goodeniaceae	*Dampiera stenostachya*
Goodeniaceae	*Dampiera tenuicaulis*
Goodeniaceae	*Dampiera tenuicaulis* var. *curvula*
Goodeniaceae	*Dampiera tenuicaulis* var. *tenuicaulis*
Goodeniaceae	*Goodenia concinna*
Goodeniaceae	*Goodenia elderi*
Goodeniaceae	*Goodenia havilandii*
Goodeniaceae	*Goodenia occidentalis*
Goodeniaceae	*Goodenia pinnatifida*
Goodeniaceae	*Goodenia pusilliflora*
Goodeniaceae	*Goodenia xanthosperma*
Goodeniaceae	*Lechenaultia brevifolia*
Goodeniaceae	*Lechenaultia pulvinaris*
Goodeniaceae	*Scaevola oxyclona*
Goodeniaceae	*Scaevola restiacea* subsp. *divaricata*
Goodeniaceae	*Scaevola spinescens*
Goodeniaceae	*Velleia rosea*
Gyrostemonaceae	*Codonocarpus cotinifolius*
Gyrostemonaceae	*Gyrostemon brownii*
Gyrostemonaceae	*Gyrostemon racemiger*
Haloragaceae	*Glischrocaryon angustifolium*
Haloragaceae	*Glischrocaryon aureum*
Haloragaceae	*Glischrocaryon flavescens*
Haloragaceae	*Gonocarpus confertifolius* var. *helmsii*
Haloragaceae	*Haloragis dura*
Haloragaceae	*Haloragis gossei*
Haloragaceae	*Haloragis trigonocarpa*
Hemerocallidaceae	*Agrostocrinum scabrum* subsp. *scabrum*
Hemerocallidaceae	*Dianella revoluta*
Hemerocallidaceae	*Dianella revoluta* var. *divaricata*
Hemerocallidaceae	*Stypandra glauca*
Hemerocallidaceae	*Tricoryne tenella*
Hypericaceae	*Hypericum gramineum*
Iridaceae	*Patersonia rudis* subsp. *velutina*
Isoetaceae	*Isoetes muelleri*
Juncaceae	*Juncus aridicola*
Juncaceae	*Juncus pauciflorus*
Lamiaceae	*Cyanostegia angustifolia*
Lamiaceae	*Cyanostegia lanceolata*
Lamiaceae	*Cyanostegia microphylla*
Lamiaceae	*Dasymalla terminalis*

Family	Taxon
Lamiaceae	*Dicrastylis parvifolia*
Lamiaceae	*Dicrastylis reticulata*
Lamiaceae	*Lachnostachys coolgardiensis*
Lamiaceae	*Pityrodia lepidota*
Lamiaceae	*Pityrodia scabra*
Lamiaceae	*Pityrodia scabra* subsp. *dendrotricha*
Lamiaceae	*Prostanthera althoferi*
Lamiaceae	*Prostanthera althoferi* subsp. *althoferi*
Lamiaceae	*Prostanthera campbellii*
Lamiaceae	*Prostanthera grylloana*
Lamiaceae	*Prostanthera incurvata*
Lamiaceae	*Prostanthera splendens*
Lamiaceae	*Prostanthera wilkieana*
Lamiaceae	*Salvia verbenaca*
Lamiaceae	*Teucrium disjunctum*
Lamiaceae	*Teucrium sessiliflorum*
Lamiaceae	*Westringia cephalantha*
Lamiaceae	*Westringia rigida*
Lauraceae	*Cassytha melantha*
Loganiaceae	*Phyllangium sulcatum*
Loranthaceae	*Amyema benthamii*
Loranthaceae	*Amyema miquelii*
Loranthaceae	*Amyema preissii*
Malvaceae	*Alyogyne hakeifolia*
Malvaceae	*Androcalva luteiflora*
Malvaceae	*Brachychiton gregorii*
Malvaceae	*Commersonia craurophylla*
Malvaceae	*Hannafordia bissillii* subsp. *latifolia*
Malvaceae	*Lawrencia chrysoderma*
Malvaceae	*Lawrencia diffusa*
Malvaceae	*Lawrencia helmsii*
Malvaceae	*Lawrencia repens*
Malvaceae	*Lawrencia squamata*
Malvaceae	*Malva weinmanniana*
Malvaceae	*Radyera farragei*
Malvaceae	*Seringia velutina*
Malvaceae	*Sida calyxhymenia*
Malvaceae	*Sida intricata*
Malvaceae	*Sida sp. (Small Flower)*
Malvaceae	*Sida spodochroma*
Malvaceae	*Thomasia macrocalyx*
Marsileaceae	*Marsilea drummondii*
Marsileaceae	*Marsilea hirsuta*
Marsileaceae	*Marsilea mutica*
Molluginaceae	*Hypertelis cerviana*
Myrtaceae	*Aluta maisonneuvei*
Myrtaceae	*Astartea* sp. Red Hill (K.R.Newbey 8462)
Myrtaceae	*Astus tetragonus*
Myrtaceae	*Balaustion pulcherrimum*
Myrtaceae	*Beaufortia incana*
Myrtaceae	*Beaufortia puberula*
Myrtaceae	*Calothamnus gilesii*
Myrtaceae	*Calothamnus quadrifidus*
Myrtaceae	*Calytrix amethystina*
Myrtaceae	*Calytrix birdii*
Myrtaceae	*Calytrix plumulosa*
Myrtaceae	*Calytrix strigosa*
Myrtaceae	*Calytrix tetragona*
Myrtaceae	*Calytrix watsonii*
Myrtaceae	*Chamelaucium ciliatum*

Family	Taxon
Myrtaceae	*Darwinia* sp. Karonie (K.Newbey 8503)
Myrtaceae	*Enekbatus clavifolius*
Myrtaceae	*Eucalyptus aspratilis*
Myrtaceae	*Eucalyptus calycogona* subsp. *spaffordii*
Myrtaceae	*Eucalyptus campaspe*
Myrtaceae	*Eucalyptus capillosa* subsp. *capillosa*
Myrtaceae	*Eucalyptus celastroides*
Myrtaceae	*Eucalyptus celastroides* subsp. *celastroides*
Myrtaceae	*Eucalyptus celastroides* subsp. *virella*
Myrtaceae	*Eucalyptus ceratocorys*
Myrtaceae	*Eucalyptus clelandiorum*
Myrtaceae	*Eucalyptus cometae-vallis*
Myrtaceae	*Eucalyptus concinna*
Myrtaceae	*Eucalyptus corrugata*
Myrtaceae	*Eucalyptus cylindrocarpa*
Myrtaceae	*Eucalyptus delicata*
Myrtaceae	*Eucalyptus eremicola*
Myrtaceae	*Eucalyptus eremophila*
Myrtaceae	*Eucalyptus flocktoniae*
Myrtaceae	*Eucalyptus flocktoniae* subsp. *flocktoniae*
Myrtaceae	*Eucalyptus gracilis*
Myrtaceae	*Eucalyptus griffithsii*
Myrtaceae	*Eucalyptus horistes*
Myrtaceae	*Eucalyptus incerata*
Myrtaceae	*Eucalyptus incrassata*
Myrtaceae	*Eucalyptus kochii* subsp. *borealis*
Myrtaceae	*Eucalyptus kruseana*
Myrtaceae	*Eucalyptus leptophylla*
Myrtaceae	*Eucalyptus leptopoda* subsp. *subluta*
Myrtaceae	*Eucalyptus lesouefii*
Myrtaceae	*Eucalyptus livida*
Myrtaceae	*Eucalyptus longicornis*
Myrtaceae	*Eucalyptus longissima*
Myrtaceae	*Eucalyptus loxophleba* subsp. *lissophloia*
Myrtaceae	*Eucalyptus oleosa*
Myrtaceae	*Eucalyptus oleosa* subsp. *oleosa*
Myrtaceae	*Eucalyptus olivina*
Myrtaceae	*Eucalyptus orbifolia*
Myrtaceae	*Eucalyptus ovularis*
Myrtaceae	*Eucalyptus petraea*
Myrtaceae	*Eucalyptus pileata*
Myrtaceae	*Eucalyptus planipes*
Myrtaceae	*Eucalyptus platycorys*
Myrtaceae	*Eucalyptus platydisca*
Myrtaceae	*Eucalyptus prolixa*
Myrtaceae	*Eucalyptus quadrans*
Myrtaceae	*Eucalyptus ravida*
Myrtaceae	*Eucalyptus rigidula*
Myrtaceae	*Eucalyptus salicola*
Myrtaceae	*Eucalyptus salmonophloia*
Myrtaceae	*Eucalyptus salubris*
Myrtaceae	*Eucalyptus* sp. Great Victoria Desert (D.Nicolle & M.French DN 3877)
Myrtaceae	*Eucalyptus* sp. Kalbarri (M.I.H.Brooker 7937)
Myrtaceae	*Eucalyptus stricklandii*
Myrtaceae	*Eucalyptus tenera*
Myrtaceae	*Eucalyptus tenuis*
Myrtaceae	*Eucalyptus torquata*
Myrtaceae	*Eucalyptus transcontinentalis*
Myrtaceae	*Eucalyptus urna*
Myrtaceae	*Eucalyptus vittata*

Family	Taxon
Myrtaceae	*Eucalyptus websteriana*
Myrtaceae	*Eucalyptus websteriana* subsp. *websteriana*
Myrtaceae	*Eucalyptus woodwardii*
Myrtaceae	*Eucalyptus x brachyphylla*
Myrtaceae	*Eucalyptus yilgarnensis*
Myrtaceae	*Homalocalyx thryptomenoides*
Myrtaceae	*Homalospermum firmum*
Myrtaceae	*Hysterobaeckea petraea*
Myrtaceae	*Kunzea affinis*
Myrtaceae	*Leptospermum fastigiatum*
Myrtaceae	*Leptospermum nitens*
Myrtaceae	*Leptospermum roei*
Myrtaceae	*Leptospermum subtenue*
Myrtaceae	*Melaleuca acuminata* subsp. *acuminata*
Myrtaceae	*Melaleuca brophyi*
Myrtaceae	*Melaleuca coccinea*
Myrtaceae	*Melaleuca concreta*
Myrtaceae	*Melaleuca elliptica*
Myrtaceae	*Melaleuca exuvia*
Myrtaceae	*Melaleuca fulgens*
Myrtaceae	*Melaleuca fulgens* subsp. *fulgens*
Myrtaceae	*Melaleuca hamata*
Myrtaceae	*Melaleuca johnsonii*
Myrtaceae	*Melaleuca lanceolata*
Myrtaceae	*Melaleuca pauperiflora* subsp. *fastigiata*
Myrtaceae	*Melaleuca radula*
Myrtaceae	*Melaleuca sheathiana*
Myrtaceae	*Melaleuca subalaris*
Myrtaceae	*Melaleuca thyoides*
Myrtaceae	*Melaleuca uncinata*
Myrtaceae	*Melaleuca zeteticorum*
Myrtaceae	*Micromyrtus monotaxis*
Myrtaceae	*Micromyrtus obovata*
Myrtaceae	*Taxandria spathulata*
Myrtaceae	*Thryptomene australis*
Myrtaceae	*Thryptomene australis* subsp. *brachyandra*
Myrtaceae	*Thryptomene kochii*
Myrtaceae	*Thryptomene* sp. Londonderry (R.H.Kuchel 1763)
Myrtaceae	*Verticordia chrysantha*
Myrtaceae	*Verticordia dasystylis* subsp. *dasystylis*
Myrtaceae	*Verticordia eriocephala*
Myrtaceae	*Verticordia helmsii*
Myrtaceae	*Verticordia picta*
Myrtaceae	*Verticordia rennieana*
Nitrariaceae	*Nitraria billardierei*
Ophioglossaceae	*Ophioglossum lusitanicum*
Orchidaceae	*Diuris hazeliae*
Orchidaceae	*Microtis eremaea*
Orchidaceae	*Prasophyllum gracile*
Orchidaceae	*Pterostylis nana*
Orchidaceae	*Pterostylis roensis*
Orchidaceae	*Pterostylis setulosa*
Orchidaceae	*Pterostylis tryphera*
Orchidaceae	*Pterostylis xerampelina*
Orchidaceae	*Thelymitra petrophila*
Pittosporaceae	*Cheiranthera filifolia*
Pittosporaceae	*Pittosporum angustifolium*
Pittosporaceae	*Pittosporum phillyreoides*
Plantaginaceae	*Plantago debilis*
Plantaginaceae	*Plantago drummondii*

Family	Taxon
Poaceae	*Aristida contorta*
Poaceae	*Austrostipa blackii*
Poaceae	*Austrostipa elegantissima*
Poaceae	*Austrostipa eremophila*
Poaceae	*Austrostipa nitida*
Poaceae	*Austrostipa nodosa*
Poaceae	*Austrostipa platychaeta*
Poaceae	*Austrostipa scabra*
Poaceae	*Austrostipa* sp. Carlingup Road (S.Kern & R.Jasper LCH 18459)
Poaceae	*Austrostipa trichophylla*
Poaceae	*Austrostipa variabilis*
Poaceae	*Cenchrus ciliaris*
Poaceae	*Enteropogon ramosus*
Poaceae	*Eriachne pulchella* subsp. *pulchella*
Poaceae	*Paspalidium gracile*
Poaceae	*Rostraria pumila*
Poaceae	*Rytidosperma acerosum*
Poaceae	*Rytidosperma caespitosum*
Poaceae	*Thyridolepis mitchelliana*
Poaceae	*Triodia desertorum*
Poaceae	*Triodia rigidissima*
Poaceae	*Triodia scariosa*
Polygalaceae	*Comesperma scoparium*
Polygalaceae	*Comesperma volubile*
Polygonaceae	*Persicaria prostrata*
Polygonaceae	*Rumex hypogaeus*
Portulacaceae	*Calandrinia baccata*
Portulacaceae	*Calandrinia eremaea*
Portulacaceae	*Calandrinia granulifera*
Portulacaceae	*Calandrinia lefroyensis*
Portulacaceae	*Calandrinia polyandra*
Portulacaceae	*Calandrinia* sp. Gypsum (F.Obbens & L.Hancock FO 10/14)
Portulacaceae	*Calandrinia* sp. Needilup (K.R.Newbey 4892)
Portulacaceae	*Calandrinia translucens*
Primulaceae	*Lysimachia arvensis*
Proteaceae	*Grevillea acacioides*
Proteaceae	*Grevillea acuaria*
Proteaceae	*Grevillea anethifolia*
Proteaceae	*Grevillea annulifera*
Proteaceae	*Grevillea cagiana*
Proteaceae	*Grevillea didymobotrya* subsp. *didymobotrya*
Proteaceae	*Grevillea excelsior*
Proteaceae	*Grevillea haplantha* subsp. *haplantha*
Proteaceae	*Grevillea hookeriana* subsp. *apiciloba*
Proteaceae	*Grevillea huegelii*
Proteaceae	*Grevillea nematophylla* subsp. *nematophylla*
Proteaceae	*Grevillea oncogyne*
Proteaceae	*Grevillea plurijuga* subsp. *plurijuga*
Proteaceae	*Grevillea pterosperma*
Proteaceae	*Grevillea sarissa*
Proteaceae	*Grevillea sarissa* subsp. *sarissa*
Proteaceae	*Grevillea teretifolia*
Proteaceae	*Hakea francisiana*
Proteaceae	*Hakea meisneriana*
Proteaceae	*Hakea preissii*
Proteaceae	*Persoonia helix*
Proteaceae	*Persoonia trinervis*
Proteaceae	*Petrophile arcuata*
Proteaceae	*Stirlingia simplex*
Pteridaceae	*Cheilanthes adiantoides*

Family	Taxon
Pteridaceae	*Cheilanthes austrotenuifolia*
Pteridaceae	*Cheilanthes lasiophylla*
Pteridaceae	*Cheilanthes sieberi* subsp. *sieberi*
Ranunculaceae	*Ranunculus pentandrus* var. *platycarpus*
Rhamnaceae	*Cryptandra aridicola*
Rhamnaceae	*Cryptandra crispula*
Rhamnaceae	*Cryptandra distigma*
Rhamnaceae	*Cryptandra graniticola*
Rhamnaceae	*Granitites intangendus*
Rhamnaceae	*Pomaderris forrestiana*
Rhamnaceae	*Stenanthemum complicatum*
Rhamnaceae	*Stenanthemum stipulosum*
Rhamnaceae	*Trymalium myrtillus*
Rhamnaceae	*Trymalium myrtillus* subsp. *myrtillus*
Rubiaceae	*Opercularia vaginata*
Rutaceae	*Boronia coerulescens*
Rutaceae	*Boronia fabianoides* subsp. *rosea*
Rutaceae	*Boronia inornata* subsp. *inornata*
Rutaceae	*Boronia inornata* subsp. *leptophylla*
Rutaceae	*Drummondita hassellii*
Rutaceae	*Phebalium canaliculatum*
Rutaceae	*Phebalium clavatum*
Rutaceae	*Phebalium filifolium*
Rutaceae	*Phebalium filifolium x Phebalium tuberculosum*
Rutaceae	*Phebalium lepidotum*
Rutaceae	*Phebalium tuberculosum*
Rutaceae	*Philotheca apiculata*
Rutaceae	*Philotheca coccinea*
Santalaceae	*Exocarpos aphyllus*
Santalaceae	*Exocarpos sparteus*
Santalaceae	*Leptomeria preissiana*
Santalaceae	*Santalum acuminatum*
Santalaceae	*Santalum murrayanum*
Santalaceae	*Santalum spicatum*
Sapindaceae	*Dodonaea adenophora*
Sapindaceae	*Dodonaea amblyophylla*
Sapindaceae	*Dodonaea lobulata*
Sapindaceae	*Dodonaea microzyga*
Sapindaceae	*Dodonaea microzyga* var. *acrolobata*
Sapindaceae	*Dodonaea stenozyga*
Sapindaceae	*Dodonaea viscosa* subsp. *angustifolia*
Sapindaceae	*Dodonaea viscosa* subsp. *angustissima*
Scrophulariaceae	*Diocirea acutifolia*
Scrophulariaceae	*Diocirea violacea*
Scrophulariaceae	*Eremophila alternifolia*
Scrophulariaceae	*Eremophila annosicaulis*
Scrophulariaceae	*Eremophila arachnoides* subsp. *tenera*
Scrophulariaceae	*Eremophila caerulea* subsp. *caerulea*
Scrophulariaceae	*Eremophila caperata*
Scrophulariaceae	*Eremophila clarkei*
Scrophulariaceae	*Eremophila clavata*
Scrophulariaceae	*Eremophila decipiens*
Scrophulariaceae	*Eremophila decipiens* subsp. *decipiens*
Scrophulariaceae	*Eremophila dempsteri*
Scrophulariaceae	*Eremophila deserti*
Scrophulariaceae	*Eremophila drummondii*
Scrophulariaceae	*Eremophila georgei*
Scrophulariaceae	*Eremophila gibbosa*
Scrophulariaceae	*Eremophila glabra*
Scrophulariaceae	*Eremophila glabra* subsp. *glabra*

Family	Taxon
Scrophulariaceae	*Eremophila granitica*
Scrophulariaceae	*Eremophila interstans*
Scrophulariaceae	*Eremophila interstans* subsp. *interstans*
Scrophulariaceae	*Eremophila interstans* subsp. *virgata*
Scrophulariaceae	*Eremophila ionantha*
Scrophulariaceae	*Eremophila longifolia*
Scrophulariaceae	*Eremophila maculata* subsp. *brevifolia*
Scrophulariaceae	*Eremophila miniata*
Scrophulariaceae	*Eremophila oblonga*
Scrophulariaceae	*Eremophila oldfieldii* subsp. *angustifolia*
Scrophulariaceae	*Eremophila oppositifolia*
Scrophulariaceae	*Eremophila oppositifolia* subsp. *angustifolia*
Scrophulariaceae	*Eremophila oppositifolia* subsp. *oppositifolia*
Scrophulariaceae	*Eremophila parvifolia*
Scrophulariaceae	*Eremophila parvifolia* subsp. *auricampi*
Scrophulariaceae	*Eremophila perglandulosa*
Scrophulariaceae	*Eremophila praecox*
Scrophulariaceae	*Eremophila psilocalyx*
Scrophulariaceae	*Eremophila pustulata*
Scrophulariaceae	*Eremophila rugosa*
Scrophulariaceae	*Eremophila saligna*
Scrophulariaceae	*Eremophila scoparia*
Scrophulariaceae	*Eremophila serrulata*
Scrophulariaceae	*Eremophila veronica*
Scrophulariaceae	*Myoporum platycarpum*
Scrophulariaceae	*Myoporum platycarpum* subsp. *platycarpum*
Solanaceae	*Duboisia hopwoodii*
Solanaceae	*Lycium australe*
Solanaceae	*Nicotiana glauca*
Solanaceae	*Nicotiana goodspeedii*
Solanaceae	*Nicotiana rotundifolia*
Solanaceae	*Solanum hoplopetalum*
Solanaceae	*Solanum lasiophyllum*
Solanaceae	*Solanum nummularium*
Solanaceae	*Solanum petrophilum*
Solanaceae	*Solanum plicatile*
Solanaceae	*Solanum simile*
Stylidiaceae	*Stylidium arenicola*
Stylidiaceae	*Stylidium choreanthum*
Stylidiaceae	*Stylidium dielsianum*
Stylidiaceae	*Stylidium limbatum*
Thymelaeaceae	*Pimelea angustifolia*
Thymelaeaceae	*Pimelea argentea*
Thymelaeaceae	*Pimelea brevifolia* subsp. *brevifolia*
Thymelaeaceae	*Pimelea brevifolia* subsp. *modesta*
Thymelaeaceae	*Pimelea cracens* subsp. *cracens*
Thymelaeaceae	*Pimelea microcephala*
Thymelaeaceae	*Pimelea microcephala* subsp. *microcephala*
Thymelaeaceae	*Pimelea spiculigera* var. *thesioides*
Thymelaeaceae	*Pimelea subvillifera*
Typhaceae	*Typha domingensis*
Typhaceae	*Typha orientalis*
Urticaceae	*Parietaria debilis*
Verbenaceae	*Lantana camara*
Violaceae	*Hybanthus epacroides*
Violaceae	*Hybanthus floribundus* subsp. *curvifolius*
Zygophyllaceae	*Roepera apiculata*
Zygophyllaceae	*Roepera aurantiaca*
Zygophyllaceae	*Roepera eremaea*
Zygophyllaceae	*Roepera fruticulosa*

Family	Taxon
Zygophyllaceae	*Roepera glauca*
Zygophyllaceae	*Roepera halophila*
Zygophyllaceae	*Roepera ovata*
Zygophyllaceae	*Roepera reticulata*
Zygophyllaceae	*Roepera tetraptera*

TERRESTRIAL VERTEBRATE FAUNA

Class	Family	Species Name	Common Name
Amphibia	Limnodynastidae	*Neobatrachus kunapalari*	Wheatbelt Frog
Aves	Acanthizidae	*Acanthiza (Acanthiza) apicalis*	Red-rumped Tit
Aves	Acanthizidae	*Acanthiza (Geobasileus) chrysorrhoa*	Yellow-rumped Thornbill
Aves	Acanthizidae	*Acanthiza (Geobasileus) uropygialis*	Chestnut-rumped Thornbill
Aves	Acanthizidae	*Aphelocephala leucopsis*	Southern Whiteface
Aves	Acanthizidae	*Gerygone fusca*	Western Gerygone
Aves	Acanthizidae	*Hylacola cauta*	Shy Heathwren
Aves	Acanthizidae	*Pyrrholaemus brunneus*	Redthroat
Aves	Acanthizidae	*Sericornis (Sericornis) frontalis*	White-browed Scrubwren
Aves	Acanthizidae	*Smicrornis brevirostris*	Weebill
Aves	Accipitridae	*Accipiter (Leucospiza) fasciatus*	Brown Goshawk
Aves	Accipitridae	*Accipiter (Paraspizias) cirrocephalus*	Collared Sparrowhawk
Aves	Accipitridae	*Aquila (Uroaetus) audax*	Wedge-tailed Eagle
Aves	Accipitridae	*Circus assimilis*	Spotted Harrier
Aves	Accipitridae	*Elanus axillaris*	Black-shouldered Kite
Aves	Accipitridae	*Haliastur sphenurus*	Whistling Kite
Aves	Accipitridae	*Hieraaetus (Hieraaetus) morphnoides*	Little Eagle
Aves	Accipitridae	*Lophoictinia isura*	Square-tailed Kite
Aves	Aegothelidae	*Aegotheles (Aegotheles) cristatus*	Australian Owlet-nightjar
Aves	Alcedinidae	*Todiramphus (Cyanalcyon) pyrrhopygius*	Red-backed Kingfisher
Aves	Anatidae	*Anas (Anas) superciliosa*	Pacific Black Duck
Aves	Anatidae	*Anas gracilis*	Grey Teal
Aves	Anatidae	*Aythya (Nyroca) australis*	Hardhead
Aves	Anatidae	*Biziura lobata*	Musk Duck
Aves	Anatidae	*Chenonetta jubata*	Australian Wood Duck
Aves	Anatidae	*Cygnus atratus*	Black Swan
Aves	Anatidae	*Spatula rhynchotis*	Australasian Shoveler
Aves	Anatidae	*Tadorna (Casarca) tadornoides*	Australian Shelduck
Aves	Ardeidae	*Egretta novaehollandiae*	White-faced Heron
Aves	Artamidae	*Artamus (Angroyan) cinereus*	Black-faced Woodswallow
Aves	Artamidae	*Artamus (Angroyan) cyanopterus*	Dusky Woodswallow
Aves	Artamidae	*Cracticus nigrogularis*	Pied Butcherbird
Aves	Artamidae	*Cracticus torquatus*	Grey Butcherbird
Aves	Artamidae	*Gymnorhina tibicen*	Australian Magpie
Aves	Artamidae	*Strepera (Neostrepera) versicolor*	Grey Currawong
Aves	Cacatuidae	*Cacatua (Licmetis) sanguinea*	Little Corella
Aves	Cacatuidae	*Eolophus roseicapilla*	Galah
Aves	Campephagidae	*Coracina (Coracina) novaehollandiae*	Black-faced Cuckoo-shrike
Aves	Campephagidae	*Coracina (Pteropodocys) maxima*	Ground Cuckoo-shrike
Aves	Campephagidae	*Lalage (Lalage) tricolor*	White-winged Triller
Aves	Caprimulgidae	*Eurostopodus (Eurostopodus) argus*	Spotted Nightjar
Aves	Casuariidae	*Dromaius novaehollandiae*	Emu
Aves	Charadriidae	*Charadrius (Charadrius) ruficapillus*	Red-capped Plover
Aves	Charadriidae	*Elseyornis melanops*	Black-fronted Dotterel
Aves	Charadriidae	*Erythrogonys cinctus*	Red-kneed Dotterel
Aves	Cinclosomatidae	*Cinclosoma (Malleeavis) castanotum*	Chestnut Quail-thrush
Aves	Cinclosomatidae	*Cinclosoma (Malleeavis) clarum*	Inland Chestnut Quail-thrush
Aves	Climacteridae	*Climacteris (Climacteris) rufus*	Rufous Treecreeper
Aves	Climacteridae	*Climacteris (Climacterobates) affinis*	White-browed Treecreeper
Aves	Columbidae	*Columba (Columba) livia*	Rock Dove

Class	Family	Species Name	Common Name
Aves	Columbidae	*Ocyphaps lophotes*	Crested Pigeon
Aves	Columbidae	*Phaps (Phaps) chalcoptera*	Common Bronzewing
Aves	Corvidae	*Corvus bennetti*	Little Crow
Aves	Corvidae	*Corvus coronoides*	Australian Raven
Aves	Corvidae	*Corvus orru*	Torresian Crow
Aves	Cuculidae	*Chalcites basalis*	Horsfield's Bronze-cuckoo
Aves	Cuculidae	*Chalcites osculans*	Black-eared Cuckoo
Aves	Cuculidae	*Heteroscenes pallidus*	Pallid Cuckoo
Aves	Dicaeidae	*Dicaeum (Dicaeum) hirundinaceum*	Mistletoebird
Aves	Estrildidae	*Taeniopygia guttata*	Zebra Finch
Aves	Falconidae	*Falco (Falco) longipennis*	Australian Hobby
Aves	Falconidae	*Falco (Ieracidea) berigora*	Brown Falcon
Aves	Falconidae	*Falco (Tinnunculus) cenchroides*	Nankeen Kestrel
Aves	Hirundinidae	*Cheramoeca leucosterna*	White-backed Swallow
Aves	Hirundinidae	*Hirundo (Hirundo) neoxena*	Welcome Swallow
Aves	Hirundinidae	*Petrochelidon (Hylochelidon) nigricans*	Tree Martin
Aves	Hirundinidae	*Petrochelidon (Petrochelidon) ariel*	Fairy Martin
Aves	Laridae	*Chlidonias (Pelodes) hybrida*	Whiskered Tern
Aves	Locustellidae	*Cincloramphus (Cincloramphus) cruralis*	Brown Songlark
Aves	Locustellidae	*Cincloramphus (Maclennania) mathewsi*	Rufous Songlark
Aves	Maluridae	*Malurus (Leggeornis) assimilis*	Purple-backed Fairy-wren
Aves	Maluridae	*Malurus (Leggeornis) pulcherrimus*	Blue-breasted Fairy-wren
Aves	Maluridae	*Malurus (Malurus) splendens*	Splendid Fairy-wren
Aves	Maluridae	*Malurus (Musciparus) leucopterus*	White-winged Fairy-wren
Aves	Meliphagidae	*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater
Aves	Meliphagidae	*Anthochaera (Anthochaera) carunculata*	Red Wattlebird
Aves	Meliphagidae	*Epthianura (Epthianura) albifrons*	White-fronted Chat
Aves	Meliphagidae	*Gavicalis virescens*	Singing Honeyeater
Aves	Meliphagidae	*Lichenostomus cratitius*	Purple-gaped Honeyeater
Aves	Meliphagidae	*Lichmera (Lichmera) indistincta*	Brown Honeyeater
Aves	Meliphagidae	*Manorina (Myzantha) flavigula*	Yellow-throated Miner
Aves	Meliphagidae	*Melithreptus (Eidopsarus) brevirostris*	Brown-headed Honeyeater
Aves	Meliphagidae	*Nesoptilotis leucotis*	White-eared Honeyeater
Aves	Meliphagidae	*Ptilotula ornata*	Yellow-plumed Honeyeater
Aves	Meliphagidae	*Ptilotula plumula*	Grey-fronted Honeyeater
Aves	Meliphagidae	*Purnella albifrons*	White-fronted Honeyeater
Aves	Meliphagidae	*Sugomel niger*	Black Honeyeater
Aves	Meropidae	*Merops (Merops) ornatus*	Rainbow Bee-eater
Aves	Monarchidae	*Grallina cyanoleuca*	Magpie-lark
Aves	Motacillidae	*Anthus (Anthus) novaeseelandiae*	Australian Pipit
Aves	Neosittidae	*Daphoenositta (Neositta) chrysoptera*	Varied Sittella
Aves	Oreoicidae	*Oreoica gutturalis*	Crested Bellbird
Aves	Pachycephalidae	*Colluricincla (Colluricincla) harmonica*	Grey Shrike-thrush
Aves	Pachycephalidae	*Colluricincla (Colluricincla) harmonica rufiventris*	Western Grey Shrike-thrush
Aves	Pachycephalidae	*Pachycephala (Alisternornis) rufiventris*	Rufous Whistler
Aves	Pachycephalidae	*Pachycephala (Pachycephala) pectoralis*	Golden Whistler
Aves	Pachycephalidae	*Pachycephala (Pachycephala) pectoralis fuliginosa*	South Australian Golden Whistler
Aves	Pachycephalidae	*Pachycephala (Timixos) inornata*	Gilbert's Whistler
Aves	Pardalotidae	*Pardalotus (Pardalotinus) striatus*	Striated Pardalote
Aves	Pardalotidae	*Pardalotus (Pardalotus) punctatus*	Spotted Pardalote
Aves	Pardalotidae	*Pardalotus (Pardalotus) punctatus punctatus*	Coastal Spotted Pardalote
Aves	Pelecanidae	*Pelecanus conspicillatus*	Australian Pelican
Aves	Petroicidae	*Drymodes brunneopygia*	Southern Scrub-robin
Aves	Petroicidae	*Eopsaltria (Eopsaltria) griseogularis*	Western Yellow Robin
Aves	Petroicidae	*Melanodryas (Melanodryas) cucullata*	Hooded Robin
Aves	Petroicidae	*Microeca (Microeca) fascinans*	Jacky Winter
Aves	Petroicidae	*Petroica (Petroica) goodenovii*	Red-capped Robin
Aves	Phalacrocoracidae	*Microcarbo melanoleucos*	Little Pied Cormorant
Aves	Phalacrocoracidae	*Phalacrocorax (Phalacrocorax) carbo*	Great Cormorant
Aves	Phalacrocoracidae	*Phalacrocorax (Phalacrocorax) sulcirostris*	Little Black Cormorant

Class	Family	Species Name	Common Name
Aves	Phasianidae	*Coturnix (Coturnix) pectoralis*	Stubble Quail
Aves	Phasianidae	*Coturnix ypsilophora*	
Aves	Podargidae	*Podargus strigoides*	Tawny Frogmouth
Aves	Podicipedidae	*Poliocephalus poliocephalus*	Hoary-headed Grebe
Aves	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian Grebe
Aves	Pomatostomidae	*Pomatostomus (Morganornis) superciliosus*	White-browed Babbler
Aves	Psittacidae	*Barnardius zonarius*	Australian Ringneck
Aves	Psittacidae	*Barnardius zonarius zonarius*	Port Lincoln Parrot
Aves	Psittacidae	*Melopsittacus undulatus*	Budgerigar
Aves	Psittacidae	*Parvipsitta porphyrocephala*	Purple-crowned Lorikeet
Aves	Psittacidae	*Platycercus (Platycercus) elegans*	Crimson Rosella
Aves	Psittacidae	*Platycercus (Violania) icterotis*	Western Rosella
Aves	Psittacidae	*Platycercus (Violania) icterotis xanthogenys*	Inland Western Rosella
Aves	Psittacidae	*Psephotellus varius*	Mulga Parrot
Aves	Rallidae	*Fulica atra*	Eurasian Coot
Aves	Rallidae	*Tribonyx ventralis*	Black-tailed Native-hen
Aves	Recurvirostridae	*Cladorhynchus leucocephalus*	Banded Stilt
Aves	Recurvirostridae	*Himantopus himantopus*	Black-winged Stilt
Aves	Rhipiduridae	*Rhipidura (Rhipidura) albiscapa*	Grey Fantail
Aves	Rhipiduridae	*Rhipidura (Sauloprocta) leucophrys*	Willie Wagtail
Aves	Scolopacidae	*Actitis hypoleucos*	Common Sandpiper
Aves	Scolopacidae	*Calidris (Erolia) acuminata*	Sharp-tailed Sandpiper
Aves	Scolopacidae	*Tringa (Rhyacophilus) glareola*	Wood Sandpiper
Aves	Strigidae	*Ninox (Ninox) novaeseelandiae*	Southern Boobook
Aves	Threskiornithidae	*Platalea (Platibis) flavipes*	Yellow-billed Spoonbill
Aves	Zosteropidae	*Zosterops lateralis*	Silvereye
Mammalia	Bovidae	*Capra hircus*	Goat
Mammalia	Burramyidae	*Cercartetus concinnus*	Western Pygmy-possum
Mammalia	Camelidae	*Camelus dromedarius*	One-humped Camel
Mammalia	Dasyuridae	*Ningaui yvonneae*	Southern Ningaui
Mammalia	Leporidae	*Oryctolagus cuniculus*	Rabbit
Mammalia	Macropodidae	*Macropus fuliginosus*	Western Grey Kangaroo
Mammalia	Muridae	*Mus musculus*	House Mouse
Mammalia	Muridae	*Notomys mitchellii*	Mitchell's Hopping-Mouse
Mammalia	Muridae	*Pseudomys bolami*	Bolam's Mouse
Mammalia	Tachyglossidae	*Tachyglossus aculeatus*	Short-beaked Echidna
Mammalia	Vespertilionidae	*Chalinolobus gouldii*	Gould's Wattled Bat
Reptilia	Agamidae	*Ctenophorus cristatus*	Bicycle Lizard
Reptilia	Agamidae	*Ctenophorus fordi*	Mallee Military Dragon
Reptilia	Agamidae	*Ctenophorus ornatus*	Ornate Dragon
Reptilia	Agamidae	*Ctenophorus reticulatus*	Western Netted Dragon
Reptilia	Agamidae	*Ctenophorus salinarum*	Claypan Dragon
Reptilia	Agamidae	*Ctenophorus scutulatus*	Lozenge-marked Dragon
Reptilia	Agamidae	*Moloch horridus*	Thorny Devil
Reptilia	Agamidae	*Pogona minor minor*	Dwarf Bearded Dragon
Reptilia	Agamidae	*Tympanocryptis cephalus*	Pebble Dragon
Reptilia	Agamidae	*Tympanocryptis pseudopsephos*	Goldfields Pebble-mimic Dragon
Reptilia	Carphodactylidae	*Nephrurus laevissimus*	Smooth Knob-tail
Reptilia	Carphodactylidae	*Underwoodisaurus milii*	Barking Gecko
Reptilia	Diplodactylidae	*Crenadactylus ocellatus*	South-western Clawless Gecko
Reptilia	Diplodactylidae	*Diplodactylus granariensis granariensis*	Western Stone Gecko
Reptilia	Diplodactylidae	*Diplodactylus pulcher*	Fine-faced Gecko
Reptilia	Diplodactylidae	*Lucasium maini*	Main's Ground Gecko
Reptilia	Diplodactylidae	*Strophurus assimilis*	Goldfields Spiny-tailed Gecko
Reptilia	Elapidae	*Brachyurophis fasciolatus fasciolatus*	
Reptilia	Elapidae	*Brachyurophis semifasciatus*	Southern Shovel-nosed Snake
Reptilia	Elapidae	*Echiopsis curta*	Bardick
Reptilia	Elapidae	*Furina ornata*	Moon Snake
Reptilia	Elapidae	*Pseudechis australis*	Mulga Snake
Reptilia	Elapidae	*Pseudonaja affinis*	Dugite

Class	Family	Species Name	Common Name
Reptilia	Elapidae	*Pseudonaja mengdeni*	Western Brown Snake
Reptilia	Elapidae	*Pseudonaja modesta*	Ringed Brown Snake
Reptilia	Elapidae	*Pseudonaja nuchalis*	Northern Brown Snake
Reptilia	Elapidae	*Simoselaps anomalus*	Desert Banded Snake
Reptilia	Elapidae	*Simoselaps bertholdi*	Jan's Banded Snake
Reptilia	Elapidae	*Suta fasciata*	Rosen's Snake
Reptilia	Elapidae	*Suta gouldii*	Gould's Hooded Snake
Reptilia	Elapidae	*Suta monachus*	Monk Snake
Reptilia	Elapidae	*Suta nigriceps*	Mitchell's Short-tailed Snake
Reptilia	Gekkonidae	*Christinus marmoratus*	Marbled Gecko
Reptilia	Gekkonidae	*Gehyra purpurascens*	Purplish Dtella
Reptilia	Gekkonidae	*Gehyra variegata*	Tree Dtella
Reptilia	Gekkonidae	*Heteronotia binoei*	Bynoe's Gecko
Reptilia	Pygopodidae	*Delma australis*	Marble-faced Delma
Reptilia	Pygopodidae	*Delma butleri*	Unbanded Delma
Reptilia	Pygopodidae	*Delma fraseri*	Fraser's Delma
Reptilia	Pygopodidae	*Pygopus lepidopodus*	Common Scaly-foot
Reptilia	Pythonidae	*Morelia imbricata*	Western Carpet Python
Reptilia	Scincidae	*Cryptoblepharus buchananii*	Buchananâ€™s Snake-eyed Skink
Reptilia	Scincidae	*Cryptoblepharus plagiocephalus*	PÃ©ron's Snake-eyed Skink
Reptilia	Scincidae	*Ctenotus atlas*	Southern Mallee Ctenotus
Reptilia	Scincidae	*Ctenotus schomburgkii*	Schomburgk's Ctenotus
Reptilia	Scincidae	*Ctenotus uber*	Spotted Ctenotus
Reptilia	Scincidae	*Cyclodomorphus melanops elongatus*	Eastern Slender Blue-tongue
Reptilia	Scincidae	*Egernia depressa*	Pygmy Spiny-tailed Skink
Reptilia	Scincidae	*Egernia formosa*	Goldfields Crevice-skink
Reptilia	Scincidae	*Eremiascincus richardsonii*	Broad-banded Sand-swimmer
Reptilia	Scincidae	*Hemiergis initialis*	Southwestern Earless Skink
Reptilia	Scincidae	*Hemiergis initialis initialis*	
Reptilia	Scincidae	*Hemiergis peronii*	Lowlands Earless Skink
Reptilia	Scincidae	*Lerista kingi*	
Reptilia	Scincidae	*Lerista muelleri*	Wood Mulch-slider
Reptilia	Scincidae	*Lerista taeniata*	Ribbon Slider
Reptilia	Scincidae	*Lerista timida*	Timid Slider
Reptilia	Scincidae	*Liopholis inornata*	Desert Skink
Reptilia	Scincidae	*Liopholis multiscutata*	Southern Sand-skink
Reptilia	Scincidae	*Menetia greyii*	Grey's Menetia
Reptilia	Scincidae	*Morethia adelaidensis*	Saltbush Morethia Skink
Reptilia	Scincidae	*Morethia butleri*	Woodland Morethia Skink
Reptilia	Scincidae	*Morethia obscura*	Shrubland Morethia Skink
Reptilia	Scincidae	*Tiliqua rugosa*	Shingle-back
Reptilia	Typhlopidae	*Anilios australis*	Southern Blind Snake
Reptilia	Typhlopidae	*Anilios bicolor*	Dark-spined Blind Snake
Reptilia	Typhlopidae	*Anilios bituberculatus*	Prong-snouted Blind Snake
Reptilia	Varanidae	*Varanus gouldii*	Gould's Goanna
Reptilia	Varanidae	*Varanus tristis*	Black-headed Monitor

APPENDIX B:
EPBC PROTECTED MATTERS SEARCH (40KM BUFFER)

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: 12-Dec-2024

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

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:	None
Listed Threatened Species:	8
Listed Migratory Species:	6

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:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	10
Whales and Other Cetaceans:	None
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:	5
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	2
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

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
BIRD		
Aphelocephala leucopsis		
Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Falco hypoleucos		
Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Leipoa ocellata		
Malleefowl [934]	Vulnerable	Species or species habitat known to occur within area
Pezoporus occidentalis		
Night Parrot [59350]	Endangered	Species or species habitat may occur within area
INSECT		
Ogyris subterrestris petrina		
Arid Bronze Azure [77743]	Critically Endangered	Species or species habitat may occur within area
PLANT		

Scientific Name	Threatened Category	Presence Text
Tecticornia flabelliformis		
Bead Glasswort, Bead Samphire [82664]	Vulnerable	Species or species habitat known to occur within area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Motacilla cinerea		
Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Unknown	
Commonwealth Land - [52233]	WA
Commonwealth Land - [52244]	WA

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat may occur within area overfly marine area

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State
Binaronca	Nature Reserve	WA
Dordie Rocks	Nature Reserve	WA
Kambalda	Nature Reserve	WA
Ngadju	Indigenous Protected Area	WA
Yallari Timber Reserve	5(1)(h) Reserve	WA

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Gold Mining Developments on Lake Lefroy	2010/5402	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed

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.

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APPENDIX C:
CONSERVATION RATINGS BC ACT AND EPBC ACT

Definitions of Conservation Significant Species

Code	Category
State categories of Threatened and Priority species	
Threatened Species (T) Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as Threatened species under section 26(2) of the Biodiversity Conservation Act 2016 (BC Act).	
CR	**Critically Endangered** Threatened species considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines". Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for critically endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for critically endangered flora.
EN	**Endangered** Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines". Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for endangered flora.
VU	**Vulnerable** Threatened species considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines". Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for vulnerable fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for vulnerable flora.
Extinct species Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.	
EX	**Extinct** Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act). Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.
EW	**Extinct in the Wild** Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act). Currently there are no Threatened fauna or Threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.
Specially protected species Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection. Species that are listed as Threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.	

Code	Category
IA	**International Agreement/ Migratory** Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act). Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, which are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species. Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.
CD	**Species of special conservation interest** Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as Threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act). Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.
OS	**Other specially protected species** Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act). Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.
Priority species Possibly Threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of Priority for survey and evaluation of conservation status so that consideration can be given to their declaration as Threatened Fauna or Flora. Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.	
P1	**Priority 1: Poorly-known species** Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
P2	**Priority 2: Poorly-known species** Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
P3	**Priority 3: Poorly-known species** Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
P4	**Priority 4: Rare, Near Threatened and other species in need of monitoring** (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands. (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent. (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Code	Category
Commonwealth categories of Threatened species	
EX	**Extinct** Taxa where there is no reasonable doubt that the last member of the species has died.
EW	**Extinct in the Wild** Taxa where it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
CR	**Critically Endangered** Taxa that are facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
EN	**Endangered** Taxa which are not critically endangered and is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
VU	**Vulnerable** Taxa which are not critically endangered or endangered and is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
CD	**Conservation Dependent** Taxa which are the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered; or (b) the following subparagraphs are satisfied: (i) the species is a species of fish; (ii) the species is the focus of a plan of management that provides for actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long term survival in nature are maximised; (iii) the plan of management is in force under a law of the Commonwealth or of a State or Territory; (iv) cessation of the plan of management would adversely affect the conservation status of the species.

Definitions of conservation significant communities

Category Code	Category
State categories of Threatened Ecological Communities (TEC)	
PD	**Presumed Totally Destroyed**
	An ecological community will be listed as Presumed Totally Destroyed if there are no recent records of the community being extant and either of the following applies:
	• records within the last 50 years have not been confirmed despite thorough searches or known likely habitats or;
	• all occurrences recorded within the last 50 years have since been destroyed.
CR	**Critically Endangered**
	An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future, meeting any one of the following criteria:
	The estimated geographic range and distribution has been reduced by at least 90% and is either continuing to decline with total destruction imminent, or is unlikely to be substantially rehabilitated in the immediate future due to modification;
	The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;
	The ecological community is highly modified with potential of being rehabilitated in the immediate future.
EN	**Endangered**
	An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. The ecological community must meet any one of the following criteria:
	The estimated geographic range and distribution has been reduced by at least 70% and is either continuing to decline with total destruction imminent in the short-term future, or is unlikely to be substantially rehabilitated in the short-term future due to modification;

Category Code	Category
	The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;
	The ecological community is highly modified with potential of being rehabilitated in the short-term future.
VU	**Vulnerable**
	An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing high risk of total destruction in the medium to long term future. The ecological community must meet any one of the following criteria:
	The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated;
	The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution;
	The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.
Commonwealth categories of Threatened Ecological Communities (TEC)	
CE	**Critically Endangered** If, at that time, an ecological community is facing an extremely high risk of extinction in the wild in the immediate future (indicative timeframe being the next 10 years).
EN	**Endangered** If, at that time, an ecological community is not critically endangered but is facing a very high risk of extinction in the wild in the near future (indicative timeframe being the next 20 years).
VU	**Vulnerable** If, at that time, an ecological community is not critically endangered or endangered, but is facing a high risk of extinction in the wild in the medium–term future (indicative timeframe being the next 50 years).
Priority Ecological Communities	
P1	**Poorly-known ecological communities**
	Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist.
P2	**Poorly-known ecological communities**
	Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, un-allocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation.
P3	**Poorly known ecological communities**
	Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or:
	Communities known from a few widespread occurrences, which are either large or within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or;
	Communities made up of large, and/or widespread occurrences, which may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing and inappropriate fire regimes.
P4	**Ecological communities that are adequately known, rare but not threatened** or meet criteria for near threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.
P5	**Conservation Dependent ecological communities**
	Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

APPENDIX D:
QUADRAT LOCATIONS (GDA2020, ZONE 50)

Quadrat	Easting	Northing
Q1	386309	6529308
Q2	385964	6529119
Q3	385194	6529145
Q4	384357	6529683
Q5	383787	6529940
Q6	383459	6530066
Q7	383936	6530375
Q8	382529	6530590
Q9	381689	6530002
Q10	381317	6530059
Q11	381616	6531119
Q12	380537	6531403
Q13	380155	6531996
Q14	379913	6532122
Q15	383126	6531837
Q16	383336	6531477
Q17	383382	6530679
Q18	382656	6531425
Q19	383269	6529069
Q20	383338	6529478
Q21	383851	6528301
Q22	383885	6528887
Q23	384163	6529117
Q24	384775	6529593
Q25	385264	6529708
Q26	380518	6529924
Q1 H	385785	6529865
Q2 H	386250	6529898
Q7 H	385669	6530147
Q8 H	386087	6530308

APPENDIX E:
QUADRAT DATA SHEETS

Project Name: Baker Project		
Date: 08/05/2024	**Botanist:** JW + JJ	**Photo number (NW corner):**245-247
Quadrat No: Q1	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 328.87m
Coordinates (GDA2020): 386309E; 6529308N		**Waypoint (NW Corner):** 1292
Aspect: South East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly;few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface crust		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod shrub
Height: 6-12m	**Height:** 1-3m	**Height:** 0.5-1m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Eremophila parvifolia
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Frankenia setosa
Maireana triptera
Olearia muelleri
Roepera eremaea
Sclerolaena uniflora
Tecticornia disarticulata

Project Name: Baker Project		
Date: 08/05/2024	**Botanist:** JW + JJ	**Photo number (NW corner):**248-250
Quadrat No: Q2	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 341m
Coordinates (GDA2020): 385964E; 6529119N		**Waypoint (NW Corner):** 1296
Aspect: West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3m	**Height:** <1m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus lesouefii	*Cratystylis conocephala*	*Eremophila parvifolia*

ALL TAXA
Acacia erinacea
Alyxia buxifolia
Cratystylis conocephala
Dodonaea lobulata
Enchylaena tomentosa
Eremophila glabra subsp. *glabra*
Eremophila oldfieldii subsp. *angustifolia*
Eremophila parvifolia
Eucalyptus celastroides
Eucalyptus lesouefii
Leichhardtia australis
Maireana georgei
Maireana pentatropis
Ptilotus obovatus
Scaevola spinescens
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 08/05/2024	**Botanist:** JW + JJ	**Photo number (NW corner):**251-253
Quadrat No: Q3	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 322m
Coordinates (GDA2020): 385194E; 6529145N		**Waypoint (NW Corner):** 1300
Aspect: South West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Fine gravelly; small pebbles/ Subrounded		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface Crust		
Cover leaf litter: 40%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3m	**Height:** 0.5-1m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salmonophloia	*Senna artemisioides* subsp. *filifolia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Enchylaena tomentosa
Eremophila scoparia
Eucalyptus salmonophloia
Exocarpos aphyllus
Maireana triptera
Pimelea microcephala
Rhagodia spp.
Scaevola spinescens
Sclerolaena diacantha
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 08/05/2024	**Botanist:** JW + JJ	**Photo number (NW corner):**254-256
Quadrat No: Q4	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 341m
Coordinates (GDA2020): 384357E; 6529687N		**Waypoint (NW Corner):** 1304
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Midslope/ Hillslope		
Coarse fragments on the surface: Very;abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Fern
Height: 3-6m	**Height:** 1-3m	**Height:** <0.25m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Acacia collegialis	*Eremophila clarkei*	*Cheilanthes sieberi*

ALL TAXA
Acacia collegialis
Aristida contorta (A)
Cheilanthes sieberi
Eremophila clarkei
Prostanthera althoferi
Scaevola spinescens
Mirbelia microphylla

Project Name: Baker Project		
Date: 08/05/2024	**Botanist:** JW + JJ	**Photo number (NW corner):**257-259
Quadrat No: Q5	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 338m
Coordinates (GDA2020): 383787E; 6529940N		**Waypoint (NW Corner):** 1310
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Midslope/ Hillslope		
Coarse fragments on the surface: Very;abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Greenstone/ Moderately rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Fern
Height: 3-6m	**Height:** 1-3m	**Height:** <0.25m
Crown cover: 30-70%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Senna artemisioides* subsp. *filifolia*	*Olearia muelleri*

ALL TAXA
Acacia collegialis
Acacia tetragonophylla
Alyxia buxifolia
Atriplex nummularia
Casuarina pauper
Dodonaea lobulata
Eremophila clarkei
Eremophila glabra
Eremophila oldfieldii subsp. *angustifolia*
Eremophila scoparia
Exocarpos aphyllus
Geijera linearifolia
Leichhardtia australis
Olearia muelleri
Olearia pimeleoides
Pimelea microcephala
Prostanthera althoferi
Ptilotus obovatus
Rhagodia drummondii
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**260-262
Quadrat No:Q6	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 324m
Coordinates (GDA2020): 383459E; 6530066N		**Waypoint (NW Corner):** 1314
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Greenstone/ Rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Alyxia buxifolia*	*Atriplex vesicaria*
ALL TAXA		
Acacia collegialis		
Alyxia buxifolia		
Atriplex vesicaria		
Austrostipa elegantissima		
Casuarina pauper		
Eremophila alternifolia		
Eremophila glabra		
Eremophila parvifolia		
Eucalyptus lesouefii		
Exocarpos aphyllus		
Olearia muelleri		
Ptilotus obovatus		
Santalum acuminatum		
Scaevola spinescens		
Senna artemisioides subsp. *filifolia*		
Westringia rigida		

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**263-265
Quadrat No: Q7	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 316m
Coordinates (GDA2020): 383936E; 6530375N		**Waypoint (NW Corner):** 1318
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface crust		
Cover leaf litter: 50%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Alyxia buxifolia
Atriplex vesicaria
Eremophila glabra
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Geijera linearifolia
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Rhagodia eremaea
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Tecticornia disarticulata

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**266-268
Quadrat No: Q8	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 307m
Coordinates (GDA2020): 382529E; 6530580N		**Waypoint (NW Corner):** 1323
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface crust		
Cover leaf litter: 50%		
Cover bare ground: 30%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Shrub Mallee	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Atriplex vesicaria
Enchylaena tomentosa
Eremophila parvifolia
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Frankenia interioris
Leichhardtia australis
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Scaevola spinescens
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**269-271
Quadrat No: Q9	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 303m
Coordinates (GDA2020): 381689E; 6530002N		**Waypoint (NW Corner):** 1327
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 50%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Scaevola spinescens*	*Olearia muelleri*

ALL TAXA
Acacia hemiteles
Alyxia buxifolia
Atriplex vesicaria
Dodonaea lobulata
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Maireana sedifolia
Olearia muelleri
Pimelea microcephala
Pittosporum angustifolium
Ptilotus obovatus
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**272-274
Quadrat No: Q10	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 304m
Coordinates (GDA2020): 381316E; 6530059N		**Waypoint (NW Corner):** 1331
Aspect: South East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Red-Brown/ Sandy Clay loam/ Soft		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Shrub Mallee	**Growth form:** Shrub	**Growth form:** Hummock grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus oleosa	*Eremophila scoparia*	*Triodia irritans*
ALL TAXA		
Acacia hemiteles		
Alyxia buxifolia		
Eremophila scoparia		
Eucalyptus oleosa		
Pimelea microcephala		
Ptilotus obovatus		
Triodia irritans		

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**275-277
Quadrat No: Q11	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 325m
Coordinates (GDA2020): 381616E; 6531119N		**Waypoint (NW Corner):** 1335
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; medium pebbles/ Sub rounded		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 70%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Senna artemisioides* subsp. *filifolia*	*Westringia rigida*

ALL TAXA
Alyxia buxifolia
Atriplex vesicaria
Casuarina pauper
Dodonaea lobulata
Eremophila glabra
Exocarpos aphyllus
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**278-280
Quadrat No: Q12	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 313m
Coordinates (GDA2020): 380537E; 6531403N		**Waypoint (NW Corner):** 1339
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Red Brown/ Sandy Clay loam/ Surface crust		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus horistes	*Senna artemisioides subsp. filifolia*	*Triodia irritans*

ALL TAXA
Austrostipa elegantissima
Cratystylis conocephala
Dodonaea lobulata
Eremophila caperata
Eremophila scoparia
Eucalyptus horistes
Exocarpos aphyllus
Pimelea microcephala
Pittosporum angustifolium
Scaevola spinescens
Senna artemisioides subsp. filifolia
Triodia irritans

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**281-283
Quadrat No: Q13	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 311m
Coordinates (GDA2020): 380155E; 6531996N		**Waypoint (NW Corner):** 1343
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subrounded		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Sandy Clay loam/ Soft/ Surface Crust		
Cover leaf litter: 35%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree Mallee	**Growth form:** Shrub	**Growth form:** Hummock Grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus griffithsii	*Eremophila scoparia*	*Triodia irritans*

ALL TAXA
Acacia camptoclada
Acacia erinacea
Eremophila scoparia
Eucalyptus griffithsii
Eremophila parvifolia
Exocarpos aphyllus
Olearia muelleri
Santalum acuminatum
Senna artemisioides subsp. *filifolia*
Triodia irritans
Westringia rigida

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**284-286
Quadrat No: Q14	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 307m
Coordinates (GDA2020): 379913E; 6532122N		**Waypoint (NW Corner):** 1348
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ subrounded		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Sandy Clay loam/ Surface Crust		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Hummock Grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus oleosa	*Eremophila scoparia*	*Triodia irritans*

ALL TAXA
Cratystylis conocephala
Eremophila glabra
Eremophila parvifolia
Eremophila scoparia
Eucalyptus oleosa
Exocarpos aphyllus
Melaleuca sheathiana
Olearia muelleri
Scaevola spinescens
Triodia irritans

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**287-289
Quadrat No: Q15	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 266m
Coordinates (GDA2020): 383126E; 6531837N		**Waypoint (NW Corner):** 132
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat		
Coarse fragments on the surface: No qualifier; common/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface Crust		
Cover leaf litter: 20%		
Cover bare ground: 60%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.5-1m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus lesouefii	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Eremophila interstans subsp. *interstans*
Eremophila parvifolia
Eremophila scoparia
Eucalyptus lesouefii
Frankenia interioris
Maireana triptera
Tecticornia disarticulata

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**290-292
Quadrat No: Q16	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 267m
Coordinates (GDA2020): 383336E; 6531477N		**Waypoint (NW Corner):** 137
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salmonophloia	*Senna artemisioides* subsp. *filifolia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Dodonaea lobulata
Eremophila decipiens
Eremophila glabra subsp. *glabra*
Eremophila interstans subsp. *virgata*
Eremophila scoparia
Eucalyptus salmonophloia
Exocarpos aphyllus
Maireana oppositifolia
Maireana sedifolia
Olearia muelleri
Pimelea microcephala
Rhagodia eremaea
Scaevola spinescens
Sclerolaena diacantha
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*
Tecticornia disarticulata

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**294-296
Quadrat No: Q17	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 276m
Coordinates (GDA2020): 383382E; 6530679N		**Waypoint (NW Corner):** 144
Aspect: south	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; Abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Acacia collegialis	*Scaevola spinescens*	*Cheilanthes sieberi*

ALL TAXA
Acacia collegialis
Acacia tetragonophylla
Cheilanthes sieberi
Dodonaea lobulata
Eremophila clarkei
Eremophila glabra
Exocarpos aphyllus
Olearia pimeleoides
Pimelea microcephala
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. ×*artemisioides*
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**298-300
Quadrat No: Q18	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 279m
Coordinates (GDA2020): 382656E; 6531425N		**Waypoint (NW Corner):** 151
Aspect: West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; Abundant/ Cobbly; or cobbles/ Subangular		
Rock outcrop (abundance/runoff): Moderately rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 55%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Acacia collegialis*	*Atriplex vesicaria*

ALL TAXA
Acacia collegialis
Alyxia buxifolia
Atriplex vesicaria
Casuarina pauper
Dodonaea lobulata
Eremophila glabra
Exocarpos aphyllus
Leichhardtia australis
Olearia muelleri
Pittosporum angustifolium
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):** 301-303
Quadrat No: Q19	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 269m
Coordinates (GDA2020): 383269E; 6529069N		**Waypoint (NW Corner):** 156
Aspect: south	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 70%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Scaevola spinescens*	*Atriplex vesicaria*

ALL TAXA
Acacia collegialis
Acacia hemiteles
Alyxia buxifolia
Atriplex vesicaria
Austrostipa elegantissima
Cratystylis conocephala
Eremophila longifolia
Eremophila parvifolia
Eucalyptus salubris
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):** 301-303
Quadrat No: Q19	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 269m
Coordinates (GDA2020): 383269E; 6529069N		**Waypoint (NW Corner):** 156
Aspect: south	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 70%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Scaevola spinescens*	*Atriplex vesicaria*

ALL TAXA
Acacia collegialis
Acacia hemiteles
Alyxia buxifolia
Atriplex vesicaria
Austrostipa elegantissima
Cratystylis conocephala
Eremophila longifolia
Eremophila parvifolia
Eucalyptus salubris
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**308-310
Quadrat No: Q21	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 272m
Coordinates (GDA2020): 383851E; 6528301N		**Waypoint (NW Corner):** 165
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Soft/ Surface crust		
Cover leaf litter: 40%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila caperata*	*Ptilotus obovatus*

ALL TAXA
Acacia hemiteles
Alyxia buxifolia
Atriplex stipitata
Eremophila caperata
Eremophila decipiens
Eucalyptus salubris
Exocarpos aphyllus
Maireana georgei
Olearia muelleri
Olearia subspicata
Pimelea microcephala
Ptilotus obovatus
Rhagodia eremaea

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**313-315
Quadrat No: Q22	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 283m
Coordinates (GDA2020): 383884E; 6528887N		**Waypoint (NW Corner):** 171
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Surface crust		
Cover leaf litter: 60%		
Cover bare ground: 30%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Ptilotus obovatus*

ALL TAXA
Acacia hemiteles
Alyxia buxifolia
Atriplex vesicaria
Dodonaea lobulata
Eremophila clarkei
Eremophila decipiens
Eremophila scoparia
Eucalyptus salubris
Maireana georgei
Olearia muelleri
Olearia subspicata
Pimelea microcephala
Pittosporum angustifolium
Ptilotus obovatus
Rhagodia eremaea
Santalum acuminatum
Scaevola spinescens
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**316-318
Quadrat No: Q23	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 292m
Coordinates (GDA2020): 384163E; 6529117N		**Waypoint (NW Corner):** 175
Aspect: South West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Very; abundant/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Scaevola spinescens*	*Westringia rigida*

ALL TAXA
Alyxia buxifolia
Casuarina pauper
Cratystylis conocephala
Dodonaea lobulata
Eremophila glabra
Eremophila parvifolia
Exocarpos aphyllus
Leichhardtia australis
Maireana georgei
Olearia muelleri
Ptilotus obovatus
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**319-321
Quadrat No: Q24	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 320m
Coordinates (GDA2020): 384775E; 6529593N		**Waypoint (NW Corner):** 179
Aspect: West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Upper slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Moderately rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 55%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus torquata	*Eremophila scoparia*	*Westringia rigida*

ALL TAXA
Alyxia buxifolia
Atriplex nummularia
Atriplex vesicaria
Casuarina pauper
Dodonaea lobulata
Enchylaena tomentosa
Eremophila oldfieldii subsp. *angustifolia*
Eremophila parvifolia
Eremophila saligna
Eremophila scoparia
Eucalyptus torquata
Exocarpos aphyllus
Maireana georgei
Melaleuca sheathiana
Olearia muelleri
Ptilotus obovatus
Rhagodia eremaea
Santalum acuminatum
Scaevola spinescens
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**322-324
Quadrat No: Q25	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 317m
Coordinates (GDA2020): 385263E; 6529708N		**Waypoint (NW Corner):** 183
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Upper slope/ Hillslope (gentle)		
Coarse fragments on the surface: Very slightly; very few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Light Brown/ Clay loam/ Surface Crust		
Cover leaf litter: 20%		
Cover bare ground: 70**%**		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus torquata	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Acacia erinacea
Atriplex nummularia
Atriplex vesicaria
Cratystylis conocephala
Dodonaea lobulata
Eremophila glabra
Eremophila interstans subsp. *interstans*
Eremophila parvifolia
Eremophila scoparia
Eucalyptus torquata
Maireana pentatropis
Olearia muelleri
Rhagodia eremaea
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 09/05/24	**Botanist:** JW + JJ	**Photo number (NW corner):**325-327
Quadrat No: Q26	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 277m
Coordinates (GDA2020): 380518E; 6529924N		**Waypoint (NW Corner):** 187
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown orange/ Sandy Clay Loam/ Soft		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Hummock grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus oleosa	*Acacia hemiteles*	*Triodia irritans*

ALL TAXA
Acacia camptoclada
Acacia hemiteles
Eremophila caperata
Eremophila parvifolia
Eremophila scoparia
Eucalyptus oleosa
Exocarpos aphyllus
Melaleuca eleuterostachya
Scaevola spinescens
Triodia irritans
Westringia rigida

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JJ	**Photo number (NW corner):**242-244
Quadrat No: Q1 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 516m
Coordinates (GDA94): 51J 385785E 6529865N		**Waypoint (NW Corner):**
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Good
Landform: Rocky Hill/ Mid slope		
Coarse fragments on the surface: Very abundant (50-90%); Coarse gravelly (20-60mm); Subangular		
Rock outcrop (abundance/runoff): Nil/ rapid		
Soil (profile/field texture/soil surface): Red-Brown/ Clay-Loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Shrub	**Growth form:** Shrub	**Growth form:** Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Acacia collegialis	*Dodonaea lobulata*	*Westringia rigida*

ALL TAXA
Acacia collegialis
Acacia colletioides
Acacia erinacea
Alyxia buxifolia
Austrostipa elegantissima
Dodonaea lobulata
Eremophila glabra subsp. *glabra*
Eremophila oldfieldii subsp. angustifolia
Exocarpos aphyllus
Leichhardtia australis
Maireana georgei
Maireana triptera
Ptilotus obovatus
Santalum acuminatum
Scaevola spinescens
Westringia rigida

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JJ	**Photo number (NW corner):**239-241
Quadrat No: Q2 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 502m
Coordinates (GDA94): 51J 385785E 6529865N		**Waypoint (NW Corner):**
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Good
Landform: Flat Plain		
Coarse fragments on the surface: Moderately, many (20-50%); Medium gravelly (6-20mm); Subangular		
Rock outcrop (abundance/runoff): Nil/ Very slow		
Soil (profile/field texture/soil surface): Red-Brown/ Clay-Loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salmonophloia	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Eremophila glabra subsp. *glabra*
Eremophila interstans subsp. *interstans*
Eremophila scoparia
Eucalyptus salmonophloia
Exocarpos aphyllus
Frankenia setosa
Maireana sedifolia
Olearia muelleri
Pimelea microcephala subsp. *microcephala*
Ptilotus obovatus
Santalum acuminatum
Sclerolaena diacantha
Senna artemisioides subsp. *filifolia*
Tecticornia disarticulata

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JJ	**Photo number (NW corner):**233-235
Quadrat No: Q7 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 520m
Coordinates (GDA94): 51J 385669E 6530147N		**Waypoint (NW Corner):**
Aspect: North West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Rocky Hill/ Mid Slope		
Coarse fragments on the surface: Very Abundant (50-90%); Coarse gravelly (20-60mm); Subangular		
Rock outcrop (abundance/runoff): Nil/ Rapid		
Soil (profile/field texture/soil surface): Brown/ Clay-Loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: <10%	**Crown cover:** 10-30%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus stricklandii	*Eremophila scoparia*	*Olearia muelleri*
ALL TAXA		
Acacia colletioides		
Acacia erinacea		
Alyxia buxifolia		
Atriplex vesicaria		
Dodonaea lobulata		
Eremophila glabra subsp. *glabra*		
Eremophila oldfieldii subsp. angustifolia		
Eremophila parvifolia		
Eremophila scoparia		
Eucalyptus salubris		
Eucalyptus stricklandii		
Exocarpos aphyllus		
Leichhardtia australis		
Maireana triptera		
Olearia muelleri		
Ptilotus obovatus		
Santalum acuminatum		
Santalum spicatum		
Scaevola spinescens		
Sclerolaena cuneata		
Senna artemisioides subsp. *filifolia*		
Westringia rigida		

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JJ	**Photo number (NW corner):**236-238
Quadrat No: Q8 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 508m
Coordinates (GDA94): 51J 386087E 6530308N		**Waypoint (NW Corner):**
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat Plain		
Coarse fragments on the surface: Many (20-50%); Fine gravelly (2-6mm); Subrounded		
Rock outcrop (abundance/runoff): Nil/ Slow		
Soil (profile/field texture/soil surface): Red-Brown/ Clay-Loam/ Firm		
Cover leaf litter: 30%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: <10%	**Crown cover:** 30-70%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus celastroides	*Eremophila scoparia*	*Olearia muelleri*
ALL TAXA		
Atriplex nummularia		
Atriplex vesicaria		
Austrostipa elegantissima		
Eremophila glabra subsp. *glabra*		
Eremophila scoparia		
Eucalyptus celastroides		
Exocarpos aphyllus		
Leichhardtia australis		
Maireana pentatropis		
Maireana sedifolia		
Maireana triptera		
Olearia muelleri		
Ptilotus obovatus		
Santalum acuminatum		
Scaevola spinescens		
Sclerolaena cuneata		
Sclerolaena diacantha		
Tecticornia disarticulata		

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 979-981
Quadrat No: Q1	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 328.87m
Coordinates (GDA2020): 386309E; 6529308N		**Waypoint (NW Corner):** 1292
Aspect: South East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface crust		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod shrub
Height: 6-12m	**Height:** 1-3m	**Height:** 0.5-1m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Eremophila glabra
Eremophila parvifolia
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Frankenia setosa
Maireana triptera
Olearia muelleri
Ptilotus aervoides (A)
Roepera eremaea
Sclerolaena uniflora
Tecticornia disarticulata

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**976-978
Quadrat No: Q2	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 341m
Coordinates (GDA2020): 385964E; 6529119N		**Waypoint (NW Corner):** 1296
Aspect: West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3m	**Height:** <1m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus lesouefii	*Cratystylis conocephala*	*Eremophila parvifolia*

ALL TAXA
Acacia erinacea
Alyxia buxifolia
Cratystylis conocephala
Dodonaea lobulata
Enchylaena tomentosa
Eremophila glabra subsp. *glabra*
Eremophila oldfieldii subsp. *angustifolia*
Eremophila parvifolia
Eucalyptus celastroides
Eucalyptus lesouefii
Leichhardtia australis
Maireana georgei
Maireana pentatropis
Ptilotus obovatus
Roepera eremaea
Scaevola spinescens
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*
Senna sp. 1
Westringia rigida

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**995-997
Quadrat No: Q3	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 322m
Coordinates (GDA2020): 385194E; 6529145N		**Waypoint (NW Corner):** 1300
Aspect: South West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Fine gravelly; small pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface Crust		
Cover leaf litter: 40%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3m	**Height:** 0.5-1m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salmonophloia	*Senna artemisioides* subsp. *filifolia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Enchylaena tomentosa
Eremophila scoparia
Eucalyptus salmonophloia
Exocarpos aphyllus
Maireana georgei
Maireana triptera
Pimelea microcephala
Rhagodia spp.
Roepera eremaea
Roepera sp.
Scaevola spinescens
Sclerolaena diacantha
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**3-5
Quadrat No: Q4	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 341m
Coordinates (GDA2020): 384357E; 6529687N		**Waypoint (NW Corner):** 1304
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Midslope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Fern
Height: 3-6m	**Height:** 1-3m	**Height:** <0.25m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Acacia collegialis	*Eremophila clarkei*	*Cheilanthes sieberi*

ALL TAXA
Acacia collegialis
Aristida contorta (A)
Austrostipa nitida
Cephalipterum drummondii (A)
Cheilanthes sieberi
Eremophila clarkei
Euphorbia boophthona (A)
Leichhardtia australis
Mirbelia microphylla
Prostanthera althoferi
Scaevola spinescens
Waitzia acuminata (A)

Project Name: Baker Project		
Date: 08/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 7:54am
Quadrat No: Q5	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 338m
Coordinates (GDA2020): 383787E; 6529940N		**Waypoint (NW Corner):** 1310
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Midslope/ Hillslope		
Coarse fragments on the surface: Very abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Greenstone/ Moderately rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Fern
Height: 3-6m	**Height:** 1-3m	**Height:** <0.25m
Crown cover: 30-70%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Senna artemisioides* subsp. *filifolia*	*Olearia muelleri*

ALL TAXA
Acacia collegialis
Acacia tetragonophylla
Alyxia buxifolia
Atriplex nummularia
Casuarina pauper
Dodonaea lobulata
Eremophila clarkei
Eremophila glabra
Eremophila oldfieldii subsp. *angustifolia*
Eremophila scoparia
Exocarpos aphyllus
Geijera linearifolia
Leichhardtia australis
Olearia muelleri
Olearia pimeleoides
Pimelea microcephala
Prostanthera althoferi
Ptilotus obovatus
Rhagodia drummondii
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Sclerolaena diacantha
Senna artemisioides subsp. *filifolia*
Solanum lasiophyllum

Project Name: Baker Project		
Date: 08/010/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**8:06am
Quadrat No:Q6	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 324m
Coordinates (GDA2020): 383459E; 6530066N		**Waypoint (NW Corner):** 1314
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Greenstone/ Rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Alyxia buxifolia*	*Atriplex vesicaria*

ALL TAXA
Acacia collegialis
Alyxia buxifolia
Atriplex vesicaria
Austrostipa elegantissima
Casuarina pauper
Eremophila alternifolia
Eremophila glabra
Eremophila parvifolia
Eucalyptus lesouefii
Exocarpos aphyllus
Olearia muelleri
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**985-987
Quadrat No: Q7	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 316m
Coordinates (GDA2020): 383936E; 6530375N		**Waypoint (NW Corner):** 1318
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface crust		
Cover leaf litter: 50%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Alyxia buxifolia
Atriplex vesicaria
Enchylaena tomentosa
Eremophila glabra
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Geijera linearifolia
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Rhagodia eremaea
Roepera eremaea
Scaevola spinescens
Sclerolaena eurotioides
Senna artemisioides subsp. *filifolia*
Solanum lasiophyllum
Tecticornia disarticulata

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 19 - 21
Quadrat No: Q8	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 307m
Coordinates (GDA2020): 382529E; 6530580N		**Waypoint (NW Corner):** 1323
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface crust		
Cover leaf litter: 50%		
Cover bare ground: 30%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Shrub Mallee	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Atriplex vesicaria
Austrostipa nitida
Asteraceae sp.
Enchylaena tomentosa
Eremophila glabra subsp. *glabra*
Eremophila parvifolia
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Frankenia interioris
Leichhardtia australis
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Roepera eremaea
Scaevola spinescens
Sclerolaena cuneata
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 08/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**8:30
Quadrat No: Q9	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 303m
Coordinates (GDA2020): 381689E; 6530002N		**Waypoint (NW Corner):** 1327
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 50%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Scaevola spinescens*	*Olearia muelleri*

ALL TAXA
Acacia hemiteles
Alyxia buxifolia
Atriplex vesicaria
Dodonaea lobulata
Eremophila scoparia
Eucalyptus salubris
Exocarpos aphyllus
Maireana sedifolia
Olearia muelleri
Pimelea microcephala
Pittosporum angustifolium
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 08/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**8:23am
Quadrat No: Q10	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 304m
Coordinates (GDA2020): 381316E; 6530059N		**Waypoint (NW Corner):** 1331
Aspect: South East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Red-Brown/ Sandy Clay loam/ Soft		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Shrub Mallee	**Growth form:** Shrub	**Growth form:** Hummock grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus oleosa	*Eremophila scoparia*	*Triodia irritans*

ALL TAXA
Acacia hemiteles
Alyxia buxifolia
Eremophila scoparia
Eucalyptus oleosa
Pimelea microcephala
Ptilotus obovatus
Triodia irritans

Project Name: Baker Project		
Date: 08/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**9:37am
Quadrat No: Q11	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 325m
Coordinates (GDA2020): 381616E; 6531119N		**Waypoint (NW Corner):** 1335
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; medium pebbles/ Sub rounded		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 70%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Senna artemisioides* subsp. *filifolia*	*Westringia rigida*

ALL TAXA
Alyxia buxifolia
Atriplex vesicaria
Austrostipa elegantissima
Casuarina pauper
Dodonaea lobulata
Eremophila glabra
Exocarpos aphyllus
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Roepera eremaea
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 08/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**8:53am
Quadrat No: Q12	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 313m
Coordinates (GDA2020): 380537E; 6531403N		**Waypoint (NW Corner):** 1339
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Red Brown/ Sandy Clay loam/ Surface crust		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus horistes	*Senna artemisioides* subsp. *filifolia*	*Triodia irritans*
ALL TAXA		
Austrostipa elegantissima		
Cratystylis conocephala		
Dodonaea lobulata		
Eremophila caperata		
Eremophila scoparia		
Eucalyptus horistes		
Exocarpos aphyllus		
Pimelea microcephala		
Pittosporum angustifolium		
Roepera eremaea		
Scaevola spinescens		
Senna artemisioides subsp. *filifolia*		
Solanum nummularium		
Triodia irritans		

Project Name: Baker Project		
Date: 08/05/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**9:18am
Quadrat No: Q13	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 311m
Coordinates (GDA2020): 380155E; 6531996N		**Waypoint (NW Corner):** 1343
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Sandy Clay loam/ Soft/ Surface Crust		
Cover leaf litter: 35%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree Mallee	**Growth form:** Shrub	**Growth form:** Hummock Grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 3
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus griffithsii	*Eremophila scoparia*	*Triodia irritans*

ALL TAXA
Acacia camptoclada
Acacia erinacea
Eremophila parvifolia
Eremophila scoparia
Eucalyptus griffithsii
Exocarpos aphyllus
Olearia muelleri
Roepera glauca
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Triodia irritans
Westringia rigida

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner): 23**
Quadrat No: Q14	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 307m
Coordinates (GDA2020): 379913E; 6532122N		**Waypoint (NW Corner):** 1348
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Sandy Clay loam/ Surface Crust		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Hummock Grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25m-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus oleosa	*Eremophila scoparia*	*Triodia irritans*
ALL TAXA		
Cratystylis conocephala		
Eremophila glabra		
Eremophila parvifolia		
Eremophila scoparia		
Eucalyptus oleosa		
Exocarpos aphyllus		
Melaleuca sheathiana		
Olearia muelleri		
Scaevola spinescens		
Triodia irritans		
Frankenia sp.		

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**1009-1011
Quadrat No: Q15	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 266m
Coordinates (GDA2020): 383126E; 6531837N		**Waypoint (NW Corner):** 132
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat		
Coarse fragments on the surface: No qualifier; common/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm/ Surface Crust		
Cover leaf litter: 20%		
Cover bare ground: 60%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.5-1m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus lesouefii	*Eremophila scoparia*	*Atriplex vesicaria*
ALL TAXA		
Atriplex vesicaria		
Eremophila interstans subsp. *interstans*		
Eremophila parvifolia		
Eremophila scoparia		
Eucalyptus lesouefii		
Frankenia interioris		
Maireana triptera		
Roepera eremaea		
Tecticornia disarticulata		

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 6-8
Quadrat No: Q16	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 267m
Coordinates (GDA2020): 383336E; 6531477N		**Waypoint (NW Corner):** 137
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salmonophloia	*Senna artemisioides* subsp. *filifolia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Dodonaea lobulata
Eremophila decipiens
Eremophila glabra subsp. *glabra*
Eremophila interstans subsp. *virgata*
Eremophila scoparia
Eucalyptus salmonophloia
Exocarpos aphyllus
Maireana oppositifolia
Maireana sedifolia
Olearia muelleri
Pimelea microcephala
Rhagodia eremaea
Scaevola spinescens
Sclerolaena diacantha
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*
Tecticornia disarticulata

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 12-14
Quadrat No: Q17	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 276m
Coordinates (GDA2020): 383382E; 6530679N		**Waypoint (NW Corner):** 144
Aspect: south	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; Abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Acacia collegialis	*Scaevola spinescens*	*Cheilanthes sieberi*

ALL TAXA
Acacia collegialis
Acacia tetragonophylla
Cheilanthes sieberi
Dodonaea lobulata
Eremophila clarkei
Eremophila glabra
Exocarpos aphyllus
Olearia pimeleoides
Pimelea microcephala
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. ×*artemisioides*
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**16-18
Quadrat No: Q18	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 279m
Coordinates (GDA2020): 382656E; 6531425N		**Waypoint (NW Corner):** 151
Aspect: West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid slope/ Hillslope		
Coarse fragments on the surface: Very; Abundant/ Cobbly; or cobbles/ Subangular		
Rock outcrop (abundance/runoff): Moderately rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 55%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Acacia collegialis*	*Atriplex vesicaria*

ALL TAXA
Acacia collegialis
Acacia colletioides
Alyxia buxifolia
Atriplex vesicaria
Casuarina pauper
Dodonaea lobulata
Eremophila glabra
Exocarpos aphyllus
Leichhardtia australis
Olearia muelleri
Pittosporum angustifolium
Ptilotus obovatus
Roepera eremaea
Roepera sp
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 28-30
Quadrat No: Q19	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 269m
Coordinates (GDA2020): 383269E; 6529069N		**Waypoint (NW Corner):** 156
Aspect: south	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Slightly; few/ Medium gravelly; medium pebbles/ Surrounded		
Rock outcrop (abundance/runoff): Very slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 70%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** 10-30%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Scaevola spinescens*	*Atriplex vesicaria*

ALL TAXA
Acacia collegialis
Acacia hemiteles
Alyxia buxifolia
Atriplex nummularia
Atriplex vesicaria
Austrostipa elegantissima
Cratystylis conocephala
Eremophila longifolia
Eremophila parvifolia
Eucalyptus salubris
Olearia muelleri
Pimelea microcephala
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 25-27
Quadrat No: Q20	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m): -**
Coordinates (GDA2020): 383338E; 6529478N		**Waypoint (NW Corner):** 160
Aspect: West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Mid/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Acacia collegialis	*Dodonaea lobulata*	*Ptilotus obovatus*

ALL TAXA
Acacia collegialis
Acacia tetragonophylla
Alyxia buxifolia
Dodonaea lobulata
Eremophila clarkei
Eremophila glabra
Exocarpos aphyllus
Leichhardtia australis
Olearia muelleri
Olearia pimeleoides
Pimelea microcephala
Pittosporum angustifolium
Ptilotus obovatus
Roepera eremaea
Scaevola spinescens
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 34-36
Quadrat No: Q21	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 272m
Coordinates (GDA2020): 383851E; 6528301N		**Waypoint (NW Corner):** 165
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Soft/ Surface crust		
Cover leaf litter: 40%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila caperata*	*Ptilotus obovatus*

ALL TAXA
Acacia hemiteles
Alyxia buxifolia
Atriplex stipitata
Austrostipa elegantissima
Calandrinia sp.
Asteraceae sp.
Eremophila caperata
Eremophila decipiens
Eucalyptus salubris
Exocarpos aphyllus
Maireana georgei
Maireana tomentosa
Olearia muelleri
Olearia subsp*icata*
Pimelea microcephala
Ptilotus obovatus
Ptilotus sp.
Rhagodia eremaea
Roepera sp.

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 31-33
Quadrat No: Q22	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 283m
Coordinates (GDA2020): 383884E; 6528887N		**Waypoint (NW Corner):** 171
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): No runoff		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Surface crust		
Cover leaf litter: 60%		
Cover bare ground: 30%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salubris	*Eremophila scoparia*	*Ptilotus obovatus*

ALL TAXA
Acacia hemiteles
Alyxia buxifolia
Atriplex vesicaria
Austrostipa nitida
Dodonaea lobulata
Eremophila clarkei
Eremophila decipiens
Eremophila glabra
Eremophila scoparia
Eucalyptus salubris
Leichhardtia australis
Maireana georgei
Olearia muelleri
Olearia subsp*icata*
Pimelea microcephala
Pittosporum angustifolium
Ptilotus obovatus
Rhagodia eremaea
Santalum acuminatum
Scaevola spinescens
Sclerolaena cuneata
Sclerolaena uniflora
Senna artemisioides subsp. *filifolia*

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):** 39-41
Quadrat No: Q23	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 292m
Coordinates (GDA2020): 384163E; 6529117N		**Waypoint (NW Corner):** 175
Aspect: South West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: Very; abundant/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 25%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Casuarina pauper	*Scaevola spinescens*	*Westringia rigida*

ALL TAXA
Alyxia buxifolia
Casuarina pauper
Cratystylis conocephala
Dodonaea lobulata
Eremophila glabra
Eremophila parvifolia
Exocarpos aphyllus
Leichhardtia australis
Maireana georgei
Olearia muelleri
Ptilotus obovatus
Santalum acuminatum
Scaevola spinescens
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 07/10/24	**Botanist:** JJ+ AJ	**Photo number (NW corner):**988-990
Quadrat No: Q24	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 320m
Coordinates (GDA2020): 384775E; 6529593N		**Waypoint (NW Corner):** 179
Aspect: West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Upper slope/ Hillslope		
Coarse fragments on the surface: Very; abundant/ Coarse gravelly; large pebbles/ Subangular		
Rock outcrop (abundance/runoff): Moderately rapid		
Soil (profile/field texture/soil surface): Brown/ Clay loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 55%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus torquata	*Eremophila scoparia*	*Westringia rigida*

ALL TAXA
Alyxia buxifolia
Atriplex nummularia
Atriplex vesicaria
Austrostipa elegantissima
Austrostipa nitida
Casuarina pauper
Dodonaea lobulata
Enchylaena tomentosa
Eremophila oldfieldii subsp. *angustifolia*
Eremophila parvifolia
Eremophila saligna
Eremophila scoparia
Eucalyptus torquata
Exocarpos aphyllus
Maireana georgei
Melaleuca sheathiana
Olearia muelleri
Ptilotus obovatus
Rhagodia eremaea
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Sclerolaena uniflora
Westringia rigida

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**991-993
Quadrat No: Q25	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 317m
Coordinates (GDA2020): 385263E; 6529708N		**Waypoint (NW Corner):** 183
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Upper slope/ Hillslope (gentle)		
Coarse fragments on the surface: Very slightly; very few/ Medium gravelly; medium pebbles/ Subangular		
Rock outcrop (abundance/runoff): Slow		
Soil (profile/field texture/soil surface): Light Brown/ Clay loam/ Surface Crust		
Cover leaf litter: 20%		
Cover bare ground: 70**%**		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Chenopod Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** <10%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus torquata	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Acacia erinacea
Atriplex nummularia
Atriplex vesicaria
Cratystylis conocephala
Dodonaea lobulata
Eremophila glabra
Eremophila interstans subsp. *interstans*
Eremophila parvifolia
Eremophila scoparia
Eucalyptus torquata
Exocarpos aphyllus
Maireana pentatropis
Olearia muelleri
Rhagodia eremaea
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Sclerolaena densiflora
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 08/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**8:44am
Quadrat No: Q26	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 277m
Coordinates (GDA2020): 380518E; 6529924N		**Waypoint (NW Corner):** 187
Aspect: South	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat/ Plain		
Coarse fragments on the surface: No coarse fragments		
Rock outcrop (abundance/runoff): Very Slow		
Soil (profile/field texture/soil surface): Brown orange/ Sandy Clay Loam/ Soft		
Cover leaf litter: 40%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Hummock grass
Height: 6-12m	**Height:** 1-3 m	**Height:** 0.25-0.5m
Crown cover: 30-70%	**Crown cover:** 10-30%	**Crown cover:** 30-70%
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus oleosa	*Acacia hemiteles*	*Triodia irritans*
ALL TAXA		
Acacia camptoclada		
Acacia hemiteles		
Eremophila caperata		
Eremophila parvifolia		
Eremophila scoparia		
Eucalyptus oleosa		
Exocarpos aphyllus		
Melaleuca eleuterostachya		
Scaevola spinescens		
Triodia irritans		
Westringia rigida		

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**964-966
Quadrat No: Q1 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 516m
Coordinates (GDA94): 51J 385785E 6529865N		**Waypoint (NW Corner):**
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Good
Landform: Rocky Hill/ Mid slope		
Coarse fragments on the surface: Very abundant (50-90%); Coarse gravelly (20-60mm); Subangular		
Rock outcrop (abundance/runoff): Nil/ rapid		
Soil (profile/field texture/soil surface): Red-Brown/ Clay-Loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 65%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Shrub	**Growth form:** Shrub	**Growth form:** Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: 10-30%	**Crown cover:** 10-30%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Acacia collegialis	*Dodonaea lobulata*	*Westringia rigida*

ALL TAXA
Acacia collegialis
Acacia colletioides
Acacia erinacea
Alyxia buxifolia
Austrostipa elegantissima
Dodonaea lobulata
Eremophila glabra subsp. *glabra*
Eremophila oldfieldii subsp. *angustifolia*
Eremophila parvifolia
Exocarpos aphyllus
Leichhardtia australis
Maireana georgei
Maireana triptera
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Scaevola spinescens
Sclerolaena sp. (red)
Westringia rigida

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**973-975
Quadrat No: Q2 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 502m
Coordinates (GDA94): 51J 385785E 6529865N		**Waypoint (NW Corner):**
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Good
Landform: Flat Plain		
Coarse fragments on the surface: Moderately, many (20-50%); Medium gravelly (6-20mm); Subangular		
Rock outcrop (abundance/runoff): Nil/ Very slow		
Soil (profile/field texture/soil surface): Red-Brown/ Clay-Loam/ Firm		
Cover leaf litter: 35%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: 10-30%	**Crown cover:** 30-70%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus salmonophloia	*Eremophila scoparia*	*Atriplex vesicaria*

ALL TAXA
Atriplex nummularia
Atriplex vesicaria
Austrostipa elegantissima
Eremophila glabra subsp. *glabra*
Eremophila interstans subsp. *interstans*
Eremophila scoparia
Eucalyptus celastroides
Eucalyptus salmonophloia
Eucalyptus salubris
Exocarpos aphyllus
Frankenia setosa
Maireana sedifolia
Maireana triptera
Olearia muelleri
Pimelea microcephala subsp. *microcephala*
Ptilotus obovatus
Roepera eremaea
Sclerolaena diacantha
Senna artemisioides subsp. *filifolia*
Tecticornia disarticulata

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**967-969
Quadrat No: Q7 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 520m
Coordinates (GDA94): 51J 385669E 6530147N		**Waypoint (NW Corner):**
Aspect: North West	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Rocky Hill/ Mid Slope		
Coarse fragments on the surface: Very Abundant (50-90%); Coarse gravelly (20-60mm); Subangular		
Rock outcrop (abundance/runoff): Nil/ Rapid		
Soil (profile/field texture/soil surface): Brown/ Clay-Loam/ Firm		
Cover leaf litter: 20%		
Cover bare ground: 50%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 3-6m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: <10%	**Crown cover:** 10-30%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus stricklandii	*Eremophila scoparia*	*Olearia muelleri*

ALL TAXA
Acacia colletioides
Acacia erinacea
Alyxia buxifolia
Atriplex vesicaria
Asteraceae sp.
Dodonaea lobulata
Eremophila alternifolia
Eremophila glabra subsp. *glabra*
Eremophila oldfieldii subsp. *angustifolia*
Eremophila parvifolia
Eremophila scoparia
Eucalyptus salubris
Eucalyptus stricklandii
Exocarpos aphyllus
Leichhardtia australis
Maireana triptera
Olearia muelleri
Oncosiphon suffruticosum (W)
Ptilotus obovatus
Roepera eremaea
Santalum acuminatum
Santalum spicatum
Scaevola spinescens
Sclerolaena densiflora
Sclerolaena cuneata
Senna artemisioides subsp. *filifolia*
Westringia rigida

Project Name: Baker Project		
Date: 07/10/2024	**Botanist:** JJ+ AJ	**Photo number (NW corner):**970-972
Quadrat No: Q8 (historic)	**Quadrat size/shape:** 20m x 20m/ Square	**Elevation (m):** 508m
Coordinates (GDA94): 51J 386087E 6530308N		**Waypoint (NW Corner):**
Aspect: East	**Fire (yrs):** Long unburnt	**Condition rating:** Very Good
Landform: Flat Plain		
Coarse fragments on the surface: Many (20-50%); Fine gravelly (2-6mm); Subrounded		
Rock outcrop (abundance/runoff): Nil/ Slow		
Soil (profile/field texture/soil surface): Red-Brown/ Clay-Loam/ Firm		
Cover leaf litter: 30%		
Cover bare ground: 40%		
Upper stratum	**Mid-stratum**	**Lower stratum**
Growth form: Tree	**Growth form:** Shrub	**Growth form:** Shrub
Height: 6-12m	**Height:** 1-3 m	**Height:** <0.5m
Crown cover: <10%	**Crown cover:** 30-70%	**Crown cover:** Sparse
Dominant taxa:	**Dominant taxa:**	**Dominant taxa:**
Eucalyptus celastroides	*Eremophila scoparia*	*Olearia muelleri*
ALL TAXA		
Atriplex nummularia		
Atriplex vesicaria		
Austrostipa elegantissima		
Austrostipa nitida		
Eremophila glabra subsp. *glabra*		
Eremophila parvifolia		
Eremophila scoparia		
Eucalyptus celastroides		
Exocarpos aphyllus		
Leichhardtia australis		
Maireana georgei		
Maireana pentatropis		
Maireana sedifolia		
Maireana triptera		
Olearia muelleri		
Ptilotus obovatus		
Roepera eremaea		
Santalum acuminatum		
Scaevola spinescens		
Sclerolaena cuneata		
Sclerolaena diacantha		
Tecticornia disarticulata		

APPENDIX F:
QUADRAT PHOTOS

Quadrat 1			
Direction	**East**	**South-East**	**South**
Quadrat 2			
Direction	**East**	**South-East**	**South**

Quadrat 3			
Direction	**East**	**South-East**	**South**
Quadrat 4			
Direction	**East**	**South-East**	**South**
Quadrat 5			
Direction	**East**	**South-East**	**South**

Quadrat 6			
Direction	**East**	**South-East**	**South**
Quadrat 7			
Direction	**East**	**South-East**	**South**
Quadrat 8			
Direction	**East**	**South-East**	**South**

Quadrat 9			
Direction	**East**	**South-East**	**South**
Quadrat 10			
Direction	**East**	**South-East**	**South**
Quadrat 11			
Direction	**East**	**South-East**	**South**

Quadrat 12			
Direction	**East**	**South-East**	**South**
Quadrat 13			
Direction	**East**	**South-East**	**South**
Quadrat 14			
Direction	**East**	**South-East**	**South**

Quadrat 15			
Direction	**East**	**South-East**	**South**
Quadrat 16			
Direction	**East**	**South-East**	**South**
Quadrat 17			
Direction	**East**	**South-East**	**South**

Quadrat 18			
Direction	**East**	**South-East**	**South**
Quadrat 19			
Direction	**East**	**South-East**	**South**
Quadrat 20			
Direction	**East**	**South-East**	**South**

Quadrat 21			
Direction	**East**	**South-East**	**South**
Quadrat 22			
Direction	**East**	**South-East**	**South**
Quadrat 23			
Direction	**East**	**South-East**	**South**

Quadrat 24			
Direction	**East**	**South-East**	**South**
Quadrat 25			
Direction	**East**	**South-East**	**South**
Quadrat 26			
Direction	**East**	**South-East**	**South**

Quadrat 1 (Historic)			
Direction	**East**	**South-East**	**South**
Quadrat 2 (Historic)			
Direction	**East**	**South-East**	**South**
Quadrat 7 (Historic)			
Direction	**East**	**South-East**	**South**

Quadrat 8 (Historic)			
Direction	**East**	**South-East**	**South**

APPENDIX G:
INTRODUCED FLORA OF THE DESKTOP ASSESSMENT

Family	Taxon	Common Name	WAOL Status	Control Category	WONS
Asteraceae	*Gazania linearis*	Gazania	Permitted - s11	No Control Category	No
Asteraceae	*Hypochaeris glabra*	Smooth Cats-ear	Permitted - s11	No Control Category	No
Asteraceae	*Monoculus monstrosus*	-	Permitted - s11	No Control Category	No
Asteraceae	*Oncosiphon suffruticosum*	Calomba Daisy	Permitted - s11	No Control Category	No
Asteraceae	*Xanthium spinosum*	Spiny Cockleburr, Bathurst Burr	Declared Pest - s22(2)	C3 Management, Whole of State	No
Boraginaceae	*Echium plantagineum*	Paterson's Curse	Declared Pest - s22(2)	No Control Category	No
Brassicaceae	*Carrichtera annua*	Ward's Weed	Permitted - s11	No Control Category	No
Brassicaceae	*Sisymbrium erysimoides*	Smooth Mustard	Permitted - s11	No Control Category	No
Cactaceae	*Cylindropuntia fulgida* var. *mamillata*	Prickly Pear	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
Cucurbitaceae	*Citrullus amarus*	-	Permitted - s11	No Control Category	No
Cucurbitaceae	*Citrullus colocynthis*	-	Permitted - s11	No Control Category	No
Fabaceae	*Acacia* sp. (Townsville)	-	Permitted - s11	No Control Category	No
Poaceae	*Cenchrus ciliaris*	Buffel Grass	Permitted - s11	No Control Category	No
Poaceae	*Rostraria pumila*	-	Permitted - s11	No Control Category	No
Polygonaceae	*Rumex hypogaeus*	Doublegee	Permitted - s11	No Control Category	No
Primulaceae	*Lysimachia arvensis*	Pimpernel	Permitted - s11	No Control Category	No
Typhaceae	*Typha orientalis*	Bullrush	Permitted - s11	No Control Category	No
Verbenaceae	*Lantana camara*	Common Lantana	Declared Pest - s22(2)	C3 Management, Whole of State	Yes

APPENDIX H:
SIGNIFICANT FLORA LIKELIHOOD ASSESSMENT

Rank			Taxon	Habitat	Assessment	Likelihood
EPBC	BC Act	DBCA				
VU	-	P2	*Tecticornia flabelliformis*	Clay. Saline flats.	Within known range, habitat unlikely to be present.	Unlikely
-	VU	-	*Tetratheca spenceri*	Breakaways.	Outside known range, habitat unlikely to be present.	Unlikely
-	-	P1	*Austrostipa* sp. Carlingup Road (S. Kern & R. Jasper LCH 18459)	Shrub, 1.2-5 m high, bark fibrous. Fl. yellow. Red sand, clay or loam. Low-lying areas, flats.	At extreme of known range, habitat may to be present.	Possible
-	-	P1	*Calandrinia lefroyensis*	Saline flats, edges of salt lakes.	At extreme of known range, habitat unlikely to be present.	Unlikely
-	-	P1	*Cyathostemon divaricatus*	Rocky hillslopes.	Outside known range of species, habitat unlikely to be present.	Unlikely
-	-	P1	*Eremophila arachnoides* subsp. *tenera*	Broom-like shrub, to 3 m high, branches with tubercules often elongated & coalescing. Fl. white/blue-purple.	Outside known range of species.	Unlikely
-	-	P1	*Eremophila perglandulosa*	-	At extreme of known range, no nearby records.	Unlikely
-	-	P1	*Grevillea phillipsiana*	Prickly shrub, 0.8-1.5 m high. Fl. red/red & orange, Jul to Sep. Red sand, stony loam. Granite hills.	Outside known range of species.	Unlikely
-	-	P1	*Lepidosperma* sp. Parker Range (N. Gibson & M. Lyons 2094)	-	Outside known range of species.	Unlikely
-	-	P1	*Philotheca apiculata*	Erect shrub, 0.5-1.5 m high. Fl. white-pink, Aug to Nov. Stony clay loam. Rocky outcrops, hillsides.	At extreme of known range, habitat may be present.	Possible
-	-	P1	*Prostanthera splendens*	Erect, openly branched shrub, 0.2-1 m high. Fl. blue-purple, Aug to Oct. Stony loam, shallow soils with ironstone pebbles. Breakaways.	At extreme of known range, habitat unlikely to be present.	Unlikely
-	-	P1	*Ptilotus rigidus*	Quartz hills.	At extreme of known range, habitat unlikely to be present.	Unlikely
-	-	P1	*Tecticornia flabelliformis*	Erect shrub, to 0.2 m high. Clay. Saline flats.	Within known range, habitat unlikely to be present.	Unlikely
-	-	P1	*Thryptomene planiflora*	Sandy soils.	Outside known range of species.	Unlikely

Rank			Taxon	Habitat	Assessment	Likelihood
EPBC	BC Act	DBCA				
-	-	P2	*Acacia kerryana*	Low, spreading, domed shrub, 0.3-1 m high. Fl. yellow, Oct to Dec or Jan to Feb. Granitic loamy sand, stony clayey loam or clayey sand. Low stony ridges, undulating plains.	Outside known range of species.	Unlikely
-	-	P2	*Eremophila praecox*	Broom-like shrub, 1.5-3 m high. Fl. purple, Oct or Dec. Red/brown sandy loam. Undulating plains.	At extreme of known range, habitat may be present.	Possible
-	-	P2	*Phebalium clavatum*	Upright shrub, 0.5-1.5 m high. Fl. white, Aug to Sep. Sandy soils. Sandplains.	Outside known range of species.	Unlikely
-	-	P2	*Philotheca apiculata*	Erect shrub, 0.5-1.5 m high. Fl. white-pink, Aug to Nov. Stony clay loam. Rocky outcrops, hillsides.	Outside known range of species.	Unlikely
-	-	P2	*Trachymene pyrophila*	Annual, herb, 0.1-0.5 m high, indumentum of patent glandular hairs. Fl. white, Nov to Dec or Jan to Mar. Yellow or orange sand. Sandplains; germinating after fire or other disturbances such as mining.	Within known range, habitat may be present.	Possible
-	-	P3	*Allocasuarina eriochlamys* subsp. *grossa*	Dioecious or monoecious shrub, 1-3 m high, bracteoles prominently exceeding cone. Stony loam, laterite clay. Granite outcrops.	Within known range, habitat unlikely to be present.	Unlikely
-	-	P3	*Eremophila annosicaulis*	Hills, stony plains.	Scattered, widespread records.	Unlikely
-	-	P3	*Styphelia rectiloba*	Granite breakaways.	Outside known range of species, habitat unlikely to be present.	Unlikely
-	-	P3	*Melaleuca coccinea*	Much branched shrub, 1.5-2.6 m high, leaf blade elliptic to ovate, 1.5-2.2 times as long as wide. Fl. red, Sep to Nov or Jan. Sandy loam over granite. Granite outcrops, sandplain, river valleys.	Within known range, habitat unlikely to be present.	Unlikely
-	-	P3	*Phlegmatospermum eremaeum*	Prostrate to spreading annual, herb, 0.02-0.1(-0.2) m high. Fl. white-cream, Jun or Aug to Oct. Stony loam.	Scattered, widespread records.	Unlikely
-	-	P3	*Pityrodia scabra* subsp. *dendrotricha*	Flats, sand dunes and lake edges.	Within known range, habitat may be present.	Possible
-	-	P3	*Stylidium choreanthum*	Creeping perennial, herb, 0.01-0.03 m high, to 0.3 m wide. Fl. pink/white, Sep to Nov. White/yellow or red sand. Plains.	Outside known range of species.	Unlikely
-	-	P4	*Eucalyptus kruseana*	(Straggly mallee), 2-3.5 m high, bark smooth. Fl. yellow, Jun to Sep. Sandy loam. Granite outcrops & hills.	Within known range, habitat unlikely to be present.	Unlikely
-	-	P4	*Eucalyptus x brachyphylla*	(Mallee) or tree, to 4 m high, bark rough, flaky. Fl. white, Jun. Sandy loam. Granite outcrops.	Within known range, habitat unlikely to be present.	Unlikely
-	-	P4	*Sowerbaea multicaulis*	Tufted perennial, herb, 0.075-0.25 m high. Fl. purple-violet, Oct to Dec or Jan. Yellow-brown sand.	Outside known range (nearby record is inaccurate).	Unlikely

APPENDIX I:
SIGNIFICANT FAUNA LIKELIHOOD ASSESSMENT

Species	Conservation Status			Habitat Description	Assessment	Likelihood
	EPBC Act	BC Act	DBCA Priority			
Arid Bronze Azure *Ogyris subterrestris petrina*	CR		-	The arid bronze azure is known only from two localities in Western Australia, with goldfields population at Lake Douglas, 12 km Southwest of Kalgoorlie, reported to be extinct. The arid bronze azure is restricted to mallee vegetation on sandy soil, often near flood plains, in which nests of the associated ant *Camponotus terebrans* are established at the base of eucalypts. As the arid bronze azure has an obligate dependence on this species, the distribution and abundance of *C. terebrans* is the primary determinants of potential habitat on a local scale	Considered to be locally extinct.	Unlikely
Night Parrot *Pezoporus occidentalis*	EN	CR	-	Most habitat records are of Triodia (Spinifex) grasslands and/or chenopod shrublands in the arid and semi-arid zones, or *Astrebla* spp. (Mitchell grass), shrubby samphire and chenopod associations, scattered trees and shrubs, *Acacia aneura* (Mulga) woodland, treeless areas and bare gibber are associated with sightings of the species. Roosting and nesting sites are consistently reported as within clumps of dense vegetation, primarily old and large Spinifex (*Triodia*) clumps, but sometimes other vegetation types (DAWE, 2020b).	Outside known range of species, no suitable habitat.	Would Not Occur
Grey Falcon *Falco hypoleucos*	VU	VU	-	The Grey Falcon occurs at low densities across inland Australia. The species frequents timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined water courses. The species has been observed hunting in treeless areas and frequents tussock grassland and open woodland, especially in winter. Prey species include doves, pigeons, small parrots and cockatoos and finches, but a variety of other bird prey species has been recorded. Non-avian prey includes small mammals and lizards.	Survey area may form part of larger home range.	Possible
Southern Whiteface *Aphelocephala leucopsis*	VU	VU	-	Considered a vagrant in southern Western Australia. Habitat includes a wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. These areas are usually in habitats dominated by acacias or eucalypts on ranges, foothills and lowlands, and plains. Critical habitat includes relatively undisturbed open woodlands and shrublands with an understorey of grasses and/or shrubs, habitat with low tree densities and an herbaceous understory litter cover which provides essential foraging habitat and living and dead trees with hollows and crevices which are essential for roosting and nesting.	Survey area may form part of larger home range.	Possible

Species	Conservation Status			Habitat Description	Assessment	Likelihood
	EPBC Act	BC Act	DBCA Priority			
Malleefowl *Leipoa ocellata*	VU	VU	-	Scrublands and woodlands dominated by mallee and wattle species (DAWE, 2020b).	Within known range, suitable habitat may be present.	Possible
Fork-tailed Swift *Apus pacificus*	MI	MI	-	Low to very high airspace over varied habitat from rainforest to semi desert (Birdlife Australia, 2019).	Very occasional transients only.	Unlikely
Migratory Shorebirds (Various species)	IA/MI	IA/MI	-	Inhabit muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, saltpans and hypersaline salt lakes inland (DAWE, 2020b).	No suitable habitat present.	Would Not Occur
Grey Wagtail *Motacilla cinerea*	MI	MI	-	Running water in disused quarries, sandy, rocky streams in escarpments and rainforest, sewerage ponds, ploughed fields and airfields (Morecombe 2004).	No suitable habitat.	Would Not Occur

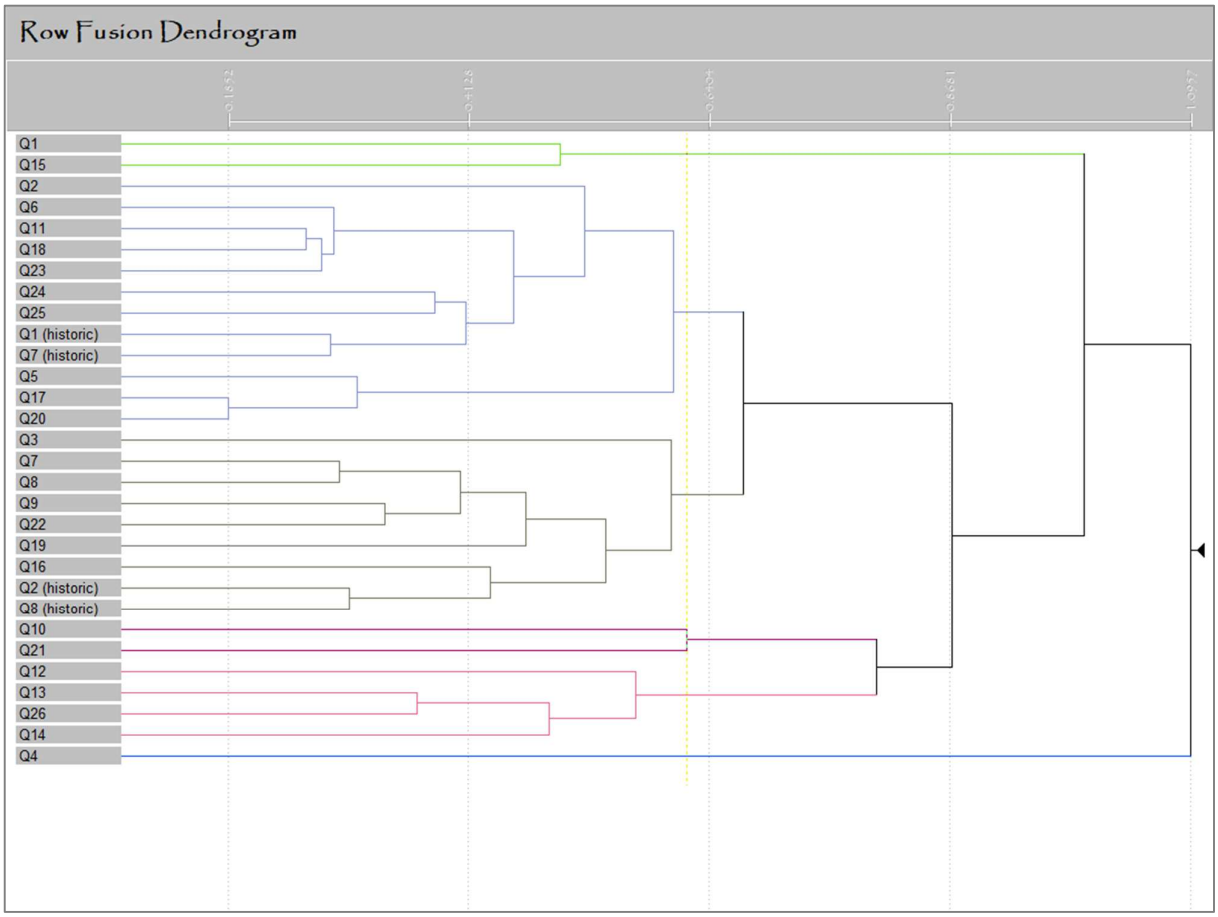
APPENDIX J:
LIST OF SPECIES IDENTIFIED WITHIN THE SURVEY AREA

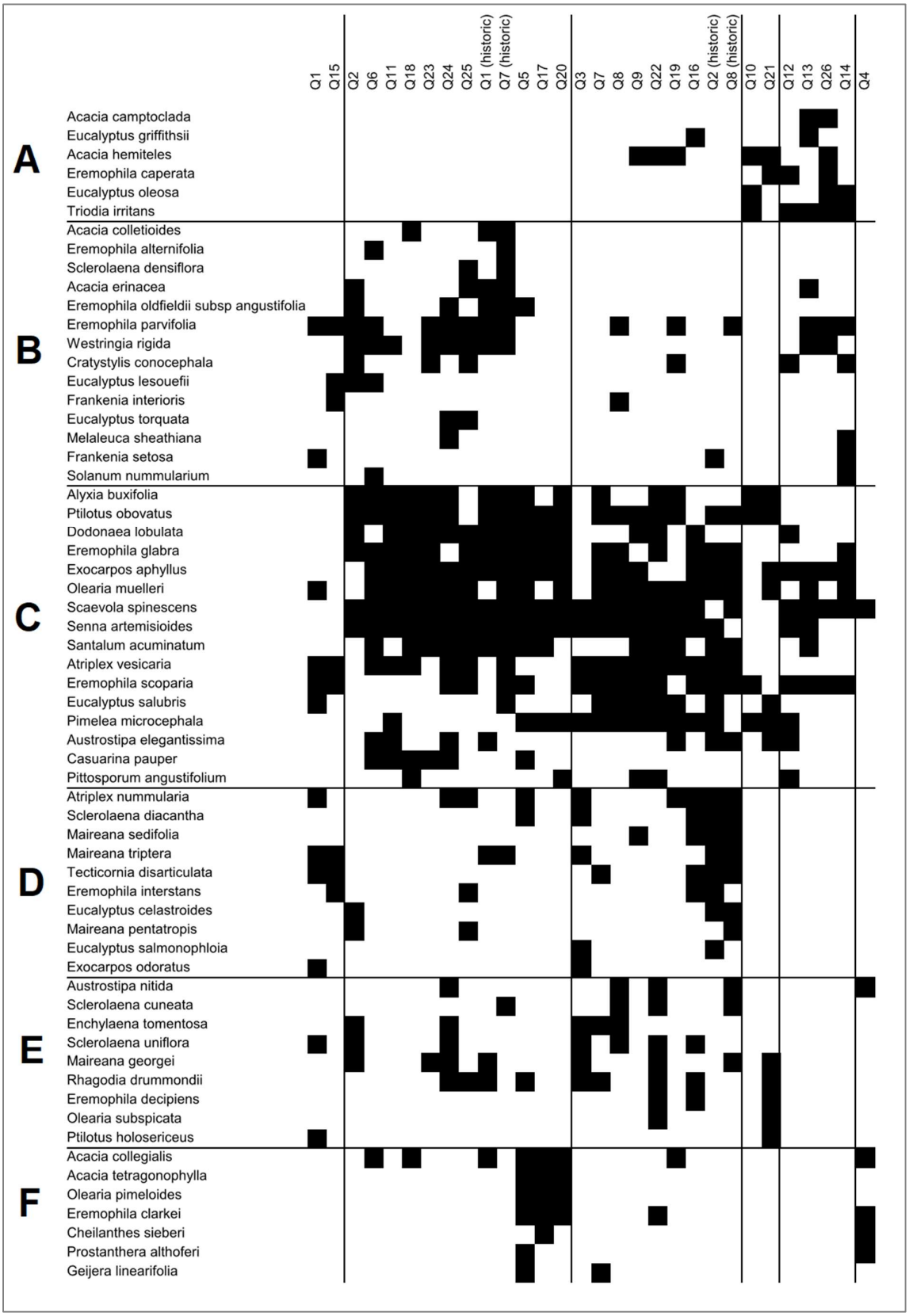
(W) denotes introduced (weed) species; (A) denotes ephemeral (annual) species; (P) denotes Priority species

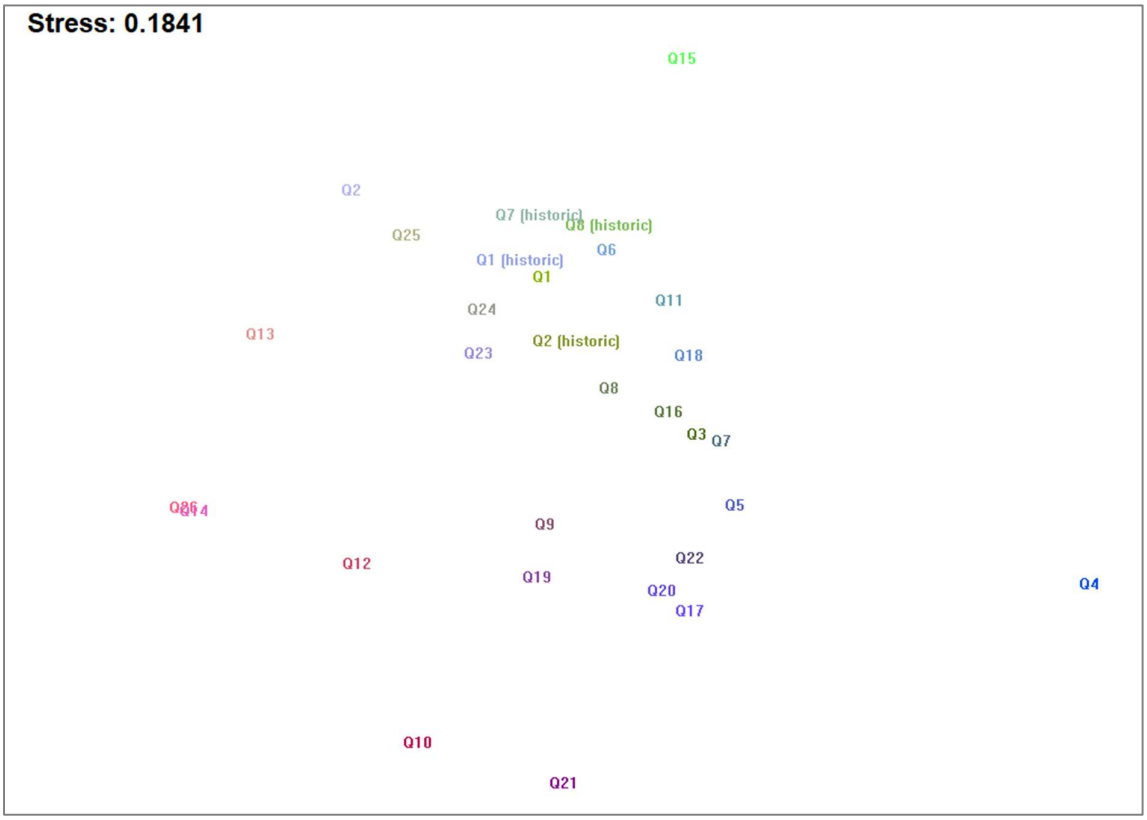
Family	Taxon	CLP-EW1	CLP-EW2	CLP-EW3	RH-EW1	RH-CW1	RH-AS1	SP-EW1
Aizoaceae	*Mesembryanthemum crystallinum (W)*							
Amaranthaceae	*Ptilotus holosericeus*	*						
Amaranthaceae	*Ptilotus obovatus*	*	*	*	*	*	*	*
Apocynaceae	*Alyxia buxifolia*	*		*	*	*	*	*
Apocynaceae	*Leichhardtia australis (A)*	*		*	*	*	*	
Asphodelaceae	*Asphodelus fistulosus (W)*							
Asteraceae	*Brachyscome ciliaris (A)*	*						
Asteraceae	*Calocephalus multiflorus (A)*	*		*				
Asteraceae	*Centaurea melitensis (W)*							
Asteraceae	*Cephalipterum drummondii (A)*						*	
Asteraceae	*Cratystylis conocephala*	*			*	*		*
Asteraceae	*Waitzia acuminata (A)*						*	
Asteraceae	*Olearia muelleri*	*	*	*	*	*	*	*
Asteraceae	*Olearia pimeleoides*					*	*	
Asteraceae	*Olearia subspicata*	*						
Asteraceae	*Oncosiphon suffruticosum (W)*							
Casuarinaceae	*Casuarina pauper*				*	*		
Chenopodiaceae	*Atriplex nummularia*	*	*	*	*	*		
Chenopodiaceae	*Atriplex stipitata*	*						
Chenopodiaceae	*Atriplex vesicaria*	*	*	*	*	*		
Chenopodiaceae	*Enchylaena tomentosa*	*	*		*			
Chenopodiaceae	*Maireana georgei*	*	*	*	*	*	*	
Chenopodiaceae	*Maireana oppositifolia*		*					
Chenopodiaceae	*Maireana pentatropis*			*	*			
Chenopodiaceae	*Maireana sedifolia*	*	*	*				
Chenopodiaceae	*Maireana tomentosa*	*						
Chenopodiaceae	*Maireana triptera*	*	*	*	*		*	
Chenopodiaceae	*Rhagodia drummondii*	*	*		*	*	*	
Chenopodiaceae	*Sclerolaena cuneata*	*		*				
Chenopodiaceae	*Sclerolaena densiflora*			*	*			
Chenopodiaceae	*Sclerolaena diacantha*		*	*		*		
Chenopodiaceae	*Sclerolaena uniflora*	*	*		*			
Chenopodiaceae	*Sclerolaena eurotioides*	*						
Chenopodiaceae	*Tecticornia disarticulata*	*	*	*	*			
Crassulaceae	*Crassula colorata (A)*	*						
Euphorbiaceae	*Euphorbia boophthona (A)*						*	
Fabaceae	*Acacia buxifolia*	*						
Fabaceae	*Acacia camptoclada*							*
Fabaceae	*Acacia collegialis*	*				*	*	
Fabaceae	*Acacia colletioides*			*		*	*	
Fabaceae	*Acacia erinacea*			*	*		*	*
Fabaceae	*Acacia hemiteles*	*						*
Fabaceae	*Acacia tetragonophylla*					*	*	
Fabaceae	*Mirbelia microphylla*						*	
Fabaceae	*Senna artemisioides* subsp. *×artemisioides*						*	

Family	Taxon	CLP-EW1	CLP-EW2	CLP-EW3	RH-EW1	RH-CW1	RH-AS1	SP-EW1
Fabaceae	*Senna artemisioides* subsp. *filifolia*	*	*	*	*	*	*	*
Fabaceae	*Senna cardiosperma*				*			
Frankeniaceae	*Frankenia interioris*	*			*			
Frankeniaceae	*Frankenia setosa*	*	*					*
Goodeniaceae	*Scaevola spinescens*	*	*	*	*	*	*	*
Lamiaceae	*Prostanthera althoferi*					*	*	
Lamiaceae	*Salvia verbenaca (W)*							
Lamiaceae	*Westringia rigida*			*	*	*	*	*
Montiaceae	*Calandrinia eremaea (A)*	*						
Myrtaceae	*Eucalyptus celastroides*		*	*	*			
Myrtaceae	*Eucalyptus griffithsii*		*					*
Myrtaceae	*Eucalyptus horistes*							*
Myrtaceae	*Eucalyptus lesouefii*				*	*		
Myrtaceae	*Eucalyptus oleosa*							*
Myrtaceae	*Eucalyptus salmonophloia*		*					
Myrtaceae	*Eucalyptus salubris*	*	*	*				
Myrtaceae	*Eucalyptus stricklandii*			*				
Myrtaceae	*Eucalyptus torquata*				*			
Myrtaceae	*Melaleuca eleuterostachya*							*
Myrtaceae	*Melaleuca sheathiana*				*			*
Pittosporaceae	*Pittosporum angustifolium*	*				*	*	*
Poaceae	*Aristida contorta (A)*						*	
Poaceae	*Austrostipa elegantissima*	*	*	*	*	*	*	*
Poaceae	*Austrostipa nitida*	*		*	*		*	
Poaceae	*Triodia irritans*							*
Pteridaceae	*Cheilanthes sieberi*						*	
Rutaceae	*Geijera linearifolia*	*				*		
Santalaceae	*Exocarpos aphyllus*	*	*	*	*	*	*	*
Santalaceae	*Exocarpos odoratus*	*	*					
Santalaceae	*Santalum acuminatum*	*	*	*	*	*	*	*
Santalaceae	*Santalum spicatum*			*				
Sapindaceae	*Dodonaea lobulata*	*	*	*	*	*	*	*
Scrophulariaceae	*Eremophila alternifolia*			*		*		
Scrophulariaceae	*Eremophila caperata*	*						*
Scrophulariaceae	*Eremophila clarkei*	*				*	*	
Scrophulariaceae	*Eremophila decipiens*	*	*					
Scrophulariaceae	*Eremophila glabra*	*			*	*	*	*
Scrophulariaceae	*Eremophila glabra*	*						
Scrophulariaceae	*Eremophila glabra* subsp. *glabra*		*	*	*		*	
Scrophulariaceae	*Eremophila interstans* subsp. *interstans*		*		*			
Scrophulariaceae	*Eremophila interstans* subsp. *virgata*		*					
Scrophulariaceae	*Eremophila longifolia*	*						
Scrophulariaceae	*Eremophila oldfieldii* subsp. *angustifolia*			*	*	*	*	
Scrophulariaceae	*Eremophila parvifolia*	*		*	*	*	*	*
Scrophulariaceae	*Eremophila saligna*				*			
Scrophulariaceae	*Eremophila scoparia*	*	*	*	*	*		*
Solanaceae	*Solanum lasiophyllum*					*		
Solanaceae	*Solanum nummularium*					*		*
Thymelaeaceae	*Pimelea microcephala*	*	*			*	*	
Thymelaeaceae	*Pimelea microcephala* subsp. *microcephala*		*					
Zygophyllaceae	*Roepera eremaea (A)*	*	*			*		*
Zygophyllaceae	*Roepera glauca (A)*	*	*	*	*	*	*	

APPENDIX K:
PATN ANALYSIS




Q1
Q15
Q2
Q6
Q11
Q18
Q23
Q24
Q25
Q1 (historic)
Q7 (historic)
Q5
Q17
Q20
Q3
Q7
Q8
Q9
Q22
Q19
Q16
Q2 (historic)
Q8 (historic)
Q10
Q21
Q12
Q13
Q26
Q14
Q4
A
Acacia camptoclada
Eucalyptus griffithsii
Acacia hemiteles
Eremophila caperata
Eucalyptus oleosa
Triodia irritans
B
Acacia colletioides
Eremophila alternifolia
Sclerolaena densiflora
Acacia erinacea
Eremophila oldfieldii subsp angustifolia
Eremophila parvifolia
Westringia rigida
Cratystylis conocephala
Eucalyptus lesouefii
Frankenia interioris
Eucalyptus torquata
Melaleuca sheathiana
Frankenia setosa
Solanum nummularium
C
Alyxia buxifolia
Ptilotus obovatus
Dodonaea lobulata
Eremophila glabra
Exocarpos aphyllus
Olearia muelleri
Scaevola spinescens
Senna artemisioides
Santalum acuminatum
Atriplex vesicaria
Eremophila scoparia
Eucalyptus salubris
Pimelea microcephala
Austrostipa elegantissima
Casuarina pauper
Pittosporum angustifolium
D
Atriplex nummularia
Sclerolaena diacantha
Maireana sedifolia
Maireana triptera
Tecticornia disarticulata
Eremophila interstans
Eucalyptus celastroides
Maireana pentatropis
Eucalyptus salmonophloia
Exocarpos odoratus
E
Austrostipa nitida
Sclerolaena cuneata
Enchylaena tomentosa
Sclerolaena uniflora
Maireana georgei
Rhagodia drummondii
Eremophila decipiens
Olearia subspicata
Ptilotus holosericeus
F
Acacia collegialis
Acacia tetragonophylla
Olearia pimeloides
Eremophila clarkei
Cheilanthes sieberi
Prostanthera althoferi
Geijera linearifolia


Stress: 0.1841
Q15
Q2
Q7 (historic)
Q8 (historic)
Q25
Q6
Q1 (historic)
Q1
Q11
Q24
Q13
Q2 (historic)
Q23
Q18
Q8
Q16
Q3
Q7
Q5
Q9
Q12
Q22
Q19
Q20
Q4
Q17
Q10
Q21

APPENDIX L:
VEGETATION CONDITION RATING

Vegetation Condition Rating	Southwest and Interzone Botanical Provinces	Eremaean and Northern Botanical Provinces
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.	
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor		Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e., areas that are cleared or ‘parkland cleared’ with their flora comprising weed or crop species with isolated native trees or shrubs.



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