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**MINERAL RESOURCES LIMITED
MT MARION PROJECT
RECONNAISSANCE FLORA AND VEGETATION ASSESSMENT**

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EXECUTIVE SUMMARY

Mineral Resources Limited (MRL) are seeking to apply for new native vegetation clearing permits (NVCP) over areas around the Mount Marion mine site. To support NVCP applications a reconnaissance flora, vegetation and targeted flora survey is required. The Mt Marion survey area, which adjoins the Mount Marion mine site, comprises 3,435 ha of remnant vegetation and is located approximately 30 km southwest of Coolgardie in the Goldfields region of Western Australia. Ecologia Environment (*ecologia*) was engaged by Mineral Resources Limited to undertake a reconnaissance flora and vegetation survey of the survey area to support environment approvals and potential development. The survey was undertaken between 20 October to 23 October 2021.

A total of 173 vascular plant taxa were recorded within the survey area. No EPBC Act (1999) or BC Act (2016) listed Threatened species were recorded, while two DBCA listed Priority species were recorded: *Acacia websteri* (P1); and *Eremophila acutifolia* (P3). Five introduced species were recorded none of which are listed as Declared Pests or Weeds of National Significance (WONS).

Flora was sampled and vegetation descriptions recorded at 69 vegetation description sites. A total of seven vegetation types were described and mapped. The survey area is dominated by two vegetation types: *Eucalyptus griffithsii* low open woodland over *Austrostipa scabra* subsp. *scabra* sparse grassland on plains and undulating plains and *Acacia acuminata* mid to tall sparse shrubland over *Triodia scariosa* hummock grassland. Vegetation within the survey area was mostly in 'Excellent' condition.

Vegetation types within the survey area were also assessed for National, State, Regional, and Local significance. There were no plant communities observed within the survey area that corresponded to any state (DBCA) or Commonwealth (EPBC Act) listed Threatened Ecological Community (TEC), nor any state listed Priority Ecological Community (PEC). Vegetation type EW03 may be of local significance due to its the locally restricted extent, which represents 1% (33 ha) of the survey area.

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ABBREVIATIONS

BAM Act	<i>Biosecurity and Agriculture Management Act 2007</i>
BC Act	Biodiversity Conservation Act 2016
BOM	Bureau of Meteorology
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAWE	Department of Agriculture, Water and the Environment (previously DoEE)
DBCA	Department of Biodiversity, Conservation and Attractions (previously DPaW)
DoEE	Department of Environment and Energy (previously DSEWPaC, now DAWE)
DPaW	Department of Parks and Wildlife (now DBCA)
DPIRD	Department of Primary Industry and Regional Development
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DAWE)
EPA	Environment Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESCAVI	Executive Steering Committee for Australian Vegetation Information
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for Conservation of Nature
NVIS	National Vegetation Information System
PEC	Priority Ecological Community
TEC	Threatened Ecological Community
TPFL	Threatened and Priority Flora List database
TPFR	Threatened and Priority Flora Report form
WA	Western Australia
WAH	Western Australian Herbarium
WAHERB	Western Australian Herbarium Specimen Database
WAOL	Western Australian Organism List
WAOL	Western Australian Organism List
WONS	Weeds of National Significance

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

Mineral Resources Limited (MRL) are seeking to apply for a new native vegetation clearing permits (NVCP) over areas around the Mount Marion mine site. To support NVCP applications a reconnaissance flora, vegetation and targeted flora survey is required. The survey area which adjoins the Mount Marion mine site comprises 3,435 ha of remnant vegetation located approximately 30 km southwest of Coolgardie in the Goldfields region of Western Australia (Figure 1.1). Ecologia Environment (*ecologia*) was engaged by MRL to undertake a reconnaissance flora and vegetation survey of the survey area to delineate key flora, fauna, soil, groundwater and surface water conservation values and potential sensitivity to impact. Information supplied by the survey will be used to inform the environmental assessment and approvals process and may also assist in preparation of a Clearing Impact Assessment (CIA) and may be used in State or Commonwealth referral documentation.

1.2 SURVEY OBJECTIVES

The following were provided as part of the flora and vegetation assessment:

- A desktop assessment to evaluate biological values of the survey area and surrounds, including a review of existing physical and biological values, significant species and communities, and other relevant available data.
- A single-phase reconnaissance flora and vegetation survey in accordance with the *Technical Guidance* (EPA 2016b).
- Targeted searches for significant plant species and communities (see Appendix A for definitions).
- A plant species inventory, including all native and introduced species.
- An inventory of significant plant species, and an assessment of their local and regional distribution (if present).
- An inventory and a map of Weeds of National Significance (WONS) and Declared Pests (if present).
- Classification, characterisation, and mapping of vegetation types.
- Assessment and mapping of vegetation condition.
- An assessment of vegetation significance at a National, State, regional, and local level.

1.3 LEGISLATIVE AND REGULATORY FRAMEWORK

The Environmental Protection Authority's (EPA) environmental objectives for the factors *Flora and Vegetation* (EPA 2016a) and *Terrestrial Fauna* (EPA 2020) are to protect fauna, flora and vegetation so that biological diversity and ecological integrity are maintained. In this context, 'ecological integrity' is the composition, structure, function and processes of ecosystems, and the natural range of variation of these elements. The primary objective of this flora and fauna assessment was to provide sufficient information to assess the impact of any proposed development on the fauna, flora, and vegetation of the survey area, thereby ensuring that the EPA's objectives can be met.

The survey was designed and undertaken to comply with the following guidance documents:

- Environmental Factor Guideline: Flora and Vegetation (EPA 2016a).
- Technical Guidance: Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016b).

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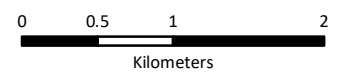


▭ Survey area
○ Study area
■ Town
— Roads

Figure 1.1: Location of the survey area.


 Project: 1901
 Date: 3 December 2021
 Author: RS
 Coordinate System: GDA 1994 MGA Zone 51
 Projection: Transverse Mercator
 Absolute Scale: 1:50,000 @A3

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



2 METHODOLOGY

2.1 DESKTOP ASSESSMENT

The methodology adopted for the desktop assessment was in accordance with the *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016b) and *Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA 2020). A review of background environmental information for the survey area was undertaken, including, but not limited to, climate (BoM 2021) (BoM), biogeography (IBRA 7) (DSEWPaC 2012a), soil-landscape systems (land systems) (DPIRD 2016), the Atlas of Australian Soils spatial dataset (Northcote *et al.* 1960-1968), the Surface Geology of Australia 1:1M spatial dataset (Geoscience Australia 2012), and pre-European native vegetation of Western Australia (Shepherd *et al.* 2002).

Searches of the databases listed in Table 2.1 were undertaken to determine the significant species and ecological communities previously recorded within 50 km of the survey area. The criteria listed in Table 2.2 were then applied to determine the likelihood of occurrence of these species and communities within the survey area. To assist in the assessment, habitat preferences were sourced, where available, from relevant taxonomic literature, FloraBase records (Western Australian Herbarium 1998–), Threatened Species Profiles (SPRATs), or specimen data from the Australasian Virtual Herbarium (AVH) database (CHAH 2017). Herbarium catalogue numbers are provided if habitat information was derived from specimen data.

Table 2.1: Databases queried for the desktop assessment.

Database	Search details
EPBC Act Protected Matters database	Records of matters of national significance under the EPBC Act within 50 km of the survey area
DBCA Threatened and Priority Ecological Communities Database	TECs and PECs within 50 km of the survey area
DBCA Threatened and Priority Flora Database	Significant plant records within 50 km of the survey area
DBCA NatureMap Database	All flora and fauna records within 40 km of the survey area.

Table 2.2: Criteria used to assess the likelihood of occurrence of significant species and communities.

Rating	Criterion
Recorded	The species/community has been recorded within the survey area previously or during the current survey.
Likely	The species/community is likely to occur within the survey area as suitable habitat is known to be present and there are existing records very close to the survey area (within ca. 10 km).
Possible	The species/community may occur within the survey area as there are existing records in the vicinity of the survey area (ca. 10 – 40 km), and suitable habitat is likely to be present; or The species/community may occur within the survey area as there is insufficient information available to exclude the possibility of occurrence.
Unlikely	The species/community is unlikely to occur within the survey area as suitable habitat is not present or is not likely to be present; or Suitable habitat is present within the survey area, but the taxon/community has not been recorded despite reasonable survey effort.
Does not occur	The community is an existing regionally mapped vegetation association (e.g. Shepherd <i>et al.</i> 2002) or land system (e.g. DPIRD 2016) which does not occur within the survey area; or The species is recognised as being locally extinct or extinct in the wild and does not occur within the survey area.

2.2 FLORA AND VEGETATION ASSESSMENT

2.2.1 Field Survey

The reconnaissance flora and vegetation survey of the survey area was conducted by two *ecologia* botanists over four days from 20 October to 23 October 2021. The survey was completed in accordance with the Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016b), primarily by sampling vascular plant species at vegetation description sites. To provide a more comprehensive species inventory for the survey area, vegetation description sampling was supplemented by additional opportunistic sampling along transects between sites.

2.2.2 Vegetation Description Sampling

Sampling site locations were selected using a combination of aerial photography, topographic features, landforms, and field observations to represent the geomorphological and floristic variation found within the survey area. Sites were positioned to avoid transition zones between plant communities and were preferentially placed in areas of intact mature vegetation and minimal disturbance.

Sixty-nine sampling sites were assessed within the survey area. All vegetation description sites sampled dominant flora within 20m. Where possible, at least three sites were sampled within each structurally distinctive plant community identified during the desktop assessment and field survey. However, as final vegetation types are classified post-survey they cannot be determined until the field survey and data analysis has been completed. Therefore, the final vegetation types may in some cases be represented by fewer than three sites.

The following parameters were recorded from each vegetation description site:

- Site code.
- GPS coordinate of all corners (central location for vegetation description site).
- Photograph.
- A species list (including introduced species) and the dominant stratum and estimated percentage foliage cover (using a variant of the Domin scale) of each species.
- Vegetation condition (Table 2.3) and description of disturbance.
- Additional information to assist vegetation characterisation, including landform, slope, soil type, surface geology, and fire history.

2.2.3 Significant Species

Targeted searches for significant plant species identified from the desktop assessment was undertaken along transects in areas of potential suitable habitat, and within representative areas of each of the major landforms and plant communities present within the survey area. Where significant species were observed the following parameters were recorded: location (for individual or localised plants) or population boundary (for more extensive populations, time permitting); number of plants (count, for individual or localised plants) or estimated number of plants for more extensive populations; reproductive state; plant community; and landform.

2.2.4 Specimen Identification

Specimen identification was undertaken with reference to current taxonomic literature and herbarium reference specimens. Scientific names used in this report follow the species concepts currently adopted by the Western Australian Herbarium. Specimens that could not be adequately identified to genus or species level due to the absence of reproductive material required for positive identification were indicated with a query but were not considered to be otherwise anomalous.

2.2.5 Vegetation Description

Vegetation units were determined post-field survey by consolidating data from vegetation description sites. Local scale vegetation units were given descriptions consistent with NVIS Level V – Association (Executive Steering Committee for Australian Vegetation Information 2003), which includes the structural features and dominant or diagnostic species of the unit. Plant communities are naturally variable across wide geographic areas; therefore, species used in descriptions are those that are most characteristic of the vegetation unit but were not necessarily recorded at all sites. Species that are recorded as sometimes dominant in a vegetation unit are indicated in the description by “+/-” (Executive Steering Committee for Australian Vegetation Information 2003). The mapping codes used correspond to the most dominant structural formation class (NVIS) present within the type (e.g. W for woodlands, SH for shrublands, HG for hummock grasslands etc.).

2.2.6 Vegetation Mapping

Preliminary vegetation mapping of survey area was undertaken prior to the survey and in the field using aerial imagery and data from ground-truthed sites. Vegetation types were then determined post-survey using the floristic classification methods described above and applied to these ground-truthed areas. Vegetation type boundaries were refined using aerial imagery in ESRI ArcMap v.10.8. Extrapolative mapping was undertaken in areas that could not be ground-truthed and was based on observed similarities in spectral and structural features between ground-truthed sites and unvisited areas.

Vegetation condition mapping was undertaken in a similar manner, with reference to the condition recorded at sampled sites using the EPA scale (EPA 2016b) (Table 2.3), opportunistic observations, and aerial imagery. In some cases, small changes in vegetation condition over large areas could not be perceived from aerial imagery or feasibly mapped in the field; in such cases a range of vegetation conditions was given.

Table 2.3: EPA vegetation condition scale (EPA 2016).

Vegetation condition	Criterion (Eremaean and Northern botanical provinces)
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
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.
Good	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	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	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.

2.2.7 Assessment of Vegetation Significance

Vegetation types described for the survey area were assessed at a National, State, regional, and local level to assist the environmental impact assessment (EIA) process. Each vegetation type was assessed against the following 10 criteria:

Nationally Significant Vegetation

1. Vegetation supporting populations of Threatened (EPBC listed) plant species.
2. Vegetation which corresponds to a nationally (EPBC) listed Threatened Ecological Community.
3. Vegetation which includes Ramsar wetlands and Nationally Important (DIWA) wetlands.

State Significant Vegetation

4. Vegetation supporting populations of Threatened (DBCA listed) plant species.
5. Vegetation which corresponds to a State listed (DBCA) listed Threatened Ecological Community.
6. Vegetation occurring within a State-managed conservation estate (areas protected under the *Conservation and Land Management Act 1984*) or areas that have been formally recommended by DBCA for inclusion in the State conservation estate.

Regionally Significant Vegetation

7. Vegetation corresponding to a State (DBCA) listed Priority Ecological Community.
8. Vegetation supporting currently undescribed plant species.
9. Vegetation that is represented by less than 30% of their pre-European extent. This criterion was assessed using the vegetation association mapping of Shepherd *et al.* (2002).

Locally Significant Vegetation

10. Vegetation with a limited local extent. In this context, vegetation types accounting for equal to or less than 1% of the total survey area.

2.3 STUDY TEAM AND LICENCES

The flora, vegetation and fauna assessments were undertaken by those summarised in Table 2.4.

Table 2.4: Project staff and licences.

Project staff			
Name	Qualification	Role	Project role
Shaun Grein	B.App. Sc (Biol.); Grad. Dip. Nat. Resources; MBA	Managing Director/Senior Principal Scientist	Project management, QA
Andrew Craigie	B.Sc (Hons.) (Botany); PhD (Botany)	Principal Botanist	Specimen identification, QA
Catherine Krens	B.Sc (Env. Sci.)	Senior Botanist	Field survey
Rob Sellers	B.Sc (Cons. Biol. and Mngment)	Level 2 Botanist	Field survey, reporting
Licences - "Flora Taking (Biological Assessment) Licence"			
Rob Sellers	Flora Taking (Biological Assessment) Licence: FB2000198 (exp. 10/12/2022) Authorisation to Take or Disturb Threatened Species: TFL 138-1920 (exp. 31/03/2023)		
Catherine Krens	Flora Taking (Biological Assessment) Licence: FB62000188 (exp. 19/11/2022)		

2.4 LIMITATIONS AND CONSTRAINTS

An assessment of survey-specific issues and limitations is detailed in Table 2.5 and **Error! Reference source not found.**

Table 2.5: Flora and vegetation survey limitations.

Aspect	Assessment
Availability of contextual information at a regional and local scale	Broad vegetation, land system, soil, and geology mapping data were available for the survey area, in addition to DBCA Threatened and Priority Ecological Community spatial data. This information was adequate to provide appropriate contextual information for the survey.
Competency/experience of the team carrying out the survey, including experience in the bioregion surveyed	The personnel undertaking field work and specimen identification were suitably qualified and have conducted numerous botanical surveys within south-west interzone botanical province.
Proportion of flora recorded and/or collected, any identification issues	All species encountered during the survey were recorded within sampling sites or opportunistically. Representative specimens of all taxa recorded in the field were collected for confirmation. Several of these could not be identified to species level due to a lack of required reproductive material. However, a small number of unidentified samples is unlikely to have had any significant impact on the classification of plant communities. None of these specimens were believed to correspond to any significant species nor were any considered to be anomalous.
Was the appropriate area fully surveyed (effort and extent)	Vegetation description sampling was undertaken throughout all representative major landforms and plant communities. In most cases, at least three sites were surveyed in each of the described vegetation types. Targeted surveys for significant plant species were undertaken on foot within representative areas of each of the major landforms and vegetation types present within the survey area. The survey area was not systematically searched, the presence of unobserved significant flora within the survey area is possible.
Access restrictions within the survey area	No significant limitations.
Survey timing, rainfall, season of survey	The survey was conducted in October 2021, during the primary survey season for flora and vegetation surveys in the south-west interzone botanical province. Above average rainfall was recorded in the 12 months prior to the survey in the vicinity of the survey, and overall seasonal conditions were considered suitable for a reconnaissance flora and vegetation survey.
Disturbance that may have affected the results of survey such as fire, flood or clearing	No significant limitations.

3 DESKTOP ASSESSMENT

3.1 PHYSICAL ENVIRONMENT

3.1.1 Climate

The study area is located within the Coolgardie region of Western Australia, a region that experiences an arid to semiarid climate with between 200 and 300 mm of rainfall annually. Rainfall is irregular in the area with long periods between significant rainfall.

Climate data from the nearest long-term (since 1939) Bureau of Meteorology (BOM) weather station were obtained from Kalgoorlie-Boulder (Station No. 12038) (BoM 2020) which is located approximately 35 km north the survey area (Figure 3.1). Rainfall in Kalgoorlie area over the 12 months prior to the survey was approximately 115% of mean annual rainfall (264.9 mm). Maximum daytime temperature can reach above 40°C between October and April and minimum temperatures can drop below 5°C between April and November.

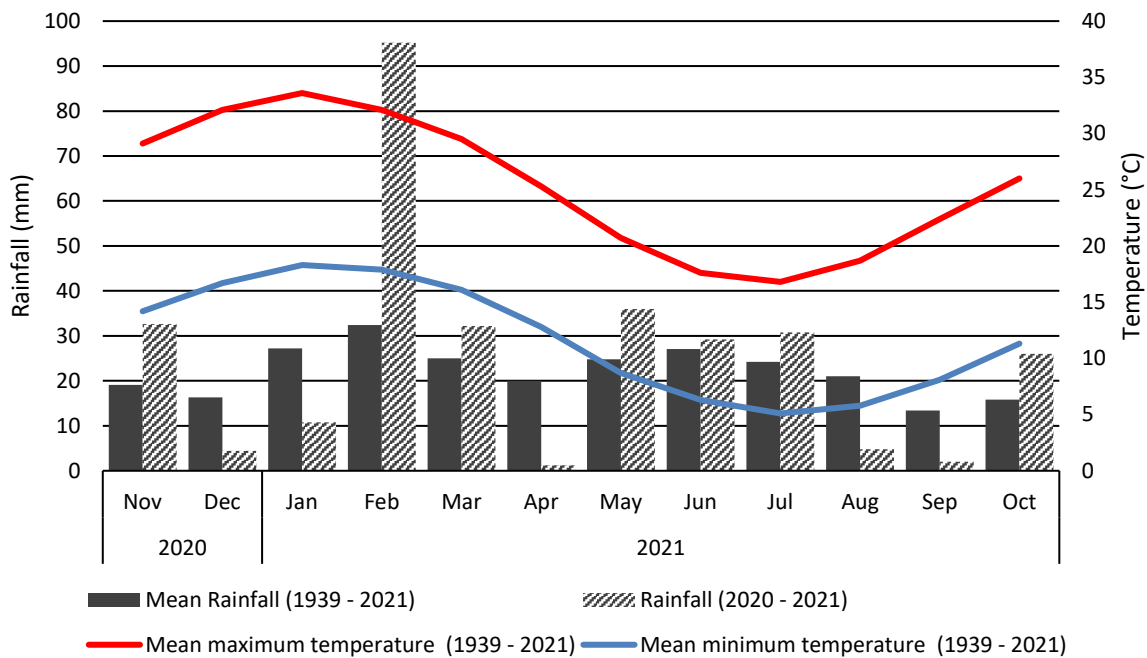


Figure 3.1: Climate data from Kalgoorlie-Boulder Airport BoM station.

3.1.2 IBRA 7 Bioregions

The Interim Biogeographic Regionalisation for Australia (IBRA) classifies the Australian continent into regions or bioregions on the basis of similar geology, landform, vegetation, fauna and climate characteristics (Department of Sustainability Environment Water Population and Communities 2012a). The survey area is situated within the Coolgardie bioregion according to IBRA 7 (Department of Sustainability Environment Water Population and Communities 2012). The Coolgardie region is further divided three subregions: Mardabilla (COO01); Southern Cross (COO02); and Eastern Goldfield (COO03). The survey area is located within the Eastern Goldfield subregion (Figure 3.2).

The Eastern Goldfield subregion covers a total area of approximately 5,102,428 ha, with subdued relief of gently undulating plains and low hills and ridges in the east and west. The vegetation is of mallees, *Acacia* thickets and shrub-heaths on sandplains. Eucalypt woodlands occur around salt lakes, on ranges, and in valleys (Cowan 2001).

3.1.3 Soil-landscape Mapping

In 2016 the Department of Primary Industries and Regional Development consolidated soil-landscape mapping of Western Australia from two technical reports created by the Department of Agriculture and Food (Department of Agriculture Resource Management Technical Reports RMTR No. 280 (Purdie *et al.* 2016) and RMTR No. 313 (Tille 2006)). The resulting spatial dataset, *Soil-landscape mapping covering Western Australia at the best available scale (Version 05.01)* (DPIRD 2016), is a compilation of various surveys at different scales varying between 1:20,000 and 1:3,000,000. Mapping conforms to a nested hierarchy established to deal with the varying levels of information resulting from the variety of scales in mapping to provide soil-landscape data for all Western Australia. Three soil-landscape units are associated with the survey area (Table 3.1, Figure 3.3).

Table 3.1: Soil-Landscape units associated with the survey area (Northcote et al. 1960-1968).

Map unit	Soil-landscape unit	Description	Extent within survey area (ha)
10916	Mx41	Flat to undulating pediments marginal to unit AC1; granitic rock outcrop; some low escarpments.	2,289.32 (66.6%)
10917	Mx42	Broad flat to undulating valleys with isolated granitic rock outcrops and some low escarpments; some seasonal lakes and clay pans.	894.33 (26.04%)
10919	My154	Undulating country on acid volcanic rocks and sedimentary materials.	251.28 (7.32%)

3.1.4 Surface Geology of Australia

The Surface Geology of Australia 1:1,000,000 scale spatial dataset is a seamless national coverage of outcrop and surficial geology (Geoscience Australia 2012). Four surface geological units are associated with the survey area (Table 3.2, Figure 3.4).

Table 3.2: Surface geology associated with the survey area (Geoscience Australia 2012).

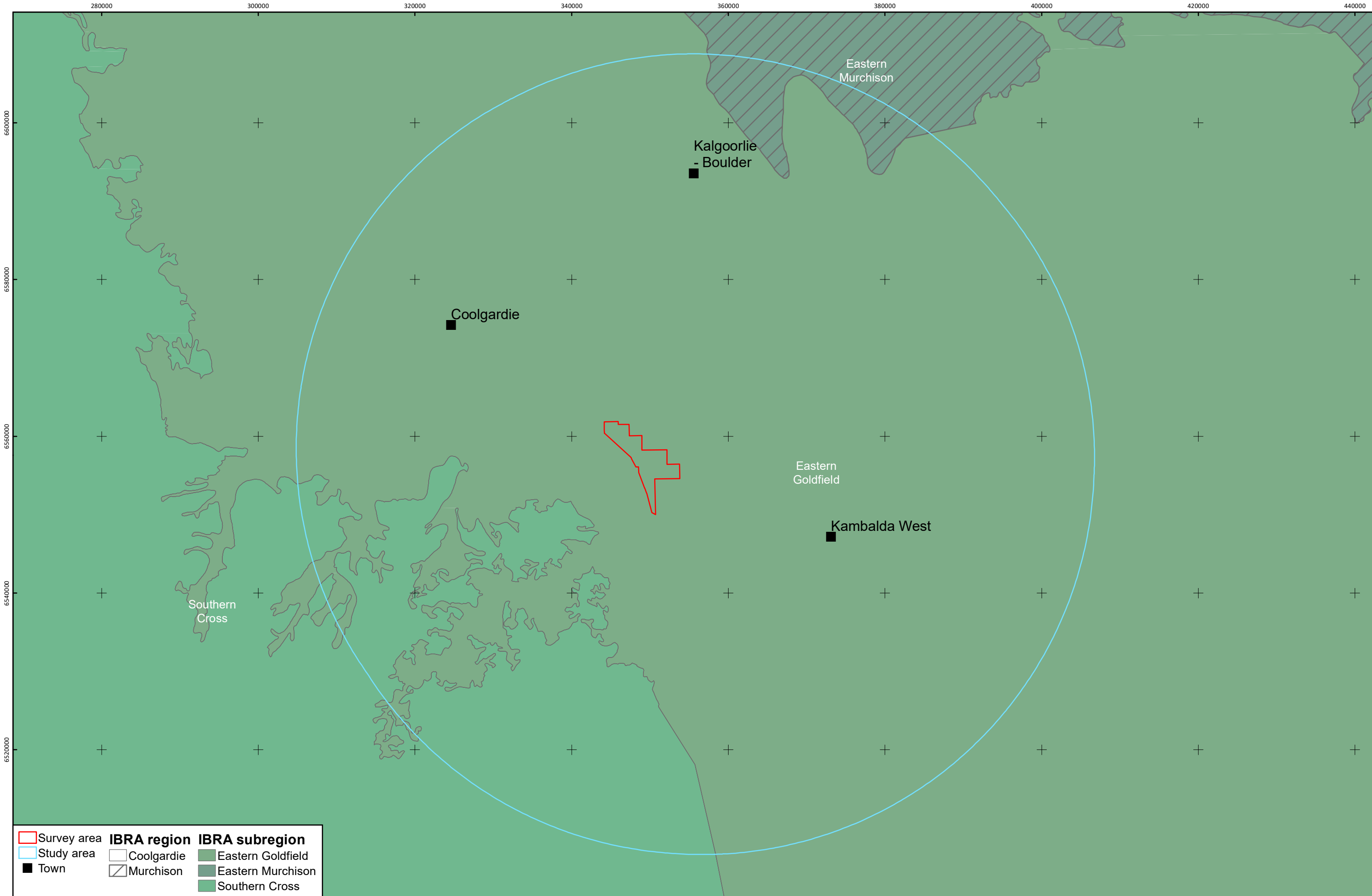
Map symbol	Geological unit	Description	Extent within survey area (ha)
Agmd	Depot Granodiorite	Hornblende granodiorite and tonalite with scattered microcline phenocrysts; mafic granite.	2,099.65 (61.1%)
Ase	Sedimentary rocks 74322	Phyllitic schist, siltstone, sandstone, greywacke, pelite, conglomerate, quartzite, phyllite, shale, slate, claystone, chert, minor felsic volcanic and volcanoclastic rocks; arkose, para- and orthoamphibolites; rare, banded iron formation.	63.82 (1.9%)
Czl	Ferruginous duricrust 38498	Ferruginous duricrust, laterite; pisolitic, nodular, vuggy; may include massive to pisolitic ferruginous subsoil, mottled clays, magnesite, reworked products of ferruginous and siliceous duricrusts, calcrete, gossan; residual ferruginous saprolite.	4.98 (0.1%)
Qrc	Colluvium 38491	Colluvium and/or residual deposits, sheetwash, talus, scree; boulder, gravel, sand; may include minor alluvial or sand plain deposits, local calcrete and reworked laterite.	1,266.49 (36.9%)

3.1.5 Atlas of Australian Soils

The Atlas of Australian Soils (Northcote *et al.* 1960-1968) was compiled by the CSIRO in the 1960's to provide a consistent national description of Australia's soils. The original maps used scales from 1:250,000 to 1:500,000. In 1991 the National Resource Information Centre used these maps to create the Digital Atlas of Australian Soils which describes over 14,000 soil units and their distribution across Australia. Four soil types of the Atlas of Australian Soils are associated with the survey area (Table 3.3, Figure 3.5).

Table 3.3: Atlas of Australian Soil units associated with the survey area (Northcote *et al.* 1960-1968).

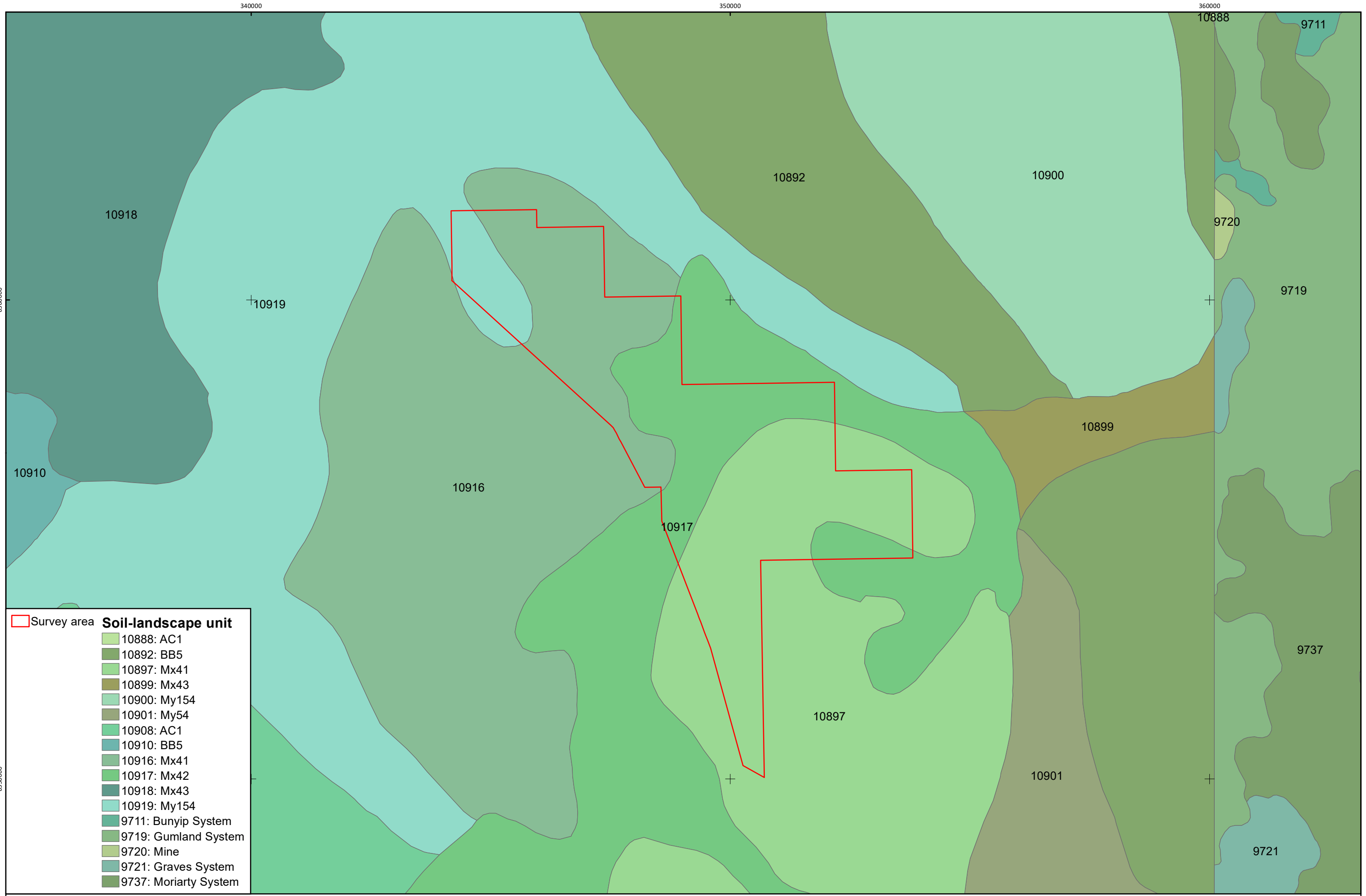
Soil unit	Description	Extent within survey area (ha)
BB5	Rocky ranges and hills of greenstones--basic igneous rocks: chief soils seem to be shallow calcareous loamy soils (Um5.11) and similar soils such as (Um5.41) and (Um1.43) in Sheet 10 areas, with shallow brown and grey-brown calcareous earths (Gc1.12) and (Gc1.22) below which weathered rock occurs at shallow depths. Associated soils are not described but may include alkaline red earths (Gn2.13) and narrow valleys with (Ug5.38) soils in Sheet 10 areasBB5 Rocky ranges and hills of greenstones (basic igneous rocks): chief soils seem to be shallow calcareous loamy soils (Um5.11) and similar soils with shallow brown and grey-brown calcareous earths (Gc1.12) and (Gc1.22), below which weathered rock occurs at shallow depths. Associated soils are not described but may include alkaline red earths (Gn2. 13).	0.14 (<0.1%)
Mx41	Flat to undulating pediments marginal to unit AC1; granitic rock outcrop; some low escarpments: chief soils are alkaline red earths (Gn2.13), often underlain by nodular limestone pans at shallow depth (<24in.). Associated may be small areas of (Dy) and (Dr) soils as for units Ya28 and Nc2. Small patches of the soils of unit AC1 may be included.	1,131.11 (32.9%)
Mx42	Broad flat to undulating valleys with isolated granitic rock outcrops and some low escarpments; some seasonal lakes and clay pans: chief soils are alkaline red earths (Gn2.13) with nodular limestone pans, and calcareous earths (Gc1.12) on low rises. Associated are (Uc5.21) soils near granitic outcrops; areas of (Uc5.22) and (KS-Uc) soils marginal to unit AC1; and small areas of (Dy) soils, such as (Dy4.33), and the soils of unit Ya28.	1,529.06 (44.5%)
My154	Undulating country on acid volcanic rocks and sedimentary materials: chief soils are probably neutral red earths (Gn2.12) with a variable content of ironstone gravel. Other soils, such as (Gn2.13) and (Gc) soils, may occur also.	774.56 (22.5%)



Survey area	IBRA region	IBRA subregion
Study area	Coolgardie	Eastern Goldfield
Town	Murchison	Eastern Murchison
		Southern Cross

Figure 3.2: IBRA 7 regions and subregions (DSEWPaC 2012).





Survey area **Soil-landscape unit**

- 10888: AC1
- 10892: BB5
- 10897: Mx41
- 10899: Mx43
- 10900: My154
- 10901: My54
- 10908: AC1
- 10910: BB5
- 10916: Mx41
- 10917: Mx42
- 10918: Mx43
- 10919: My154
- 9711: Bunyip System
- 9719: Gumland System
- 9720: Mine
- 9721: Graves System
- 9737: Moriarty System

Figure 3.3: Soil-landscape units (DPIRD 2016).



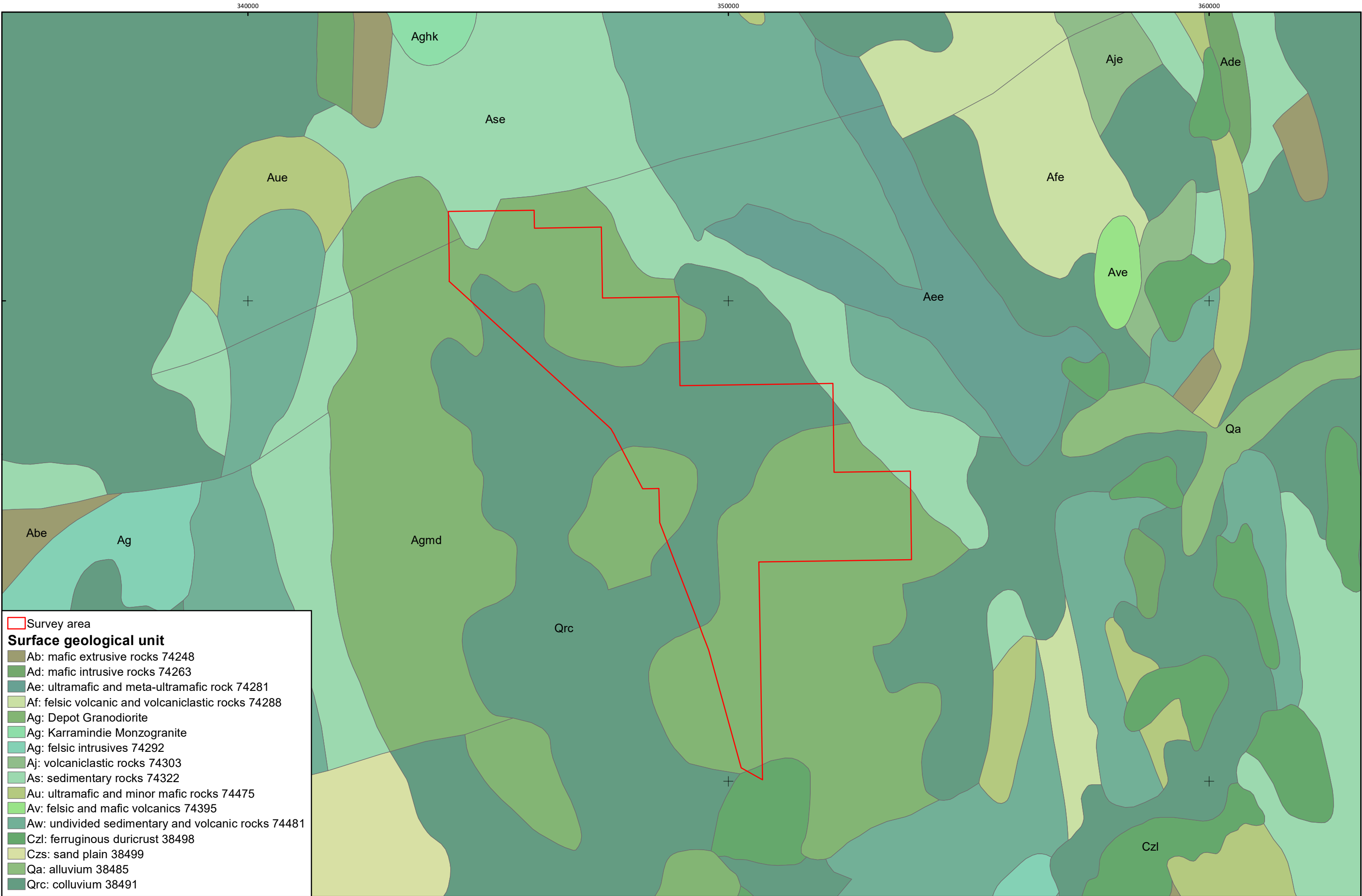
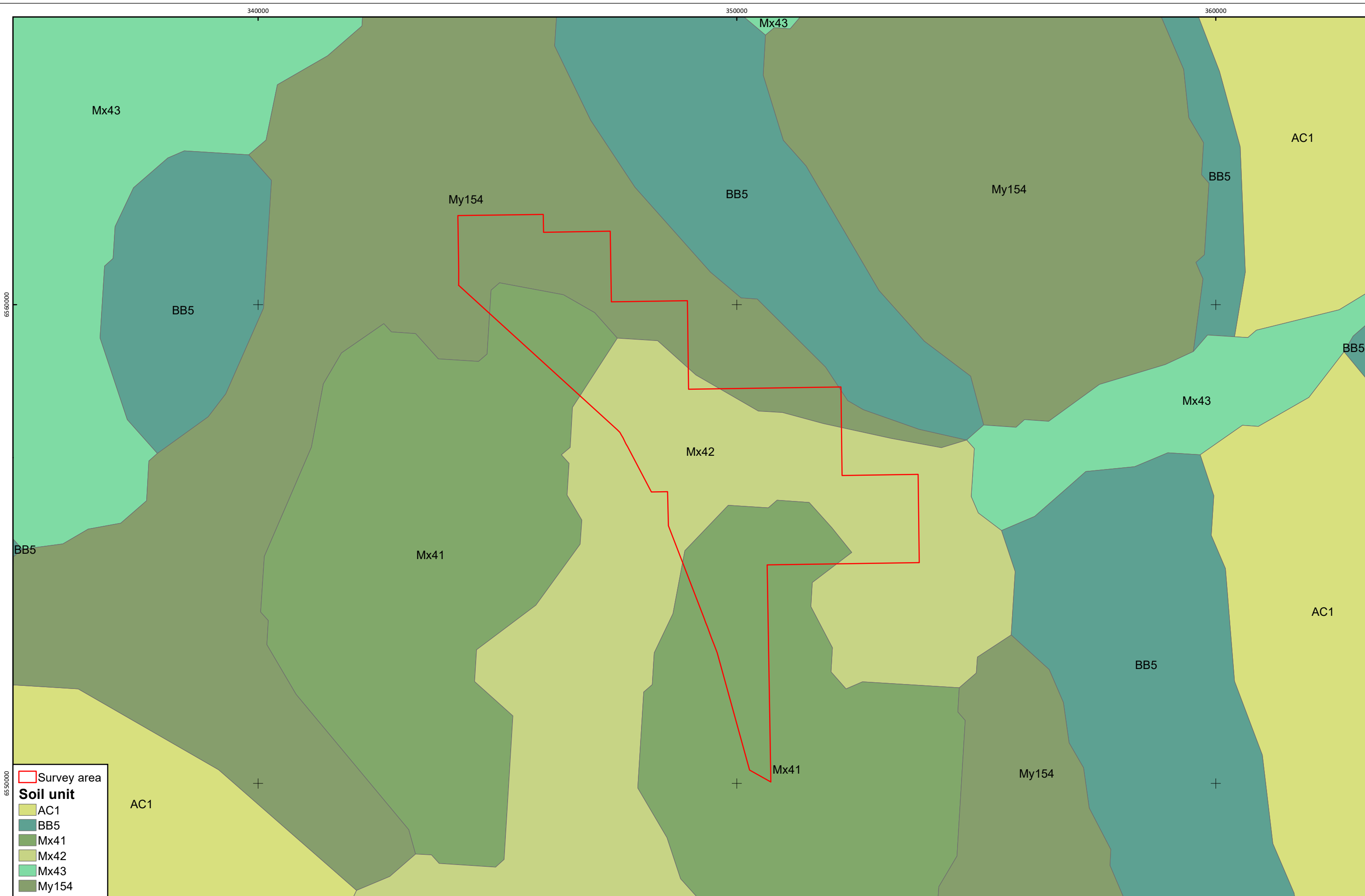


Figure 3.4: Surface geology (1:1,000,000) of the survey area (Geoscience Australia 2012).





Survey area
Soil unit
 AC1
 BB5
 Mx41
 Mx42
 Mx43
 My154

Figure 3.5: Atlas of Australian Soils map units associated with the survey area (Northcote et al. 1960-1968).



3.2 FLORA

3.2.1 Floristic Diversity

According to NatureMap (DBCA 2007 –), a total of 745 vascular plant taxa (including species, infraspecific taxa, and phrase name taxa), from 73 families and 282 genera, have been recorded from the vicinity of the survey area (Appendix B). The most diverse families are the Myrtaceae (100 taxa), Fabaceae (97 taxa), Asteraceae (83 taxa), and Chenopodiaceae (70 taxa). The most diverse genera are *Acacia* (53), *Eucalyptus* (50), *Eremophila* (35), *Maireana* (19), and *Grevillea* (18).

3.2.2 Significant Species

TPFL and WAHERB database searches identified 66 significant plant taxa within the desktop study area, including two Threatened taxa, 23 Priority 1 taxa, 11 Priority 2 taxa, 25 Priority 3 taxa, and five Priority 4 taxon (Table 3.4, Figure 3.6). The likelihood of each taxon occurring within the survey area was assessed (Table 3.4) using the criteria outlined in Section 2.1.

Based on the proximity of previous records and the potential presence of suitable habitat, 49 taxa potentially occur within the survey area ('likely' and 'possible' ratings) (Table 3.4). Seventeen taxa were considered unlikely to occur due to the probable absence of suitable habitat within the survey area or because they are known to have very restricted distributions and have not been recorded in the vicinity of the survey area (Table 3.4). A taxon assessed as 'unlikely' does not preclude its presence within the survey area.

3.2.3 Introduced Species

A search of the NatureMap database identified 59 introduced (weed) species occurring within 50 km of the survey area (Table 3.5). Four species are listed as a Weed of National Significance (WONS) (DSEWPac 2012b): (**Cylindropuntia fulgida var. mamillata*, **Cylindropuntia tunicate*, **Lantana camara* and **Opuntia elata*). Five species are classified as a Declared Pest according to the Western Australian Organism List (WAOL) (DPIRD 2007–): (**Cylindropuntia fulgida var. mamillata*, **Cylindropuntia tunicate*, **Echium plantagineum*, **Lantana camara* and **Opuntia elata*). Eight species have high ecological impact rating and rapid invasiveness rating (**Carrichtera annua*, **Carthamus lanatus*, **Cenchrus ciliaris*, **Cylindropuntia fulgida var. mamillata*, **Marrubium vulgare* and **Centaurea melitensis*).

Table 3.4: Significant plant species recorded within 50 km of the survey area.

Taxon	Status	Habitat	Flowering period	Notes	Likelihood of occurrence pre-survey
<i>Acacia coatesii</i>	P1	Shallow, red sandy clay on flat or gently sloping ground. Open <i>Eucalypt</i> woodland.	September to October	5 record/s within 50 km, most recent 2013.	Possible
<i>Acacia crenulata</i>	P3	Clay, sandy clay, yellow sand. Rocky rises, granite outcrops, breakaways.	Unknown	6 record/s within 50 km, most recent 2019.	Possible
<i>Acacia kerryana</i>	P2	Granitic loamy sand, stony clayey loam or clayey sand. Low stony ridges, undulating plains.	October to February	1 record/s within 50 km, most recent 1981.	Possible
<i>Acacia sclerophylla</i> var. <i>teretiuscula</i>	P1	Clay & loamy soils.	September to October	1 record/s within 50 km, most recent 1968.	Possible
<i>Acacia websteri</i>	P1	Red sand, clay or loam. Low-lying areas, flats.	Unknown	1 record/s within 10 km, 25 record/s within 50 km, most recent 2013.	Likely
<i>Allocasuarina eriochlamys</i> subsp. <i>grossa</i>	P3	Stony loam, laterite clay. Granite outcrops.	Unknown	2 record/s within 50 km, most recent 1997.	Possible
<i>Alyogyne</i> sp. Great Victoria Desert (D.J. Edinger 6212)	P3	Unknown.	August or December	1 record/s within 50 km, most recent unknown.	Possible
<i>Alyxia tetanifolia</i>	P3	Brown sandy clay, loam, concretionary gravel. Drainage lines, near lakes.	May to June or November	5 record/s within 50 km, most recent 2008.	Possible
<i>Austrostipa blackii</i>	P3	Unknown	September to November	2 record/s within 50 km, most recent 2011.	Possible
<i>Austrostipa</i> sp. Carlingup Road (S. Kern & R. Jasper LCH 18459)	P3	*Gently inclined crest of basalt and minor quartz with red-brown shallow sandy clay loam soils.	Unknown	4 record/s within 50 km, most recent 2011.	Possible
<i>Austrostipa</i> sp. Dowerin (G. Wiehl F 8004)	P2	Unknown	Unknown	2 record/s within 50 km, most recent 2011.	Possible
<i>Bossiaea celata</i>	P3	Deep sand. Open mallee.	September to October	1 record/s within 50 km, most recent 2018.	Unlikely
<i>Bossiaea laxa</i>	P2	Brown loam over deep granite. Sheltered positions around outcrops.	May	1 record/s within 50 km, most recent 2014.	Possible
<i>Calandrinia lefroyensis</i>	P1	Salt lake flats among Samphire communities. Brown silty loams or brown-grey sandy clay.	October to November	7 record/s within 50 km, most recent 2019.	Unlikely
<i>Chamaelucium</i> sp. Parker Range (B.H. Smith 1255)	P1	Unknown	Unknown	1 record/s within 50 km, most recent 2019.	Possible
<i>Chrysocephalum apiculatum</i> subsp. <i>norsemanense</i>	P3	Yellow or red sand, yellow sandy clay and calcareous soils.	January to December	3 record/s within 50 km, most recent 2016.	Possible
<i>Cratystylis centralis</i>	P3	Red sandy loam with ironstone gravel. Flat plains, breakaway country.	August to November	1 record/s within 50 km, most recent 2019.	Unlikely
<i>Cyathostemon divaricatus</i>	P1	Well-drained, stony sandy loam.	Unknown	10 record/s within 50 km, most recent 2015.	Possible
<i>Cyathostemon verrucosus</i>	P3	Well-drained, deep yellow sand. Moderately exposed, flat plain.	Unknown	1 record/s within 50 km, most recent 1970.	Possible
<i>Dampiera plumosa</i>	P1	Red sandy soils.	October	1 record/s within 50 km, most recent unknown.	Possible
<i>Elachanthus pusillus</i>	P2	Open depression in plain system. Sandy clay loam.	August to October	1 record/s within 50 km, most recent unknown.	Possible
<i>Eremophila annosicaulis</i>	P3	Unknown.	Unknown	1 record/s within 50 km, most recent 1990.	Possible
<i>Eremophila arachnoides</i> subsp. <i>tenera</i>	P3	Unknown.	Unknown	4 record/s within 50 km, most recent 2019.	Possible
<i>Eremophila caerulea</i> subsp. <i>merrallii</i>	P4	Sand, clay or loam. Undulating plains.	October to December	4 record/s within 50 km, most recent 2005.	Possible
<i>Eremophila perglandulosa</i>	P1	Sandy soil on low eucalypt woodland.	October to January	2 record/s within 50 km, most recent 2005.	Possible
<i>Eremophila praecox</i>	P2	Red/brown sandy loam. Undulating plains.	October or December	42 record/s within 50 km, most recent 2018.	Possible
<i>Eremophila veronica</i>	P3	Stony clay, clay loam. Lateritic breakaways.	April to May	10 record/s within 50 km, most recent 2017.	Possible
<i>Eremophila xantholaema</i>	P1	Stony, brown loam. Mallee-Casuarina woodland.	Unknown	4 record/s within 50 km, most recent 2018.	Possible
<i>Eucalyptus jutsonii</i> subsp. <i>jutsonii</i>	P4	Red to pale orange deep sands. Undulating areas and on dunes.	February, March, November and December	1 record/s within 50 km, most recent unknown.	Possible
<i>Eucalyptus websteriana</i> subsp. <i>norsemanica</i>	P1	Rocky rises. Among rocks of small granite tors.	September to November	2 record/s within 50 km, most recent 2015.	Possible
<i>Eucalyptus</i> x <i>brachyphylla</i>	P4	Sandy loam. Granite outcrops.	June	3 record/s within 50 km, most recent 1926.	Possible
<i>Frankenia glomerata</i>	P4	Associated with salt lakes. Low shrubland in grey-brown sandy loam or white sand.	November	1 record/s within 50 km, most recent 1982.	Unlikely

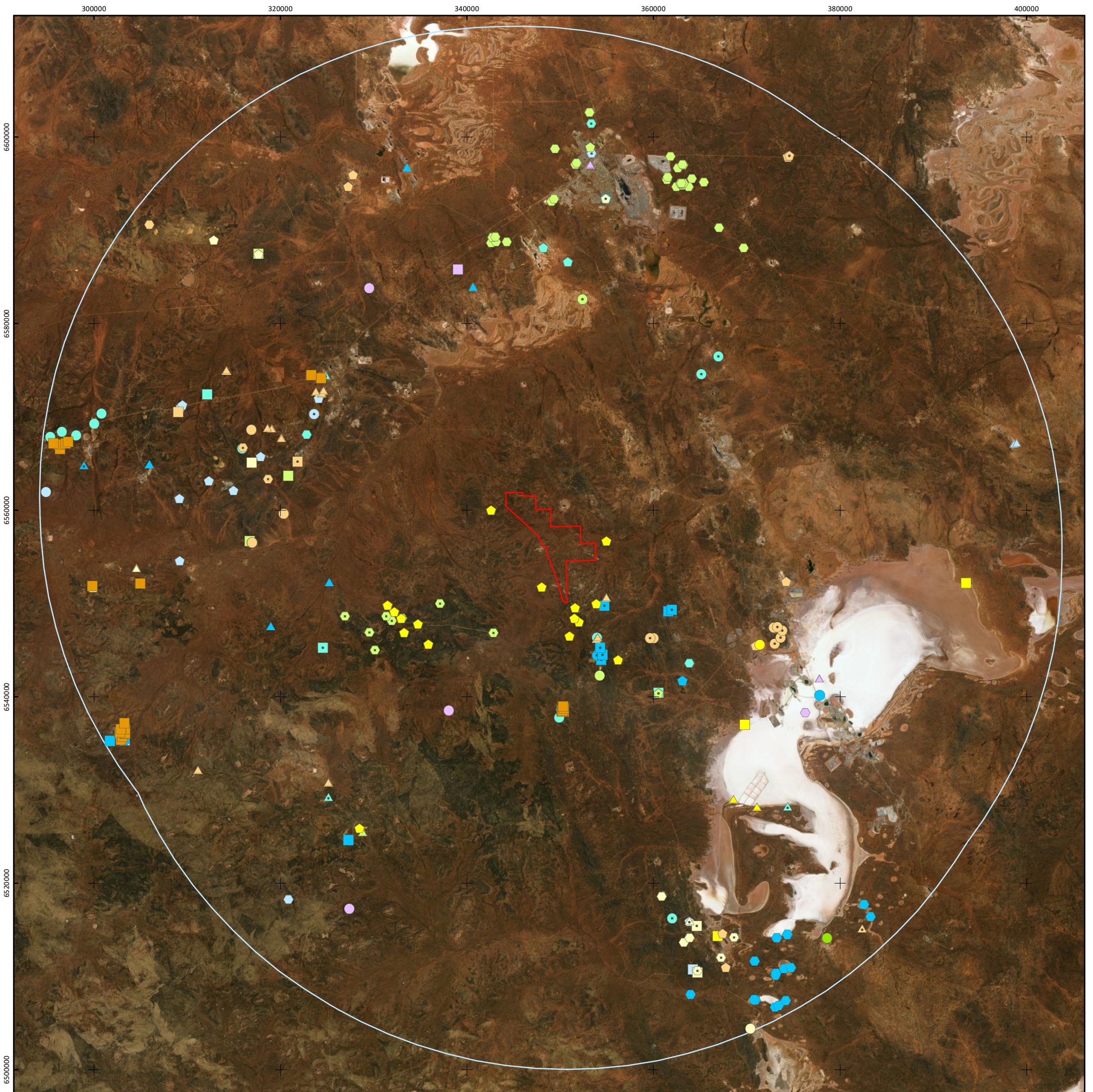
Taxon	Status	Habitat	Flowering period	Notes	Likelihood of occurrence pre-survey
<i>Gastrolobium graniticum</i>	T	Sand, sandy loam, granite. Margins of rock outcrops, along drainage lines.	August to September	12 record/s within 50 km, most recent 2017.	Possible
<i>Gompholobium cinereum</i>	P3	Yellow sand, clayey sand, brown loam, sandy gravel, laterite. Well-drained open sites, slopes, plains, roadsides.	August to November	2 record/s within 50 km, most recent 1993.	Possible
<i>Goodenia salina</i>	P2	Well-drained, saline, grey or brown loamy clay. Low gypseous dunes near salt pans.	September	1 record/s within 50 km, most recent 2016.	Unlikely
<i>Grevillea georgeana</i>	P3	Stony loam/clay. Ironstone hilltops and slopes.	January or March or September to November	2 record/s within 50 km, most recent 1996.	Unlikely
<i>Hakea rigida</i>	P2	Sandy soils, yellow sand.	September to October	1 record/s within 50 km, most recent unknown.	Possible
<i>Isolepis australiensis</i>	P3	Grows in damp places especially near the edge of the water. Silty sand, sandy clay. Lake margins, pools.	July to April or September	1 record/s within 50 km, most recent 2016.	Unlikely
<i>Lepidium fasciculatum</i>	P3	Unknown.	Unknown	1 record/s within 50 km, most recent unknown.	Possible
<i>Lepidium merrallii</i>	P2	Clay loam.	Unknown	1 record/s within 50 km, most recent unknown.	Possible
<i>Lepidosperma</i> sp. Kambalda (A.A. Mitchell 5156)	P2	Unknown.	Unknown	1 record/s within 50 km, most recent 1997.	Possible
<i>Lepidosperma</i> sp. Parker Range (N. Gibson & M. Lyons 2094)	P1	Unknown.	Unknown	2 record/s within 50 km, most recent 2013.	Possible
<i>Melaleuca coccinea</i>	P3	Sandy loam over granite. Granite outcrops, sandplain, river valleys.	September to November or January	3 record/s within 50 km, most recent 1961.	Possible
<i>Melaleuca macronychia</i> subsp. <i>trygonoides</i>	P3	Sandy soils. Granite outcrops.	February or July to August or October	1 record/s within 50 km, most recent 1988.	Possible
<i>Melichrus</i> sp. Coolgardie (K.R. Newbey 8698)	P1	Unknown	Unknown	2 record/s within 50 km, most recent 2018.	Possible
<i>Notisia intonsa</i>	P3	Brown stony saline loams and gilgai plain; brown cracking clay	September to November	7 record/s within 50 km, most recent 2000.	Unlikely
<i>Phebalium appressum</i>	P1	Yellow sandplain.	July	2 record/s within 50 km, most recent 2011.	Unlikely
<i>Phebalium clavatum</i>	P2	Sandy soils. Sandplains.	August to September	15 record/s within 50 km, most recent 2013.	Unlikely
<i>Philotheca apiculata</i>	P1	Stony clay loam. Rocky outcrops, hillsides.	August to November	5 record/s within 50 km, most recent 2008.	Unlikely
<i>Phlegmatospermum eremaeum</i>	P3	Stony loam.	June or August to October	2 record/s within 50 km, most recent 1992.	Possible
<i>Pityrodia scabra</i> subsp. <i>dendrotricha</i>	P3	Brown to white sandy soil in disturbed shrubland. Brown sand over gravel. Deep, yellow sand near gypsum dunes.	March to October	20 record/s within 50 km, most recent 2007.	Unlikely
<i>Prostanthera splendens</i>	P1	Stony loam, shallow soils with ironstone pebbles. Breakaways.	August to October	2 record/s within 50 km, most recent 1989.	Unlikely
<i>Pterostylis xerampelina</i>	P1	Unknown.	Unknown	1 record/s within 50 km, most recent unknown.	Possible
<i>Ptilotus procumbens</i>	P1	Red clay.	November	1 record/s within 50 km, most recent 1978.	Possible
<i>Ptilotus rigidus</i>	P1	Associated with salt lakes.	Unknown	4 record/s within 50 km, most recent 2019.	Unlikely
<i>Ricinocarpos digynus</i>	P1	Sandy loam on rocky hillsides.	November to March	1 record/s within 50 km, most recent 1966.	Unlikely
<i>Sowerbaea multicaulis</i>	P4	Yellow-brown sand.	October to December or January	1 record/s within 50 km, most recent unknown.	Possible
<i>Stylidium choreanthum</i>	P3	White/yellow or red sand. Plains.	September to November	1 record/s within 50 km, most recent 1961.	Possible
<i>Styphelia rectiloba</i>	P3	Rocky, skeletal soils, on or near decomposed granitic breakaways.	March to May	4 record/s within 10 km, 8 record/s within 50 km, most recent 2013.	Likely
<i>Styphelia saxicola</i>	P3	Shallow soils on rocky sites with a lateritic, granitic or ironstone geology. Associated vegetation is usually open shrubland.	April to July	1 record/s within 50 km, most recent 2013.	Possible
<i>Tecticornia flabelliformis</i>	P1	Clay. Saline flats, coastal salt marshes over gypsum deposits.	January to May	6 record/s within 50 km, most recent 2017.	Unlikely
<i>Tecticornia mellarium</i>	P1	Gypsiferous dunes. Growing close to salt lakes.	Unknown	2 record/s within 50 km, most recent 2016.	Unlikely

Taxon	Status	Habitat	Flowering period	Notes	Likelihood of occurrence pre-survey
<i>Tetradlea spenceri</i>	T	Gentle slope on duricrust breakaway. Laterite outcrop.	November to February	7 record/s within 50 km, most recent 2015.	Possible
<i>Thryptomene planiflora</i>	P1	Plains, with yellow or brown to red sandy soils, in shrublands often dominated by <i>Acacia</i> .	June to October	8 record/s within 10 km, 19 record/s within 50 km, most recent 2017.	Likely
<i>Thryptomene</i> sp. Coolgardie (E. Kelso s.n. 1902)	P1	Unknown	Unknown	2 record/s within 50 km, most recent unknown.	Possible
<i>Trachymene pyrophila</i>	P2	Yellow or orange sand. Sandplains; germinating after fire or other disturbances such as mining.	January to March or November to December	1 record/s within 50 km, most recent 2005.	Possible

Table 3.5: Introduced plant species recorded within 40 km of the survey area (NatureMap).

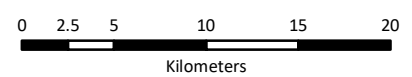
Taxon	Common name	WONS	WAOL rating	Ecological impact	Invasiveness
* <i>Acacia pycnantha</i>	Golden wattle		Permitted - s11	Not Listed	Not Listed
* <i>Alyssum linifolium</i>	Flax-leaf alyssum		Permitted - s11	Not Listed	Not Listed
* <i>Arctotheca calendula</i>	Cape weed		Permitted - s11	L	S
* <i>Brassica tournefortii</i>	Mediterranean turnip		Permitted - s11	U	R
* <i>Bromus diandrus</i>	Great brome		Permitted - s11	Not Listed	Not Listed
* <i>Bryophyllum delagoense</i>	Mother-of-millions		Not listed	Not Listed	Not Listed
* <i>Carrichtera annua</i>	Ward's weed		Permitted - s11	H	R
* <i>Carthamus lanatus</i>	Saffron thistle		Permitted - s11	H	R
* <i>Cenchrus ciliaris</i>	Buffel grass		Permitted - s11	H	R
* <i>Centaurea melitensis</i>	Maltese cockspur		Permitted - s11	H	R
* <i>Chenopodium album</i>	Fat hen		Permitted - s11	U	U
* <i>Cichorium intybus</i>	Chicory		Permitted - s11	U	U
* <i>Citrullus amarus</i>	Citrus melon		Not listed	Not Listed	Not Listed
* <i>Conyza bonariensis</i>	Flaxleaf fleabane		Permitted - s11	U	R
* <i>Conyza sumatrensis</i>	Guernsey fleabane		Permitted - s11	U	R
* <i>Cylindropuntia fulgida</i> var. <i>mamillata</i>	Boxing glove cactus	WONS	Declared Pest - s22(2)	H	R
* <i>Cylindropuntia tunicata</i>	Sheathed cholla	WONS	Declared Pest - s22(2)	Not Listed	Not Listed
* <i>Echium plantagineum</i>	Paterson's curse		Declared Pest - s22(2)	U	U
* <i>Ehrharta villosa</i>	Pyp grass		Permitted - s11	Not Listed	Not Listed
* <i>Eragrostis curvula</i>	African lovegrass		Permitted - s11	Not Listed	Not Listed
* <i>Erodium cicutarium</i>	Common storksbill		Permitted - s11	U	U
* <i>Gazania linearis</i>	Treasure flower		Permitted - s11	Not Listed	Not Listed
* <i>Glandularia aristigera</i>	Desert verbena		Permitted - s11	Not Listed	Not Listed
* <i>Helianthus annuus</i>	Common sunflower		Permitted - s11	Not Listed	Not Listed
* <i>Heliotropium europaeum</i>	Common heliotrope		Permitted - s11	M	U
* <i>Hordeum glaucum</i>	Northern barley grass		Permitted - s11	U	U
* <i>Lantana camara</i>	Common lantana	WONS	Declared Pest, Prohibited - s12	Not Listed	Not Listed
* <i>Lepidium africanum</i>	Rubble peppergrass		Permitted - s11	U	U
* <i>Limonium sinuatum</i>	Perennial sea lavender		Permitted - s11	Not Listed	Not Listed
* <i>Lysimachia arvensis</i>	Pimpernel		Permitted - s11	U	R
* <i>Lythrum hyssopifolia</i>	Lesser loosestrife		Permitted - s11	U	U
* <i>Malva parviflora</i>	Marshmallow		Permitted - s11	L	R
* <i>Marrubium vulgare</i>	Horehound		Permitted - s11	H	R
* <i>Medicago minima</i>	Small burr medic		Permitted - s11	U	U
* <i>Medicago polymorpha</i>	Burr medic		Permitted - s11	U	U
* <i>Mesembryanthemum crystallinum</i>	Iceplant		Permitted - s11	U	U

Taxon	Common name	WONS	WAOL rating	Ecological impact	Invasiveness
<i>*Mesembryanthemum nodiflorum</i>	Slender iceplant		Permitted - s11	U	U
<i>*Monoculus monstrosus</i>	Stinking Roger		Permitted - s11	U	U
<i>*Nicotiana glauca</i>	Tree tobacco		Permitted - s11	Not Listed	Not Listed
<i>*Oligocarpus calendulaceus</i>			Not listed	U	U
<i>*Oncosiphon suffruticosum</i>	Calomba daisy		Permitted - s11	Not Listed	Not Listed
<i>*Opuntia elata</i>	Riverina pear	WONS	Declared Pest - s22(2)	Not Listed	Not Listed
<i>*Orbea variegata</i>	Carrion cactus		Permitted - s11	Not Listed	Not Listed
<i>*Papaver hybridum</i>	Rough poppy		Permitted - s11	Not Listed	Not Listed
<i>*Parentucellia latifolia</i>	Common bartsia		Permitted - s11	Not Listed	Not Listed
<i>*Pentameris airoides</i> subsp. <i>airoides</i>	False hair grass		Permitted - s11	U	R
<i>*Phalaris paradoxa</i>	Paradoxa grass		Permitted - s11	Not Listed	Not Listed
<i>*Portulacaria afra</i>	Elephant bush		Permitted - s11	Not Listed	Not Listed
<i>*Rostraria pumila</i>	Tiny bristle grass		Permitted - s11	U	U
<i>*Rumex vesicarius</i>	Ruby dock		Not listed	Not Listed	Not Listed
<i>*Salvia reflexa</i>	Mintweed		Permitted - s11	U	U
<i>*Salvia verbenaca</i>	Wild sage		Permitted - s11	U	U
<i>*Schinus molle</i> var. <i>areira</i>	Peppercorn tree		Not listed	H	M
<i>*Sisymbrium orientale</i>	Indian hedge mustard		Permitted - s11	U	U
<i>*Spergularia diandra</i>	Lesser sand spurry		Permitted - s11	U	U
<i>*Symphyotrichum squamatum</i>	Bushy starwort		Not listed	Not Listed	Not Listed
<i>*Tribulus terrestris</i>	Caltrop		Permitted - s11	L	M
<i>*Urochloa panicoides</i>	Liverseed grass		Permitted - s11	Not Listed	Not Listed
<i>*Vicia monantha</i> subsp. <i>triflora</i>	Spurred vetch		Permitted - s11	U	U



<p>▭ Survey area</p> <p>▭ Study area</p> <p>Significant flora</p> <p>▭ Threatened</p> <p>Priority 1</p> <ul style="list-style-type: none"> ● <i>Acacia coatesii</i> ▭ <i>Acacia sclerophylla</i> var. <i>teretiuscula</i> ▲ <i>Acacia websteri</i> ▭ <i>Calandrinia lefroyensis</i> ● <i>Chamaelaucium</i> sp. Parker Range (B.H. Smith 1255) ● <i>Cyathostemon divaricatus</i> ▭ <i>Dampiera plumosa</i> ▲ <i>Eremophila perglandulosa</i> ▭ <i>Eremophila xantholaema</i> ● <i>Eucalyptus websteriana</i> subsp. <i>norsemanica</i> ● <i>Grevillea phillipsiana</i> ▭ <i>Lepidosperma</i> sp. Parker Range (N. Gibson & M. Lyons 2094) ▲ <i>Melichrus</i> sp. Coolgardie (K.R. Newbey 8698) ▭ <i>Phebalium appressum</i> ● <i>Philothea apiculata</i> ● <i>Philothea pachyphylla</i> ▭ <i>Prostanthera splendens</i> ▲ <i>Pterostylis xerampelina</i> ▭ <i>Ptilotus procumbens</i> ● <i>Ptilotus rigidus</i> ● <i>Ricinocarpos digynus</i> ▭ <i>Tecticornia flabelliformis</i> ▲ <i>Tecticornia mellarium</i> ▭ <i>Thryptomene planiflora</i> ● <i>Thryptomene</i> sp. Coolgardie (E. Kelso s.n. 1902) 	<p>Priority 2</p> <ul style="list-style-type: none"> ● <i>Acacia kerryana</i> ▭ <i>Austrostipa</i> sp. Dowerin (G. Wiehl F 8004) ▲ <i>Bossiaea laxa</i> ▭ <i>Elachanthus pusillus</i> ● <i>Eremophila praecox</i> ● <i>Goodenia salina</i> ▭ <i>Hakea rigida</i> ▲ <i>Lepidium merrallii</i> ▭ <i>Lepidosperma</i> sp. Kambalda (A.A. Mitchell 5156) ▭ <i>Phebalium clavatum</i> ● <i>Trachymene pyrophila</i> 	<p>Priority 3</p> <ul style="list-style-type: none"> ● <i>Acacia crenulata</i> ▭ <i>Allocasuarina eriochlamys</i> subsp. <i>grossa</i> ▲ <i>Alyogyne</i> sp. Great Victoria Desert (D.J. Edinger 6212) ▭ <i>Alyxia tetanifolia</i> ● <i>Austrostipa blackii</i> ● <i>Austrostipa</i> sp. Carlingup Road (S. Kern & R. Jasper LCH 18459) ▭ <i>Bossiaea celata</i> ▲ <i>Chrysocephalum apiculatum</i> subsp. <i>norsemanense</i> ▭ <i>Cratystylis centralis</i> ● <i>Cyathostemon verrucosus</i> ● <i>Eremophila microphylla</i> ▭ <i>Eremophila annosicaulis</i> ▲ <i>Eremophila arachnoides</i> subsp. <i>tenera</i> ▭ <i>Eremophila veronica</i> ● <i>Eucalyptus frenchiana</i> ● <i>Grevillea georgeana</i> ▭ <i>Hibbertia pachyphylla</i> ▲ <i>Isoetes brevicula</i> ▭ <i>Isolepis australiensis</i> ▭ <i>Lepidium fasciculatum</i> ● <i>Melaleuca coccinea</i> ▭ <i>Melaleuca macronychia</i> subsp. <i>trygonoides</i> ▲ <i>Notisia intonsa</i> ▭ <i>Phlegmatospermum eremaeum</i> ● <i>Pityrodia scabra</i> subsp. <i>dendrotricha</i> ● <i>Stylidium choreanthum</i> ▭ <i>Styphelia rectiloba</i> ▲ <i>Styphelia saxicola</i> 	<p>Priority 4</p> <ul style="list-style-type: none"> ● <i>Eremophila caerulea</i> subsp. <i>merrallii</i> ▭ <i>Eucalyptus jutsonii</i> subsp. <i>jutsonii</i> ▲ <i>Eucalyptus</i> x <i>brachyphylla</i> ▭ <i>Frankenia glomerata</i> ● <i>Sowerbaea multicaulis</i>
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Figure 3.6: Significant plant species recorded within 50 km of the survey area.



3.3 VEGETATION

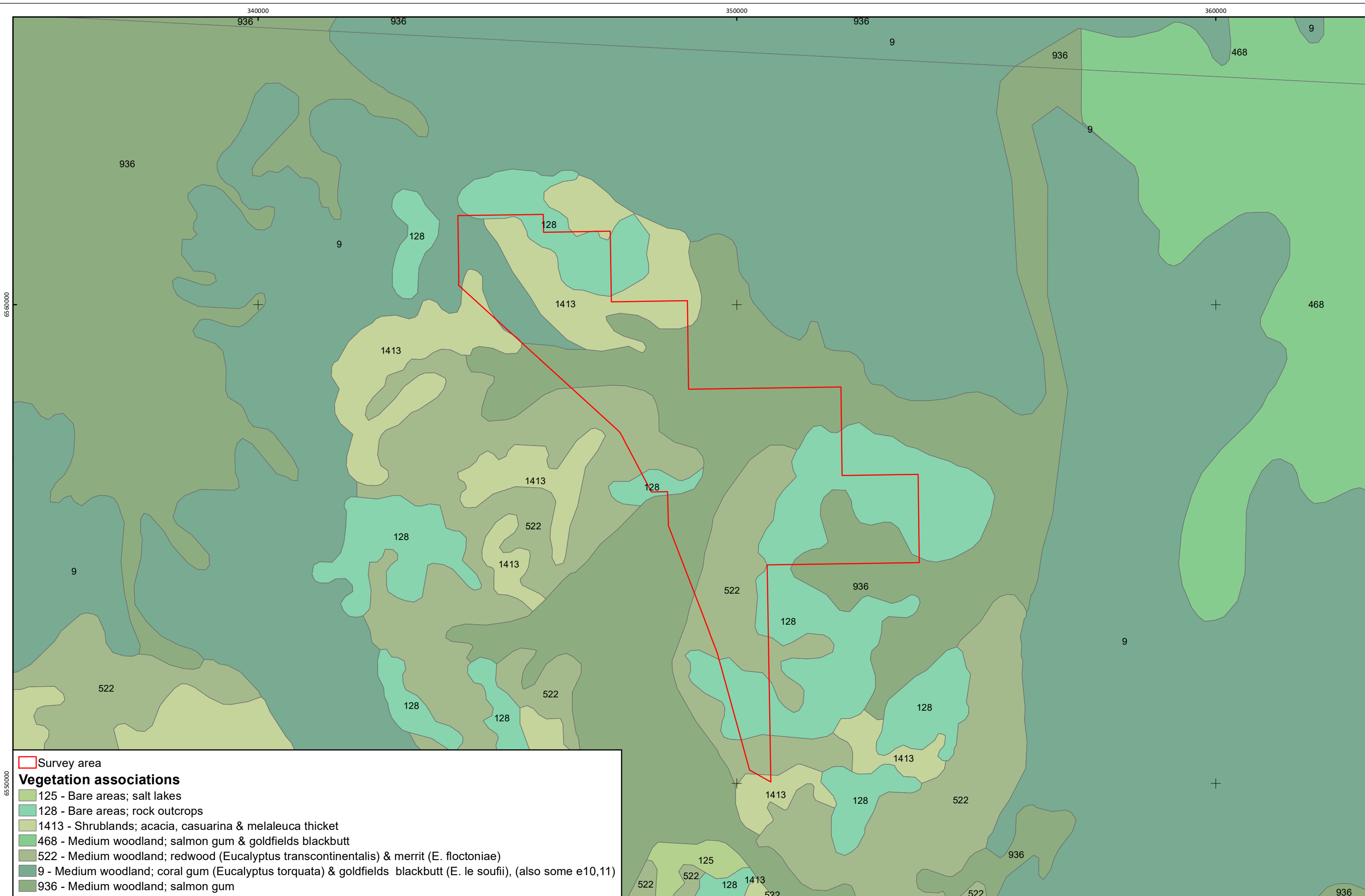
3.3.1 Pre-European Vegetation

The Western Australian Land Use and Vegetation Data Project produced a 1:250,000 scale digital spatial dataset of the pre-European native vegetation of Western Australia, compiled from previous vegetation mapping exercises, primarily by J.S. Beard from 1964 to 1981, with updates reflecting the National Vegetation Information System (NVIS) standards (Shepherd et al. 2002). Five vegetation associations (9, 128, 522, 936 and 1413) are mapped within the survey area (Table 3.6, Figure 3.7).

The pre-European and current extent of each vegetation association is available from the Statewide Vegetation Statistics dataset (Government of Western Australia 2018). The National Objectives and Targets for Biodiversity Conservation 2001-2005 (DEH 2001) recognise that the retention of 30% or more of the pre-clearing extent of an ecological community is necessary if Australia's biological diversity is to be protected, as this is the threshold below which species loss appears to accelerate exponentially (EPA 2000). Vegetation associations at less than 30% of their pre-European extent are classified as either 'Vulnerable' (10-30%) or 'Endangered' (< 10 %) (DER 2014). The current extent of vegetation associations 9, 128, 522, 936 and 1413 in the Coolgardie bioregion are all well above this 30% threshold (Table 3.6), and are classified as 'Least concern' (DER 2014).

Table 3.6: Pre-European vegetation associations mapped with the survey area (Shepherd *et al.* 2002).

Vegetation association	Description	NVIS V description	Pre-European extent within Coolgardie IBRA region (ha)	Percentage remaining within IBRA region	Current percentage protected for conservation within Coolgardie IBRA region	Extent within survey area (ha)
9	Medium woodland; coral gum (<i>Eucalyptus torquata</i>) & goldfields blackbutt (<i>E. le souefii</i>), (also some e10,11)	U [^] <i>Eucalyptus torquata</i> , [^] <i>Eucalyptus le souefii</i> , <i>Eucalyptus clelandii</i> \tree\6\i;M <i>Eremophila scoparia</i> , <i>Eremophila glabra</i> , <i>Eremophila oldfieldii</i> \shrub,chenopod\4\r	240,442	97.8	1.5	243.46 (7.1%)
128	Bare areas; rock outcrops	Bare areas; rock outcrops	183,891	99.6	11.7	810.77 (23.6%)
522	Medium woodland; redwood (<i>Eucalyptus transcontinentalis</i>) & merrit (<i>E. floctoniae</i>)	U [^] <i>Eucalyptus transcontinentalis</i> , [^] <i>Eucalyptus floctoniae</i> \tree\7\i	688,407	99.9	4.4	791.47 (23%)
936	Medium woodland; salmon gum	U [^] <i>Eucalyptus salmonophloia</i> , <i>Eucalyptus le souefii</i> , <i>Eucalyptus transcontinentalis</i> \tree\7\i;G <i>Atriplex</i> sp.\chenopod\2\i	586,792	99.6	1.2	1,177.95 (34.3%)
1413	Shrublands; <i>Acacia</i> , <i>Casuarina</i> & <i>Melaleuca</i> thicket	U [^] <i>Allocasuarina acutivalvis</i> , [^] <i>Allocasuarina campestris</i> , [^] <i>Acacia</i> sp.\shrub\4\cG <i>Triodia rigidissima</i> \hummock grass\2\r	1,061,212	98.2	16.8	411.21 (12%)



Survey area

Vegetation associations

- 125 - Bare areas; salt lakes
- 128 - Bare areas; rock outcrops
- 1413 - Shrublands; acacia, casuarina & melaleuca thicket
- 468 - Medium woodland; salmon gum & goldfields blackbutt
- 522 - Medium woodland; redwood (*Eucalyptus transcontinentalis*) & merrit (*E. floctoniae*)
- 9 - Medium woodland; coral gum (*Eucalyptus torquata*) & goldfields blackbutt (*E. le soufii*), (also some e10,11)
- 936 - Medium woodland; salmon gum

Figure 3.7: Pre-European vegetation associations (Shepherd et al. 2002).

3.3.2 Threatened and Priority Ecological Communities

DBCA database searches and EPBC Act Protected Matters Report (Appendix B) indicate that no EPBC Act or BC Act listed Threatened Ecological Communities (TECs) and no Priority Ecological Communities (PECs) occur within the study area.

3.4 DBCA LANDS AND NATIONALLY IMPORTANT WETLANDS

The Department Agriculture, Water and the Environment's (DAWE) Protected Matters Search Tool (DAWE 2020) and the DBCA's legislated lands and waters database were queried for Ramsar Wetlands, Nationally Important Wetlands, and DBCA managed lands and waters occurring in the vicinity of the survey area. Twelve DBCA managed lands occur within the study area. These include nine gazetted nature reserves and four unnamed or unofficial nature reserves. The Yallari Timber Reserve is immediately adjacent to the survey area (Figure 3.8). Two class A reserves are located within the study area: Karamindie Forest, which is located 8 km north; and Burra Conservation Park, which is located 37 km to the southwest. There are no Ramsar wetlands nor any Nationally Important Wetland within the study area.

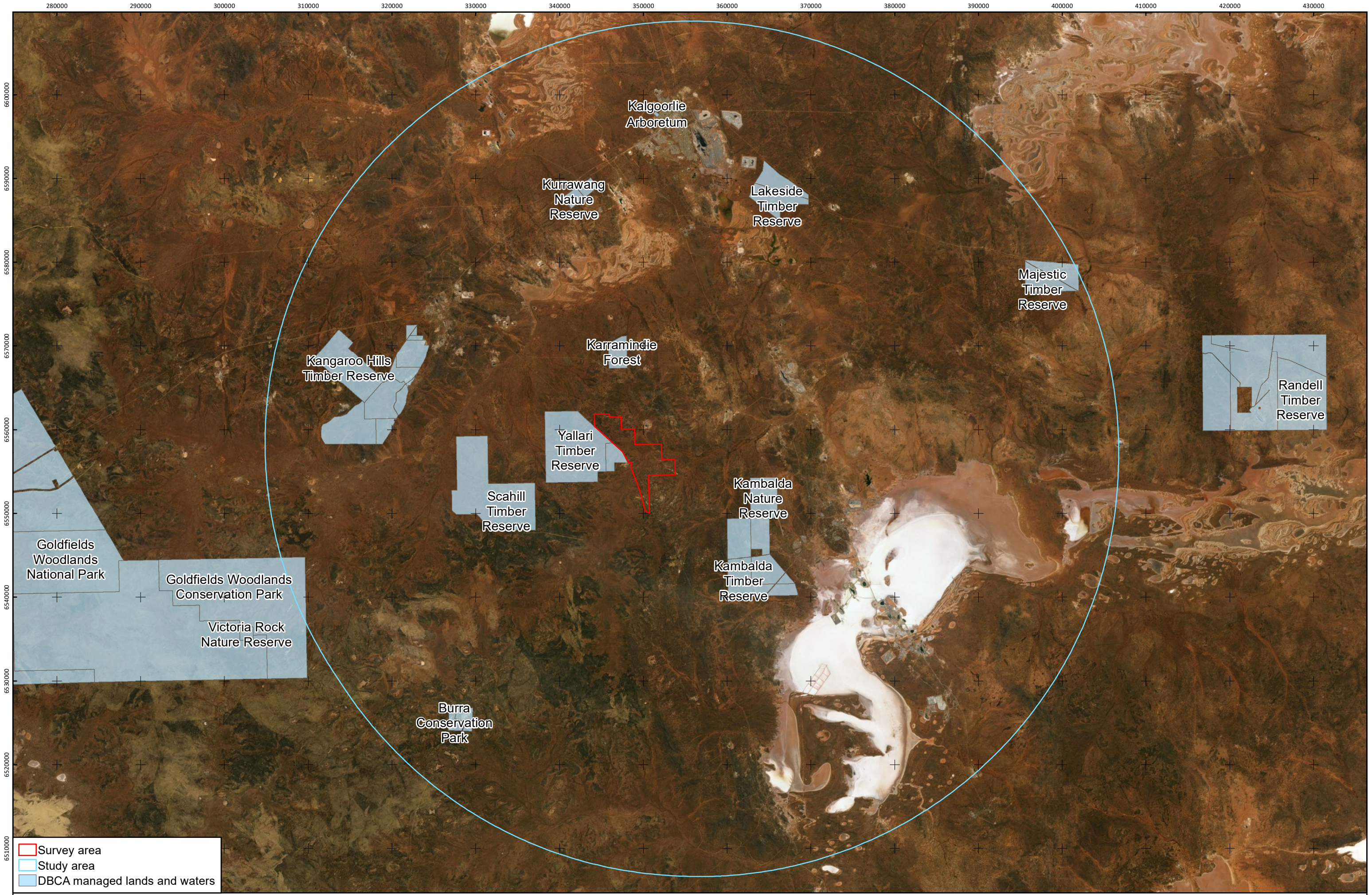


Figure 3.8: Conservation reserves and Nationally Important Wetlands near the survey area.

4 RESULTS

4.1 FLORA

4.1.1 Floristic Diversity

A total of 173 vascular plant taxa (species, infraspecific taxa, and phrase names) representing 41 families and 94 genera were recorded during the survey within 69 sampling sites and opportunistically (Appendix C). Of these species, 21 (ca. 12%) were annuals or short-lived perennials, and 5 (ca. 3%) were introduced. The most dominant families in terms of species richness were the Fabaceae (20 taxa), Myrtaceae (19 taxa), Asteraceae (17 taxa), Poaceae (16 taxa), and Scrophulariaceae (13 taxa). The most dominant genera were *Acacia* (13), *Eremophila* (13), *Eucalyptus* (10) and *Ptilotus* (7). (Appendix C). Most genera (68) were represented by only one taxon. Fifty-nine taxa were recorded from only a single sampling site (singletons), and 24 taxa were recorded from only two sample sites (doubletons) (Table 4.1).

Table 4.1: Species summary for the survey area.

N (number of reference samples)	69
S (observed number of taxa within sampling sites)	159
No. of singletons	59
No. of doubletons	24
No. taxa not observed in sample sites	14
Total taxa observed (including opportunistic records)	173

4.1.2 Significant Species

Threatened and Priority listed species

Representative areas of each of the major landforms and plant communities within the survey area were traversed on foot along transects to record significant plant species. No EPBC Act or BC Act listed Threatened species were recorded. One DBCA listed Priority species was recorded within the survey area: *Acacia websteri* (P1). One DBCA listed Priority species was recorded just north of the survey area: *Eremophila acutifolia* (P3) (Plate 1, Table 4.2, Figure 4.1). Threatened and Priority Flora Report Forms are provided in Appendix F.

The number of individuals of each species recorded and associated vegetation types (section 4.2.1) are summarised for each species in Table 4.2 and below:

- *Acacia websteri* (P1) was recorded at three sites on sandy clay or loamy sand. The species wasn't identified until post survey and consequently no photograph was taken nor population size calculated, however, cover was recorded as between 5 to 32% at the three sites from where it was recorded. All individuals were recorded from SH02 vegetation type.
- *Eremophila acutifolia* (P3) was recorded opportunistically from one location 437 m from the northern boundary of the survey area in an area comprised of the EW02 vegetation type. The population size was estimated at 200 individuals.

Potentially new species and atypical specimens

Several specimens collected within the survey area were unable to be identified to species level due to a lack of reproductive material required for positive identification. None of these were believed to represent Threatened or Priority species, nor were any considered to be anomalous based on available material (i.e., potentially new species).

Records representative of the range of a species

Based on current WA Herbarium collections there were no new Bioregional range extensions recorded (i.e., new records for the Coolgardie IBRA region).

4.1.3 Introduced Species

Five introduced plant species were recorded within the survey area (Table 4.3). All five are listed as Permitted - s11 (DPIRD 2021). There were no Declared Pests (Declared Pests -s22(2)) or Weeds of National Significance (WONS) recorded. Ecological impact and invasiveness ratings have been determined for introduced species in the Goldfields region (DPaW 2013), which are listed in Table 4.3. *Centaurea melitensis* has been rated as having 'High' ecological impact and 'Rapid' invasiveness.

Table 4.2: Summary of significant plant species recorded within the survey area.

Taxon	Soil-landscape unit	Landform	Abundance within vegetation type	Total no. records within survey area	Total No. records within 50 km of survey area ¹	% regional records within survey area	IBRA subregion distribution
			SH02				
Priority 1							
<i>Acacia websteri</i>	10917: Mx42	Plain	5-32% cover at 3 sites	-	25 (805 individuals)	-	Eastern Goldfield, Eastern Murchison, Merredin, Southern Cross.
Priority 3							
<i>Eremophila acutifolia</i>	10917: Mx42	Plain	200	0	200	0.00%	Eastern Goldfield, Southern Cross.

¹Records from DBCA Threatened and Priority Flora Database. In cases where abundance data were not provided, abundance was assumed to be 1.

Table 4.3: Summary of introduced species recorded within the survey area.

Species	Common name	Family	WAOL rating	Ecological impact	Invasiveness
* <i>Centaurea melitensis</i>	Maltese Cockspur	Asteraceae	Permitted - s11	H	R
* <i>Hypochaeris glabra</i>	Smooth Cats-ear	Asteraceae	Permitted - s11	U	U
* <i>Lysimachia arvensis</i>	Pimpernel	Primulaceae	Permitted - s11	U	R
* <i>Oxalis corniculata</i>	Yellow Wood Sorrel	Oxalidaceae	Permitted - s11	Not rated	Not rated
* <i>Pentameris airoides</i> subsp. <i>airoides</i>		Poaceae	Permitted - s11	U	R



Plate 1: Priority plant species recorded within the survey area (*Eremophila acutifolia* [P3]).

4.2 VEGETATION

4.2.1 Vegetation Type Classification and Characterisation

Seven vegetation types were described and mapped (Table 4.4, Figure 4.1). The vegetation types were mapped within the survey area by extrapolation from aerial imagery and ground-truthed sites. Associated landforms, extent and other relevant attributes for each type are summarised in Table 4.4. Example photographs for each type are shown in Plates 3 - 5.

4.2.2 Vegetation Condition

Vegetation condition according to the EPA (2016) vegetation condition scale was recorded at each sampling site and was assessed periodically along transects. Except for minor vehicle tracks and other minor cleared areas, which have not been mapped separately, vegetation condition across almost the entirety of the assessed survey area was 'Excellent' (3,429.27 ha, 99.8%), having no or only negligible disturbance (e.g., the presence of few non-aggressive weeds). Introduced species were associated with sandy clay areas of vegetation types SH02 and EW04 where they were present in low abundance (<1% cover). A small area of vegetation SH02 (1.82 ha, 0.05%) associated with site VD51 was disturbed by clearing and earth works. The vegetation condition in this area was considered 'Very Good'. A further 3.84 ha (0.11%) of the survey area was associated with Coolgardie – Esperance Hwy (Figure 4.2).

4.2.3 Threatened and Priority Ecological Communities

There were no plant communities observed within the survey area that corresponded to any state (DBCA) or Commonwealth (EPBC Act) listed Threatened Ecological Community (TEC), nor any state listed Priority Ecological Community (PEC).

Table 4.4: Summary of vegetation types within the survey area.

Map code ¹	Broad floristic formation (NVIS III)	Vegetation description (NVIS V compatible) ²	Significant species	Landform	Vegetation condition (EPA 2016)	Extent within survey area (ha) (%)	Representative sites
EW01	<i>Eucalyptus</i> low open woodland	<i>Eucalyptus clelandiorum</i> , <i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i> , <i>Eucalyptus ravidia</i> open woodland; <i>Melaleuca pauperiflora</i> , <i>Eremophila scoparia</i> , <i>Halgania andromedifolia</i> shrubland; <i>Maireana georgei</i> , <i>Austrostipa scabra</i> subsp. <i>scabra</i> herb/grassland.		Sandstone or granite gravelly plain.	Excellent	77.07 (2.2%)	VD25, VD52
EW02	<i>Eucalyptus</i> low open woodland	± <i>Eucalyptus griffithsii</i> open woodland; <i>Acacia acuminata</i> , <i>Acacia resinosa</i> , <i>Prostanthera grylloana</i> sparse shrubland; <i>Triodia scariosa</i> , ± <i>Goodenia occidentalis</i> , <i>Eriachne pulchella</i> sparse grass/herbland.		Granite or quartzite stony or gravelly plain or undulating plain.	Excellent	107.12 (3.1%)	VD03, VD18, VD20, VD22, VD32
EW03	<i>Eucalyptus</i> mid to tall open woodland	<i>Eucalyptus celastroides</i> , <i>Eucalyptus transcontinentalis</i> open woodland; <i>Senna artemisioides</i> subsp. <i>filifolia</i> , <i>Scaevola spinescens</i> sparse shrubland; <i>Austrostipa scabra</i> subsp. <i>scabra</i> , <i>Rytidosperma setaceum</i> sparse grassland.		Stony quartzite plain or drainage line.	Excellent	33.33 (1.0%)	VD10, VD14, VD58, VD69
EW04	<i>Eucalyptus</i> low open woodland	<i>Eucalyptus griffithsii</i> , <i>Eucalyptus ?platycorys</i> open woodland; <i>Senna artemisioides</i> subsp. <i>filifolia</i> , <i>Eremophila scoparia</i> , <i>Olearia muelleri</i> sparse shrubland; <i>Sclerolaena diacantha</i> , <i>Austrostipa scabra</i> subsp. <i>scabra</i> sparse herb/grassland.		Granite, laterite or quartzite gravelly plain or undulating plain.	Excellent	1,408.33 (41%)	VD01, VD09, VD17, VD19, VD24, VD28, VD29, VD33, VD35, VD36, VD37, VD47, VD53, VD54, VD57, VD59, VD61, VD65, VD68, VD70
EW05	<i>Eucalyptus</i> low open woodland	± <i>Eucalyptus griffithsii</i> , <i>Eucalyptus ?oleosa</i> open woodland; <i>Acacia ?enervia</i> , <i>Grevillea acuaria</i> , <i>Eremophila ionantha</i> sparse shrubland; <i>Maireana georgei</i> , <i>Austrostipa scabra</i> subsp. <i>scabra</i> sparse herb/grassland.		Granite or quartzite gravelly plain.	Excellent	519.59 (15.1%)	VD23, VD27, VD39, VD41, VD43, VD46, VD48, VD49, VD50, VD64
SH01	<i>Acacia</i> low to mid sparse shrubland	<i>Acacia ?coolgardiensis</i> , <i>Phebalium canaliculatum</i> , <i>Homalocalyx thryptomenoides</i> sparse shrubland; <i>Waitzia acuminata</i> var. <i>acuminata</i> sparse herbland.		Granite gravelly plain.	Excellent	58.48 (1.7%)	VD11
SH02	<i>Acacia</i> mid to tall sparse shrubland	± <i>Eucalyptus griffithsii</i> open woodland; <i>Acacia acuminata</i> , <i>Acacia resinosa</i> , <i>Prostanthera grylloana</i> sparse shrubland; <i>Triodia scariosa</i> , <i>Eriachne pulchella</i> , ± <i>Goodenia occidentalis</i> sparse grass/herbland.	<i>Acacia websteri</i> (P1)	Granite, laterite or quartzite gravelly plain, low hill, undulating plain outcropping or creek.	Very Good to Excellent	1,227.17 (35.7%)	VD02, VD04, VD05, VD06, VD07, VD08, VD12, VD13, VD15, VD16, VD21, VD26, VD30, VD34, VD38, VD40, VD42, VD44, VD45, VD51, VD55, VD56, VD60, VD62, VD63, VD66, VD67
Cleared	NA	NA	NA	NA	NA	3.84 (0.1%)	NA

¹Species that were dominant in some examples of the vegetation type but were recorded in <50% of sites representing that type are indicated with '±'.

4.3 ASSESSMENT OF VEGETATION SIGNIFICANCE

Vegetation types within the survey area were assessed for National, State, Regional, and Local significance using the criteria described in Section 2.2.7 (Table 4.5). In total, vegetation types assessed with some level of significance accounted for ca. 1% (33.33 ha) of the survey area (Table 4.5), primarily due to the restricted local extent of vegetation type EW03.

National and State significance

There were no vegetation types considered to have National or State significance based on the assessed criteria (Table 4.5).

Regional significance

Presence of State listed PECs: There were not PECs recorded within the survey area.

Presence of State managed conservation areas: There are no State managed conservation areas within the survey area.

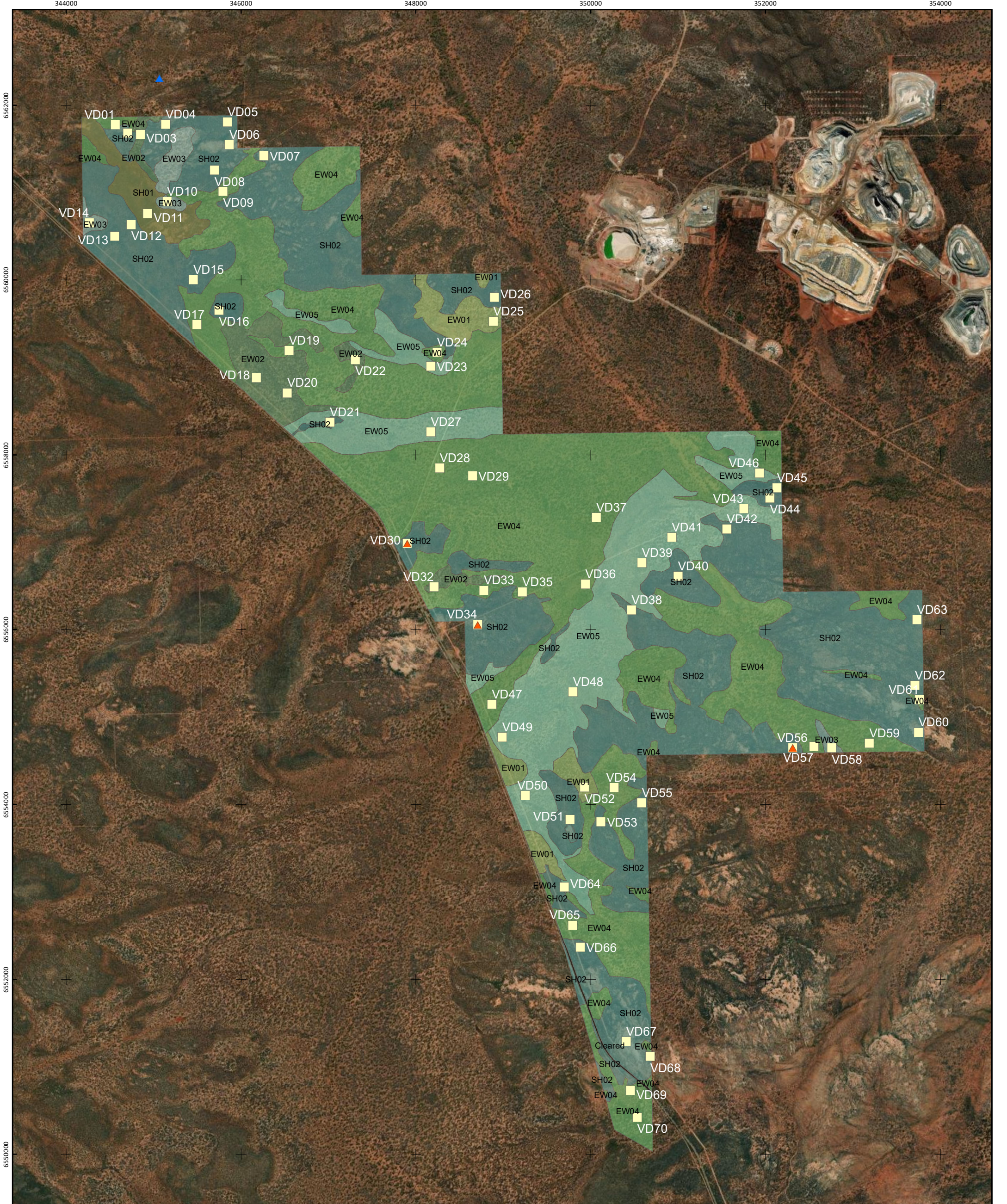
Presence of undescribed plant species: No anomalous specimens were collected.

Local significance

Limited or local extent: One vegetation type (EW03) accounted for approximately 1% of the total survey area and may be considered to be locally restricted.

Table 4.5: Assessment of vegetation significance.

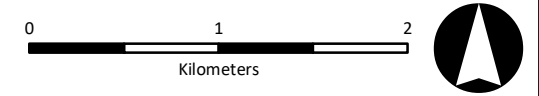
Scale	Criterion	Vegetation types
National significance	Populations of Threatened (EPBC listed) species	Nil
	Presence of EPBC listed TECs	Nil
	Presence of Ramsar wetlands	Nil
State significance	Presence of State-listed Threatened plant species	Nil
	Presence of State-listed TECs	Nil
	Land within in the Conservation Estate	Nil
Regional significance	Presence of PECs	Nil
	Presence of undescribed plant species	Nil
	Represented by less than 30% of the pre-European extent	Nil
Local significance	Having a limited local extent	EW03 (33.33 ha [1.0%])

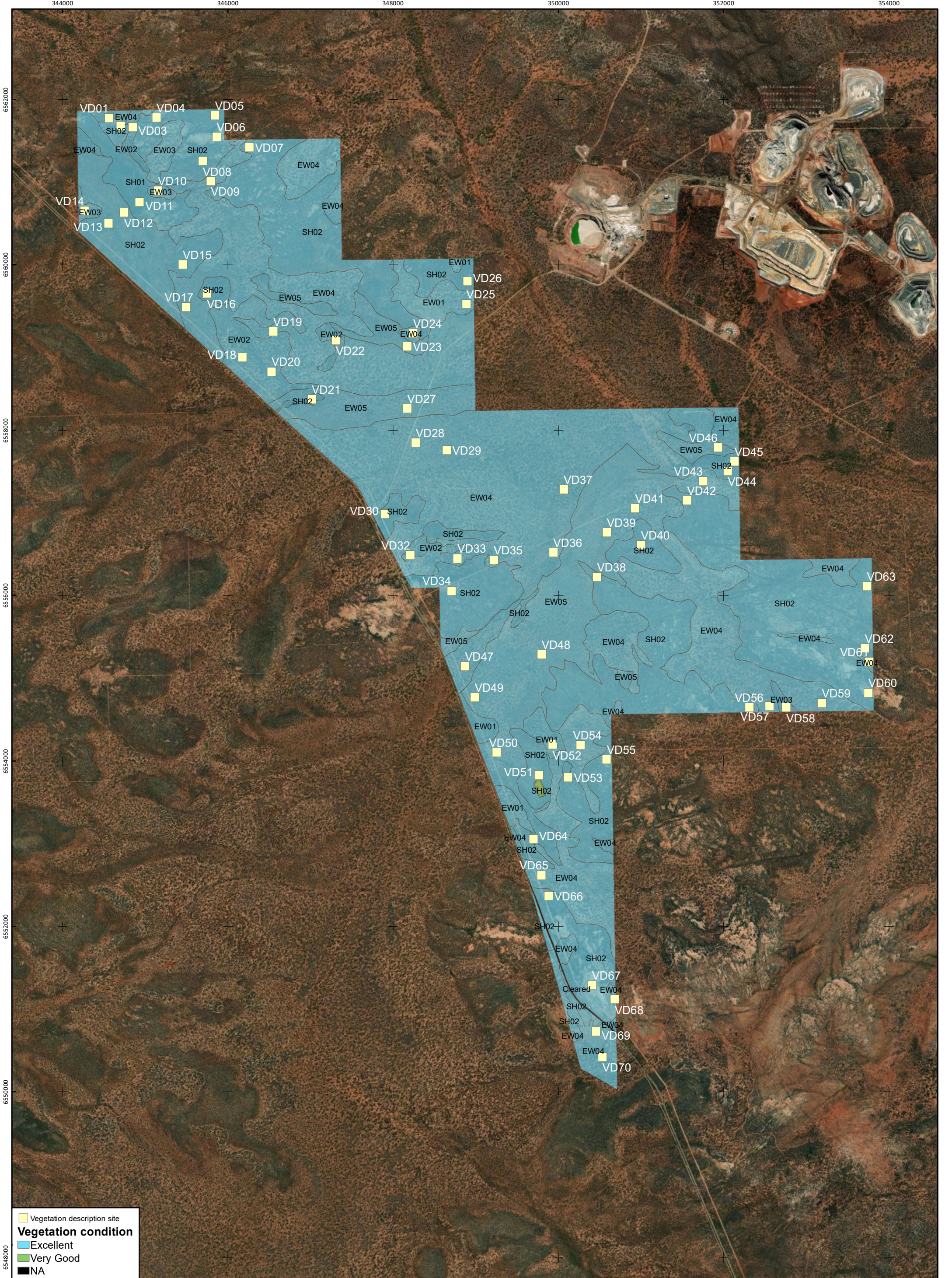


■ Vegetation description site
Priority flora
▲ *Acacia websteri*
▲ *Eremophila acutifolia*
Vegetation type
■ EW01: Eucalyptus clelandiorum, Eucalyptus flocktoniae subsp. flocktoniae, Eucalyptus ravida open woodland; Melaleuca pauperiflora, Eremophila scoparia, Halgania andromedifolia shrubland; Maireana georgei, Austrostipa scabra subsp. scabra herb/grassland.
■ EW02: Eucalyptus clelandiorum, Eucalyptus flocktoniae subsp. flocktoniae, Eucalyptus ravida open woodland; Melaleuca pauperiflora, Eremophila scoparia, Halgania andromedifolia shrubland; Maireana georgei, Austrostipa scabra subsp. scabra herb/grassland.
■ EW03: Eucalyptus celastroides, Eucalyptus transcantonalis open woodland; Senna artemisioides subsp. filifolia, Scaevola spinescens sparse shrubland; Austrostipa scabra subsp. scabra, Rytidosperma setaceum sparse grassland.
■ EW04: Eucalyptus griffithsii, Eucalyptus ?platycorys open woodland; Senna artemisioides subsp. filifolia, Eremophila scoparia, Olearia muelleri sparse shrubland; Sclerolaena diacantha, Austrostipa scabra subsp. scabra sparse herb/grassland.
■ EW05: ±Eucalyptus griffithsii, Eucalyptus ?oleosa open woodland; Acacia ?nervia, Grevillea acuarua, Eremophila ionantha sparse shrubland; Maireana georgei, Austrostipa scabra subsp. scabra sparse herb/grassland.
■ SH01: Acacia ?coolgardiensis, Phebalium canaliculatum, Homalocalyx thryptomenoides sparse shrubland; Waitzia acuminata var. acuminata sparse herbland.
■ SH02: ±Eucalyptus griffithsii open woodland; Acacia acuminata, Acacia resinosa, Prostanthera grylloana sparse shrubland; Triodia scariosa, ±Goodenia occidentalis, Eriachne pulchella sparse grass/herbland.
■ Cleared: NA

Figure 4.1: Vegetation types and significant plant species recorded within the survey area.

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





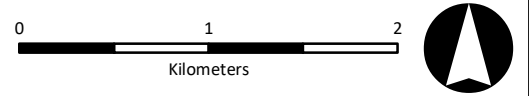
■ Vegetation description site
Vegetation condition
 Excellent
 Very Good
 NA

Figure 4.2: Vegetation condition within the survey area.



Project: 1901
 Date: 29 March 2022
 Author: RS
 Coordinate System: GDA 1994 MGA Zone 51
 Projection: Transverse Mercator
 Absolute Scale: 1:40,000 @A3

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





EW01: *Eucalyptus clelandiorum*, *Eucalyptus flocktoniae* subsp. *flocktoniae*, *Eucalyptus ravida* open woodland; *Melaleuca pauperiflora*, *Eremophila scoparia*, *Halgania andromedifolia* shrubland; *Maireana georgei*, *Austrostipa scabra* subsp. *scabra* herb/grassland.



EW02: *Eucalyptus ravida* open woodland; *Eremophila dempsteri*, *Eremophila ionantha* sparse shrubland; *Sclerolaena diacantha*, *Maireana tomentosa* subsp. *tomentosa* sparse herbland.



EW03: *Eucalyptus celastroides*, *Eucalyptus transcontinentalis* open woodland; *Senna artemisioides* subsp. *filifolia*, *Scaevola spinescens* sparse shrubland; *Austrostipa scabra* subsp. *scabra*, *Rytidosperma setaceum* sparse grassland.

Plate 2: Example photographs of vegetation types within the survey area.



EW04: *Eucalyptus griffithsii*, *Eucalyptus* ?*platycorys* open woodland; *Senna artemisioides* subsp. *filifolia*, *Eremophila scoparia*, *Olearia muelleri* sparse shrubland; *Sclerolaena diacantha*, *Austrostipa scabra* subsp. *scabra* sparse herb/grassland.



EW05: ±*Eucalyptus griffithsii*, *Eucalyptus* ?*oleosa* open woodland; *Acacia* ?*enervia*, *Grevillea acuaria*, *Eremophila ionantha* sparse shrubland; *Maireana georgei*, *Austrostipa scabra* subsp. *scabra* sparse herb/grassland.



SH01 *Acacia* ?*coolgardiensis*, *Phebalium canaliculatum*, *Homalocalyx thryptomenoides* sparse shrubland; *Waitzia acuminata* var. *acuminata* sparse herbland.

Plate 3: Example photographs of vegetation types within the survey area.



SH02: ±*Eucalyptus griffithsii* open woodland; *Acacia acuminata*, *Acacia resinosa*, *Prostanthera grylloana* sparse shrubland; *Triodia scariosa*, *Eriachne pulchella*, ±*Goodenia occidentalis* sparse grass/herbland.

Plate 4: Example photographs of vegetation types within the survey area.

5 DISCUSSION

5.1 FLORA

5.1.1 Floristic Diversity

A total of 173 vascular plant taxa were recorded within the survey area. The most dominant families within the survey area were the Fabaceae, Myrtaceae, Asteraceae, Poaceae and Scrophulariaceae; the most dominant genera were *Acacia*, *Eremophila*, *Eucalyptus* and *Ptilotus*. These dominant groups are mostly consistent with those identified during the desktop assessment, and the overall species diversity and floristic composition of the survey area is typical of the landforms present and for the Eastern Goldfields IBRA subregion more generally.

5.1.2 Significant Species

DBCA listed Priority species

One DBCA listed Priority taxa was recorded within the survey area: *Acacia websteri* (P1). A second Priority species *Eremophila acutifolia* was recorded 437 m north of the survey area.

A summary of the local and regional distribution of the Priority species recorded is as follows:

- *Acacia websteri* (P1) populations are mostly restricted to a cluster south of Kalgoorlie within the Eastern Goldfield and Southern Cross IBRA regions. Several other records can be found within the Merredin subregion within the wheatbelt and the Eastern Murchison subregion further to the north. Within the survey area it was recorded from three sites on plains within vegetation type SH02. This species required post-survey expert taxonomic for formal identification, consequently abundance (or photographic evidence) was not recorded in the field. Percentage cover of *Acacia websteri* was recorded: VD30 (25 – 32%); VD34 (10 – 24%); and VD56 (5 -9%). DBCA Threatened and Priority Flora Database records contain 25 records of *Acacia websteri* within 50 km of the survey area with approximately 805 individuals (In cases where abundance data were not provided, abundance was assumed to be 1). It is likely to occur more widely across the survey area in similar habitats.
- *Eremophila acutifolia* (P3) populations are restricted to the Eastern Goldfield and Southern Cross IBRA subregions roughly between Kalgoorlie and Norseman. DBCA Threatened and Priority Flora Database records did not contain records of this species within 50 km of the survey area, although Florabase shows seven records within 50 km of the survey area (Western Australian Herbarium 1998–). From the current survey approximately 200 individuals were recorded 437 m north of the survey area adjacent to an access track within vegetation consistent with the EW02 vegetation type. This species is likely to occur within the survey area in similar habitats.

In the desktop assessment, 49 significant species were assessed as potentially occurring within the survey area based on proximity and the potential presence of suitable habitat, including three species assessed as 'likely' and 46 species assessed as 'possible'. One species Priority 1 species (*Acacia websteri*) was recorded within the survey area, consequently its post-likelihood of occurrence is 'recorded'. No other significant flora were observed at or between vegetation description sites located within representative vegetation of each habitat type present within the survey area. Seasonal conditions were good for detecting the presence of annual species and the vegetation in the survey area was predominantly in 'Excellent' condition. The survey area was not systematically searched for significant flora, therefore the likelihood of occurrence of these species post-survey remains unchanged.

5.1.3 Introduced Species

Five introduced species were recorded within the survey area, none of which are listed as Declared Pests or Weeds of National Significance. The introduced species recorded are generally widely naturalised across the Pilbara region, and their presence within the survey area is not considered unusual. Introduced species were associated with sandy clay areas of vegetation types SH02 and EW04 where they were present in low abundance (<1% cover).

5.2 VEGETATION

5.2.1 Vegetation Types and Condition

Seven vegetation types were described and mapped within the survey area. Vegetation within the survey area is dominated by two vegetation types which comprise over 76% of the total area: *Eucalyptus griffithsii* low open woodland over *Austrostipa scabra* subsp. *scabra* sparse grassland on plains and undulating plains (EW04 [1,408 ha, 41.0%]); and *Acacia acuminata* mid to tall sparse shrubland over *Triodia scariosa* hummock grassland (SH02 [1,227 ha (35.7%)]).

Vegetation condition within the survey area ranged from 'Very Good' to 'Excellent' according to the EPA (2016) vegetation condition scale. Vegetation within most of the survey area, was in 'Excellent' condition (3,429.27 ha, 99.8%), with either no obvious disturbance or only minor weed invasion and grazing. A small area (1.82 ha, 0.05%) was disturbed by clearing and earth works which was in 'Very Good' condition. The Coolgardie – Esperance Hwy road reserve covered 3.84 ha (0.11%) of the survey area.

5.2.2 Significant Vegetation

Vegetation may be considered significant for a range of reasons including, but not limited to: being listed as a Threatened Ecological Community under the BC Act 2016 or the EPBC Act; being classified as a Priority Ecological Community by DBCA; having a restricted distribution; the degree of historical impact from threatening processes; playing a role as a refuge for Threatened or Priority species; or providing an important function required to maintain ecological integrity of a significant ecosystem (EPA 2016b). Other environmental features, such as watercourses or wetlands, and plant communities with high levels of species diversity, may also be considered significant under some circumstances (DER 2014).

No state (DBCA) or Commonwealth (EPBC Act) listed TECs have been recorded within or in the vicinity of the survey area. In addition, there were no vegetation types observed within the survey area that corresponded to any state listed PEC.

An assessment of vegetation significance within the survey area (Section 4.3) based on the criteria outlined in Section 2.2.7, identified:

- 1.0% (33.33 ha) of the survey area may have local significance as it supports a vegetation type with limited local extent (< 1% of the total survey area).

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7 APPENDICES

Appendix A Definitions of significant species, communities, and weeds.

SIGNIFICANT FLORA

According to the *EPA Factor Guideline: Flora and Vegetation* (EPA 2016a), plant taxa (or records) may be considered significant for a number of reasons including, but not restricted to, the following:

- A taxon listed as 'Threatened' under the *Biodiversity Conservation Act 2016* (WA) or the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth);
- A taxon on the Department of Biodiversity, Conservation and Attractions (DBCA) Priority Flora List;
- Locally endemic species or those associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems);
- New species or those having anomalous features that indicate a potential new species;
- Being 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
- Being representative of taxonomic groups that no longer occur widely in the broader landscape (relictual species/populations).

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Cwlth)

At a Commonwealth level, Threatened species are protected under the EPBC Act, which lists species in accordance with the criteria of the International Union for Conservation of Nature (International Union for Conservation of Nature 2014), that is, 'Critically Endangered', 'Endangered', 'Vulnerable', 'Conservation Dependant', 'Extinct', or 'Extinct in the Wild' (see <http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora>).

Biodiversity Conservation Act 2016 (Western Australia)

At a State level, Threatened species are protected under the BC Act. These are taxa which have been adequately surveyed and are deemed to be either rare, in danger of extinction, or otherwise in need of special protection in the wild and are gazetted as Threatened (Declared Rare) Flora. Threatened species are further categorised by the Department of Biodiversity, Conservation and Attractions (DBCA) according to their level of threat using the International Union for Conservation of Nature (IUCN) red list criteria ((International Union for Conservation of Nature 2014) (see <https://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities> for definitions).

Priority Flora (DBCA)

The DBCA maintains a list of Priority species, which are considered poorly known, uncommon or under threat but for which there is insufficient justification to be listed as Threatened, based on known distribution and population sizes. Priority species are assigned to one of four categories, described below. DBCA listed Priority species do not have any statutory protection (see <https://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants> for definitions.)

SIGNIFICANT VEGETATION

According to *EPA Factor Guideline: Flora and Vegetation* (EPA 2016a), vegetation may be considered significant for a number of reasons including, but not restricted to, the following:

- Being identified as a 'Threatened Ecological Community' under the *Biodiversity Conservation (BC) Act 2016* (WA) or the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* (Cwlth);
- Being classified as a 'Priority Ecological Communities' by DBCA;
- Having a restricted distribution;
- The degree of historical impact from threatening processes;
- Playing a role as a refuge;
- Providing an important function required to maintain ecological integrity of a significant ecosystem.

See <https://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/wa-s-threatened-ecological-communities> for definitions, categories, and criteria of Threatened and Priority Ecological Communities.

INTRODUCED PLANT SPECIES

Weeds of National Significance (WONS)

At a national level, there are 32 weed species listed as Weeds of National Significance (WONS). The Commonwealth National Weeds Strategy: *A Strategic Approach to Weed Problems of National Significance* (DSEWPac 2012b) describes broad goals and objectives to manage these species.–

Declared Pests

The purpose of the *Biosecurity and Agriculture Management Act 2007* (BAM Act) is to prevent serious animal and plant pests and diseases from entering WA and becoming established, and to minimise the spread and impact of those that are already present. The BAM Act (and associated regulations) replaces the *Agriculture and Related Resources Protection Act 1976* (and associated regulations).

The BAM regulations were enacted on 1 May 2013, placing organisms into one of five legal status categories: Declared Pest - Prohibited, Declared Pest, Permitted, Permitted – Requires Permit, and Unlisted (Appendix A). The Western Australian Organism List (WAOL) (DPIRD 2007–) lists organisms in each of these categories. Unlisted organisms must not be imported (unless in accordance with an import permit and regulations). The BAM Act further categorises Declared Pests in one of three control categories: C1 Exclusion, C2 Eradication, and C3 Management (see <https://www.agric.wa.gov.au/bam/western-australian-organism-list-waol> for control category definitions).

Environmental Weeds

At a regional level, DBCA rates weed species against four criteria based on the Weed Prioritisation Process (DPaW 2013): invasiveness, ecological impact, potential and current distribution, and feasibility of control. Currently, only species with a rating for both the ecological impact and invasiveness criteria are listed (see <https://www.dpaw.wa.gov.au/plants-and-animals/plants/weeds/156-how-do-we-manage-weeds> for definitions).

Appendix B Desktop assessment database search results.



EPBC Act Protected Matters Report

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

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

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 10/09/21 12:01:37

[Summary](#)

[Details](#)

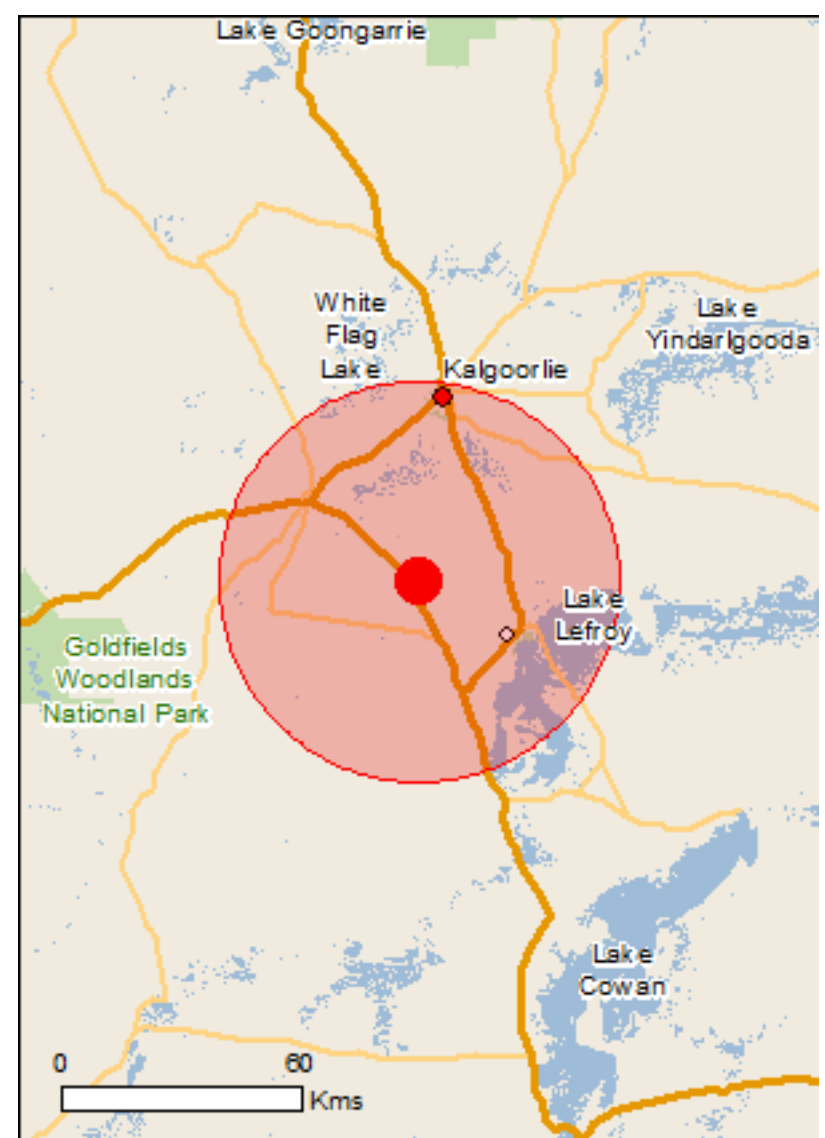
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

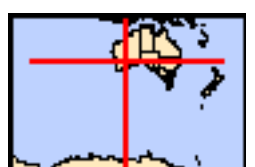
[Acknowledgements](#)



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Buffer: 50.0Km



Summary

Matters of National Environmental Significance

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

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	9
Listed Migratory Species:	7

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	4
Commonwealth Heritage Places:	None
Listed Marine Species:	11
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	9
Regional Forest Agreements:	None
Invasive Species:	17
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

National Heritage Properties		[Resource Information]
Name	State	Status
Historic		
Goldfields Water Supply Scheme, Western Australia	WA	Listed place

Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to 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

Insects		
Ogyris subterrestris petrina Arid Bronze Azure [77743]	Critically Endangered	Species or species habitat may occur within area

Mammals		
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area

Plants		
Gastrolobium graniticum Granite Poison [14872]	Endangered	Species or species habitat may occur within area
Tecticornia flabelliformis Bead Glasswort [82664]	Vulnerable	Species or species habitat known to occur within area
Thelymitra stellata Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species

Name	Threatened	Type of Presence
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		habitat likely to occur within area 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]		Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [\[Resource Information \]](#)

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.

Name
Commonwealth Land - Defence - AIRTC KALGOORLIE Defence - KALGOORLIE RIFLE RANGE Defence - KALGOORLIE TRAINING DEPOT

Listed Marine Species [\[Resource Information \]](#)

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

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
Chrysococcyx osculans Black-eared Cuckoo [705]		Species or species habitat known to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Burra	WA
Goldfields Woodlands	WA
Kalgoorlie Arboretum	WA
Kambalda	WA
Kangaroo Hills Timber Reserve	WA
Kurrawang	WA
Lakeside Timber Reserve	WA
Scahill Timber Reserve	WA
Yallari Timber Reserve	WA

Invasive Species [Resource Information]

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

Name	Status	Type of Presence
Birds		
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Mammals		
Camelus dromedarius Dromedary, Camel [7]		Species or species habitat likely to occur

Name	Status	Type of Presence within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Equus asinus Donkey, Ass [4]		Species or species habitat likely to occur within area
Equus caballus Horse [5]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Carrichtera annua Ward's Weed [9511]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Cylindropuntia spp. Prickly Pears [85131]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

Caveat

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

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-31.10921 121.41897

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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MRL Mount Marion NatureMap Species Report

Created By Guest user on 10/09/2021

Kingdom Plantae
Current Names Only Yes
Core Datasets Only Yes
Vouchered Status Vouchered
Species Group Vascular Plants
Method 'By Circle'
Centre 121° 25' 08" E, 31° 06' 33" S
Buffer 40km
Group By Family

Family	Species	Records
Aizoaceae	5	10
Amaranthaceae	13	53
Anacardiaceae	1	1
Apiaceae	3	6
Apocynaceae	5	24
Araliaceae	3	5
Asparagaceae	3	4
Asphodelaceae	1	2
Asteraceae	83	273
Boraginaceae	8	43
Brassicaceae	15	36
Cactaceae	3	4
Campanulaceae	2	4
Caryophyllaceae	3	3
Casuarinaceae	8	30
Celastraceae	2	2
Chenopodiaceae	70	298
Colchicaceae	1	1
Convolvulaceae	2	2
Crassulaceae	4	6
Cucurbitaceae	1	2
Cupressaceae	3	10
Cyperaceae	11	19
Didiereaceae	1	1
Dilleniaceae	1	1
Droseraceae	1	1
Elaeocarpaceae	2	7
Ericaceae	4	14
Euphorbiaceae	10	35
Fabaceae	97	402
Frankeniaceae	6	15
Geraniaceae	3	7
Goodeniaceae	19	74
Gyrostemonaceae	2	4
Haloragaceae	4	14
Lamiaceae	20	94
Lauraceae	1	1
Loganiaceae	1	2
Loranthaceae	4	20
Lythraceae	1	1
Malvaceae	17	82
Molluginaceae	1	1
Montiaceae	5	11
Myrtaceae	100	610
Orchidaceae	7	10
Orobanchaceae	1	1
Papaveraceae	1	1
Pittosporaceae	4	11
Plantaginaceae	3	9
Plumbaginaceae	1	1
Poaceae	39	76
Polygalaceae	2	2
Polygonaceae	2	3
Portulacaceae	1	1
Primulaceae	1	2
Proteaceae	26	87
Pteridaceae	3	4
Ranunculaceae	1	1
Restionaceae	2	2
Rhamnaceae	7	29
Rubiaceae	1	1
Ruppiaceae	1	1
Rutaceae	9	32
Santalaceae	3	18
Sapindaceae	8	61
Scrophulariaceae	39	271
Solanaceae	12	45
Stylidiaceae	4	8

Thymelaeaceae	3	11
Typhaceae	1	1
Verbenaceae	2	2
Violaceae	2	11
Zygophyllaceae	9	14
TOTAL	745	2951

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
Aizoaceae				
1.	11681 <i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>			
2.	2807 <i>Gunniopsis quadrifida</i> (Sturts Pigface)			
3.	2813 <i>Mesembryanthemum crystallinum</i> (Iceplant)	Y		
4.	2814 <i>Mesembryanthemum nodiflorum</i> (Slender Iceplant)	Y		
5.	2822 <i>Tetragonia eremaea</i>			
Amaranthaceae				
6.	2648 <i>Alternanthera denticulata</i> (Lesser Joyweed)			
7.	2652 <i>Alternanthera nodiflora</i> (Common Joyweed)			
8.	2690 <i>Ptilotus aervooides</i>			
9.	2707 <i>Ptilotus carlsonii</i>			
10.	48602 <i>Ptilotus eremita</i>			
11.	2721 <i>Ptilotus exaltatus</i> (Tall Mulla Mulla)			
12.	2727 <i>Ptilotus gaudichaudii</i>			
13.	2729 <i>Ptilotus grandiflorus</i>			
14.	2730 <i>Ptilotus helichrysooides</i>			
15.	2732 <i>Ptilotus holosericeus</i>			
16.	2747 <i>Ptilotus obovatus</i> (Cotton Bush)			
17.	2752 <i>Ptilotus procumbens</i>		P1	
18.	43203 <i>Surreya diandra</i>			
Anacardiaceae				
19.	17056 <i>Schinus molle</i> var. <i>areira</i>	Y		
Apiaceae				
20.	6218 <i>Daucus glochidiatus</i> (Australian Carrot)			
21.	6252 <i>Platysace effusa</i>			
22.	14999 <i>Platysace trachymenioides</i>			
Apocynaceae				
23.	6565 <i>Alyxia buxifolia</i> (Dysentery Bush)			
24.	14636 <i>Alyxia tetanifolia</i>		P3	
25.	12949 <i>Marsdenia australis</i>			
26.	20233 <i>Orbea variegata</i>	Y		Y
27.	48986 <i>Vincetoxicum lineare</i>			
Araliaceae				
28.	11546 <i>Hydrocotyle pilifera</i> var. <i>glabrata</i>			
29.	6268 <i>Trachymene cyanopetala</i>			
30.	6279 <i>Trachymene ornata</i> (Spongefruit)			
Asparagaceae				
31.	1215 <i>Chamaexeros fimbriata</i>			
32.	1313 <i>Sowerbaea multicaulis</i> (Many Stemmed Lily)		P4	
33.	<i>Thysanotus</i> sp.			
Asphodelaceae				
34.	1366 <i>Bulbine semibarbata</i> (Leek Lily)			
Asteraceae				
35.	7817 <i>Actinobole uliginosum</i> (Flannel Cudweed)			
36.	7836 <i>Angianthus tomentosus</i> (Camel-grass)			
37.	7838 <i>Arctotheca calendula</i> (Cape Weed, African Marigold)	Y		
38.	7846 <i>Asteridea athrixioides</i>			
39.	7847 <i>Asteridea chaetopoda</i>			
40.	7871 <i>Brachyscome ciliaris</i>			
41.	7880 <i>Brachyscome lineariloba</i>			
42.	7882 <i>Brachyscome perpusilla</i>			
43.	7903 <i>Calotis hispidula</i> (Bindy Eye)			
44.	7905 <i>Calotis multicaulis</i> (Many-stemmed Burr-daisy)			
45.	7911 <i>Carthamus lanatus</i> (Saffron Thistle)	Y		
46.	7916 <i>Centaurea melitensis</i> (Maltese Cockspur, Malta Thistle)	Y		
47.	7922 <i>Cephalopterum drummondii</i> (Pompom Head)			
48.	7924 <i>Ceratogyne obionoides</i> (Wingwort)			
49.	47074 <i>Chrysocephalum apiculatum</i> subsp. <i>norsemanense</i>		P3	
50.	13138 <i>Chrysocephalum puteale</i>			
51.	7935 <i>Cichorium intybus</i> (Chicory)	Y		
52.	7939 <i>Conyza bonariensis</i> (Flaxleaf Fleabane)	Y		
53.	20074 <i>Conyza sumatrensis</i>	Y		
54.	7949 <i>Cratystylis conocephala</i> (Greybush)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
55.	7950 <i>Cratystylis microphylla</i> (Small-leaved Grey Bush)			
56.	7951 <i>Cratystylis subspinescens</i> (Australian Sage, Spiny Grey Bush)			
57.	12739 <i>Erymophyllum ramosum</i>			
58.	14377 <i>Erymophyllum ramosum</i> subsp. <i>ramosum</i>			
59.	16311 <i>Gazania linearis</i>	Y		
60.	12780 <i>Gilberta tenuifolia</i>			
61.	7989 <i>Gnephosis brevifolia</i> (Short-leaved Gnephosis)			
62.	8008 <i>Helianthus annuus</i> (Sunflower, Common Sunflower)	Y		
63.	12742 <i>Hyalosperma demissum</i>			
64.	12743 <i>Hyalosperma glutinosum</i>			
65.	15447 <i>Hyalosperma glutinosum</i> subsp. <i>glutinosum</i>			
66.	12756 <i>Hyalosperma zacchaeus</i>			
67.	8087 <i>Isoetopsis graminifolia</i> (Cushion Grass)			
68.	8094 <i>Kippistia suaedifolia</i>			
69.	19237 <i>Leiocarpa websteri</i>			
70.	12628 <i>Lemooria burkittii</i>			
71.	8107 <i>Minuria cunninghamii</i> (Bush Minuria)			
72.	29418 <i>Monoculus monstrosus</i>	Y		
73.	14186 <i>Myriocephalus pygmaeus</i>			
74.	48227 <i>Notisia intonsa</i>		P3	
75.	8134 <i>Olearia exiguiifolia</i> (Small-leaved Daisy Bush)			
76.	8136 <i>Olearia homolepis</i>			
77.	19023 <i>Olearia incana</i>			
78.	8140 <i>Olearia muelleri</i> (Goldfields Daisy)			
79.	8145 <i>Olearia pimeleoides</i> (Pimelea Daisybush, Burrobunga)			
80.	8149 <i>Olearia rudis</i> (Rough Daisybush)			
81.	44401 <i>Olearia</i> sp. <i>Eremicola</i> (Diels & Pritzel s.n. PERTH 00449628)			
82.	8152 <i>Olearia subspicata</i> (Spiked Daisy Bush)			
83.	19828 <i>Oligocarpus calendulaceus</i>	Y		
84.	20661 <i>Oncosiphon suffruticosum</i> (Calomba Daisy)	Y		
85.	12642 <i>Ozothamnus cassiope</i>			
86.	45238 <i>Podolepis aristata</i> subsp. <i>affinis</i>			
87.	8173 <i>Podolepis capillaris</i> (Wiry Podolepis)			
88.	8177 <i>Podolepis lessonii</i>			
89.	8180 <i>Podolepis rugata</i> (Pleated Podolepis)			
90.	12731 <i>Podotheca wilsonii</i>			
91.	8187 <i>Pogonolepis muelleriana</i>			
92.	13306 <i>Rhodanthe battii</i>			
93.	13241 <i>Rhodanthe chlorocephala</i> subsp. <i>rosea</i>			
94.	13301 <i>Rhodanthe floribunda</i>			
95.	13293 <i>Rhodanthe haigii</i>			
96.	13294 <i>Rhodanthe laevis</i>			
97.	13234 <i>Rhodanthe manglesii</i>			
98.	13249 <i>Rhodanthe oppositifolia</i> subsp. <i>oppositifolia</i>			
99.	13252 <i>Rhodanthe pygmaea</i>			
100.	13253 <i>Rhodanthe rubella</i>			
101.	13254 <i>Rhodanthe stricta</i>			
102.	8200 <i>Schoenia cassiniana</i> (Schoenia)			
103.	13287 <i>Schoenia filifolia</i> subsp. <i>fillifolia</i>			
104.	8207 <i>Senecio glossanthus</i> (Slender Groundsel)			
105.	25881 <i>Senecio lacustrinus</i>			
106.	8213 <i>Senecio magnificus</i> (Showy Groundsel)			
107.	8238 <i>Streptoglossa liatroides</i>			
108.	25902 <i>Symphyotrichum squamatum</i> (Bushy Starwort)	Y		
109.	13298 <i>Thiseltonia gracillima</i>			
110.	12652 <i>Trichanthodium skirrophorum</i>			
111.	8253 <i>Triptilodiscus pygmaeus</i>			
112.	11387 <i>Vittadinia cervicalis</i> var. <i>cervicalis</i>			
113.	11788 <i>Vittadinia dissecta</i> var. <i>hirta</i>			
114.	8268 <i>Vittadinia humerata</i>			
115.	8273 <i>Vittadinia sulcata</i>			
116.	13331 <i>Waitzia acuminata</i> var. <i>acuminata</i>			
117.	46093 <i>Waitzia fitzibbonii</i>			
Boraginaceae				
118.	6681 <i>Echium plantagineum</i> (Paterson's Curse)	Y		
119.	6684 <i>Halgania andromedifolia</i>			
120.	29840 <i>Halgania cyanea</i> var. <i>Allambi Stn</i> (B.W. Strong 676)			
121.	31117 <i>Halgania cyanea</i> var. <i>Charleville</i> (R.W. Purdie +111)			
122.	6691 <i>Halgania integerrima</i>			
123.	6710 <i>Heliotropium europaeum</i> (Common Heliotrope)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
		Y		
124.	6723 <i>Omphalolappula concava</i> (Burr Stickseed)			
125.	6727 <i>Trichodesma zeylanicum</i> (Camel Bush, Kumbalin)			
Brassicaceae				
126.	2990 <i>Alyssum linifolium</i> (Flax-leaf Alyssum)	Y		
127.	31876 <i>Arabidella chrysodema</i>			
128.	2992 <i>Arabidella trisecta</i>			
129.	3000 <i>Brassica tournefortii</i> (Mediterranean Turnip)	Y		
130.	3008 <i>Carrichtera annua</i> (Ward's Weed)	Y		
131.	3018 <i>Lepidium africanum</i> (Rubble Peppercross)	Y		
132.	3031 <i>Lepidium merrallii</i>		P2	
133.	3033 <i>Lepidium oxytrichum</i>			
134.	3034 <i>Lepidium papillosum</i> (Warty Peppercross)			Y
135.	3059 <i>Phlegmatospermum eremaeum</i>		P3	
136.	3072 <i>Sisymbrium orientale</i> (Indian Hedge Mustard)	Y		
137.	3076 <i>Stenopetalum filifolium</i>			
138.	3077 <i>Stenopetalum lineare</i> (Narrow Thread Petal)			
139.	30212 <i>Stenopetalum lineare</i> var. <i>lineare</i>			
140.	3079 <i>Stenopetalum pedicellare</i>			
Cactaceae				
141.	20759 <i>Cylindropuntia fulgida</i> var. <i>mamillata</i>	Y		
142.	20281 <i>Cylindropuntia tunicata</i>	Y		Y
143.	31799 <i>Opuntia elata</i>	Y		
Campanulaceae				
144.	7397 <i>Isotoma petraea</i> (Rock Isotome, Tundiwari)			
145.	7386 <i>Wahlenbergia gracilentia</i> (Annual Bluebell)			
Caryophyllaceae				
146.	2914 <i>Spergularia diandra</i> (Lesser Sand Spurry)	Y		
147.	8900 <i>Spergularia marina</i>			
148.	2917 <i>Stellaria filiformis</i> (Thread Spurry)			
Casuarinaceae				
149.	13904 <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>			
150.	1721 <i>Allocasuarina campestris</i>			
151.	1722 <i>Allocasuarina corniculata</i>			
152.	13906 <i>Allocasuarina eriochlamys</i> subsp. <i>eriochlamys</i>			
153.	13897 <i>Allocasuarina eriochlamys</i> subsp. <i>grossa</i>		P3	
154.	1730 <i>Allocasuarina helmsii</i>			
155.	1731 <i>Allocasuarina huegeliana</i> (Rock Sheoak, Kwool)			
156.	12658 <i>Casuarina pauper</i> (Black Oak)			
Celastraceae				
157.	4725 <i>Psammomoya choretroides</i>			
158.	29813 <i>Stackhousia</i> sp. <i>Mt Keith</i> (G. Cockerton & G. O'Keefe 11017)			
Chenopodiaceae				
159.	2449 <i>Atriplex acutibractea</i> (Toothed Saltbush)			
160.	11435 <i>Atriplex acutibractea</i> subsp. <i>acutibractea</i>			
161.	11489 <i>Atriplex acutibractea</i> subsp. <i>karoniensis</i>			
162.	2450 <i>Atriplex amnicola</i> (Swamp Saltbush)			
163.	2453 <i>Atriplex codonocarpa</i> (Flat-topped Saltbush)			
164.	2455 <i>Atriplex eardleyae</i>			
165.	2459 <i>Atriplex holocarpa</i> (Pop Saltbush)			
166.	2468 <i>Atriplex nana</i>			
167.	2469 <i>Atriplex nummularia</i> (Old Man Saltbush)			
168.	11516 <i>Atriplex nummularia</i> subsp. <i>spatulata</i> (Old Man Saltbush)			
169.	11791 <i>Atriplex quadrivalvata</i> var. <i>quadrivalvata</i>			
170.	2475 <i>Atriplex semibaccata</i> (Berry Saltbush)			
171.	2478 <i>Atriplex spongiosa</i> (Pop Saltbush)			
172.	2479 <i>Atriplex stipitata</i> (Mallee Saltbush)			
173.	2480 <i>Atriplex suberecta</i>			
174.	2481 <i>Atriplex vesicaria</i> (Bladder Saltbush)			
175.	2483 <i>Chenopodium album</i> (Fat Hen)	Y		
176.	2487 <i>Chenopodium curvispicatum</i>			
177.	2498 <i>Didymanthus roei</i>			
178.	2499 <i>Dissocarpus paradoxus</i> (Curious Saltbush)			
179.	33501 <i>Dysphania cristata</i> (Crested Goosefoot)			
180.	2502 <i>Dysphania kalpari</i> (Rat's Tail, Kalpari)			
181.	33480 <i>Dysphania pumilio</i> (Clammy Goosefoot)			
182.	2511 <i>Enchylaena tomentosa</i> (Barrier Saltbush)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
183.	12064 <i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (Barrier Saltbush)			
184.	2514 <i>Eriochiton sclerolaenoides</i> (Woolly Bindii)			
185.	2533 <i>Maireana amoena</i>			
186.	2535 <i>Maireana appressa</i>			
187.	2542 <i>Maireana erioclada</i>			
188.	2543 <i>Maireana eriosphaera</i>			
189.	2544 <i>Maireana georgei</i> (Satiny Bluebush)			
190.	2545 <i>Maireana glomerifolia</i> (Ball Leaf Bluebush)			
191.	2550 <i>Maireana marginata</i>			
192.	2553 <i>Maireana oppositifolia</i>			
193.	2554 <i>Maireana pentagona</i> (Hairy Bluebush)			
194.	2555 <i>Maireana pentatropis</i>			
195.	2557 <i>Maireana platycarpa</i> (Shy Bluebush)			
196.	2560 <i>Maireana pyramidata</i> (Sago Bush)			
197.	2561 <i>Maireana radiata</i>			
198.	2563 <i>Maireana sedifolia</i> (Pearl Bluebush, Myall)			
199.	2565 <i>Maireana suaedifolia</i>			
200.	2567 <i>Maireana tomentosa</i> (Feltly Bluebush)			
201.	11662 <i>Maireana tomentosa</i> subsp. <i>tomentosa</i>			
202.	2568 <i>Maireana trichoptera</i> (Downy Bluebush)			
203.	2569 <i>Maireana triptera</i> (Threewinged Bluebush)			
204.	2581 <i>Rhagodia drummondii</i>			
205.	2582 <i>Rhagodia eremaea</i> (Thorny Saltbush)			
206.	30434 <i>Salsola australis</i>			
207.	2599 <i>Sclerolaena brevifolia</i>			
208.	2606 <i>Sclerolaena cuneata</i> (Yellow Bindii)			
209.	2609 <i>Sclerolaena diacantha</i> (Grey Copperburr)			
210.	2610 <i>Sclerolaena drummondii</i>			
211.	2612 <i>Sclerolaena eurotioides</i> (Fluffy Bindii)			
212.	2615 <i>Sclerolaena fusiformis</i>			
213.	2625 <i>Sclerolaena obliquicuspis</i> (Limestone Bindii)			
214.	2626 <i>Sclerolaena parviflora</i> (Small-flower Saltbush)			
215.	2641 <i>Tecticornia arborea</i> (Bulli Bulli)			
216.	31492 <i>Tecticornia disarticulata</i>			
217.	46513 <i>Tecticornia doliiformis</i>			
218.	33319 <i>Tecticornia indica</i> subsp. <i>bidens</i>			
219.	33318 <i>Tecticornia indica</i> subsp. <i>leiostachya</i> (Samphire)			
220.	31718 <i>Tecticornia lepidosperma</i>			
221.	46514 <i>Tecticornia mellarium</i>		P1	
222.	31551 <i>Tecticornia moniliformis</i>			
223.	33297 <i>Tecticornia pergranulata</i> subsp. <i>pergranulata</i> (Blackseed Samphire)			
224.	31618 <i>Tecticornia pruinosa</i>			
225.	33218 <i>Tecticornia pterygosperma</i> subsp. <i>pterygosperma</i>			
226.	31716 <i>Tecticornia syncarpa</i>			
227.	31494 <i>Tecticornia triandra</i> (Desert Glasswort)			
228.	31717 <i>Tecticornia undulata</i>			
Colchicaceae				
229.	1403 <i>Wurmbea tenella</i> (Eight Nancy)			
Convolvulaceae				
230.	6612 <i>Convolvulus clementii</i>			
231.	6614 <i>Convolvulus remotus</i>			
Crassulaceae				
232.	19376 <i>Bryophyllum delagoense</i>	Y		
233.	11709 <i>Crassula colorata</i> var. <i>acuminata</i>			
234.	11563 <i>Crassula colorata</i> var. <i>colorata</i>			
235.	20268 <i>Crassula tetramera</i>			
Cucurbitaceae				
236.	48838 <i>Citrullus amarus</i>	Y		
Cupressaceae				
237.	8466 <i>Callitris columellaris</i> (White Cypress Pine)			
238.	96 <i>Callitris preissii</i> (Rottnest Island Pine, Maro)			
239.	8637 <i>Callitris verrucosa</i>			
Cyperaceae				
240.	765 <i>Chrysitrix distigmatosa</i>			
241.	34969 <i>Eleocharis acutangula</i>			Y
242.	14539 <i>Isolepis australiensis</i>		P3	
243.	911 <i>Isolepis congrua</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
244.	31760 <i>Lepidosperma diurnum</i>			
245.	<i>Lepidosperma</i> sp.			
246.	30437 <i>Lepidosperma</i> sp. Kambalda (A.A. Mitchell 5156)			Y
247.	30438 <i>Lepidosperma</i> sp. Parker Range (N. Gibson & M. Lyons 2094)		P1	
248.	954 <i>Mesomelaena preissii</i>			
249.	993 <i>Schoenus hexandrus</i>			
250.	1015 <i>Schoenus subaphyllus</i>			
Didiereaceae				
251.	20374 <i>Portulacaria afra</i>	Y		
Dilleniaceae				
252.	19779 <i>Hibbertia glomerosa</i> var. <i>glomerosa</i>			
Droseraceae				
253.	49090 <i>Drosera</i> sp. Branched styles (S.C. Coffey 193)			
Elaeocarpaceae				
254.	4530 <i>Tetratheca efoliata</i>			
255.	41500 <i>Tetratheca spenceri</i>		T	Y
Ericaceae				
256.	41770 <i>Leucopogon</i> sp. Boorabbin (K.R. Newbey 8374)			
257.	16049 <i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207)			
258.	20763 <i>Leucopogon</i> sp. Coolgardie (M. Hislop & F. Hort MH 3197)			
259.	29493 <i>Leucopogon</i> sp. Kambalda (J. Williams s.n. PERTH 07305028)		P3	Y
Euphorbiaceae				
260.	4591 <i>Bertya dimerostigma</i>			
261.	4598 <i>Beyeria lechenaultii</i> (Pale Turpentine Bush)			
262.	34276 <i>Beyeria sulcata</i> var. <i>brevipes</i>			
263.	34257 <i>Beyeria sulcata</i> var. <i>sulcata</i>			
264.	12097 <i>Euphorbia tannensis</i> subsp. <i>eremophila</i> (Desert Spurge)			
265.	19587 <i>Monotaxis grandiflora</i> var. <i>obtusifolia</i>			
266.	4664 <i>Monotaxis luteiflora</i>			
267.	45075 <i>Ricinocarpos</i> sp. Eastern Goldfields (A. Williams 3)		P1	
268.	4701 <i>Ricinocarpos stylosus</i>			
269.	4704 <i>Ricinocarpos velutinus</i>			
Fabaceae				
270.	3200 <i>Acacia acuminata</i> (Jam, Mangard)			
271.	14584 <i>Acacia ancistrophylla</i> var. <i>ancistrophylla</i>			
272.	3216 <i>Acacia andrewsii</i>			
273.	3217 <i>Acacia aneura</i> (Mulga, Wanari)			
274.	37260 <i>Acacia aptaneura</i>			
275.	3236 <i>Acacia beauverdiana</i> (Pukkati)			
276.	3248 <i>Acacia burkittii</i> (Sandhill Wattle)			
277.	3249 <i>Acacia calcarata</i>			
278.	3251 <i>Acacia camptoclada</i>			
279.	3256 <i>Acacia chrysella</i>			
280.	44469 <i>Acacia coatesii</i>		P1	Y
281.	44514 <i>Acacia collegialis</i>			
282.	3264 <i>Acacia colletioides</i> (Wait-a-while)			
283.	3269 <i>Acacia coolgardiensis</i> (Spinifex Wattle)			
284.	3291 <i>Acacia dempsteri</i>			
285.	15281 <i>Acacia desertorum</i> var. <i>desertorum</i>			
286.	3315 <i>Acacia duriuscula</i>			
287.	32118 <i>Acacia effusifolia</i>			
288.	12257 <i>Acacia enervia</i> subsp. <i>explicata</i>			
289.	16020 <i>Acacia eremophila</i> var. <i>eremophila</i>			
290.	3324 <i>Acacia erinacea</i>			
291.	15282 <i>Acacia gibbosa</i>			
292.	3366 <i>Acacia hemiteles</i>			
293.	3378 <i>Acacia inaequiloba</i>			
294.	16164 <i>Acacia inceana</i> subsp. <i>inceana</i>			
295.	3393 <i>Acacia jennerae</i>			
296.	14610 <i>Acacia kalgoorliensis</i>			
297.	3400 <i>Acacia kerryana</i>		P2	
298.	3408 <i>Acacia lasiocalyx</i> (Silver Wattle, Wilyurwur)			
299.	3416 <i>Acacia leptopetala</i>			
300.	3419 <i>Acacia ligulata</i> (Umbrella Bush, Watarka)			
301.	3426 <i>Acacia longispinea</i>			
302.	13503 <i>Acacia masliniana</i>			
303.	3440 <i>Acacia merrallii</i>			

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304.	36416 <i>Acacia mulganeura</i>			
305.	3451 <i>Acacia multispicata</i>			
306.	3452 <i>Acacia murrayana</i> (Sandplain Wattle)			
307.	3463 <i>Acacia nyssophylla</i>			
308.	3478 <i>Acacia pachypoda</i>			
309.	3495 <i>Acacia prainii</i> (Prain's Wattle)			
310.	3498 <i>Acacia pritzeliana</i>			
311.	3504 <i>Acacia pycnantha</i> (Golden Wattle)	Y		
312.	3512 <i>Acacia rendlei</i>			
313.	3513 <i>Acacia resinimarginea</i>			
314.	3514 <i>Acacia resinistipulea</i>			
315.	3539 <i>Acacia sericocarpa</i>			
316.	<i>Acacia</i> sp.			
317.	13070 <i>Acacia synchronicia</i>			
318.	3577 <i>Acacia tetragonophylla</i> (Kurara, Wakalpuka)			
319.	3599 <i>Acacia warramaba</i>			
320.	3600 <i>Acacia websteri</i>		P1	
321.	16157 <i>Acacia xerophila</i> var. <i>brevior</i>			
322.	15292 <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>			
323.	41993 <i>Aotus</i> sp. <i>Tortile</i> (G.J. Keighery 3767)			
324.	18427 <i>Bossiaea cucullata</i>			
325.	30233 <i>Bossiaea laxa</i>		P2	
326.	17117 <i>Cullen cinereum</i>			
327.	17417 <i>Cullen discolor</i>			
328.	8977 <i>Daviesia aphylla</i>			
329.	3802 <i>Daviesia croniniana</i>			
330.	3813 <i>Daviesia grahamii</i>			
331.	3823 <i>Daviesia nematophylla</i>			
332.	3829 <i>Daviesia pachyloma</i>			
333.	19854 <i>Dillwynia</i> sp. <i>Coolgardie</i> (V.E. Sands 637.3.1)			
334.	11034 <i>Gastrolobium graniticum</i>		T	
335.	3943 <i>Glycyrrhiza acanthocarpa</i> (Native Liquorice)			
336.	10777 <i>Gompholobium gompholobioides</i>			
337.	14779 <i>Jacksonia arida</i>			
338.	4043 <i>Kennedia prorepens</i>			
339.	17641 <i>Leptosema cervicorne</i>			
340.	4056 <i>Leptosema daviesioides</i>			
341.	4061 <i>Lotus cruentus</i> (Redflower Lotus)			
342.	4077 <i>Medicago minima</i> (Small Burr Medic)	Y		
343.	4079 <i>Medicago polymorpha</i> (Burr Medic)	Y		
344.	4089 <i>Mirbelia depressa</i>			
345.	4094 <i>Mirbelia microphylla</i>			
346.	4097 <i>Mirbelia ramulosa</i>			
347.	4099 <i>Mirbelia seorsifolia</i>			
348.	3674 <i>Petalostylis cassioides</i>			
349.	17645 <i>Senna artemisioides</i>			
350.	12276 <i>Senna artemisioides</i> subsp. <i>filifolia</i>			
351.	17558 <i>Senna artemisioides</i> subsp. <i>x artemisioides</i>			
352.	18430 <i>Senna cardiosperma</i>			
353.	16378 <i>Senna pleurocarpa</i>			
354.	12315 <i>Senna pleurocarpa</i> var. <i>angustifolia</i>			
355.	12314 <i>Senna pleurocarpa</i> var. <i>pleurocarpa</i>			
356.	18446 <i>Senna stowardii</i>			
357.	12355 <i>Swainsona affinis</i>			
358.	4217 <i>Swainsona beasleyana</i>			
359.	4220 <i>Swainsona canescens</i> (Grey Swainsona)			
360.	4221 <i>Swainsona colutooides</i> (Bladder Vetch)			
361.	4231 <i>Swainsona kingii</i>			
362.	4237 <i>Swainsona oliveri</i>			
363.	4238 <i>Swainsona oroboides</i> (Variable Swainsona)			
364.	35840 <i>Templetonia ceracea</i>			
365.	35841 <i>Templetonia incrassata</i>			
366.	17261 <i>Vicia monantha</i> subsp. <i>triflora</i>	Y		
Frankeniaceae				
367.	5191 <i>Frankenia cinerea</i>			
368.	5197 <i>Frankenia desertorum</i>			
369.	5204 <i>Frankenia interioris</i>			
370.	11592 <i>Frankenia interioris</i> var. <i>interioris</i>			
371.	11969 <i>Frankenia interioris</i> var. <i>parviflora</i>			
372.	5212 <i>Frankenia setosa</i> (Bristly Frankenia)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Geraniaceae				
373.	4333 <i>Erodium cicutarium</i> (Common Storksbill)	Y		
374.	4334 <i>Erodium crinitum</i> (Corkscrew)			
375.	4335 <i>Erodium cygnorum</i> (Blue Heronsbill)			
Goodeniaceae				
376.	7413 <i>Brunonia australis</i> (Native Cornflower)			
377.	19069 <i>Brunonia</i> sp. Goldfields (K.R. Newbey 6044)			
378.	7419 <i>Coopermookia strophiolata</i>			
379.	13155 <i>Dampiera latealata</i>			
380.	7451 <i>Dampiera lavandulacea</i>			
381.	7456 <i>Dampiera luteiflora</i> (Yellow Dampiera)			
382.	7463 <i>Dampiera plumosa</i>		P1	
383.	7477 <i>Dampiera stenostachya</i> (Narrow-spiked Dampiera)			
384.	13158 <i>Dampiera tenuicaulis</i> var. <i>curvula</i>			
385.	13159 <i>Dampiera tenuicaulis</i> var. <i>tenuicaulis</i>			
386.	7499 <i>Goodenia concinna</i> (Elegant Goodenia)			
387.	7506 <i>Goodenia elderi</i>			
388.	7514 <i>Goodenia havilandii</i>			
389.	7527 <i>Goodenia mimuloides</i>			
390.	7541 <i>Goodenia pusilliflora</i> (Smallflower Goodenia)			
391.	31837 <i>Goodenia salina</i>		P2	
392.	7565 <i>Goodenia xanthosperma</i> (Yellow-seeded Goodenia)			
393.	7644 <i>Scaevola spinescens</i> (Currant Bush, Maroon)			
394.	7664 <i>Velleia rosea</i> (Pink Velleia)			
Gyrostemonaceae				
395.	2778 <i>Codonocarpus cotinifolius</i> (Native Poplar, Kundurangu)			
396.	2783 <i>Gyrostemon racemiger</i>			
Haloragaceae				
397.	33620 <i>Glischrocaryon angustifolium</i>			
398.	6144 <i>Glischrocaryon flavescens</i>			
399.	11801 <i>Gonocarpus confertifolius</i> var. <i>helmsii</i>			
400.	6180 <i>Haloragis trigonocarpa</i>			
Lamiaceae				
401.	19437 <i>Brachysola coerulea</i>			
402.	6747 <i>Cyanostegia angustifolia</i> (Tinsel-flower)			
403.	6751 <i>Cyanostegia microphylla</i> (Tinsel Flower)			
404.	41025 <i>Dasymalla terminalis</i> (Native Foxglove)			
405.	6753 <i>Dicrastylis brunnea</i>			
406.	6771 <i>Dicrastylis parvifolia</i>			
407.	6776 <i>Hemiphora elderi</i> (Red Velvet)			
408.	6779 <i>Lachnostachys coolgardiensis</i>			
409.	6881 <i>Marrubium vulgare</i> (Horehound)	Y		
410.	17206 <i>Physopsis viscida</i>			
411.	6812 <i>Pityrodia lepidota</i>			
412.	15822 <i>Prostanthera althoferi</i> subsp. <i>althoferi</i>			
413.	6912 <i>Prostanthera campbellii</i>			
414.	6916 <i>Prostanthera grylloana</i>			
415.	6917 <i>Prostanthera incurvata</i>			
416.	6928 <i>Salvia reflexa</i> (Mintweed)	Y		
417.	6929 <i>Salvia verbenaca</i> (Wild Sage)	Y		
418.	6938 <i>Westringia cephalantha</i>			
419.	34603 <i>Westringia cephalantha</i> var. <i>caterva</i>			
420.	9247 <i>Westringia rigida</i> (Stiff Westringia)			
Lauraceae				
421.	2953 <i>Cassytha melantha</i> (Large Dodder-laurel)			
Loganiaceae				
422.	16824 <i>Phyllangium sulcatum</i>			
Loranthaceae				
423.	2369 <i>Amyema benthamii</i>			
424.	11614 <i>Amyema gibberula</i> var. <i>gibberula</i>			
425.	2380 <i>Amyema miquelii</i> (Stalked Mistletoe)			
426.	2383 <i>Amyema preissii</i> (Wireleaf Mistletoe)			
Lythraceae				
427.	5281 <i>Lythrum hyssopifolia</i> (Lesser Loosestrife)	Y		
Malvaceae				

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428.	40910 <i>Androcalva luteiflora</i> (Yellow-flowered Rulingia)			
429.	4999 <i>Brachychiton gregorii</i> (Desert Kurrajong, Ngalta)			
430.	40923 <i>Commersonia craurophylla</i> (Brittle Leaved Rulingia)			
431.	17725 <i>Hannafordia bissillii</i> subsp. <i>latifolia</i>			
432.	4941 <i>Hibiscus solanifolius</i>			
433.	4951 <i>Lawrencia chrysoderma</i>			
434.	4955 <i>Lawrencia glomerata</i>			
435.	4956 <i>Lawrencia helmsii</i> (Dunna Dunna)			
436.	4957 <i>Lawrencia repens</i>			
437.	4959 <i>Lawrencia squamata</i>			
438.	4961 <i>Malva parviflora</i> (Marshmallow)	Y		
439.	41544 <i>Malva weinmanniana</i>			
440.	4964 <i>Radyera farragei</i> (Knobby Hibiscus)			
441.	46824 <i>Seringia velutina</i> (Velvet firebush)			
442.	4970 <i>Sida calyxhymenia</i> (Tall Sida)			
443.	4981 <i>Sida intricata</i> (Tangled Sida)			
444.	16924 <i>Sida spodochroma</i>			
Molluginaceae				
445.	48203 <i>Hypertelis cerviana</i>			
Montiaceae				
446.	2846 <i>Calandrinia calyptрата</i> (Pink Purslane)			
447.	2853 <i>Calandrinia eremaea</i> (Twining Purslane)			
448.	48774 <i>Calandrinia lefroyensis</i>		P1	
449.	2860 <i>Calandrinia polyandra</i> (Parakeelya)			
450.	40824 <i>Calandrinia sculpta</i>			
Myrtaceae				
451.	19466 <i>Aluta aspera</i> subsp. <i>aspera</i>			
452.	20726 <i>Astus subroseus</i>			
453.	5344 <i>Baeckea elderiana</i>			
454.	36038 <i>Baeckea</i> sp. <i>Koonadgin</i> (B.L. Rye & M.E. Trudgen BLR 241137)			
455.	5408 <i>Calothamnus gilesii</i>			
456.	5438 <i>Calytrix amethystina</i>			
457.	5442 <i>Calytrix birdii</i>			
458.	5491 <i>Chamaelaucium ciliatum</i>			
459.	44082 <i>Cyathostemon divaricatus</i>		P1	Y
460.	42066 <i>Cyathostemon heterantherus</i>			
461.	35618 <i>Darwinia</i> sp. <i>Karonie</i> (K. Newbey 8503)			
462.	19846 <i>Enekbatus eremaeus</i>			
463.	45244 <i>Eriomyrtus serpyllifolia</i>			
464.	13035 <i>Eucalyptus aspratilis</i>			
465.	5581 <i>Eucalyptus campaspe</i> (Silver Gimlet)			
466.	14300 <i>Eucalyptus celastroides</i> subsp. <i>celastroides</i> (Mirret)			
467.	11978 <i>Eucalyptus celastroides</i> subsp. <i>virella</i>			
468.	48436 <i>Eucalyptus clelandiorum</i>			
469.	5595 <i>Eucalyptus comitae-vallis</i> (Comet Vale Mallee)			
470.	5607 <i>Eucalyptus corrugata</i> (Rough-fruited Mallee)			
471.	5612 <i>Eucalyptus cylindrocarpa</i> (Woodline Mallee)			
472.	34811 <i>Eucalyptus distuberosa</i> subsp. <i>distuberosa</i>			
473.	5637 <i>Eucalyptus eremophila</i> (Tall Sand Mallee)			
474.	15667 <i>Eucalyptus eremophila</i> subsp. <i>eremophila</i> (Sand Mallee)			
475.	5648 <i>Eucalyptus flocktoniae</i> (Merri, Merid)			
476.	18521 <i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i>			
477.	14277 <i>Eucalyptus fraseri</i> subsp. <i>fraseri</i>			
478.	34756 <i>Eucalyptus frenchiana</i>		P3	
479.	5665 <i>Eucalyptus griffithsii</i> (Griffith's Grey Gum)			
480.	5673 <i>Eucalyptus horistes</i>			
481.	5675 <i>Eucalyptus incrassata</i> (Lerp Mallee)			
482.	31815 <i>Eucalyptus jutsonii</i> subsp. <i>jutsonii</i>		P4	
483.	15682 <i>Eucalyptus leptophylla</i> (Narrow-leaved Red Mallee)			
484.	13056 <i>Eucalyptus leptopoda</i> subsp. <i>subluta</i>			
485.	5697 <i>Eucalyptus lesouefii</i> (Goldfields Blackbutt)			
486.	12901 <i>Eucalyptus livida</i> (Mallee Wandoo)			
487.	5701 <i>Eucalyptus longicornis</i> (Red Morrel, Moril)			
488.	20802 <i>Eucalyptus longissima</i>			
489.	13037 <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>			
490.	5726 <i>Eucalyptus oleosa</i> (Giant Mallee)			
491.	20091 <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>			
492.	5742 <i>Eucalyptus petraea</i> (Granite Rock Box)			
493.	5745 <i>Eucalyptus pileata</i> (Capped Mallee)			

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494.	18580 <i>Eucalyptus planipes</i>			
495.	5747 <i>Eucalyptus platycorys</i> (Boorabbin Mallee)			
496.	19064 <i>Eucalyptus prolixa</i>			
497.	12380 <i>Eucalyptus ravida</i> (Silver-topped Gimlet)			
498.	5761 <i>Eucalyptus rigidula</i> (Stiff-leaved Mallee)			
499.	12693 <i>Eucalyptus salicola</i> (Salt Gum)			
500.	5766 <i>Eucalyptus salmonophloia</i> (Salmon Gum, Wurak)			
501.	5767 <i>Eucalyptus salubris</i> (Gimlet)			
502.	5780 <i>Eucalyptus stricklandii</i> (Strickland's Gum)			
503.	13027 <i>Eucalyptus tenera</i>			
504.	13521 <i>Eucalyptus tenuis</i>			
505.	5792 <i>Eucalyptus torquata</i> (Coral Gum)			
506.	5793 <i>Eucalyptus transcontinentalis</i> (Redwood, Pungul)			
507.	18293 <i>Eucalyptus urna</i>			
508.	34775 <i>Eucalyptus vittata</i>			
509.	5798 <i>Eucalyptus websteriana</i> (Webster's Mallee)			
510.	13053 <i>Eucalyptus websteriana</i> subsp. <i>norsemanica</i>		P1	
511.	13054 <i>Eucalyptus websteriana</i> subsp. <i>websteriana</i>			
512.	18269 <i>Eucalyptus</i> x <i>brachyphylla</i>		P4	
513.	5802 <i>Eucalyptus yilgarnensis</i> (Yorrell)			
514.	16722 <i>Euryomyrtus maidenii</i>			
515.	5815 <i>Homalocalyx thryptomenoides</i>			
516.	48652 <i>Hysterobaeckea petraea</i>			
517.	5840 <i>Kunzea pulchella</i> (Granite Kunzea, Silky Kunzea)			
518.	5848 <i>Leptospermum fastigiatum</i>			
519.	12692 <i>Leptospermum subtenuis</i>			
520.	5864 <i>Malleostemon peltiger</i>			
521.	5865 <i>Malleostemon roseus</i>			
522.	5866 <i>Malleostemon tuberculatus</i>			
523.	15063 <i>Melaleuca acuminata</i> subsp. <i>acuminata</i>			
524.	5891 <i>Melaleuca coccinea</i> (Goldfields Bottlebrush)		P3	
525.	5896 <i>Melaleuca cordata</i>			
526.	5909 <i>Melaleuca elliptica</i> (Granite Bottlebrush, Ngow)			
527.	15603 <i>Melaleuca fulgens</i> subsp. <i>fulgens</i>			
528.	19486 <i>Melaleuca hamata</i>			
529.	5922 <i>Melaleuca lanceolata</i> (Rottnest Teatree, Moonah)			
530.	5925 <i>Melaleuca lateriflora</i> (Gorada)			
531.	5929 <i>Melaleuca leiocarpa</i>			
532.	14700 <i>Melaleuca macronychia</i> subsp. <i>macronychia</i>			
533.	14701 <i>Melaleuca macronychia</i> subsp. <i>trygonoides</i>		P3	
534.	15663 <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>			
535.	5966 <i>Melaleuca sheathiana</i> (Boree, Buri)			
536.	5984 <i>Melaleuca uncinata</i> (Broom Bush, Kwidjard)			
537.	20287 <i>Melaleuca zeteticorum</i>			
538.	9187 <i>Micromyrtus erichsenii</i>			
539.	19787 <i>Micromyrtus monotaxis</i>			
540.	6002 <i>Micromyrtus stenocalyx</i>			
541.	6018 <i>Rinzia carnea</i> (Fleshy-leaved Rinzia)			
542.	19699 <i>Thryptomene australis</i> subsp. <i>brachyandra</i>			
543.	6058 <i>Thryptomene kochii</i>			
544.	20680 <i>Thryptomene</i> sp. <i>Coolgardie</i> (E. Kelso s.n. 1902)		P1	Y
545.	36017 <i>Thryptomene</i> sp. <i>Londonderry</i> (R.H. Kuchel 1763)		P1	
546.	6068 <i>Thryptomene urceolaris</i>			
547.	6073 <i>Verticordia chrysantha</i>			
548.	6087 <i>Verticordia helmsii</i>			
549.	6109 <i>Verticordia picta</i> (Painted Featherflower)			
550.	6113 <i>Verticordia pritzelii</i> (Pritzel's Featherflower)			
Orchidaceae				
551.	1614 <i>Caladenia roei</i> (Ant Orchid)			
552.	44161 <i>Diuris hazeliae</i>			
553.	1684 <i>Pterostylis allantoidea</i> (Shy Greenhood)			
554.	12216 <i>Pterostylis roensis</i>			
555.	18657 <i>Pterostylis</i> sp. <i>inland</i> (A.C. Beaglehole 11880)			
556.	48481 <i>Pterostylis tryphera</i>			
557.	1701 <i>Thelymitra antennifera</i> (Vanilla Orchid)			
Orobanchaceae				
558.	7089 <i>Parentucellia latifolia</i> (Common Bartsia)	Y		
Papaveraceae				
559.	2964 <i>Papaver hybridum</i> (Rough Poppy)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
		Y		
Pittosporaceae				
560.	25798 <i>Billardiera fusiformis</i> (Australian Bluebell)			
561.	3168 <i>Cheiranthra filifolia</i>			
562.	19421 <i>Marianthus bicolor</i> (Painted Marianthus)			
563.	19744 <i>Pittosporum angustifolium</i>			
Plantaginaceae				
564.	7299 <i>Plantago debilis</i>			
565.	7300 <i>Plantago drummondii</i> (Sago Weed)			
566.	14198 <i>Plantago</i> sp. Mt Magnet (A.S. George 6793)			
Plumbaginaceae				
567.	6489 <i>Limonium sinuatum</i> (Perennial Sea Lavender)	Y		
Poaceae				
568.	12025 <i>Amphipogon carcinus</i> var. <i>carcinus</i>			
569.	207 <i>Aristida contorta</i> (Bunched Kerosene Grass)			
570.	17232 <i>Austrostipa blackii</i>		P3	
571.	17236 <i>Austrostipa drummondii</i>			
572.	17237 <i>Austrostipa elegantissima</i>			
573.	17238 <i>Austrostipa eremophila</i>			
574.	17246 <i>Austrostipa nitida</i>			
575.	19588 <i>Austrostipa nodosa</i>			
576.	17247 <i>Austrostipa platychaeta</i>			
577.	17251 <i>Austrostipa scabra</i>			
578.	36283 <i>Austrostipa</i> sp. Carlingup Road (S. Kern & R. Jasper LCH 18459)		P1	
579.	34556 <i>Austrostipa</i> sp. Dowerin (G. Wiehl F 8004)		P2	
580.	17255 <i>Austrostipa trichophylla</i>			
581.	247 <i>Bromus arenarius</i> (Sand Brome)			
582.	249 <i>Bromus diandrus</i> (Great Brome)	Y		
583.	258 <i>Cenchrus ciliaris</i> (Buffel Grass)	Y		
584.	271 <i>Chloris truncata</i> (Windmill Grass)			
585.	290 <i>Dactyloctenium radulans</i> (Button Grass)			
586.	351 <i>Ehrharta villosa</i> (Pyp Grass)	Y		
587.	356 <i>Enneapogon avenaceus</i> (Bottle Washers)			
588.	368 <i>Enteropogon ramosus</i> (Windmill Grass, Curly Windmill Grass)			
589.	376 <i>Eragrostis curvula</i> (African Lovegrass)	Y		
590.	378 <i>Eragrostis dielsii</i> (Mallee Lovegrass)			
591.	399 <i>Eragrostis xerophila</i> (Knotty-butt Neverfail)			
592.	417 <i>Eriachne pulchella</i> (Pretty Wanderrie)			
593.	448 <i>Hordeum glaucum</i> (Northern Barley Grass)	Y		
594.	471 <i>Leptochloa digitata</i> (Whorled Cane Grass)			
595.	490 <i>Monachather paradoxus</i>			
596.	521 <i>Paspalidium gracile</i> (Slender Panic)			
597.	40424 <i>Pentameris airoides</i> subsp. <i>airoides</i>	Y		
598.	552 <i>Phalaris paradoxa</i> (Paradoxa Grass)	Y		
599.	11151 <i>Rostraria pumila</i>	Y		
600.	40431 <i>Rytidosperma acerosum</i>			
601.	40425 <i>Rytidosperma caespitosum</i>			
602.	40427 <i>Rytidosperma setaceum</i>			
603.	688 <i>Triodia irritans</i> (Porcupine Grass)			
604.	17874 <i>Triodia rigidissima</i>			
605.	699 <i>Triodia scariosa</i>			
606.	18326 <i>Urochloa panicoides</i>	Y		
Polygalaceae				
607.	4553 <i>Comesperma drummondii</i> (Drummond's Milkwort)			
608.	4561 <i>Comesperma scoparium</i> (Broom Milkwort)			
Polygonaceae				
609.	11052 <i>Persicaria prostrata</i>			
610.	2443 <i>Rumex vesicarius</i> (Ruby Dock)	Y		
Portulacaceae				
611.	2884 <i>Portulaca oleracea</i> (Purslane, Wakati)			
Primulaceae				
612.	36375 <i>Lysimachia arvensis</i> (Pimpernel)	Y		
Proteaceae				
613.	1815 <i>Banksia elderiana</i> (Swordfish Banksia)			
614.	1946 <i>Grevillea acacioides</i>			
615.	1949 <i>Grevillea acuaria</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
616.	1962 <i>Grevillea beardiana</i> (Red Combs)			
617.	13453 <i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>			
618.	8832 <i>Grevillea excelsior</i> (Flame Grevillea)			
619.	2009 <i>Grevillea georgeana</i>		P3	
620.	14413 <i>Grevillea haplantha</i> subsp. <i>haplantha</i>			
621.	19314 <i>Grevillea hookeriana</i> subsp. <i>apiciloba</i>			
622.	19435 <i>Grevillea hookeriana</i> subsp. <i>hookeriana</i>			
623.	2018 <i>Grevillea huegelii</i>			
624.	19541 <i>Grevillea nematophylla</i> subsp. <i>nematophylla</i>			
625.	15981 <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>			
626.	2055 <i>Grevillea oncogyne</i>			
627.	2056 <i>Grevillea paniculata</i>			
628.	12822 <i>Grevillea sarissa</i> subsp. <i>bicolor</i>			
629.	13458 <i>Grevillea sarissa</i> subsp. <i>sarissa</i>			
630.	2104 <i>Grevillea teretifolia</i> (Round Leaf Grevillea)			
631.	2116 <i>Grevillea uncinulata</i> (Hook-leaf Grevillea)			
632.	2157 <i>Hakea erecta</i>			
633.	2163 <i>Hakea francisiana</i> (Emu Tree)			
634.	2182 <i>Hakea minyma</i>			
635.	2259 <i>Persoonia coriacea</i> (Leathery-leaf Persoonia)			
636.	15628 <i>Persoonia helix</i>			
637.	2274 <i>Persoonia saundersiana</i>			
638.	14446 <i>Petrophile arcuata</i>			
Pteridaceae				
639.	12796 <i>Cheilanthes adiantoides</i>			
640.	31 <i>Cheilanthes austrotenuifolia</i>			
641.	12818 <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>			
Ranunculaceae				
642.	11080 <i>Myosurus australis</i>			
Restionaceae				
643.	1073 <i>Lepidobolus chaetocephalus</i> (Bristle-headed Chaff Rush)			
644.	1074 <i>Lepidobolus deserti</i>			
Rhamnaceae				
645.	16183 <i>Cryptandra aridicola</i>			
646.	16185 <i>Cryptandra graniticola</i>			
647.	4809 <i>Cryptandra pungens</i>			
648.	16194 <i>Cryptandra recurva</i>			
649.	4815 <i>Pomaderris forrestiana</i>			
650.	16200 <i>Stenanthemum stipulosum</i>			
651.	16986 <i>Trymalium myrtilus</i> subsp. <i>myrtilus</i>			
Rubiaceae				
652.	18255 <i>Opercularia vaginata</i> (Dog Weed)			
Ruppiaceae				
653.	116 <i>Ruppia polycarpa</i>			
Rutaceae				
654.	11274 <i>Boronia coerulescens</i> subsp. <i>spinescens</i>			
655.	4459 <i>Drummondita hassellii</i>			
656.	4497 <i>Phebalium canaliculatum</i>			
657.	4498 <i>Phebalium clavatum</i>		P2	
658.	4500 <i>Phebalium filifolium</i> (Slender Phebalium)			
659.	14883 <i>Phebalium laevigatum</i>			
660.	4501 <i>Phebalium lepidotum</i>			
661.	4504 <i>Phebalium tuberculatum</i>			
662.	18506 <i>Philothea tomentella</i>			
Santalaceae				
663.	10977 <i>Exocarpos aphyllus</i> (Leafless Ballart)			
664.	2356 <i>Santalum acuminatum</i> (Quandong, Wargga)			
665.	2359 <i>Santalum spicatum</i> (Sandalwood, Wilarak)			
Sapindaceae				
666.	11730 <i>Alectryon oleifolius</i> subsp. <i>canescens</i>			
667.	4752 <i>Dodonaea adenophora</i>			
668.	4753 <i>Dodonaea amblyophylla</i>			
669.	4769 <i>Dodonaea lobulata</i> (Bead Hopbush)			
670.	4770 <i>Dodonaea microzyga</i>			
671.	12034 <i>Dodonaea microzyga</i> var. <i>acrolobata</i>			
672.	4780 <i>Dodonaea stenozyga</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
673.	11247 <i>Dodonaea viscosa</i> subsp. <i>angustissima</i>			
Scrophulariaceae				
674.	14887 <i>Diocirea acutifolia</i>		P3	
675.	14889 <i>Diocirea violacea</i>			
676.	7180 <i>Eremophila alternifolia</i> (Poverty Bush)			
677.	16377 <i>Eremophila caerulea</i> subsp. <i>caerulea</i>			
678.	13641 <i>Eremophila caerulea</i> subsp. <i>merrallii</i>		P4	
679.	13807 <i>Eremophila caperata</i>			
680.	7189 <i>Eremophila clarkei</i> (Turpentine Bush)			
681.	17156 <i>Eremophila clavata</i>			
682.	7193 <i>Eremophila decipiens</i> (Slender Fuchsia)			
683.	14895 <i>Eremophila decipiens</i> subsp. <i>decipiens</i>			
684.	7195 <i>Eremophila dempsteri</i>			
685.	7198 <i>Eremophila deserti</i>			
686.	7200 <i>Eremophila drummondii</i>			
687.	7211 <i>Eremophila georgei</i>			
688.	7212 <i>Eremophila gibbosa</i>			
689.	14340 <i>Eremophila glabra</i> subsp. <i>glabra</i>			
690.	7219 <i>Eremophila granitica</i> (Thin-leaved Poverty Bush)			
691.	15112 <i>Eremophila interstans</i> subsp. <i>interstans</i>			
692.	15111 <i>Eremophila interstans</i> subsp. <i>virgata</i>			
693.	7226 <i>Eremophila ionantha</i> (Violet-flowered Eremophila)			
694.	7234 <i>Eremophila longifolia</i> (Berrigan, Tulypurpa)			
695.	16363 <i>Eremophila maculata</i> subsp. <i>brevifolia</i> (Native Fuchsia)			
696.	7242 <i>Eremophila miniata</i> (Kopi Poverty Bush)			
697.	14632 <i>Eremophila oblonga</i>			
698.	15003 <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>			
699.	18570 <i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>			
700.	14594 <i>Eremophila parvifolia</i> subsp. <i>auricampa</i>			
701.	14516 <i>Eremophila praecox</i>		P1	
702.	10780 <i>Eremophila psilocalyx</i>			
703.	7259 <i>Eremophila pustulata</i> (Warted Eremophila)			
704.	15172 <i>Eremophila rugosa</i>			
705.	7264 <i>Eremophila saligna</i> (Willow Eremophila)			
706.	7267 <i>Eremophila scoparia</i> (Broom Bush ())			
707.	7269 <i>Eremophila serrulata</i> (Serrate-leaved Eremophila)			
708.	<i>Eremophila</i> sp.			
709.	17162 <i>Eremophila subfloccosa</i> subsp. <i>lanata</i>			
710.	7278 <i>Eremophila veronica</i>		P3	
711.	17158 <i>Myoporum montanum</i> (Native Myrtle)			
712.	18259 <i>Myoporum platycarpum</i> subsp. <i>platycarpum</i>			
Solanaceae				
713.	6952 <i>Anthotroche pannosa</i> (Felted Anthotroche)			
714.	6966 <i>Duboisia hopwoodii</i> (Pituri, Kundugu)			
715.	6967 <i>Lycium australe</i> (Australian Boxthorn)			
716.	6974 <i>Nicotiana glauca</i> (Tree Tobacco)	Y		
717.	6978 <i>Nicotiana rotundifolia</i> (Round-leaved Tobacco)			
718.	6998 <i>Solanum cleistogamum</i>			
719.	7007 <i>Solanum esuriale</i> (Quena)			
720.	7013 <i>Solanum hoplopetalum</i> (Thorny Solanum)			
721.	7018 <i>Solanum lasiophyllum</i> (Flannel Bush, Mindjulu)			
722.	7023 <i>Solanum nummularium</i> (Money-leaved Solanum)			
723.	7030 <i>Solanum plicatile</i>			
724.	7034 <i>Solanum simile</i> (Oondoroo)			
Stylidiaceae				
725.	7685 <i>Stylidium arenicola</i>			
726.	7701 <i>Stylidium choreanthum</i> (Dancing Triggerplant)		P3	
727.	7714 <i>Stylidium dielsianum</i> (Tangle Triggerplant)			
728.	7740 <i>Stylidium induratum</i> (Desert Triggerplant)			
Thymelaeaceae				
729.	5231 <i>Pimelea angustifolia</i> (Narrow-leaved Pimelea)			
730.	11185 <i>Pimelea microcephala</i> subsp. <i>microcephala</i>			
731.	12104 <i>Pimelea spiculigera</i> var. <i>thesioides</i>			
Typhaceae				
732.	99 <i>Typha orientalis</i> (Bulrush, Cumbungi)			
Verbenaceae				
733.	29836 <i>Glandularia aristigera</i>	Y		

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
734.	6733 <i>Lantana camara</i> (Common Lantana)	Y		
Violaceae				
735.	5220 <i>Hybanthus epacroides</i> (Spiny Hybanthus)			
736.	11973 <i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>			
Zygophyllaceae				
737.	48882 <i>Roepera apiculata</i>			
738.	48885 <i>Roepera aurantiaca</i> subsp. <i>aurantiaca</i>			
739.	48888 <i>Roepera compressa</i>			
740.	48890 <i>Roepera eremaea</i>			
741.	48892 <i>Roepera glauca</i> (Pale Twinleaf, Pale Twin-leaf)			
742.	48893 <i>Roepera halophila</i>			
743.	48898 <i>Roepera ovata</i>			
744.	48899 <i>Roepera reticulata</i>			
745.	4383 <i>Tribulus terrestris</i> (Caltrop)	Y		

Conservation Codes

T - Rare or likely to become extinct
 X - Presumed extinct
 IA - Protected under international agreement
 S - Other specially protected fauna
 1 - Priority 1
 2 - Priority 2
 3 - Priority 3
 4 - Priority 4
 5 - Priority 5

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

Appendix C Plant species recorded within the survey area.

Family	Taxon
Aizoaceae	<i>Sarcozona praecox</i>
Amaranthaceae	<i>Ptilotus carlsonii</i>
	<i>Ptilotus drummondii</i>
	<i>Ptilotus eremita</i>
	<i>Ptilotus exaltatus</i>
	<i>Ptilotus holosericeus</i>
	<i>Ptilotus obovatus</i>
	<i>Ptilotus</i> sp. (indet.)
Apocynaceae	<i>Alyxia buxifolia</i>
	<i>Leichhardtia australis</i>
Araliaceae	<i>Trachymene ornata</i>
Asparagaceae	<i>Lomandra effusa</i>
	<i>Thysanotus manglesianus/patersonii</i>
Asteraceae	? <i>Olearia</i> sp.
	Asteraceae sp. (indet.)
	<i>Brachyscome iberidifolia</i>
	<i>Centaurea melitensis</i>
	<i>Cratystylis conocephala</i>
	<i>Cratystylis microphylla</i>
	<i>Erymophyllum ramosum</i> subsp. <i>ramosum</i>
	<i>Gnephosis arachnoidea</i>
	<i>Gnephosis tenuissima</i>
	<i>Hypochaeris glabra</i>
	<i>Olearia muelleri</i>
	<i>Olearia pimeleoides</i>
	<i>Ozothamnus cassiope</i>
	<i>Podolepis rugata</i>
	<i>Schoenia cassiniana</i>
	<i>Siemssenia capillaris</i>
	<i>Waitzia acuminata</i> var. <i>acuminata</i>
Boraginaceae	<i>Halgania andromedifolia</i>
	<i>Halgania cyanea</i>
Boryaceae	<i>Borya constricta</i>
Campanulaceae	<i>Isotoma petraea</i>
	<i>Wahlenbergia</i> sp. (indet.)
Casuarinaceae	<i>Allocasuarina campestris</i>
	<i>Allocasuarina helmsii</i>
Celastraceae	<i>Stackhousia muricata</i>
Centrolepidaceae	<i>Centrolepis strigosa</i>
Chenopodiaceae	<i>Chenopodium curvispicatum</i>
	<i>Dissocarpus paradoxus</i>
	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>
	<i>Eriochiton sclerolaenoides</i>
	<i>Maireana georgei</i>
	<i>Maireana pentatropis</i>
	<i>Maireana radiata</i>

Family	Taxon
	<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>
	<i>Rhagodia drummondii</i>
	<i>Sclerolaena diacantha</i>
	<i>Sclerolaena parviflora</i>
Chloanthaceae	<i>Dicrasyllis parvifolia</i>
Convolvulaceae	<i>Wilsonia humilis</i>
Cyperaceae	<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)
	<i>Lepidosperma sanguinolentum</i>
Ericaceae	<i>Leucopogon</i> sp. (indet.)
Euphorbiaceae	<i>Beyeria sulcata</i>
	<i>Monotaxis luteiflora</i>
Fabaceae	<i>Acacia</i> ? <i>coolgardiensis</i>
	<i>Acacia</i> ? <i>enervia</i>
	<i>Acacia</i> ? <i>hemiteles</i>
	<i>Acacia</i> ? <i>prainii</i>
	<i>Acacia</i> ? <i>resinosa</i>
	<i>Acacia acuminata</i>
	<i>Acacia collegialis</i>
	<i>Acacia dempsteri</i>
	<i>Acacia erinacea</i>
	<i>Acacia longispinea</i>
	<i>Acacia merrallii</i>
	<i>Acacia resinistipulea</i>
	<i>Acacia websteri</i>
	<i>Daviesia aphylla</i>
	<i>Dillwynia acerosa</i>
	<i>Glycyrrhiza acanthocarpa</i>
	<i>Mirbelia microphylla</i>
	<i>Senna artemisioides</i> subsp. <i>filifolia</i>
	<i>Senna pleurocarpa</i> var. <i>pleurocarpa</i>
	<i>Swainsona canescens</i>
Gentianaceae	<i>Schenkia australis</i>
Goodeniaceae	<i>Goodenia occidentalis</i>
	<i>Scaevola spinescens</i>
Gyrostemonaceae	<i>Codonocarpus cotinifolius</i>
Haloragaceae	<i>Glischrocaryon angustifolium</i>
	<i>Haloragis trigonocarpa</i>
Hemerocallidaceae	<i>Dianella revoluta</i> var. <i>divaricata</i>
	<i>Stypandra glauca</i>
Lamiaceae	<i>Prostanthera althoferi</i> subsp. <i>althoferi</i>
	<i>Prostanthera grylloana</i>
	<i>Prostanthera incurvata</i>
	<i>Westringia cephalantha</i> var. <i>caterva</i>
	<i>Westringia rigida</i>
Malvaceae	<i>Alyogyne hakeifolia</i>
	<i>Brachychiton gregorii</i>

Family	Taxon
	<i>Seringia velutina</i>
Montiaceae	<i>Calandrinia ?primuliflora</i>
	<i>Calandrinia eremaea</i>
Myrtaceae	? <i>Micromyrtus</i> sp. (indet.)
	<i>Eucalyptus ?oleosa</i>
	<i>Eucalyptus ?platycorys</i>
	<i>Eucalyptus celastroides</i>
	<i>Eucalyptus clelandiorum</i>
	<i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i>
	<i>Eucalyptus griffithsii</i>
	<i>Eucalyptus ravidia</i>
	<i>Eucalyptus salmonophloia</i>
	<i>Eucalyptus</i> sp. (indet)
	<i>Eucalyptus transcontinentalis</i>
	<i>Homalocalyx thryptomenoides</i>
	<i>Leptospermum ?fastigiatum</i>
	<i>Melaleuca ?acuminata</i>
	<i>Melaleuca ?eleuterostachya</i>
	<i>Melaleuca fulgens</i> subsp. <i>fulgens</i>
	<i>Melaleuca pauperiflora</i>
	<i>Melaleuca uncinata</i> complex
	<i>Thryptomene australis</i> subsp. <i>brachyandra</i>
Oxalidaceae	<i>Oxalis corniculata</i>
Poaceae	? <i>Eragrostis</i> sp. (indet.)
	<i>Aristida contorta</i>
	<i>Austrostipa elegantissima</i>
	<i>Austrostipa scabra</i> subsp. <i>scabra</i>
	<i>Austrostipa</i> sp. (indet.)
	<i>Cymbopogon obtectus</i>
	<i>Eragrostis dielsii</i>
	<i>Eragrostis eriopoda</i>
	<i>Eriachne pulchella</i>
	<i>Monachather paradoxus</i>
	<i>Paspalidium basicladum</i>
	<i>Pentameris airoides</i> subsp. <i>airoides</i>
	<i>Rytidosperma acerosum</i>
	<i>Rytidosperma setaceum</i>
	<i>Spartochloa scirpoidea</i>
	<i>Triodia scariosa</i>
Primulaceae	<i>Lysimachia arvensis</i>
Proteaceae	<i>Grevillea acuaria</i>
	<i>Grevillea haplantha</i> subsp. <i>haplantha</i>
	<i>Grevillea huegelii</i>
Pteridaceae	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>
Rhamnaceae	<i>Cryptandra aridicola</i>
	<i>Pomaderris forrestiana</i>

Family	Taxon
Rutaceae	? <i>Boronia</i> sp.
	<i>Phebalium canaliculatum</i>
	<i>Phebalium laevigatum</i>
	<i>Philotheca tomentella</i>
	<i>Rutaceae</i> sp. (indet.) 1
	<i>Rutaceae</i> sp. (indet.) 2
Santalaceae	<i>Exocarpos aphyllus</i>
	<i>Santalum acuminatum</i>
	<i>Santalum spicatum</i>
Sapindaceae	<i>Dodonaea adenophora</i>
	<i>Dodonaea lobulata</i>
	<i>Dodonaea stenozyga</i>
	<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>
Scrophulariaceae	<i>Eremophila acutifolia</i>
	<i>Eremophila alternifolia</i>
	<i>Eremophila caperata</i>
	<i>Eremophila clavata</i>
	<i>Eremophila decipiens</i> subsp. <i>decipiens</i>
	<i>Eremophila dempsteri</i>
	<i>Eremophila granitica</i>
	<i>Eremophila ionantha</i>
	<i>Eremophila maculata</i> subsp. <i>brevifolia</i>
	<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>
	<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>
	<i>Eremophila parvifolia</i> subsp. <i>auricampi</i>
	<i>Eremophila scoparia</i>
	Solanaceae
<i>Solanum hoplopetalum</i>	
<i>Solanum lasiophyllum</i>	
<i>Solanum nummularium</i>	
	<i>Solanum plicatile</i>
Thymelaeaceae	<i>Pimelea microcephala</i> subsp. <i>microcephala</i>
Zygophyllaceae	<i>Roepera glauca</i>
	<i>Roepera ovata</i>
	<i>Roepera reticulata</i>

Appendix D Sampling site data.

VD01

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 344560.09 mE 6561776.97 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	30 – 70		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	10 – 24
<i>Acacia acuminata</i>	Shrub (>2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (>2 m)	< 1
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	Shrub (>2 m)	< 1
<i>Pomaderris forrestiana</i>	Shrub (1-2 m)	10 – 24
<i>Dodonaea lobulata</i>	Shrub (1-2 m)	5 – 9
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Westringia rigida</i>	Shrub (0-1 m)	5 – 9
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Acacia erinacea</i>	Shrub (0-1 m)	< 1
<i>Eremophila parvifolia</i> subsp. <i>auricampi</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1

VD02

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 344702.99 mE 6561683.61 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Light brown	Soil texture	Sandy clay		
Rock type	Quartz/quartzite, granite	Rock abundance	10 – 30		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus</i> sp. (indet)	Mallee (3-10 m)	5 – 9
<i>Allocasuarina campestris</i>	Shrub (>2 m)	25 – 32
<i>Acacia acuminata</i>	Shrub (>2 m)	1 – 4
<i>Acacia collegialis</i>	Shrub (>2 m)	1 – 4
<i>Prostanthera grylloana</i>	Shrub (1-2 m)	10 – 24
<i>Dodonaea lobulata</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila granitica</i>	Shrub (1-2 m)	1 – 4

VD03

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 344848.1 mE 6561667.34 mN	Slope	Gentle	Aspect	South
Landform	Undulating plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ravidia</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus ?celastroides</i>	Mallee (3-10 m)	1 – 4
<i>Eremophila dempsteri</i>	Shrub (1-2 m)	5 – 9
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Acacia acuminata</i>	Shrub (0-1 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (0-1 m)	< 1
<i>Ptilotus exaltatus</i>	Shrub (0-1 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
<i>Austrostipa elegantissima</i>	Grass	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>	Herb	1 – 4
<i>Sclerolaena diacantha</i>	Herb	1 – 4
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Herb	< 1

VD04

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345138.54 mE 6561782.57 mN				
Landform	Undulating plain (NA)	Slope	Gentle	Aspect	South
Soil colour	Red	Soil texture	Clay		
Rock type	Granite, quartz	Rock abundance	30 – 70		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia collegialis</i>	Shrub (>2 m)	5 – 9
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila granitica</i>	Shrub (0-1 m)	< 1
<i>Solanum lasiophyllum</i>	Shrub (0-1 m)	< 1
<i>Eriachne pulchella</i>	Grass	1 – 4
<i>Aristida contorta</i>	Grass	< 1
<i>Goodenia occidentalis</i>	Herb	1 – 4
<i>Calandrinia ?primuliflora</i>	Herb	< 1
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Herb	< 1
<i>Ptilotus eremita</i>	Herb	< 1
<i>Siemssenia capillaris</i>	Herb	< 1
<i>Thysanotus manglesianus/patersonii</i>	Herb	< 1

VD05

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345844.32 mE 6561807.5 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Loamy sand		
Soil colour	Light brown	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	1 – 4
<i>Acacia acuminata</i>	Shrub (>2 m)	25 – 32
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	< 1
<i>Eremophila granitica</i>	Shrub (1-2 m)	10 – 24
<i>Prostanthera grylloana</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (1-2 m)	< 1
<i>Prostanthera althoferi</i> subsp. <i>althoferi</i>	Shrub (0-1 m)	10 – 24
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD06

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345865.81 mE 6561550.81 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Reddish brown	Rock abundance	> 70		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia ?resinosa</i>	Shrub (>2 m)	1 – 4
<i>Acacia collegialis</i>	Shrub (>2 m)	1 – 4
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	10 – 24
<i>Brachychiton gregorii</i>	Shrub (0-1 m)	< 1
<i>Solanum lasiophyllum</i>	Shrub (0-1 m)	< 1
<i>Eriachne pulchella</i>	Grass	1 – 4
<i>Aristida contorta</i>	Grass	< 1
<i>Goodenia occidentalis</i>	Herb	1 – 4
<i>Calandrinia ?primuliflora</i>	Herb	< 1
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Herb	< 1
<i>Isotoma petraea</i>	Herb	< 1
<i>Siemssenia capillaris</i>	Herb	< 1
<i>Thysanotus manglesianus/patersonii</i>	Herb	< 1

VD07

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 346262.37 mE 6561423.43 mN	Slope	Gentle	Aspect	West
Landform	Low hill (NA)	Soil texture	Loamy sand		
Soil colour	Light brown	Rock abundance	10 – 30		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia acuminata</i>	Shrub (>2 m)	1 – 4
<i>Acacia ?resinosa</i>	Shrub (>2 m)	< 1
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	< 1
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	10 – 24
<i>Eremophila granitica</i>	Shrub (1-2 m)	1 – 4
<i>Prostanthera incurvata</i>	Shrub (0-1 m)	1 – 4
<i>Thysanotus manglesianus/patersonii</i>	Vine	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD08

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345695.92 mE 6561257.53 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Red	Soil texture	Clay		
Rock type	NA	Rock abundance	NA		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia acuminata</i>	Shrub (>2 m)	25 – 32
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	10 – 24
<i>Eremophila granitica</i>	Shrub (1-2 m)	1 – 4
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	10 – 24
<i>Dodonaea adenophora</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	1 – 4
<i>Goodenia occidentalis</i>	Herb	< 1
<i>Thysanotus manglesianus/patersonii</i>	Herb	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD09

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345793.17 mE 6561014.81 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?platycorys</i>	Tree (<10 m)	25 – 32
<i>Eremophila caperata</i>	Shrub (1-2 m)	5 – 9
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Ptilotus obovatus</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Ptilotus exaltatus</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Lomandra effusa</i>	Sedge	< 1
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Herb	1 – 4
<i>Sclerolaena diacantha</i>	Herb	1 – 4
<i>Calandrinia ?primuliflora</i>	Herb	< 1

VD10

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345155.01 mE 6560898.62 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Light brown	Soil texture	Sandy clay		
Rock type	Quartz/quartzite	Rock abundance	< 10		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus clelandiorum</i>	Tree (10-30 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (>2 m)	1 – 4
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	Shrub (>2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	10 – 24
<i>Scaevola spinescens</i>	Shrub (1-2 m)	5 – 9
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Halgania andromedifolia</i>	Shrub (0-1 m)	1 – 4
<i>Acacia erinacea</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1

VD11

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 344932.11 mE 6560760.31 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Loamy sand		
Soil colour	Light brown	Rock abundance	30 – 70		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia ?coolgardiensis</i>	Shrub (>2 m)	10 – 24
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	1 – 4
<i>Leptospermum ?fastigiatum</i>	Shrub (>2 m)	< 1
<i>Phebalium canaliculatum</i>	Shrub (1-2 m)	10 – 24
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera incurvata</i>	Shrub (1-2 m)	< 1
<i>Homalocalyx thryptomenoides</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila granitica</i>	Shrub (0-1 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD12

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 344744.35 mE 6560633.38 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	30 – 70		
Rock type	Laterite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	5 – 9
<i>Acacia acuminata</i>	Shrub (>2 m)	10 – 24
<i>Santalum spicatum</i>	Shrub (>2 m)	1 – 4
<i>Allocasuarina helmsii</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>	Shrub (1-2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	1 – 4

VD13

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 344553.9 mE 6560502.31 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Allocasuarina helmsii</i>	Shrub (>2 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (>2 m)	1 – 4
<i>Acacia acuminata</i>	Shrub (>2 m)	1 – 4
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	1 – 4
<i>Prostanthera incurvata</i>	Shrub (0-1 m)	5 – 9
<i>Eremophila granitica</i>	Shrub (0-1 m)	< 1
<i>Pimelea microcephala</i> subsp. <i>microcephala</i>	Shrub (0-1 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	< 1
<i>Goodenia occidentalis</i>	Herb	< 1
<i>Thysanotus manglesianus/patersonii</i>	Herb	< 1

VD14

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 344268.24 mE 6560654.55 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay loam		
Soil colour	Light brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus transccontinentalis</i>	Tree (10-30 m)	1 – 4
<i>Eucalyptus celastroides</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus celastroides</i>	Tree (<10 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (>2 m)	< 1
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	Shrub (>2 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Cratystylis microphylla</i>	Shrub (1-2 m)	5 – 9
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Eremophila clavata</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1

VD15

Botanist	CK	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345453.81 mE 6560002.27 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	30 – 70		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia acuminata</i>	Shrub (>2 m)	10 – 24
<i>Allocasuarina campestris</i>	Shrub (>2 m)	5 – 9
<i>Leptospermum ?fastigiatum</i>	Shrub (>2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (1-2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera althoferi</i> subsp. <i>althoferi</i>	Shrub (0-1 m)	5 – 9
<i>Eremophila granitica</i>	Shrub (0-1 m)	< 1
? <i>Eragrostis</i> sp.	Grass	< 1
<i>Austrostipa</i> sp.	Grass	< 1
<i>Thysanotus manglesianus/patersonii</i>	Vine	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD16

Botanist	RS	Date	20/10/2021	Site type	Veg desc.
Northwest corner	51K 345747.35 mE 6559654.09 mN	Slope	Gentle	Aspect	South
Landform	Plain (NA)	Soil texture	Clay loam		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	< 1
<i>Acacia ?resinosa</i>	Shrub (>2 m)	5 – 9
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	5 – 9
<i>Thryptomene australis</i> subsp. <i>Brachyandra</i>	Shrub (>2 m)	5 – 9
<i>Eremophila granitica</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Phebalium canaliculatum</i>	Shrub (1-2 m)	< 1
? <i>Micromyrtus</i> sp.	Shrub (0-1 m)	5 – 9
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	1 – 4
<i>Philotheca tomentella</i>	Shrub (0-1 m)	1 – 4
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	1 – 4
<i>Acacia acuminata</i>	Shrub (0-1 m)	< 1
<i>Beyeria sulcata</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Westringia rigida</i>	Shrub (0-1 m)	< 1
<i>Dianella revoluta</i> var. <i>divaricata</i>	Herb	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD17

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 345497.52 mE 6559491.79 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Loamy sand		
Soil colour	Light brown	Rock abundance	30 – 70		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	1 – 4
<i>Acacia acuminata</i>	Shrub (>2 m)	5 – 9
<i>Allocasuarina helmsii</i>	Shrub (>2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (>2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Westringia cephalantha</i> var. <i>caterva</i>	Shrub (1-2 m)	5 – 9
<i>Beyeria sulcata</i>	Shrub (1-2 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila alternifolia</i>	Shrub (0-1 m)	< 1
<i>Eremophila granitica</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	< 1

VD18

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 346175.27 mE 6558880.9 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay loam		
Soil colour	Light brown	Rock abundance	30 – 70		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ravida</i>	Tree (10-30 m)	10 – 24
<i>Eremophila dempsteri</i>	Shrub (>2 m)	10 – 24
<i>Santalum acuminatum</i>	Shrub (>2 m)	1 – 4
<i>Acacia acuminata</i>	Shrub (1-2 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	1 – 4
<i>Dillwynia acerosa</i>	Shrub (0-1 m)	< 1
<i>Eremophila clavata</i>	Shrub (0-1 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
? <i>Eragrostis</i> sp.	Grass	< 1

Taxon	Stratum	Cover %
<i>Austrostipa</i> sp.	Grass	< 1
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Haloragis trigonocarpa</i>	Herb	< 1
<i>Ptilotus exaltatus</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD19

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 346548.84 mE 6559194.21 mN	Slope	Gentle	Aspect	South
Landform	Undulating plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus transcontinentalis</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus ravidia</i>	Tree (<10 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	10 – 24
<i>Acacia collegialis</i>	Shrub (1-2 m)	5 – 9
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Eremophila caperata</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>	Herb	< 1

VD20

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 346530.01 mE 6558709.65 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay loam		
Soil colour	Light brown	Rock abundance	10 – 30		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ravidia</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus salmonophloia</i>	Tree (10-30 m)	5 – 9
<i>Eremophila dempsteri</i>	Shrub (>2 m)	10 – 24
<i>Acacia acuminata</i>	Shrub (>2 m)	5 – 9
<i>Acacia ?hemiteles</i>	Shrub (>2 m)	1 – 4
<i>Santalum acuminatum</i>	Shrub (>2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	5 – 9
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Scaevola spinescens</i>	Shrub (1-2 m)	< 1
<i>Eremophila clavata</i>	Shrub (0-1 m)	1 – 4
<i>Cratystylis conocephala</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Rytidosperma acerosum</i>	Grass	< 1
<i>Thysanotus manglesianus/patersonii</i>	Vine	< 1
<i>Ptilotus exaltatus</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD21

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 347015.69 mE 6558376.65 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	1 – 4
<i>Eucalyptus salmonophloia</i>	Tree (<10 m)	1 – 4
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	5 – 9
<i>Acacia acuminata</i>	Shrub (>2 m)	33 – 49
<i>Acacia collegialis</i>	Shrub (1-2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
? <i>Olearia</i> sp.	Shrub (0-1 m)	< 1
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	< 1
<i>Ptilotus exaltatus</i>	Shrub (0-1 m)	< 1
<i>Dianella revoluta</i> var. <i>divaricata</i>	Herb	< 1

VD22

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 347307.92 mE 6559090.22 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Red	Soil texture	Clay		
Rock type	Quartz/quartzite	Rock abundance	< 10		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ravidia</i>	Mallee (3-10 m)	25 – 32
<i>Eremophila dempsteri</i>	Shrub (1-2 m)	5 – 9
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Acacia collegialis</i>	Shrub (1-2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (0-1 m)	1 – 4
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (0-1 m)	1 – 4
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Calandrinia ?primuliflora</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD23

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348171.9 mE 6559014.74 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay loam		
Soil colour	Light brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus salmonophloia</i>	Mallee (10-30 m)	5 – 9
<i>Acacia ?enervia</i>	Shrub (>2 m)	10 – 24
<i>Santalum acuminatum</i>	Shrub (>2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (>2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (1-2 m)	< 1
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	5 – 9
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	< 1
<i>Ozothamnus cassiope</i>	Herb	< 1

VD24

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348242.52 mE 6559173.07 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus transcontinentalis</i>	Tree (<10 m)	1 – 4
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	10 – 24
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Eremophila scoparia</i>	Shrub (0-1 m)	1 – 4
<i>Halgania andromedifolia</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Westringia rigida</i>	Shrub (0-1 m)	1 – 4
<i>Triodia scariosa</i>	Hummock Grass	< 1
<i>Austrostipa elegantissima</i>	Grass	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1
<i>Roepera glauca</i>	Herb	< 1

VD25

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348884.72 mE 6559528.17 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay loam		
Soil colour	Light brown	Rock abundance	< 10		
Rock type	Granite	Disturbance	None		
Vegetation condition	Very Good				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus clelandiorum</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i>	Tree (10-30 m)	5 – 9
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	10 – 24
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Halgania andromedifolia</i>	Shrub (0-1 m)	1 – 4
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Eremophila parvifolia</i> subsp. <i>auricampi</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Dissocarpus paradoxus</i>	Herb	< 1
<i>Maireana georgei</i>	Herb	< 1

Taxon

Stratum

Cover %

Sclerolaena diacantha

Herb

< 1

VD26

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348899.39 mE 6559804.34 mN	Slope	Gentle	Aspect	East
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia acuminata</i>	Shrub (>2 m)	25 – 32
<i>Melaleuca uncinata</i> complex	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	10 – 24
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Goodenia occidentalis</i>	Herb	< 1
<i>Thysanotus manglesianus/patersonii</i>	Herb	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD27

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348173.35 mE 6558262.61 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus salmonophloia</i>	Tree (10-30 m)	5 – 9
<i>Acacia ?enervia</i>	Shrub (>2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Santalum acuminatum</i>	Shrub (>2 m)	< 1
<i>Acacia ?hemiteles</i>	Shrub (1-2 m)	10 – 24
<i>Eremophila ionantha</i>	Shrub (1-2 m)	5 – 9
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila dempsteri</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	5 – 9
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1

Taxon

Stratum

Cover %

Maireana georgei

Herb

< 1

VD28

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348273.3 mE 6557852.5 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	10 – 30		
Rock type	Quartz/quartzite, laterite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus salmonophloia</i>	Tree (10-30 m)	1 – 4
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	25 – 32
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Acacia merrallii</i>	Shrub (1-2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Westringia rigida</i>	Shrub (0-1 m)	< 1
<i>Roepera ovata</i>	Herb	< 1

VD29

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348649.88 mE 6557763.44 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus salmonophloia</i>	Tree (>30 m)	1 – 4
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	5 – 9
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	10 – 24
<i>Eremophila caperata</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (0-1 m)	1 – 4
<i>Westringia rigida</i>	Shrub (0-1 m)	1 – 4
<i>Acacia collegialis</i>	Shrub (0-1 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Roepera glauca</i>	Herb	< 1

VD30

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 347899.66 mE 6556987.23 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Light brown	Soil texture	Sandy clay loam		
Rock type	NA	Rock abundance	NA		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				

No photo.

Taxon	Stratum	Cover %
<i>Acacia websteri</i>	Shrub (>2 m)	25 – 32
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	5 – 9
<i>Leptospermum ?fastigiatum</i>	Shrub (>2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Acacia ?enervia</i>	Shrub (1-2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	5 – 9
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Eragrostis eriopoda</i>	Grass	< 1
<i>Asteraceae</i> sp. (indet.)	Herb	< 1
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Herb	< 1
<i>Goodenia occidentalis</i>	Herb	< 1
<i>Haloragis trigonocarpa</i>	Herb	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD32

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348208.92 mE 6556489.65 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Red	Soil texture	Clay loam		
Rock type	NA	Rock abundance	NA		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ravida</i>	Mallee (3-10 m)	33 – 49
<i>Eremophila dempsteri</i>	Shrub (>2 m)	33 – 49
<i>Eremophila clavata</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (0-1 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (0-1 m)	< 1
<i>Ptilotus exaltatus</i>	Shrub (0-1 m)	< 1
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD33

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348779.21 mE 6556450.93 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Orange	Soil texture	Clay loam		
Rock type	Laterite	Rock abundance	< 10		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	33 – 49
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	1 – 4
<i>Eremophila caperata</i>	Shrub (1-2 m)	1 – 4
<i>Halgania andromedifolia</i>	Shrub (0-1 m)	10 – 24
<i>Acacia merrallii</i>	Shrub (0-1 m)	1 – 4
<i>Cratystylis conocephala</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD34

Botanist	CK	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 348708.34 mE 6556057.88 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Loamy sand		
Soil colour	Light brown	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia websteri</i>	Shrub (>2 m)	10 – 24
<i>Acacia acuminata</i>	Shrub (>2 m)	5 – 9
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	1 – 4
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	5 – 9
<i>Mirbelia microphylla</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	1 – 4
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Prostanthera althoferi</i> subsp. <i>althoferi</i>	Shrub (0-1 m)	< 1
<i>Austrostipa</i> sp.	Grass	< 1
<i>Monachather paradoxus</i>	Grass	< 1
<i>Brachyscome iberidifolia</i>	Herb	< 1
<i>Gnephosis tenuissima</i>	Herb	< 1

Taxon	Stratum	Cover %
<i>Podolepis rugata</i>	Herb	< 1
<i>Solanum lasiophyllum</i>	Herb	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD35

Botanist	RS	Date	21/10/2021	Site type	Veg desc.
Northwest corner	51K 349218.07 mE 6556432.69 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay loam		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	25 – 32
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	5 – 9
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Halgania andromedifolia</i>	Shrub (0-1 m)	5 – 9
<i>Acacia collegialis</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Acacia merrallii</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Maireana pentatropis</i>	Herb	< 1
<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD36

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 349940.71 mE 6556520.48 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus salmonophloia</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	10 – 24
<i>Acacia collegialis</i>	Shrub (1-2 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	5 – 9
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Westringia cephalantha</i> var. <i>caterva</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (0-1 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1

VD37

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350065.14 mE 6557283.36 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Red	Soil texture	Clay		
Rock type	NA	Rock abundance	NA		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus salmonophloia</i>	Mallee (10-30 m)	25 – 32
<i>Acacia collegialis</i>	Shrub (1-2 m)	10 – 24
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	5 – 9
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila caperata</i>	Shrub (1-2 m)	< 1
<i>Santalum spicatum</i>	Shrub (1-2 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Solanum hoplopetalum</i>	Herb	< 1

VD38

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350469.24 mE 6556224.41 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	1 – 4
<i>Eucalyptus griffithsii</i>	Mallee (3-10 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (>2 m)	5 – 9
<i>Melaleuca ?acuminata</i>	Shrub (>2 m)	5 – 9
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	5 – 9
<i>Acacia acuminata</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	1 – 4
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila granitica</i>	Shrub (0-1 m)	< 1
<i>Prostanthera althoferi</i> subsp. <i>althoferi</i>	Shrub (0-1 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
<i>Westringia rigida</i>	Shrub (0-1 m)	< 1
<i>Triodia scariosa</i>	Hummock Grass	5 – 9
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1

VD39

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350588.11 mE 6556768.79 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Orange, brown	Rock abundance	< 10		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	1 – 4
<i>Acacia ?enervia</i>	Shrub (>2 m)	10 – 24
<i>Acacia ?prainii</i>	Shrub (>2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Santalum acuminatum</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (0-1 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	< 1
<i>Westringia rigida</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	< 1
<i>Haloragis trigonocarpa</i>	Herb	< 1

VD40

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350999.85 mE 6556610.41 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Loamy sand		
Soil colour	Light brown	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Very Good				
Time since fire	Moderate (2 – 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia ?resinosa</i>	Shrub (>2 m)	10 – 24
<i>Acacia acuminata</i>	Shrub (>2 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (>2 m)	5 – 9
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	1 – 4
<i>Leptospermum ?fastigiatum</i>	Shrub (1-2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	1 – 4
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Austrostipa</i> sp.	Grass	< 1
<i>Austrostipa</i> sp.	Grass	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD41

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350930.18 mE 6557059.11 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus clelandiorum</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus ravida</i>	Tree (10-30 m)	1 – 4
<i>Eremophila caperata</i>	Shrub (>2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (>2 m)	< 1
<i>Santalum acuminatum</i>	Shrub (>2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (1-2 m)	< 1
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Halgania andromedifolia</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4

Taxon	Stratum	Cover %
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
<i>Solanum nummularium</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Maireana georgei</i>	Herb	< 1

VD42

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 351559.99 mE 6557154.17 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay loam		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	1 – 4
<i>Eucalyptus griffithsii</i>	Mallee (3-10 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	25 – 32
<i>Leptospermum ?fastigiatum</i>	Shrub (1-2 m)	25 – 32
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	10 – 24
<i>Melaleuca uncinata</i> complex	Shrub (1-2 m)	< 1
<i>Cryptandra aridicola</i>	Shrub (0-1 m)	1 – 4
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	1 – 4
? <i>Micromyrtus</i> sp.	Shrub (0-1 m)	< 1
<i>Westringia rigida</i>	Shrub (0-1 m)	< 1
<i>Triodia scariosa</i>	Hummock Grass	< 1
<i>Eragrostis eriopoda</i>	Grass	< 1
<i>Dianella revoluta</i> var. <i>divaricata</i>	Herb	< 1
<i>Ptilotus drummondii</i>	Herb	< 1

VD43

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 351751.51 mE 6557384.97 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay loam		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (10-30 m)	10 – 24
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	10 – 24
<i>Acacia collegialis</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Cratystylis conocephala</i>	Shrub (0-1 m)	5 – 9
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (0-1 m)	< 1
<i>Halgania andromedifolia</i>	Shrub (0-1 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
<i>Westringia rigida</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Chenopodium curvispicatum</i>	Herb	< 1
<i>Dianella revoluta</i> var. <i>divaricata</i>	Herb	< 1
<i>Maireana pentatropis</i>	Herb	< 1
<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1

VD44

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 352048.49 mE 6557505.87 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia acuminata</i>	Shrub (>2 m)	25 – 32
<i>Acacia ?enervia</i>	Shrub (>2 m)	5 – 9
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	5 – 9
<i>Mirbelia microphylla</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Monachather paradoxus</i>	Grass	< 1
<i>Brachyscome iberidifolia</i>	Herb	< 1
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Herb	< 1
<i>Glycyrrhiza acanthocarpa</i>	Herb	< 1
<i>Gnephosis tenuissima</i>	Herb	< 1
<i>Oxalis corniculata</i>	Herb	< 1

Taxon	Stratum	Cover %
<i>Solanum lasiophyllum</i>	Herb	< 1
<i>Swainsona canescens</i>	Herb	< 1

VD45

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 352129.59 mE 6557620.87 mN	Slope	Negligible	Aspect	NA
Landform	Creek (Minor creek (< 5 m))	Soil texture	Sandy clay		
Soil colour	Orange, brown	Rock abundance	< 10		
Rock type	Granite	Disturbance	None		
Vegetation condition	Very Good				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia acuminata</i>	Shrub (>2 m)	33 – 49
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Rutaceae</i> sp.	Shrub (0-1 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	< 1
<i>Monachather paradoxus</i>	Grass	< 1
<i>Paspalidium basicladum</i>	Grass	< 1
<i>Rytidosperma setaceum</i>	Grass	< 1
<i>Haloragis trigonocarpa</i>	Herb	1 – 4
<i>Schoenia cassiniana</i>	Herb	1 – 4
<i>Centaurea melitensis</i>	Herb	< 1
<i>Glycyrrhiza acanthocarpa</i>	Herb	< 1
<i>Gnephosis arachnoidea</i>	Herb	< 1

Taxon	Stratum	Cover %
<i>Ptilotus</i> sp.	Herb	< 1

VD46

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 351932.32 mE 6557790.84 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Orange, brown	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (10-30 m)	25 – 32
<i>Acacia ?enervia</i>	Shrub (>2 m)	1 – 4
<i>Santalum acuminatum</i>	Shrub (>2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	5 – 9
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (1-2 m)	< 1
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Dillwynia acerosa</i>	Shrub (0-1 m)	< 1
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Ptilotus obovatus</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Rhagodia drummondii</i>	Shrub (0-1 m)	< 1
<i>Ptilotus exaltatus</i>	Herb	< 1

VD47

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 348867.77 mE 6555147.59 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus salmonophloia</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	5 – 9
<i>Eremophila scoparia</i>	Shrub (1-2 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	1 – 4
<i>Acacia collegialis</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>	Herb	< 1
<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD48

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 349796.33 mE 6555289.44 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	10 – 24
<i>Eucalyptus griffithsii</i>	Mallee (3-10 m)	5 – 9
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	5 – 9
<i>Acacia merrallii</i>	Shrub (1-2 m)	5 – 9
<i>Acacia collegialis</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Santalum spicatum</i>	Shrub (1-2 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1

VD49

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 348986.78 mE 6554769.01 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Orange, brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	5 – 9
<i>Acacia resinistipulea</i>	Shrub (>2 m)	5 – 9
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (1-2 m)	< 1
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Westringia rigida</i>	Shrub (0-1 m)	1 – 4
<i>Acacia merrallii</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1

VD50

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 349250.8 mE 6554105.01 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Very Good				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus celastroides</i>	Tree (10-30 m)	5 – 9
<i>Acacia ?enervia</i>	Shrub (>2 m)	5 – 9
<i>Eremophila dempsteri</i>	Shrub (>2 m)	1 – 4
<i>Eremophila caperata</i>	Shrub (1-2 m)	1 – 4
<i>Santalum acuminatum</i>	Shrub (1-2 m)	< 1
<i>Santalum spicatum</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Eremophila clavata</i>	Shrub (0-1 m)	1 – 4
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
<i>Maireana georgei</i>	Herb	< 1

Taxon	Stratum	Cover %
<i>Ptilotus exaltatus</i>	Herb	< 1
<i>Ptilotus obovatus</i>	Herb	< 1
<i>Solanum hoplopetalum</i>	Herb	< 1

VD51

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 349765 mE 6553830.95 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sand		
Soil colour	Light brown	Rock abundance	10 – 30		
Rock type	Granite	Disturbance	None		
Vegetation condition	Very Good				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (>2 m)	10 – 24
<i>Acacia ?enervia</i>	Shrub (>2 m)	1 – 4
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	< 1
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Leptospermum ?fastigiatum</i>	Shrub (1-2 m)	< 1
<i>Dillwynia acerosa</i>	Shrub (0-1 m)	25 – 32
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	1 – 4
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Leucopogon</i> sp.	Shrub (0-1 m)	< 1
<i>Phebalium laevigatum</i>	Shrub (0-1 m)	< 1

VD52

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 349929.51 mE 6554199.49 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	< 10		
Rock type	Sandstone	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus clelandiorum</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus ravidia</i>	Tree (10-30 m)	1 – 4
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	10 – 24
<i>Eremophila dempsteri</i>	Shrub (>2 m)	< 1
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (1-2 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Acacia erinacea</i>	Shrub (0-1 m)	< 1
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Eremophila clavata</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	< 1
<i>Maireana georgei</i>	Herb	< 1
<i>Maireana radiata</i>	Herb	< 1

VD53

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350117.11 mE 6553802.69 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Mallee (3-10 m)	25 – 32
<i>Allocasuarina helmsii</i>	Shrub (1-2 m)	10 – 24
<i>Acacia acuminata</i>	Shrub (1-2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	1 – 4
<i>Dodonaea stenozyga</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Santalum spicatum</i>	Shrub (1-2 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	5 – 9
<i>Acacia erinacea</i>	Shrub (0-1 m)	1 – 4
<i>Cryptandra aridicola</i>	Shrub (0-1 m)	1 – 4
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Westringia cephalantha</i> var. <i>caterva</i>	Shrub (0-1 m)	1 – 4
<i>Westringia rigida</i>	Shrub (0-1 m)	1 – 4
? <i>Micromyrtus</i> sp.	Shrub (0-1 m)	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	< 1
<i>Dianella revoluta</i> var. <i>divaricata</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD54

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350267.29 mE 6554193.53 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus transccontinentalis</i>	Tree (10-30 m)	25 – 32
<i>Eucalyptus griffithsii</i>	Mallee (10-30 m)	5 – 9
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	1 – 4
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	5 – 9
<i>Eremophila caperata</i>	Shrub (1-2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Acacia collegialis</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Santalum spicatum</i>	Shrub (0-1 m)	< 1
<i>Aristida contorta</i>	Grass	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Eragrostis dielsii</i>	Grass	< 1
<i>Pentameris airoides</i> subsp. <i>airoides</i>	Grass	< 1
<i>Calandrinia ?primuliflora</i>	Herb	< 1
<i>Goodenia occidentalis</i>	Herb	< 1
<i>Ptilotus carlsonii</i>	Herb	< 1

VD55

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 350584.89 mE 6554022.08 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	50 – 74
<i>Melaleuca uncinata</i> complex	Shrub (1-2 m)	10 – 24
<i>Acacia acuminata</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila granitica</i>	Shrub (1-2 m)	1 – 4
<i>Prostanthera incurvata</i>	Shrub (1-2 m)	1 – 4
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	1 – 4
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	10 – 24
<i>Borya constricta</i>	Herb	< 1
<i>Dianella revoluta</i> var. <i>divaricata</i>	Herb	< 1
<i>Thysanotus manglesianus/patersonii</i>	Herb	< 1

VD56

Botanist	CK	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 352310.85 mE 6554651.03 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Light brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	< 1
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	33 – 49
<i>Acacia ?resinosa</i>	Shrub (>2 m)	5 – 9
<i>Acacia acuminata</i>	Shrub (>2 m)	1 – 4
<i>Santalum acuminatum</i>	Shrub (>2 m)	< 1
<i>Santalum spicatum</i>	Shrub (>2 m)	< 1
<i>Acacia websteri</i>	Shrub (1-2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	5 – 9
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Westringia cephalantha</i> var. <i>caterva</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Eragrostis eriopoda</i>	Grass	< 1
<i>Lomandra effusa</i>	Sedge	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD57

Botanist	RS	Date	22/10/2021	Site type	Veg desc.
Northwest corner	51K 352553.18 mE 6554664.73 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Red	Soil texture	Clay		
Rock type	NA	Rock abundance	NA		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				

No photo.

Taxon	Stratum	Cover %
<i>Eucalyptus ravidia</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus salmonophloia</i>	Tree (10-30 m)	1 – 4
<i>Eucalyptus transcontinentalis</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	10 – 24
<i>Eremophila dempsteri</i>	Shrub (>2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>	Shrub (1-2 m)	< 1
<i>Acacia collegialis</i>	Shrub (0-1 m)	5 – 9
<i>Scaevola spinescens</i>	Shrub (0-1 m)	5 – 9
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (0-1 m)	5 – 9
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Ptilotus exaltatus</i>	Shrub (0-1 m)	< 1
<i>Ptilotus obovatus</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1
<i>Solanum hoplopetalum</i>	Herb	< 1

VD58

Botanist	CK	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 352756.86 mE 6554646.39 mN	Slope	Negligible	Aspect	NA
Landform	Drainage line (Drainage line)	Soil texture	Sandy clay		
Soil colour	Brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus transcontinentalis</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	10 – 24
<i>Acacia acuminata</i>	Shrub (>2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (>2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	< 1
<i>Santalum spicatum</i>	Shrub (>2 m)	< 1
<i>Acacia ?hemiteles</i>	Shrub (1-2 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	< 1
<i>Scaevola spinescens</i>	Shrub (0-1 m)	5 – 9
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Solanum nummularium</i>	Shrub (0-1 m)	< 1
<i>Austrostipa</i> sp.	Grass	< 1
<i>Rytidosperma setaceum</i>	Grass	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	< 1
<i>Ptilotus obovatus</i>	Herb	< 1

VD59

Botanist	RS	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 353186.24 mE 6554706.03 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay loam		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus transccontinentalis</i>	Tree (10-30 m)	10 – 24
<i>Eucalyptus griffithsii</i>	Mallee (10-30 m)	10 – 24
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	5 – 9
<i>Eremophila caperata</i>	Shrub (>2 m)	1 – 4
<i>Acacia collegialis</i>	Shrub (1-2 m)	5 – 9
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	5 – 9
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Santalum spicatum</i>	Shrub (1-2 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Acacia longispinea</i>	Shrub (0-1 m)	< 1
<i>Eremophila scoparia</i>	Shrub (0-1 m)	< 1
<i>Auistrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1

VD60

Botanist	RS	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 353749.94 mE 6554824.94 mN	Slope	Gentle	Aspect	South
Landform	Low hill (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	> 70		
Rock type	Granite, quartz	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Brachychiton gregorii</i>	Tree (<10 m)	1–4
<i>Acacia ?resinosa</i>	Shrub (>2 m)	5–9
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	5–9
<i>Eriachne pulchella</i>	Shrub (0-1 m)	1–4
<i>Rutaceae</i> sp.	Shrub (0-1 m)	1–4
<i>Mirbelia microphylla</i>	Shrub (0-1 m)	<1
<i>Aristida contorta</i>	Grass	1–4
<i>Austrostipa elegantissima</i>	Grass	<1
<i>Leichhardtia australis</i>	Vine	<1
<i>Calandrinia ?primuliflora</i>	Herb	1–4
<i>Goodenia occidentalis</i>	Herb	1–4
<i>Brachyscome iberidifolia</i>	Herb	<1
<i>Calandrinia eremaea</i>	Herb	<1
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Herb	<1
<i>Gnephosis tenuissima</i>	Herb	<1
<i>Isotoma petraea</i>	Herb	<1
<i>Nicotiana ?obliqua</i>	Herb	<1
<i>Siemssenia capillaris</i>	Herb	<1
<i>Stackhousia muricata</i>	Herb	<1
<i>Trachymene ornata</i>	Herb	<1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	<1

VD61

Botanist	CK	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 353759.64 mE 6555198.37 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Brown	Soil texture	Sand		
Rock type	Quartz/quartzite	Rock abundance	< 10		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	33 – 49
<i>Exocarpos aphyllus</i>	Shrub (>2 m)	< 1
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	< 1
<i>Santalum spicatum</i>	Shrub (>2 m)	< 1
<i>Acacia merrallii</i>	Shrub (1-2 m)	< 1
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	Shrub (1-2 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (0-1 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (0-1 m)	< 1
<i>Maireana radiata</i>	Herb	< 1
<i>Sclerolaena parviflora</i>	Herb	< 1

Taxon

Stratum

Cover %

Siemssenia capillaris

Herb

< 1

VD62

Botanist	CK	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 353710.85 mE 6555361.11 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Orange, brown	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?oleosa</i>	Tree (<10 m)	5 – 9
<i>Acacia acuminata</i>	Shrub (>2 m)	10 – 24
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	1 – 4
<i>Eremophila granitica</i>	Shrub (1-2 m)	10 – 24
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	1 – 4
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Austrostipa</i> sp.	Grass	< 1
<i>Eragrostis eriopoda</i>	Grass	< 1
<i>Leichhardtia australis</i>	Vine	< 1

Taxon	Stratum	Cover %
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Herb	< 1
<i>Gnephosis arachnoidea</i>	Herb	< 1
<i>Goodenia occidentalis</i>	Herb	< 1
<i>Solanum lasiophyllum</i>	Herb	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD63

Botanist	RS	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 353731.67 mE 6556116.62 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay loam		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Mallee (3-10 m)	25 – 32
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	10 – 24
<i>Acacia ?resinosa</i>	Shrub (1-2 m)	5 – 9
<i>Eremophila caperata</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	1 – 4
<i>Olearia pimeleoides</i>	Shrub (0-1 m)	1 – 4
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	1 – 4
<i>Cryptandra aridicola</i>	Shrub (0-1 m)	< 1
<i>Westringia cephalantha</i> var. <i>caterva</i>	Shrub (0-1 m)	< 1
<i>Triodia scariosa</i>	Hummock Grass	33 – 49
<i>Lomandra effusa</i>	Sedge	< 1
<i>Siemssenia capillaris</i>	Herb	< 1
<i>Waitzia acuminata</i> var. <i>acuminata</i>	Herb	< 1

VD64

Botanist	CK	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 349699.51 mE 6553059.03 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Orange, brown	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	5 – 9
<i>Acacia ?enervia</i>	Shrub (>2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (>2 m)	5 – 9
<i>Acacia resinistipulea</i>	Shrub (>2 m)	1 – 4
<i>Melaleuca ?acuminata</i>	Shrub (>2 m)	1 – 4
<i>Acacia acuminata</i>	Shrub (>2 m)	< 1
<i>Santalum spicatum</i>	Shrub (>2 m)	< 1
<i>Beyeria sulcata</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	< 1
<i>Grevillea acuaria</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Acacia ?hemiteles</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Dianella revoluta</i> var. <i>divaricata</i>	Shrub (0-1 m)	< 1
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	< 1
<i>Ptilotus obovatus</i>	Herb	< 1

VD65

Botanist	RS	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 349794.34 mE 6552620.23 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus ravida</i>	Tree (<10 m)	10 – 24
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	10 – 24
<i>Eremophila dempsteri</i>	Shrub (>2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Ptilotus exaltatus</i>	Shrub (0-1 m)	< 1
<i>Ptilotus obovatus</i>	Shrub (0-1 m)	< 1
<i>Austrostipa elegantissima</i>	Grass	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Erymophyllum ramosum</i> subsp. <i>ramosum</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

VD66

Botanist	RS	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 349880.53 mE 6552373 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Clay		
Soil colour	Red	Rock abundance	< 10		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Mallee (3-10 m)	1 – 4
<i>Acacia ?resinosa</i>	Shrub (>2 m)	33 – 49
<i>Melaleuca uncinata</i> complex	Shrub (>2 m)	10 – 24
<i>Allocasuarina campestris</i>	Shrub (>2 m)	< 1
<i>Melaleuca ?acuminata</i>	Shrub (1-2 m)	1 – 4
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Prostanthera grylloana</i>	Shrub (0-1 m)	5 – 9
<i>Triodia scariosa</i>	Hummock Grass	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	1 – 4
<i>Dianella revoluta</i> var. <i>divaricata</i>	Herb	1 – 4

VD67

Botanist	CK	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 350406.84 mE 6551290.95 mN	Slope	Gentle	Aspect	NA
Landform	Outcrop (NA)	Soil texture	Sandy clay		
Soil colour	Orange, brown	Rock abundance	> 70		
Rock type	Granite	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Brachychiton gregorii</i>	Tree (<10 m)	< 1
<i>Acacia ?resinosa</i>	Shrub (>2 m)	1 – 4
<i>Thryptomene australis</i> subsp. <i>brachyandra</i>	Shrub (1-2 m)	5 – 9
<i>Acacia dempsteri</i>	Shrub (1-2 m)	1 – 4
<i>Seringia velutina</i>	Shrub (1-2 m)	1 – 4
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>	Shrub (1-2 m)	< 1
<i>Grevillea haplantha</i> subsp. <i>haplantha</i>	Shrub (1-2 m)	< 1
<i>Leptospermum ?fastigiatum</i>	Shrub (1-2 m)	< 1
<i>Melaleuca fulgens</i> subsp. <i>fulgens</i>	Shrub (1-2 m)	< 1
? <i>Boronia</i> sp.	Shrub (0-1 m)	< 1
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>	Shrub (0-1 m)	< 1
<i>Mirbelia microphylla</i>	Shrub (0-1 m)	< 1
<i>Sarcozona praecox</i>	Shrub (0-1 m)	< 1

Taxon	Stratum	Cover %
<i>Aristida contorta</i>	Grass	1 – 4
<i>Cymbopogon obtectus</i>	Grass	< 1
<i>Monachather paradoxus</i>	Grass	< 1
<i>Pentameris airoides</i> subsp. <i>airoides</i>	Grass	< 1
<i>Rytidosperma setaceum</i>	Grass	< 1
<i>Lepidosperma</i> ?sp. Bandalup Scabrid (N. Eveleigh 10798)	Sedge	< 1
<i>Lepidosperma sanguinolentum</i>	Sedge	< 1
<i>Spartochloa scirpoidea</i>	Sedge	< 1
<i>Stypandra glauca</i>	Herb	1 – 4
<i>Borya constricta</i>	Herb	< 1
<i>Calandrinia eremaea</i>	Herb	< 1
<i>Centrolepis strigosa</i>	Herb	< 1
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Herb	< 1
<i>Glischrocaryon angustifolium</i>	Herb	< 1
<i>Goodenia occidentalis</i>	Herb	< 1
<i>Hypochaeris glabra</i>	Herb	< 1
<i>Isotoma petraea</i>	Herb	< 1
<i>Schenkia australis</i>	Herb	< 1
<i>Solanum hoplopetalum</i>	Herb	< 1
<i>Wahlenbergia</i> sp. (indet.)	Herb	< 1

VD68

Botanist	RS	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 350682.17 mE 6551116.9 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Orange	Rock abundance	NA		
Rock type	NA	Disturbance	None		
Vegetation condition	Excellent				
Time since fire	Long (> 3 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus ?platycorys</i>	Mallee (3-10 m)	33 – 49
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Acacia acuminata</i>	Shrub (1-2 m)	< 1
<i>Acacia collegialis</i>	Shrub (0-1 m)	1 – 4
<i>Dodonaea adenophora</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Ptilotus obovatus</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (0-1 m)	1 – 4
<i>Solanum lasiophyllum</i>	Shrub (0-1 m)	1 – 4
<i>Solanum plicatile</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	Shrub (0-1 m)	< 1
<i>Exocarpos aphyllus</i>	Shrub (0-1 m)	< 1
<i>Ptilotus exaltatus</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	5 – 9
<i>Sclerolaena diacantha</i>	Herb	1 – 4
<i>Eriochiton sclerolaenoides</i>	Herb	< 1
<i>Ptilotus carlsonii</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1
<i>Roepera glauca</i>	Herb	< 1

VD69

Botanist	CK	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 350455.16 mE 6550727.76 mN	Slope	Negligible	Aspect	NA
Landform	Plain (NA)	Soil texture	Sandy clay		
Soil colour	Brown	Rock abundance	< 10		
Rock type	Quartz/quartzite	Disturbance	None		
Vegetation condition	Very Good				
Time since fire	Recent (1 – 2 yrs)				



Taxon	Stratum	Cover %
<i>Eucalyptus transcristinentalis</i>	Tree (10-30 m)	5 – 9
<i>Eucalyptus celastroides</i>	Tree (<10 m)	10 – 24
<i>Alyxia buxifolia</i>	Shrub (>2 m)	< 1
<i>Santalum acuminatum</i>	Shrub (>2 m)	< 1
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (1-2 m)	5 – 9
<i>Alyxia buxifolia</i>	Shrub (1-2 m)	< 1
<i>Eremophila scoparia</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Eremophila clavata</i>	Shrub (0-1 m)	< 1
<i>Eremophila ionantha</i>	Shrub (0-1 m)	< 1
<i>Olearia muelleri</i>	Shrub (0-1 m)	< 1
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Grass	< 1
<i>Maireana georgei</i>	Herb	< 1

Taxon	Stratum	Cover %
<i>Olearia muelleri</i>	Herb	< 1
<i>Ptilotus exaltatus</i>	Herb	< 1
<i>Ptilotus holosericeus</i>	Herb	< 1
<i>Ptilotus obovatus</i>	Herb	< 1
<i>Sclerolaena diacantha</i>	Herb	< 1

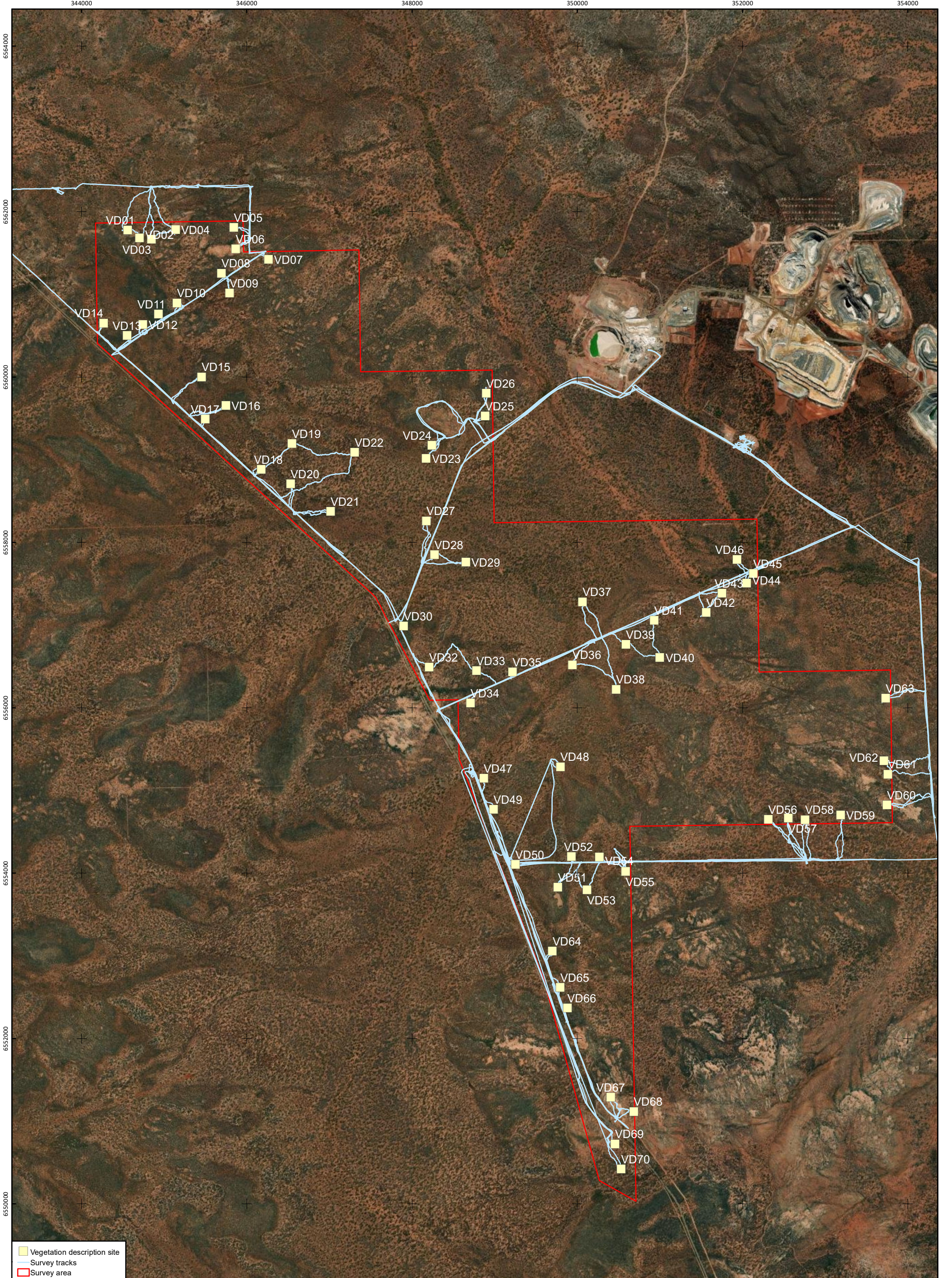
VD70

Botanist	RS	Date	23/10/2021	Site type	Veg desc.
Northwest corner	51K 350532.3 mE 6550423.96 mN				
Landform	Plain (NA)	Slope	Negligible	Aspect	NA
Soil colour	Red	Soil texture	Clay		
Rock type	NA	Rock abundance	NA		
Vegetation condition	Excellent	Disturbance	None		
Time since fire	Long (> 3 yrs)				

No photo.

Taxon	Stratum	Cover %
<i>Eucalyptus griffithsii</i>	Tree (10-30 m)	33 – 49
<i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i>	Tree (10-30 m)	1 – 4
<i>Eucalyptus salmonophloia</i>	Tree (10-30 m)	1 – 4
<i>Eucalyptus griffithsii</i>	Mallee (10-30 m)	5 – 9
<i>Eucalyptus ?platycorys</i>	Mallee (10-30 m)	1 – 4
<i>Melaleuca pauperiflora</i>	Shrub (>2 m)	1 – 4
<i>Eremophila ionantha</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila scoparia</i>	Shrub (1-2 m)	1 – 4
<i>Exocarpos aphyllus</i>	Shrub (1-2 m)	1 – 4
<i>Eremophila clavata</i>	Shrub (0-1 m)	1 – 4
<i>Olearia muelleri</i>	Shrub (0-1 m)	1 – 4
<i>Scaevola spinescens</i>	Shrub (0-1 m)	1 – 4
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	Shrub (0-1 m)	1 – 4
<i>Eriochiton sclerolaenoides</i>	Herb	< 1

Appendix E Survey track log.



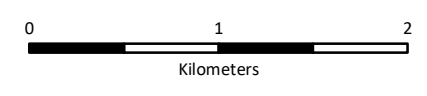
- Vegetation description site
- Survey tracks
- ▭ Survey area



Project: 1901
 Date: 30 March 2022
 Author: RS
 Coordinate System: GDA 1994 MGA Zone 51
 Projection: Transverse Mercator
 Absolute Scale: 1:40,000 @A3

Appendix E: Survey track log.

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Appendix F Threatened and Priority Flora report forms.



Threatened and Priority Flora Report Form

Version 1.4 March 2021

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants

TAXON: <u>Acacia websteri</u>	TPFL Pop. No.: _____
OBSERVATION DATE: <u>21/10/2021</u>	CONSERVATION STATUS: <u>P1</u> New population <input type="checkbox"/>
OBSERVER/S: <u>Catherine Krens</u>	PHONE <u>(08) 6168 7200</u>
ROLE: <u>Botanist</u>	ORGANISATION: <u>Ecologia Environmental Consultants</u>
EMAIL: <u>admin@ecologia.com.au</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): Mineral Resources Limited Mt Marion mine site 30 km southwest of Coolgardie in the Eastern Goldfields IBRA subregion

Reserve No.: _____

DBC DISTRICT: <u>Goldfields</u>	LGA: <u>Shire of Coolgardie</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input checked="" type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>6556987.23, 6556057.88, 6554651.03</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>347899.66, 348708.34, 352310.85</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>GDA 1994 MGA Zone 51</u>	

LAND TENURE:

Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey Partial survey Full survey Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

POP'N COUNT ACCURACY: Actual Extrapolation Estimate Count method: _____
(Refer to field manual for list)

WHAT COUNTED: Plants Clumps Clonal stems

TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:	Area of pop (m ²): _____ Note: Pls record count as numbers (not percentages) for database.
Alive					
Dead					

QUADRATS PRESENT: No. _____ Size _____ Data attached Total area of quadrats (m²): _____

Summary Quad. Totals: Alive _____

REPRODUCTIVE STATE: Clonal Vegetative Flowerbud Flower
Immature fruit Fruit Dehisced fruit Percentage in flower: _____ %

CONDITION OF PLANTS: Healthy Moderate Poor Senescent

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____



Threatened and Priority Flora Report Form

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input checked="" type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input checked="" type="checkbox"/>	Brown <input checked="" type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input checked="" type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input checked="" type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>				Light Brown	
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
	Specific Landform Element:				
	(Refer to field manual for additional values)				
CONDITION OF SOIL:	Dry <input type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
 2. Open shrubland (Hibbertia sp., Acacia spp.);
 3. Isolated clumps of sedges (M.tetragona)

1. ±Eucalyptus griffithsii open woodland; Acacia acuminata,
2. Acacia resinosa, Prostanthera grylloana sparse shrubland;
3. Triodia scariosa, ±Goodenia occidentalis, Eriachne pulchella sparse grass/herbland.
- 4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine Excellent Very good Good Degraded Completely degraded

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High Medium Low No signs of fire

FENCING: Not required Present Replace / repair Required Length req'd: _____

ROADSIDE MARKERS: Not required Present Replace / reposition Required Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

FLORA AUTHORISATION / LICENCE No: FB62000188 Note if only observing plants (i.e. no specimens or plant material is taken) then no authorisation/licence is required. For further information on authorisation and licensing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under authorisations/licences should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. Regional Herb. District Herb. Other: _____

LODGEMENT: WA Herb Lodgement No: _____

ATTACHED: Map Mudmap Photo GIS data Field notes Other: _____

COPY SENT TO: Regional Office District Office Other: _____

Submitter of Record: Rob Sellers Role: Botanist Signed: [Signature] Date: 30 / 03 / 2022

Please return completed form to **Species And Communities Program DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to Flora Administrative Officer, Species and Communities Program.

Record entered by: _____ Sheet No.: _____ Record Entered in Database



Threatened and Priority Flora Report Form

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-plants

TAXON: <u>Eremophila acutifolia</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>21/10/2021</u>	CONSERVATION STATUS: <u>P3</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Catherine Krens</u>	PHONE: <u>(08) 6168 7200</u>	
ROLE: <u>Botanist</u>	ORGANISATION: <u>Ecologia Environmental Consultants</u>	
EMAIL: <u>admin@ecologia.com.au</u>		

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): Mineral Resources Limited
Mt Marion mine site 30 km southwest of Coolgardie in the Eastern Goldfields IBRA subregion

Reserve No: _____

DBC DISTRICT: Goldfields LGA: Shire of Coolgardie Land manager present:

DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input checked="" type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>6562313.01001</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>345064.658687</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>GDA 1994 MGA Zone 51</u>	

LAND TENURE:

Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey Partial survey Full survey Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

POP'N COUNT ACCURACY: Actual Extrapolation Estimate Count method: _____
(Refer to field manual for list)

WHAT COUNTED: Plants Clumps Clonal stems

TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:	Area of pop (m ²): _____ Note: Pls record count as numbers (not percentages) for database.
Alive				200	
Dead					

QUADRATS PRESENT: No. _____ Size _____ Data attached Total area of quadrats (m²): _____

Summary Quad. Totals: Alive _____

REPRODUCTIVE STATE: Clonal Vegetative Flowerbud Flower

Immature fruit Fruit Dehisced fruit Percentage in flower: _____ %

CONDITION OF PLANTS: Healthy Moderate Poor Senescent

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• _____	_____	_____	_____
• _____	_____	_____	_____
• _____	_____	_____	_____



Threatened and Priority Flora Report Form

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input type="checkbox"/>	Red <input checked="" type="checkbox"/>	Well drained <input checked="" type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input checked="" type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input checked="" type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
CONDITION OF SOIL:	Dry <input type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

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Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (M.tetragona)

1. Eucalyptus ravida open woodland; Sclerolaena diacantha,
2. Eremophila dempsteri, Eremophila ionantha sparse shrubland;
3. Maireana tomentosa subsp. tomentosa sparse herbland.
- 4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

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