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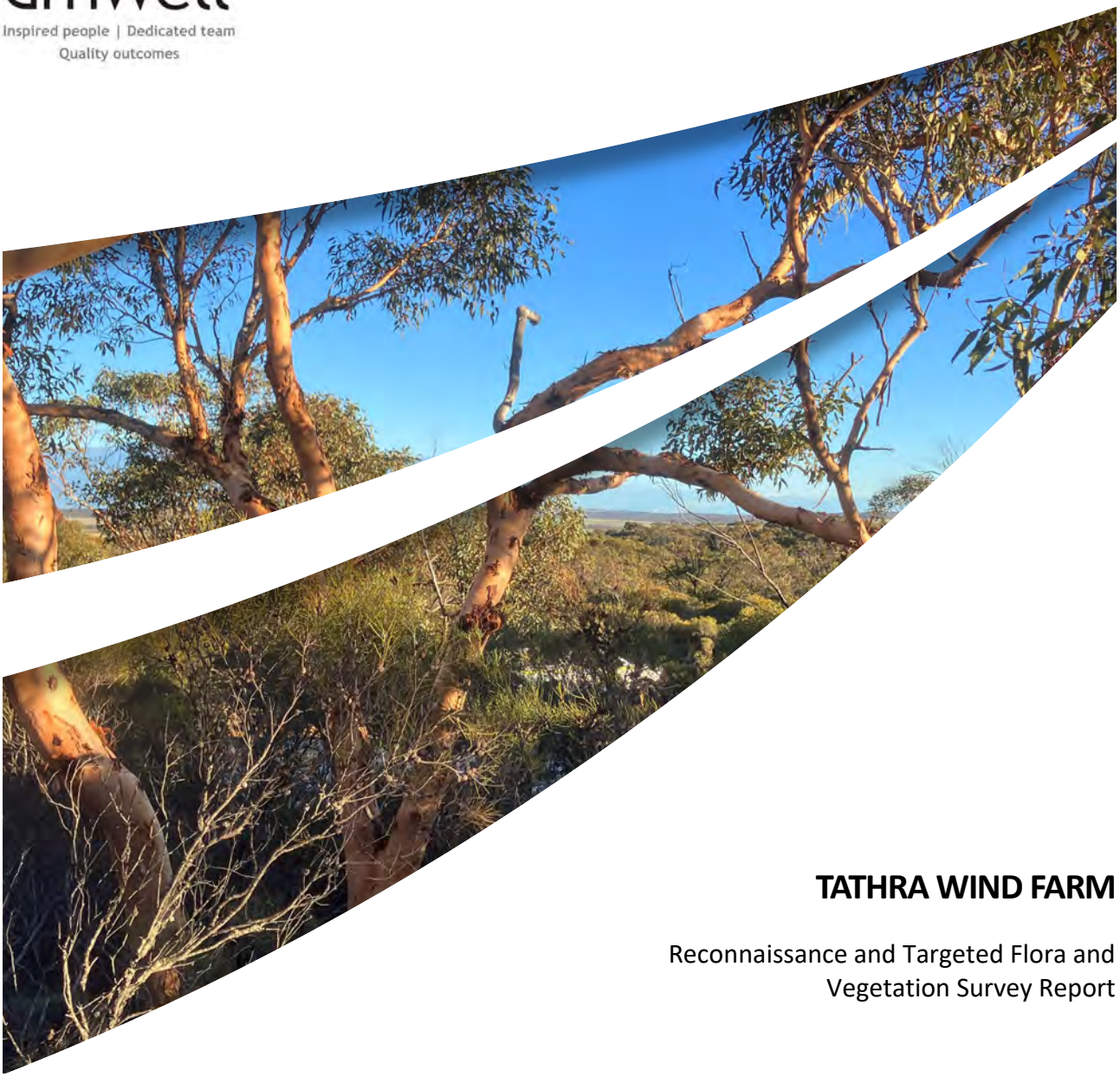

TATHRA WIND FARM

Reconnaissance and Targeted Flora and Vegetation Survey Report

FINAL

August 2025

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Reconnaissance and Targeted Flora and Vegetation Survey Report

FINAL

Prepared by
Umwelt (Australia) Pty Limited
on behalf of
SynergyRED

Project Director: Mitt Ramgobin
Project Manager: Cielito Marbus
Technical Director: David Coultas
Report No. 24316-R05
Date: August 2025

Environmental & Social Consultants

This report was prepared using Umwelt's ISO 9001 certified Quality Management System.

Acknowledgement of Country

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Executive Summary

Synergy Renewable Energy Development (Synergy RED) has engaged Umwelt Australia Pty. Ltd. (Umwelt) to investigate the feasibility of a wind farm development at Tathra, approximately 240 km north of Perth, Western Australia.

Three field trips were undertaken comprising an initial Reconnaissance level survey in June and two surveys in October and November 2024 during which supplementary Reconnaissance data were collected and Targeted surveys were conducted. The Reconnaissance flora and vegetation survey area (FVSA) was sampled via relevés and vegetation notes with supplementary quadrats undertaken in November to assist with interpretation of potential significant vegetation. The Targeted FVSA was assessed via traverses at 10 m spacing; timing of Targeted surveys aligned with the flowering and identifiability of conservation significant flora.

A total of 373 discrete vascular flora taxa were recorded during the 2024 surveys. The taxa represent 46 families and 143 genera. The most well-represented families were Proteaceae (80 taxa), Myrtaceae (76 taxa) and Fabaceae (36 taxa).

A total of 49 significant flora taxa were recorded by the 2024 surveys, comprising four threatened taxa, 42 Priority taxa and three potentially undescribed taxa. New populations were recorded of the following Threatened taxa:

- *Acacia wilsonii* (T) - one new population;
- *Daviesia speciosa* (T) – one new population;
- *Hakea megalosperma* (T) – three new populations; and
- *Paracaleana dixonii* (T) – one new population.

A likelihood of occurrence assessment for further significant flora records determined that 19 taxa are likely, 98 are possible and 70 taxa are unlikely to occur in the Reconnaissance FVSA. It is considered unlikely that any further significant flora would occur within the Targeted FVSA.

The proposed development is in an area where much of the vegetation has been historically cleared for agriculture. Remnant vegetation remains over 29% of the Reconnaissance FVSA; a total of 12 vegetation types (VTs) were mapped over a total area of 5,380 ha. These areas were largely in Good or better condition, although only a small proportion was mapped as Excellent. Cleared and highly modified vegetation comprised 71% of the Reconnaissance FVSA; five types of highly modified areas were mapped over 13,060 ha of the Reconnaissance FVSA, primarily where remnant vegetation has ostensibly been removed with only isolated remnant trees and shrubs remaining (e.g. paddocks, roads, dams). A number of areas of planted trees and/or shrubs (revegetated areas, plantations) are also present. All such highly modified areas were mapped as Completely Degraded condition or Cleared. No areas were mapped as Pristine.

Areas of remnant native vegetation were mapped across only 2.55% of the Targeted FVSA. The vast majority (97.45%) of the Targeted FVSA was mapped as highly modified and in Completely Degraded condition or Cleared.

Two Threatened Ecological Communities (TECs), both critically endangered, are considered to be present within the Reconnaissance FVSA:

- the 'Ferricrete floristic community (Rocky Springs type)' TEC; and
- the 'Assemblages of organic mound springs of the Three Springs' TEC.

These two listed communities were already known from within the Reconnaissance FVSA (DBCA, 2024a). One new location of the 'Assemblages of organic mound springs of the Three Springs' TEC was recorded within the Reconnaissance FVSA, being the location of a mound spring, with buffer vegetation extending into an area (0.24 ha) of the Targeted FVSA.

No additional listed communities have been identified within the Reconnaissance FVSA by this survey, and a likelihood of occurrence assessment for further listed significant vegetation communities determined that the five additional TECs or PECs identified during the Desktop Assessment were unlikely to occur within the Reconnaissance FVSA.

Multiple VTs are considered potentially significant for reasons other than formal listing in line with EPA guidance (2016a, 2016b). Two VTs (PFE and PM) are considered potentially equivalent to the 'Ferricrete floristic community (Rocky Springs type)' TEC and are thus potentially significant. An additional four VTs (CAM, CS, RC, WM) are potentially significant in a local and regional context. One VT (AS) is considered potentially significant in a local (but not regional) context.

Groundwater and surface water flows are important components of a number of vegetation types within the Reconnaissance FVSA. Potential groundwater dependent vegetation (GDV) was identified, notably where phreatophytic taxa such as *Eucalyptus camaldulensis* and *Melaleuca rhaphiophylla* occur along drainage lines (VTs CAM and WM). Facultative phreatophytes—*Banksia attenuata* and *B. menziesii*—are associated with specific VTs (SEB and SBP) and may rely on groundwater, especially where it is within 10 m of the surface and during drought. Furthermore, five VTs (CAM, CS, PFE, PM and WM (collectively 1,081 ha or 5.9%)) are linked to watercourses or wetlands, indicating potential dependence on surface water flows.

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1.0 Introduction

1.1 Project Overview

Synergy Renewable Energy Development (Synergy RED) has engaged Umwelt Australia Pty. Ltd. (Umwelt) to investigate the feasibility of a wind farm development at Tathra, approximately 240 km north of Perth, Western Australia (herein referred to as the Project). The findings of this assessment will be used to support primary approvals under the *Environmental Protection Act 1986* (WA) (EP Act) and *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act).

The following report addresses the reconnaissance and targeted flora and vegetation surveys.

1.2 Project Area Location and Definitions

Within the Project, several areas of study have been delineated.

A study area subject to Reconnaissance level assessment was developed in consultation with SynergyRED and is known as the Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA) and totals 18,438.4 ha (**Table 1.1**; **Figure 1.1**). This area comprises both the proposed Wind Farm Area and seven disjunct polygons representing road intersections areas enroute to the Project.

A Desktop Study Area was also defined for the purpose of desktop-based searches. The Desktop Study Area comprises the Reconnaissance FVSA with an approximate 20 km buffer (**Table 1.1**; **Figure 1.2**).

For the purposes of the June 2024 Reconnaissance field survey, a 'Trip 1 Survey Area' was defined to accommodate the Landholder permissions in place at the time of the first (June) field trip, totalling 15,851.0 ha (**Table 1.1**; **Figure 3.1**). Subsequent (Trips 2 and 3) field surveys were conducted across the Reconnaissance FVSA.

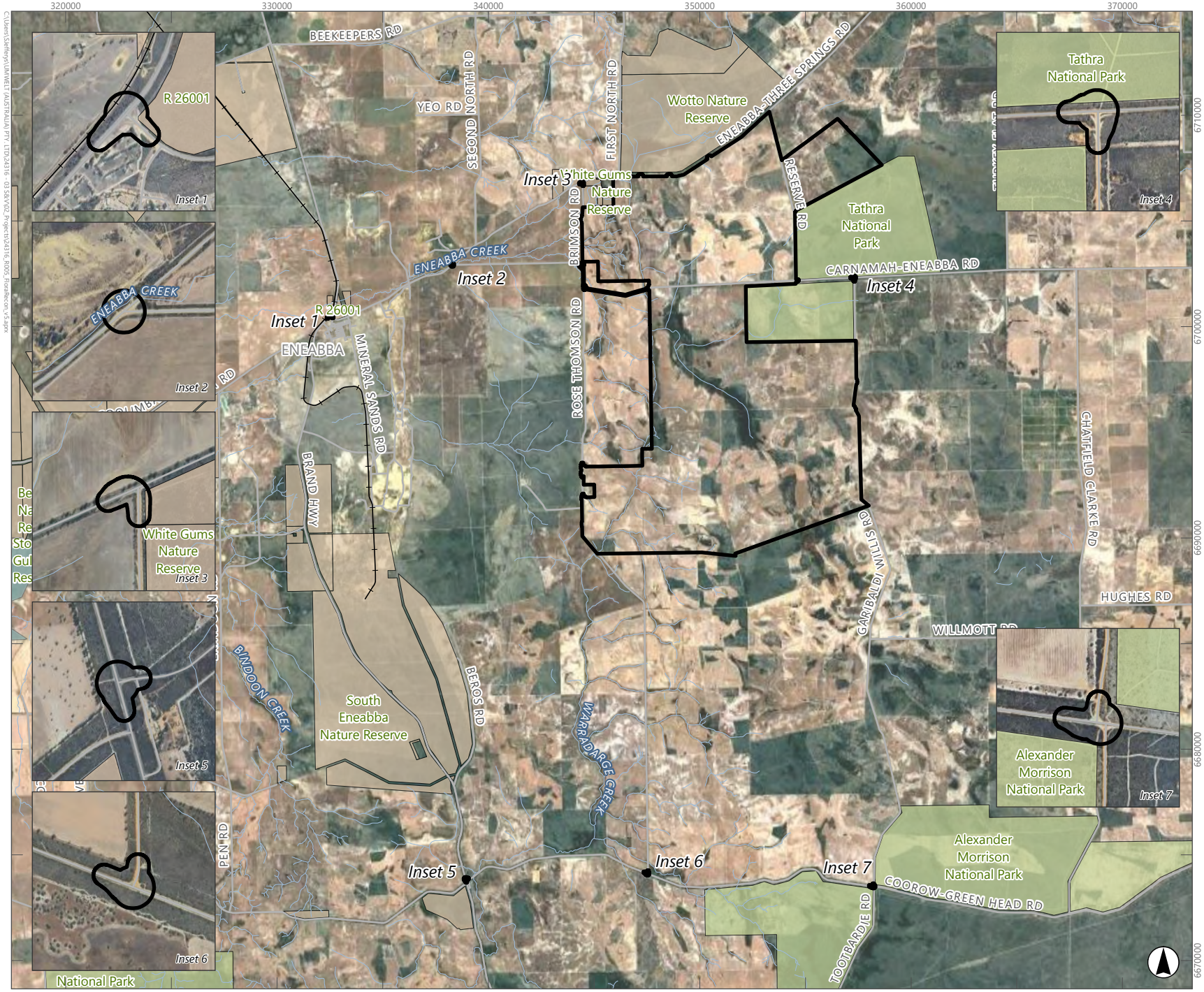
A Targeted Flora and Vegetation Survey Area (Targeted FVSA) totalling 1,260.7 ha was developed in consultation with Synergy RED and encompassed the indicative site layout (provided 16 September 2024), a 90 m buffer on all proposed turbine locations, a 10 m buffer on intersection area turning circles, and a 10 m buffer on site access turning circles, with minor alignment changes made in response to results of the October survey.

Table 1.1 Project Area Definitions

Name	Definition	Extent
Reconnaissance FVSA	Comprises: • The Wind Farm Area; • site access turning circles (approx. 40 m - 100 m buffers) into the Wind Farm Area; • roadside remnant vegetation on selected routes; and • road intersection areas enroute to the Project. This survey area is relevant to Trip 2 and Trip 3.	18,438.4 ha

Name	Definition	Extent
Wind Farm Area	The lots considered for inclusion in the Project for which landholder access permissions were obtained and field survey completed.	18,341.7 ha
Trip 1 Survey Area	A subset of the Reconnaissance FVSA, reflecting the landholder access permissions that were in place at the time of the June reconnaissance field survey.	15,851.0 ha
Targeted FVSA	Contained entirely within the Reconnaissance FVSA, comprises: • indicative site layout of access tracks for the Project; • indicative wind turbine locations (90 m buffers); • site access turning circles (10 m buffers) into the lots; and • intersection turning circles (10 m buffers) en route to the project.	1,260.7 ha
Desktop Study Area	The Reconnaissance FVSA with an approximate 20 km buffer, defined for the purpose of desktop-based searches.	20 km buffer

FIGURE 1.1
Project Location



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Road
- Railway
- Watercourse
- National Park
- Nature Reserve
- Section 5(1)(g) Reserve

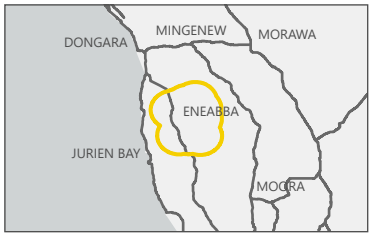


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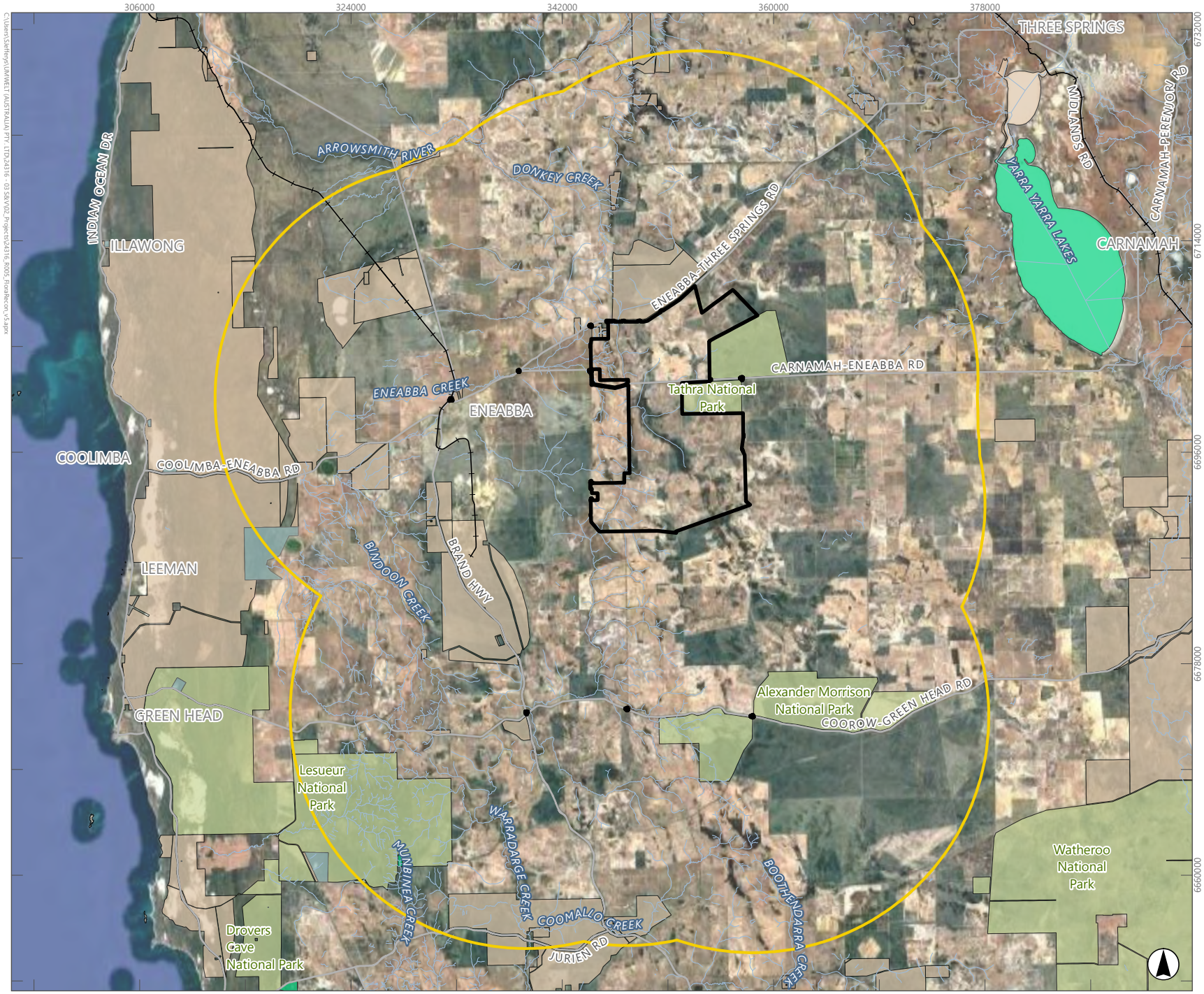
Image Source: ESRI Basemap (2023) | **Data Source:** Landgate (2024), DBCA (2024), Umwelt (2024), SynergyRED (2024)

FIGURE 1.2
Desktop Study Area



Legend

- Desktop Study Area
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Road
- Railway
- Watercourse
- Conservation Park
- National Park
- Nature Reserve
- Section 5(1)(g) Reserve
- Section 5(1)(h) Reserve

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1.3 Aims and Objectives

The biological components of this study were completed in two phases:

- Phase 1: Desktop Assessment (**Section 1.3.1**) and Reconnaissance Survey (**Section 1.3.2**) in winter 2024; and
- Phase 2: Targeted Surveys and supplementary Reconnaissance data collection in spring 2024.

The current report documents all work conducted during Phase 1 and Phase 2 i.e. Desktop Assessment and Reconnaissance and Targeted flora and vegetation surveys.

1.3.1 Flora and Vegetation Desktop Assessment

The flora and vegetation assessment objectives were to identify and characterise potential significant flora and vegetation values of the Reconnaissance FVSA, including to:

- Identify flora taxa known from within the Desktop Study Area that is one of the following (hereafter referred to as significant flora taxa):
    - Listed Threatened species (T) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Commonwealth);
    - Threatened flora (T) under the *Biodiversity Conservation Act 2016* (BC Act) (WA);
    - Priority flora taxa (P) classified by the WA Department of Biodiversity, Conservation and Attractions (DBCA); and
    - Other significant flora taxa as defined by EPA (2016a, 2016b).
- Identify vegetation known from within the Desktop Study Area that is one of the following (hereafter referred to as significant vegetation):
    - Listed Threatened Ecological Communities (TECs) under the EPBC Act of TECs classified by DBCA and endorsed by the WA Minister for the Environment;
    - Priority Ecological Communities (PECs) classified by DBCA; and
    - Other significant vegetation as defined by EPA (EPA, 2016b, 2016a).

1.3.2 Reconnaissance Level Flora and Vegetation Assessment

The reconnaissance flora and vegetation assessment objectives were to:

- Undertake a Reconnaissance flora and vegetation field survey via low intensity sampling of the flora and vegetation, to describe the general vegetation characteristics and condition of the Reconnaissance FVSA at an appropriate scale;
- Identify, map and describe Vegetation Types (VTs) that occur within the Reconnaissance FVSA using data collected from relevés and vegetation mapping notes;

- Identify, map and describe vegetation that occurs within the Reconnaissance FVSA that is potentially significant vegetation;
- Map the condition of the vegetation in accordance with EPA (2016b); and
- Prepare a desktop assessment and flora and vegetation assessment report of the Reconnaissance FVSA (this report).

1.3.3 Targeted Level Flora and Vegetation Assessment

- The targeted flora and vegetation assessment objectives were to:
- Search for and census populations of significant flora taxa identified as occurring or potentially occurring within the Targeted FVSA, with such taxa defined as one of the following (hereafter referred to as significant flora taxa), to provide context for EIA:
    - Listed Threatened Taxa (T) under the *Environment Protection and Biodiversity Conservation Act1999* (EPBC Act) (Commonwealth);
    - Threatened Flora (T) under the *Biodiversity Conservation Act 2016* (BC Act) (WA);
    - Priority Flora taxa (P) as classified by the Western Australian (WA) Department of Biodiversity, Conservation and Attractions (DBCA); and
    - Other significant flora taxa as defined by the Environmental Protection Authority (EPA) (2016a, 2016b).
- Identify, map and describe vegetation that occurs within the Targeted FVSA that is one of the following (hereafter referred to as significant vegetation), to provide context for EIA:
    - Listed Threatened Ecological Communities (TECs) under the EPBC Act;
    - TECs as classified by DBCA and endorsed by the Western Australian Minister for the Environment;
    - Priority Ecological Communities (PECs) as classified by DBCA;
    - Areas of wetland or riparian vegetation that is ground- or surface water-dependent; and
    - Other significant vegetation as defined by EPA (2016a, 2016b).

1.4 Level of Assessment and Relevant Guidance

Reconnaissance level survey as defined in Section 4.1 of the *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016b) was conducted over the Reconnaissance FVSA.

Targeted flora and vegetation surveys, as defined in Section 4.2 of *the Technical Guidance for Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016b), were conducted over the Targeted FVSA.

This is considered appropriate for of the Project which, while located in an area (the Northern Sandplains) that is known to support a high diversity of flora and vegetation relative to other areas of the State,

including significant flora taxa and vegetation types (EPA, 2016b), is likely to have a minimal level of impact on flora and vegetation.

The survey and reporting works comply with the following documents:

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

State and Commonwealth legislation relevant to the Project has been summarised in **Table 1.2** below.

Table 1.2 Summary of Relevant Legislation

Relevant Legislation	Governing Agency	Summary	Project Relevance
Commonwealth Legislation			
Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).	Department of Climate Change, Energy, the Environment and Water (DCCEEW).	The EPBC Act is Australia's key piece of environmental legislation. It outlines nine Matters of National Environmental Significance (MNES). Actions that adversely affect MNES may be deemed to be a controlled action under the EPBC Act.	One MNES is considered relevant to the Project: • Threatened Species and Ecological Communities.
State Legislation			
Biodiversity Conservation Act 2016 (BC Act).	The Department of Biodiversity, Conservation and Attractions (DBCA).	The BC Act aims to protect and conserve Western Australia's biodiversity, including threatened species and ecological communities.	Depending on potential Project impacts, the surveys may support specific approvals under the BC Act.
Environmental Protection Act 1986.	The Department of Water and Environmental Regulation (DWER).	Is the primary law governing environmental management in Western Australia. It establishes the framework for assessing and regulating the impact of activities on the environment, and provides for enforcement mechanisms to prevent or remedy environmental harm.	The current surveys are required to support future referrals of the Project under the EP Act.

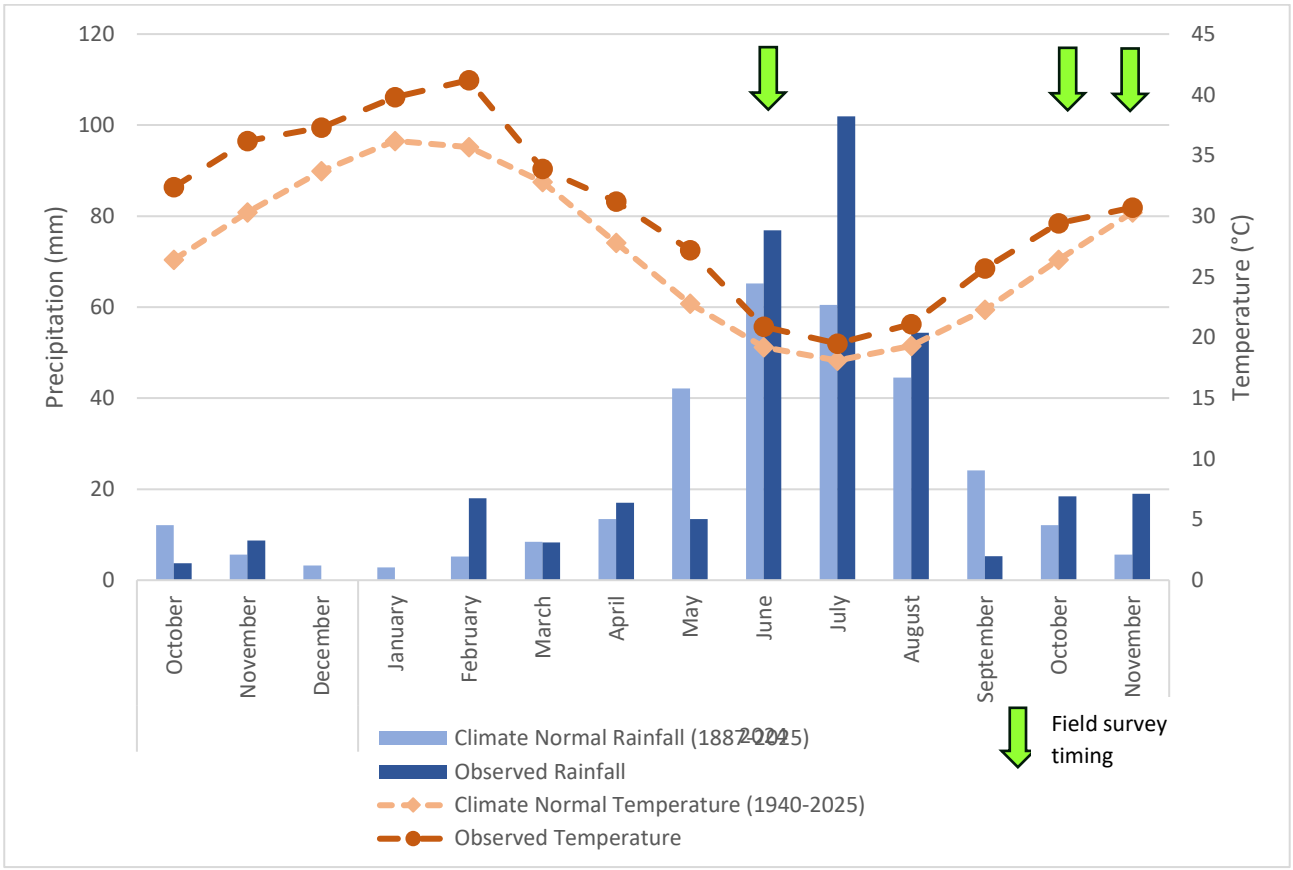
2.0 Background

2.1 Climate

The Reconnaissance FVSA is located within the Northern Sandplains Region within the South-west Province of WA (Beard, 2015); the Northern Sandplains Region is characterised by a dry, warm Mediterranean climate with winter precipitation. There are seven to eight dry months per year, with the region receiving between 300–500 millimetres (mm) of precipitation annually.

Graph 2.1 shows climate data for the Reconnaissance FVSA for the 12-month preceding the field survey. Climate data is taken from Carnamah Station 008025 (40 km east of Reconnaissance FVSA), the weather station nearest to the Reconnaissance FVSA with adequate long-term rainfall and temperature data (BoM, 2024a). Normal climate data are calculated here as defined in the World Meteorological Organisation (WMO) Technical Regulations, Volume 1, being "p*eriod averages computed for a uniform and relatively long period comprising at least three consecutive ten-year periods.*" (WMO, 2025). Rainfall normal data are median values, and temperature data are mean monthly maximum temperatures as per guidance by the Bureau of Meteorology and WMO (BoM, 2024a).

Rainfall peaks in the Northern Sandplains Region over winter (June to August), with temperatures peaking over summer (December to February). In the 12 months preceding the field surveys, observed mean monthly maximum temperature was higher than the normal for every month ($\bar{x}\Delta$ = +3.48 °C). Annual rainfall was 20.5 mm higher than the annual normal, with June through to August receiving 63 mm more than the normal (peak of +41.4 mm in July). Despite the higher rainfall preceding the survey, it's worth noting that 2023 (Jan–Dec) received only 162.7 mm of rainfall, less than half the normal rainfall recorded at Carnamah.



Graph 2.1 Climate Statistics for Carnamah Station (008025) (BoM, 2024a)

2.2 Geology, Landform and Soils

The Reconnaissance FVSA is located on the Northern Sandplains Region (Beard, 1990), which is generally equivalent to the Geraldton Sandplains Interim Biogeographic Regionalisation for Australia (IBRA) Bioregion (DCCEEW, 2023a). Beard (2015) describes the geology of the Northern Sandplains Region as consisting of mainly sedimentary basins exposing Permian to Cretaceous sediments with horsts of Proterozoic rocks. The prior land surface forms an extensive lateritic sand plain which is locally dissected, particularly near the coast. The sandplain soils consist of leached sandy soils near the coast and yellow sands with an earthy fabric further inland, both overlying laterite (Beard, 2015).

The Geraldton Sandplains IBRA Bioregion is one of 89 IBRA Bioregions mapped across Australia (DCCEEW, 2023a). The Reconnaissance FVSA occurs specifically near the northern limit of the GES02 (Lesueur Sandplain) IBRA Subregion (DCCEEW, 2023b), one of two IBRA Subregions of the Geraldton Sandplains IBRA Bioregion. The geology of this subregion consists of coastal Aeolian and limestones, Jurassic siltstones and sandstones (often heavily laterised) of central Perth Basin, as well as alluvials associated with drainage systems. Extensive yellow sandplains occur in south-eastern parts of the subregion, especially where the subregion overlaps the western edge of the Pilbara Craton, and laterised sandplains occur along the north-eastern margins (Desmond and Chant (2002); please note this subregion is noted in this reference as being the GS3 Lesueur Sandplain Subregion due to historical boundaries of IBSA Subregions and age of that publication).

Soil landscape mapping by DPIRD (DPIRD, 2025a) has been prepared across South-West of WA as a compilation of the results of a variety of soil and soil-landscape surveys, considering general ecological information, vegetation physiognomy and composition, patterns of variation, conservation status, gradational association and land system representation. Soil landscape mapping information for the Reconnaissance FVSA originates from the DPIRD soil and landscape quality dataset. The Reconnaissance FVSA covers three zones – Dandaragan Plateau Zone in the east, Arrowsmith Zone in the west, and the intersection further west is within the Geraldton coastal zone (DPIRD, 2025b). The Dandaragan Plateau is characterised by gently undulating plateau with areas of sandplain and some laterite, on Cretaceous sediment. To the west, the Arrowsmith zone in dissected lateritic sandplain on Cretaceous and Jurassic sediments, with sandy and gravelly soils. Further west, the Geraldton Coastal Zone is made up of dunes with plains and sand sheets, low hills of Pleistocene Tamala limestone, recent calcareous and siliceous dunes (DPIRD, 2025a).

A total of 24 soil landscape units have been mapped within the Reconnaissance FVSA, and 21 within the Targeted FVSA (**Table 2.1**; **Figure 2.1**) (DPIRD, 2025a). The majority of both survey areas are comprised of the Coalara 222Co_3 System, consisting of plateau remnants, hillcrests and hillslopes with breakaways (**Table 2.1**).

Table 2.1 Soil Landscape Units within the Reconnaissance FVSA and Targeted FVSA

System Unit	Description^	Area Extent (ha) within Reconnaissance FVSA	Area Extent (ha) within Targeted FVSA
Eneabba 221En_2	Sandplain, with occasional areas of low sandy rises; sandy and gravelly duplex soils and gravelly deep sands on the plain, minor pale deep sands on the rises	5.5 (0.03%)	1.0 (0.1%)
Coalara 222Co_1	Sand filled alluvial plain, low dunes common; pale and yellow deep sands, some playa soils	893.4 (4.8%)	12 (1.0%)
Coalara 222Co_2	Long, gently inclined slopes and undulating rises with gravelly ridge crests and minor lateritic outcrops; sandy gravels and gravelly pale, pale and yellow deep sands	178.4 (1.0%)	20.2 (1.6%)
Coalara 222Co_3	Plateau remnants, hillcrests and very gently to moderately inclined hillslopes, some moderately inclined breakaway slopes; shallow and deep sandy gravel	10,289.4 (55.8%)	820.3 (64.9%)
Coalara 222Co_3b	Gently inclined upper hillslopes and crests; sandy and shallow gravel with pale sands, duricrust common	1056.8 (5.7%)	62.5 (4.9%)
Coalara 222Co_3c	Gently to moderately inclined minor breakaway slopes; sandy gravels, sandy duplexes (over pallid zone clays)	240.6 (1.3%)	8.6 (0.7%)
Coalara 222Co_4a	Playa lakes contained by Co1; shallow loams, sandy and loamy duplexes all over pans (clay, silcrete or diatomite)	235.7 (1.3%)	-
Coalara 222Co_4b	Plain, bog iron ore accumulations contained by Co1; red shallow sands and loams over bog iron	719.7 (3.9%)	11.8 0.9%)
Coalara 222Co_5a	Plain, hillcrests and very gently inclined hillslopes; pale sandy gravels, gravelly pale deep sand, pale and yellow deep sands	1.3 (0.01%)	0.05 (0.004%)

System Unit	Description^	Area Extent (ha) within Reconnaissance FVSA	Area Extent (ha) within Targeted FVSA
Coalara 222Co_6	Colluvial slopes, very gently to gently inclined hillslopes, minor drainage lines; yellow and pale deep sands	1,089.7 (5.9%)	63.3 (5.0%)
Coalara 222Co_6c	Flat to very gently inclined slopes of very minor sand filled drainage lines within plain (Co7); pale and yellow deep sands	3.7 (0.02%)	0.9 (0.1%)
Coalara 222Co_7	Upland sandplain; pale and yellow deep sands, gravelly pale deep sand	313.0 (1.7%)	33.2 (2.6%)
Boothendarra 224Bh_1	Crests and upper slopes of undulating low hills and gravelly rises; Sands, sandy gravels and sandy duplexes with occasional loams and clays	446.2 (2.4%)	39.4 (3.1%)
Boothendarra 224Bh_2	Dissected breakaways, incised gullies and lateritic outcrops; sandy and loamy gravels, loamy duplexes and some clays	601.5 (3.3%)	29.3 (2.3%)
Boothendarra 224Bh_3	Residuals, low hillcrests and hillslopes; sandy and loamy gravels, sandy duplexes	0.4 (0.002%)	0.02 (0.002%)
Boothendarra 224Bh_4	Gently to very gently inclined hillslopes and footslopes; sandy duplexes, deep sands and sandy gravels	4.3 (0.02%)	0.9 (0.1%)
Boothendarra 224Bh10	Narrow drainage lines and lower footslopes with sandy duplexes and earths and wet soils	153.5 (0.83%)	4.5 (0.4%)
Boothendarra 224Bh11	Gently to very gently inclined hillslopes and footslopes with sands, sandy gravels and sandy duplexes with occasional loams	2,173.1 (11.8%)	149.0 (11.8%)
Mount Adams 224Ma_7	Narrow valley floors between undulating hills at foot of long gentle slopes; Pale deep sand and Grey deep sandy duplexes with Gravelly pale and Yellow deep sands	2.5 (0.01%)	-
Mount Adams 224MaX_MINE	Mine. Disturbed land	0.6 (0.003%)	-
Otorowiri 224Ot_2	Hillslopes with low rises, below scarp; Pale and Yellow deep sands and sandy duplexes	11.2 (0.06%)	1.4 (0.1%)
Yerramullah 224Ye_2	Plateau residuals, very gently to gently inclined hillcrest and hillslopes; pale sandy gravels, shallow gravel over duricrust, gravelly pale deep sand, pale and yellow deep sands	3.6 (0.02%)	0.7 (0.1%)
Yerramullah 224Ye_3	Colluvial slopes and some plateau remnants, very gently to gently inclined hillslopes and sand filled minor valleys; pale and yellow deep sands, pale sandy gravels, shallow gravel over duricrust, some sandy duplexes and sandy earths	13.7 (0.07%)	1.8 (0.1%)
Yerramullah 224Ye_6	Colluvial slopes, very gently to gently inclined mid to lower hillslopes and sand filled minor valleys; pale deep sand, some sandy duplexes and shallow sand over pan or bog iron	0.6 (0.003%)	0.1 (0.008%)
Total (ha)		**18,441.3**	**1,263.9**

^Source: DPIRD Soil Landscape Mapping - Best Available (DPIRD-027) (DPIRD, 2025a).

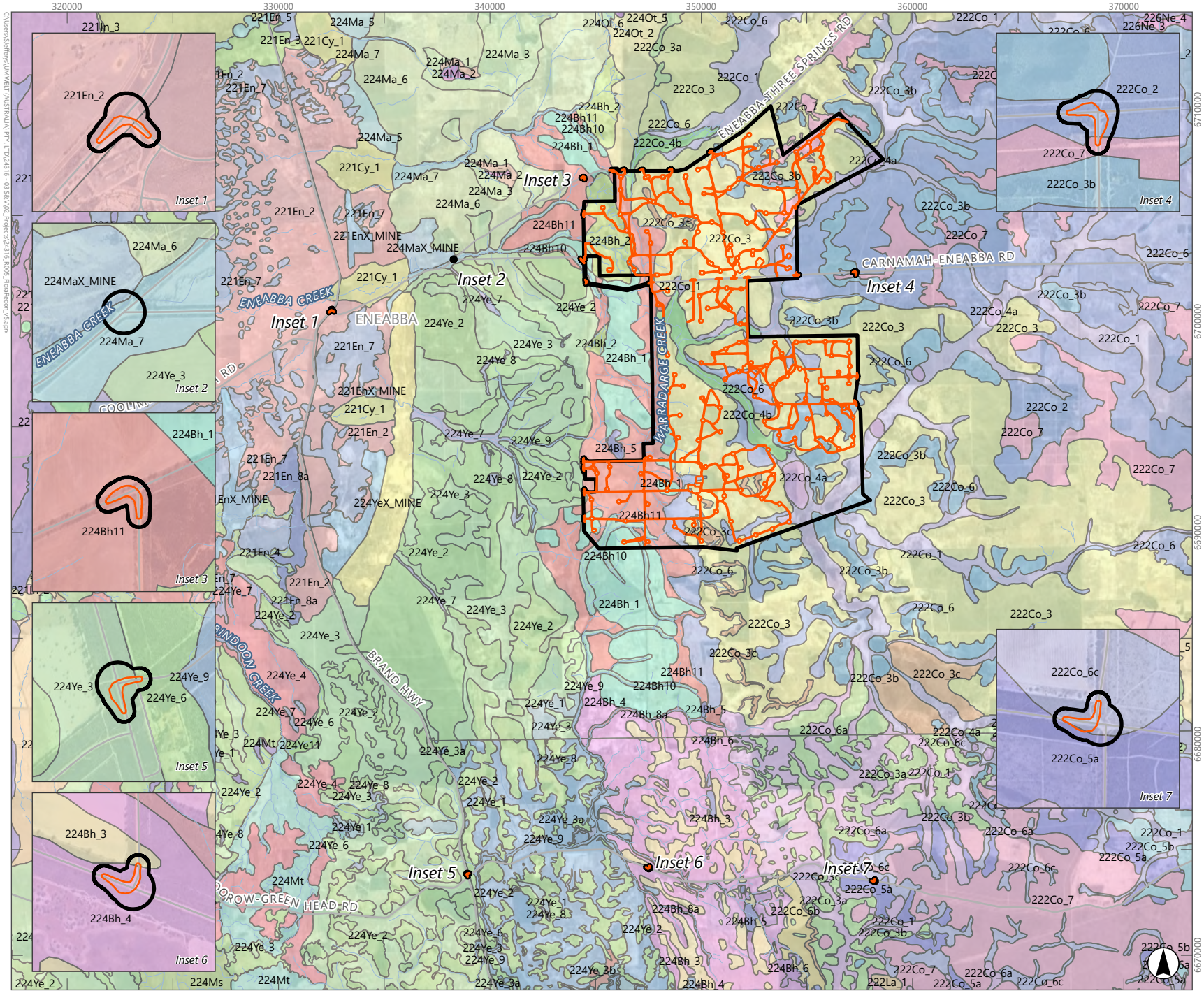


FIGURE 2.1

Soil-Landscape Units of the Study Area

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

0 5 10

Kilometres

Scale 1:250,000 at A4
GDA2020 MGA Zone 50

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Image Source: ESRI Basemap (2023) | **Data Source:** Landgate (2024), SynergyRED (2024), DPIRD (2022)

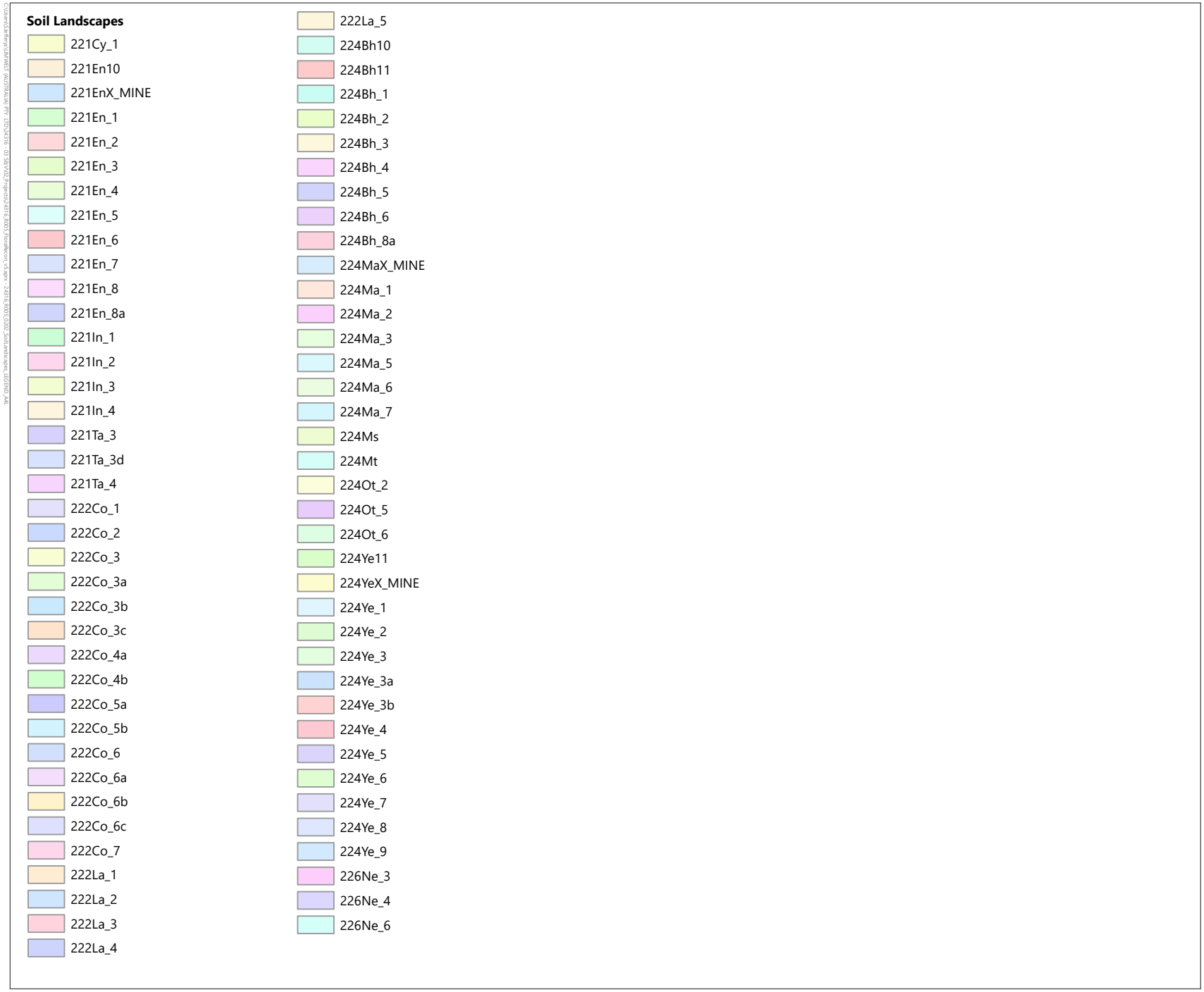

FIGURE 2.1

LEGEND: Soil-Landscape Units of the Study Area

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Image Source: ESRI Basemap (2023) | **Data Source:** Landgate (2024), SynergyRED (2024), DPIRD (2022)

3.0 Methods

3.1 Desktop Assessment Methods

A review of flora and vegetation relevant to the Desktop Study Area was undertaken for the desktop assessment. This included obtaining and reviewing copies of reports of previous biological surveys carried out within the vicinity of the Reconnaissance FVSA (including interrogation of the Index of Biodiversity Surveys for Assessments (IBSA) database), and interrogation of relevant regional databases and other sources within the Desktop Study Area, as listed in **Table 3.1.** The search area is defined as the 'Desktop Study Area' which encompasses the Reconnaissance FVSA and a 20 km buffer.

Table 3.1 Searches undertaken for the Desktop Assessment

Source	Search Attributes	Search Purpose	Aspect
DCCEEW Species Profile and Threats (SPRAT) Database (interrogated using the Protected Matters Search Tool) (DCCEEW, 2024a)	Database interrogated using an approximate 20 km buffer around the Reconnaissance FVSA.	Identify Matters of National Environmental Significance (MNES), including Threatened flora, TECs, Threatened and Migratory fauna listed under the EPBC Act, that occur or have the potential to occur or have known or potential habitat within the Desktop Study Area.	Flora Vegetation
DBCA NatureMap (DBCA, 2007-)	Database interrogated using an approximate 20 km buffer around the Reconnaissance FVSA.	Obtain a list of all flora and fauna taxa, including priority, threatened and invasive species, within the Desktop Study Area.	Flora
DBCA Threatened and Priority Ecological Communities Database (DBCA, 2024a)	Database interrogated using an approximate 20 km buffer around the Reconnaissance FVSA. Search results received 05/06/2024 reference 12-0624FL.	Obtain buffered-location records of DBCA-classified TECs and/or PECs within the Desktop Study Area.	Vegetation
DBCA Significant Flora Databases (WA Herbarium specimen database and Threatened and Priority Flora (TPFL) databases) (DBCA, 2024b)	Database interrogated using 10 km buffer of the Reconnaissance FVSA (due to DBCA policy record limits) Search results received 05/06/2024 reference 03-0624EC.	Obtain location records of DBCA-listed significant flora taxa within the Desktop Study Area.	Flora
DBCA TEC and PEC lists (DBCA, 2023d, 2023b)	Review of DBCA-classified TECs and PECs mapped in proximity to the Reconnaissance FVSA.	Identify whether there are any additional DBCA-classified TECs or PECs that could occur within the Desktop Study Area.	Vegetation

Source	Search Attributes	Search Purpose	Aspect
2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Report 3b), Pre-European Vegetation spatial database and Soil Landscape Mapping dataset (DBCA, 2019a; DPIRD, 2019, 2022)	Reconnaissance FVSA boundary.	Identify extent of Vegetation System Associations (Pre-European vegetation mapping) and Soil Landscape Mapping within the Project Area.	Vegetation
IBSA Database (DWER, 2024)	Approximate Desktop Study Area boundary.	Obtain copies of reports and associated spatial data (where available) to identify records of significant flora and vegetation in the vicinity of the Reconnaissance FVSA	Flora Vegetation

3.2 Personnel and Licensing

Table 3.3 lists the personnel involved in fieldwork, plant identification, analysis and reporting of the field surveys conducted in June, October and November 2024. The Project Manager has had previous experience (> 8 years) in conducting flora and vegetation surveys in the South West Province, including 5 years in the Northern Sandplains bioregion, and the Technical Director has had extensive previous experience (>15 years) in conducting flora and vegetation surveys in the South West Province, largely in the Northern Sandplains bioregion.

All plant material was collected under the relevant Flora Taking (Biological Assessment) Licence (under Regulation 62 of the Biodiversity Conservation Regulations 2018) and Authorisation to Take or Disturb Threatened Species (pursuant to Section 40 of the BC Act), as listed in **Table 3.3**. Personnel managing plant identifications have had extensive (> 15 years) previous experience in plant identifications of flora of the South West Province (including identification of taxa from the Northern Sandplains bioregion) and conducted quality assurance reviews of plant identifications undertaken by less experienced personnel.

Table 3.2 Personnel and Licensing Information

Personnel	Qualifications	Field Trip			Plant IDs	Reporting	Flora Collecting License / Authorisation
		#1 Recon Jun 2024	#2 Recon / Targ Oct 2024	#3 Targeted Nov 2024			
Mitt Ramgobin Project Director	Bachelor of Science					•	NA
Cielito Marbus Project Manager	BSc (Biotechnology) (Hons) BComm (Management)	•	•	•	•	•	FB62000066-3 TFL 2223-0136
David Coultas Technical Director	BSc (Environmental Biology) (Hons)	•			•	•	FB62000051-2 TFL 131-2122
Greg Woodman Senior Principal	BSc (Biology) (Hons)					•	NA
Jaroslav Hruban	Mgr. (MSc equivalent) in Botany BSc (Botany) (Hons)		•	•	•	•	FB62000251-3 TFL 044B-2122
Monika Hrubanova	Mgr. (MSc equivalent) in Botany BSc (Botany) (Hons)		•	•		•	FB62000375-2 TFL 2425-0077
Rebecca Gorman	BSc (Environmental Science and Management, and Conservation and Wildlife Biology)		•				FB62000646
Tom Jones	BSc (Botany and Zoology)			•	•	•	FB62000537 TFL 2425-0079
Lotta Ramrath	BSc (Environmental Science)	•			•	•	FB62000647
Lovisa Thambert	BSc (Env. Mgmt & Sustainability, Conservation & Wildlife Biology)	•				•	FB62000468
Shibi Ullas Chandran	BSc (Zoology) Masters (Fisheries Biology and Aquaculture)				•		NA
Kyler Rowson	BSc (Marine Biology, Biological Science)				•	•	NA
Hannah Jackson	BEnvSc (Environmental Science & Ecology)					•	NA
Zachary Borthwick	MAppSc (Biological Science) BSc (Botany & Zoology)					•	NA

3.3 Aerial Photography Interpretation and Survey Design

The design of the 2024 survey complies with the requirements of EPA Technical Guidance (EPA, 2016b) and is consistent with the methods used for other similar flora and vegetation assessments conducted within the south-west region.

Initial interpretation of ortho-rectified aerial photography at a scale of 1:10,000 was conducted to determine preliminary vegetation patterns present within the Reconnaissance FVSA (including any areas of restricted or unusual landforms and types). This review considered the size of vegetated areas and visible vegetation patterns across the Reconnaissance FVSA. Relevé and Vegetation Mapping Note locations were proposed based on this review to ensure an appropriate level of sampling in each discernible vegetation pattern.

3.4 Reconnaissance Field Survey Methods

3.4.1 Reconnaissance Survey Timing and Access

A Reconnaissance field survey was conducted:

- 10 - 14 June 2024 (Field Trip 1) over the Trip 1 Survey Area (**Figure 3.1**); and
- 7 - 12 October 2024 (Field Trip 2) to record supplementary data and to survey areas of the Reconnaissance FVSA (**Figure 3.1**); that were not surveyed during Field Trip 1.

The June field survey, during which the bulk of the Reconnaissance survey data was collected, does not coincide with the most appropriate time to survey in the South West province as per EPA Technical Guidance (EPA, 2016b), with flora and vegetation surveys in this region typically undertaken in spring (September to November), when most of the taxa are in flower. However, the purpose of the reconnaissance survey was to verify and delineate broad vegetation units and assess their condition to inform vegetation mapping, identification of key avoidance areas for the project's indicative footprint, and planning of a targeted flora survey. Additionally, supplementary data was collected during the October field survey, the timing of which does fall within the EPA's (2016b) recommended survey period.

The Reconnaissance FVSA was accessed by vehicle using existing roads and access tracks, along fence lines on farming properties and via foot transects. Appropriate landholder/manager permissions were obtained prior to undertaking each survey. Conditions of land access (including access, driveable tracks, regard to livestock and communications), were complied with.

3.4.2 Sample Sites

Four types of sample sites were used during the field survey to record data at varying levels of detail (**Table 3.3**).

Table 3.3 Data Recorded from Relevé Study Sites, Vegetation Mapping Notes or Significant Taxa Location Records

Recorded Feature	Quadrat	Relevé	Veg mapping note	Opportunistic flora
Personnel	●	●	●	●
Unique site ID	●	●	●	n/a
Survey Date	●	●	●	●
Global Positioning System (GPS) coordinates	At NW corner	At location	At location	At location
Site photograph	●	Taken from start corner	Where relevant	Where relevant
Topography	●	●	Where relevant	Where relevant
Soil colour and type (including the presence of any rock outcropping and surface stones)	●	●	Where relevant	Where relevant
Vegetation condition (as per scale presented in EPA (2016b)) and a description of disturbances (where relevant)	●	●	Where relevant	Where relevant
Approximate time since fire	●	●	Where relevant	Where relevant
Taxa	●	Dominant and characteristic taxa	Dominant and characteristic taxa, or changes in.	Individual taxon
Foliage cover (%) for each taxon, native and introduced, including cover within the quadrat of individuals rooted outside of the quadrat)	●	●	-	Count of targeted species recorded at location rather than % cover
Height (m) (average for each taxon, native and introduced, excluding climbers/aerial shrubs)	●	●	-	Where relevant
Additional flora taxa present immediately outside of the quadrat	●	Where relevant	-	Where relevant, dominant taxa of associated vegetation were recorded.

3.4.3 Relevés

A total of 48 non-permanent flora and vegetation survey relevés were surveyed in the Trip 1 Survey Area during the 2024 field survey. These relevés surveyed an area approximately within a radius of 10 m around a central point and recorded information as presented in **Table 3.3**. Dominant plant taxa within each stratum level were recorded at each relevé location only; therefore, this assessment does not include a full census of plant taxa in the area covered by the relevé.

3.4.4 Quadrats

Two quadrats were completed during the November survey (Field trip 3) to assist with interpretation of potential significant vegetation results. Quadrats surveyed a 10 x 10 m square (100 m^2 area) and recorded information as presented in **Table 3.3**.

3.4.5 Vegetation Mapping Notes

During the three field surveys, a total of 671 vegetation mapping notes were taken while traversing the survey areas. These notes provided data that could subsequently be linked to the vegetation types (VTs) defined from relevé data; helped identify isolated vegetation patches and remnant trees on cleared land; or noted boundaries, disturbance and vegetation changes. The notes included a GPS location at the point where the notes were taken (GDA2020, Zone 50), and a brief description of the vegetation (including dominant and characteristic taxa and substrate), or noted boundaries or vegetation condition changes. The notes were used to aid delineation of polygons of vegetation patterns that were not allocated relevés. Not all vegetation pattern polygons received relevés due to time constraints; however, many polygons could be confidently allocated to a final VT using a combination of mapping notes and aerial photograph interpretation. Additional flora taxa were also recorded opportunistically during traverses between relevés, with GPS locations of such taxa recorded (GDA2020, Zone 50).

3.4.6 Opportunistic Flora Records

Where flora taxa of interest were encountered opportunistically in the field i.e. while traversing the Reconnaissance FVSA between sites, information was recorded as presented in **Table 3.3**.

3.5 Targeted Field Survey Methods

3.5.1 Targeted Survey Timing and Access

Two field trips were undertaken to complete the Targeted Survey:

- 7–12 October 2024 (Field trip 2); and
- 4–8 November 2024 (Field Trip 3).

The Targeted FVSA was accessed by vehicle using existing roads and access tracks, along fence lines on farming properties and via foot transects. Appropriate landholder/manager permissions were obtained prior to undertaking the survey.

3.5.2 Targeted Survey Field Methodology

Systematic targeted survey for significant flora taxa were undertaken as part of the 2024 surveys, with a list of significant flora taxa likely or possible to be encountered compiled as part of the Desktop Study prior to fieldwork (**Section 3.1**). Information relating to identifying characteristics, flowering period and habitat of these taxa was provided to all field team members prior to undertaking targeted survey. Targeted survey (Field trips 2 and 3 (**Table 3.3**)) was undertaken over all suitable habitats within the Targeted FVSA at 10 m spacing. Suitable habitat was interpreted using the mapping results of the Reconnaissance survey, and

included all vegetation types that comprised remnant native vegetation i.e. were not highly modified or cleared.

Targeted survey for *Thelymitra stellata* (T) was undertaken during the optimum flowering period of the species (mid October (Field trip 2) and early November (Field trip 3)). All suitable habitat within the Targeted FVSA was traversed on foot at 10 m spacing over the two field trips.

Targeted survey for *Paracaleana dixonii* (T) was undertaken during the optimum flowering period of the species (early November (Field trip 3). All suitable habitat within the Targeted FVSA was traversed on foot at 10 m spacing, during this field trip.

The following information was recorded along traverses (where significant flora were encountered):

- Personnel;
- Survey date;
- Location;
- GPS coordinates (GDA2020, Zone 50);
- Taxon name;
- Count of taxon individuals at location within a radius of approximately 10 m from GPS coordinates (5 m for Threatened taxa); and
- Comments on reproductive stage, landform, aspect, soil type, vegetation condition, time since fire, and disturbance, where relevant.

A representative collection of material was also made where new populations were encountered.

Targeted searching was also undertaken outside the Targeted FVSA, to provide contextual data for EIA. This additional targeted searching focused on areas of appropriate habitat for significant flora taxa that had been recorded within the Targeted FVSA, with these transects also spaced approximately 10 m apart.

Targeted significant flora searching was also undertaken opportunistically while traversing between quadrat and relevé locations. Information recorded at such locations was the same as that recorded during targeted survey. No counts of taxa were made of previously unknown significant flora taxa that were identified from plant collections taken at quadrat/relevé locations.

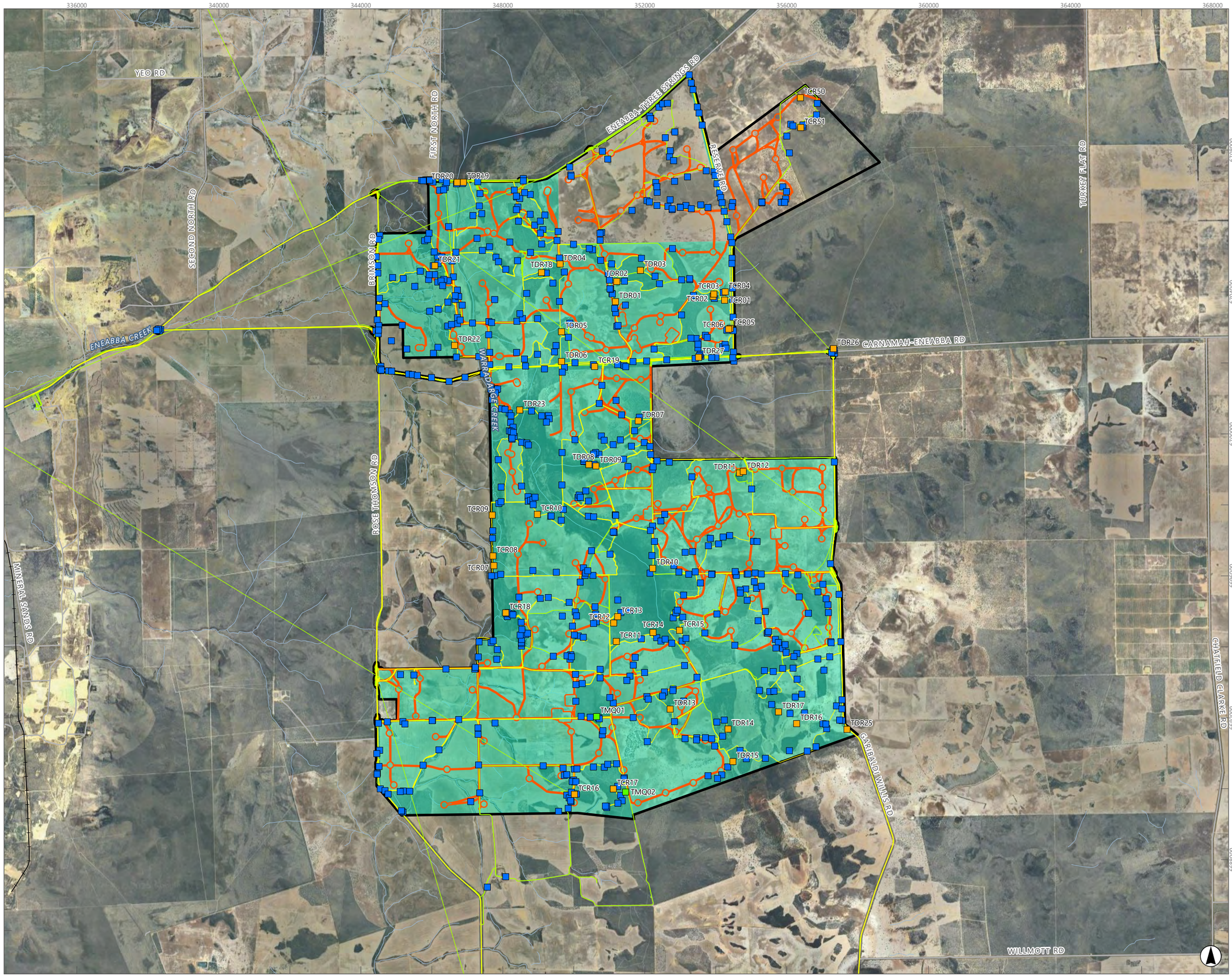
All traverses made in the survey areas are presented as track logs on **Figure 3.1**.

3.5.3 Introduced Flora

Opportunistic records of introduced flora taxa were noted if encountered while traversing between quadrats and relevé locations or conducting targeted searching for significant flora taxa. Records of introduced flora were logged using the same method as for significant flora taxa, with particular emphasis given to Weeds of National Significance (WoNS) and Declared Pests.

FIGURE 3.1

Survey Effort



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Trip 1 Survey Area
- Road
- Railway
- Watercourse
- Survey Tracklog
- Trip 2 and 3 Searching Tracklog
- Quadrat
- Relevé
- Vegetation Mapping Note

0 2 4

Kilometres

Scale: 1:100,000 at A3
GDA2020 MGA Zone 50

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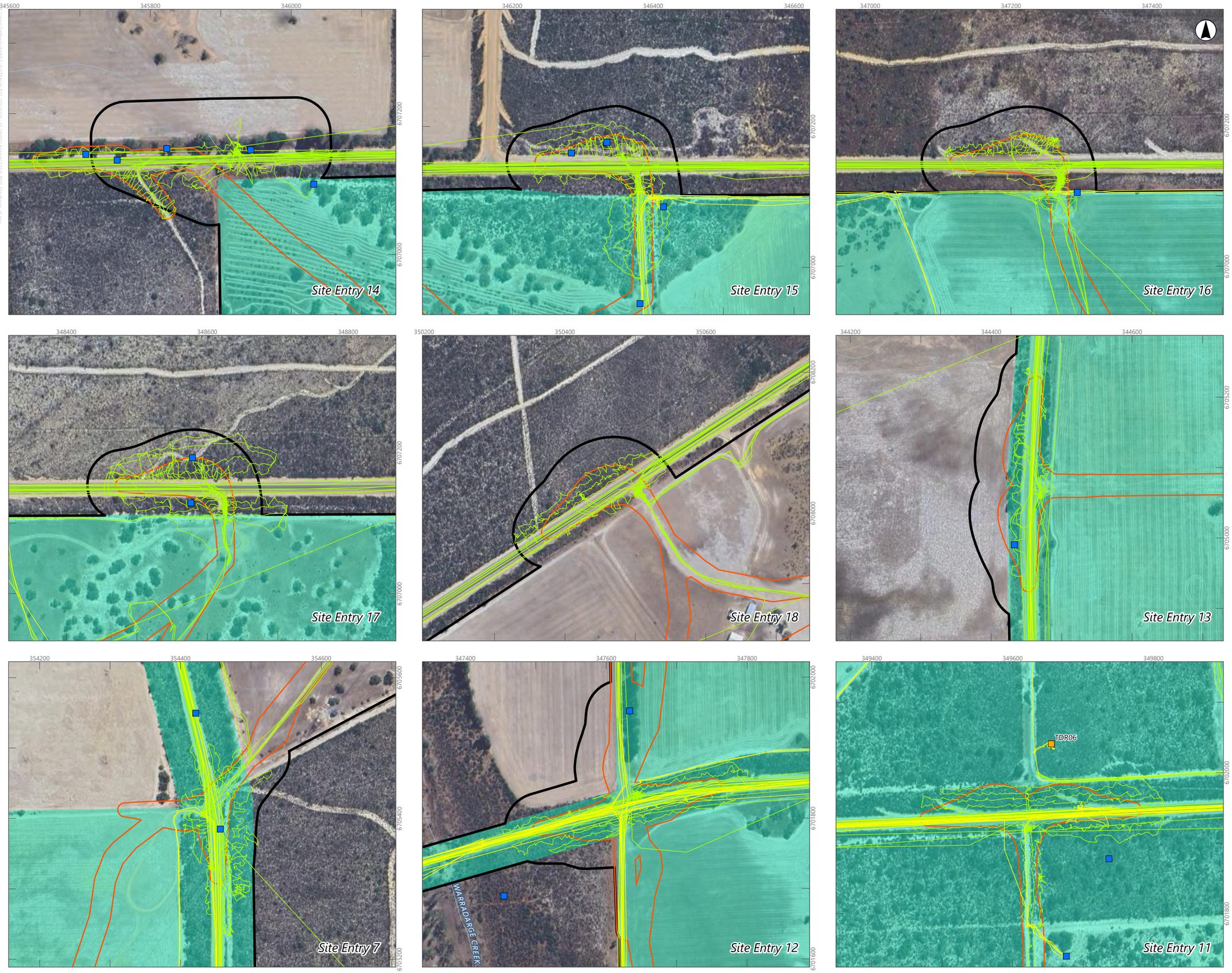
Image Source: ESRI Basemap (2023) | **Data Source:** Landgate (2024), SynergyRED (2024), Umwelt (2024)

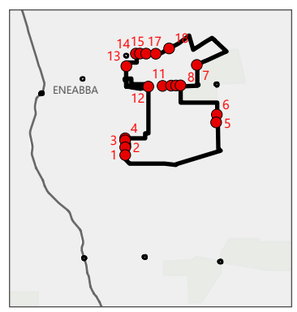
FIGURE 3.1

Survey Effort
Site Entrances



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Trip 1 Survey Area
- Road
- Railway
- Watercourse
- Survey Tracklog
- Trip 2 and 3 Searching Tracklog
- Quadrat
- Relevé
- Vegetation Mapping Note



0 100 200 m

Scale: 1:5,000 at A3
GDA2020 MGA Zone 50

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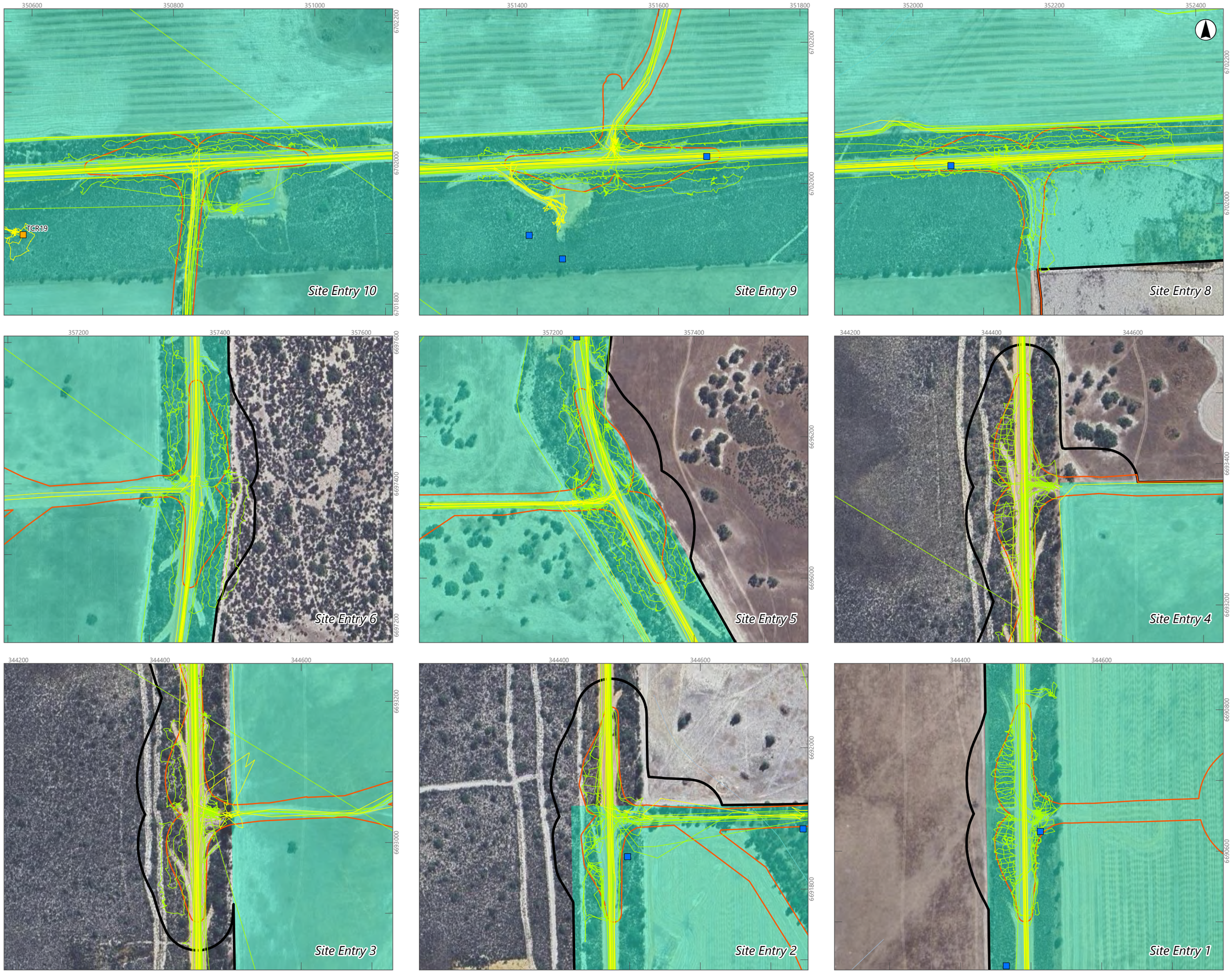
FIGURE 3.1

Survey Effort
Site Entrances



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Trip 1 Survey Area
- Road
- Railway
- Watercourse
- Survey Tracklog
- Trip 2 and 3 Searching Tracklog
- Quadrat
- Relevé
- Vegetation Mapping Note

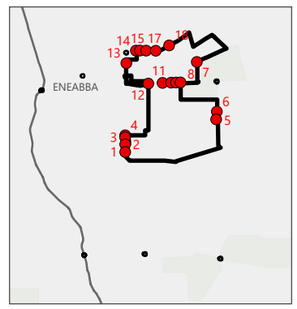


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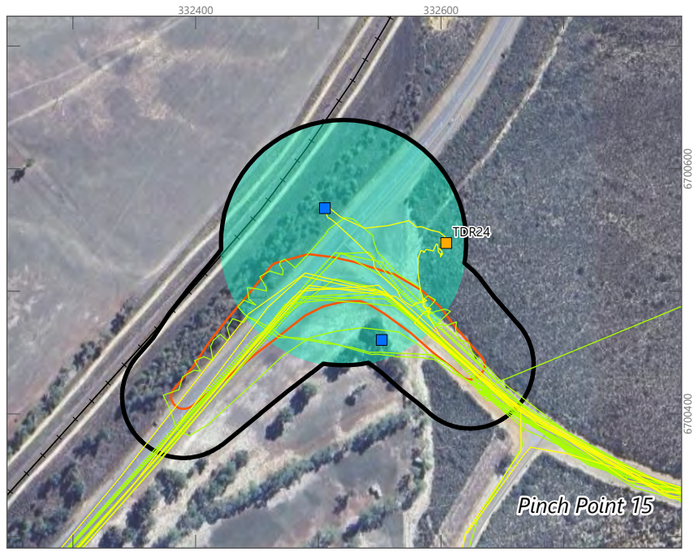
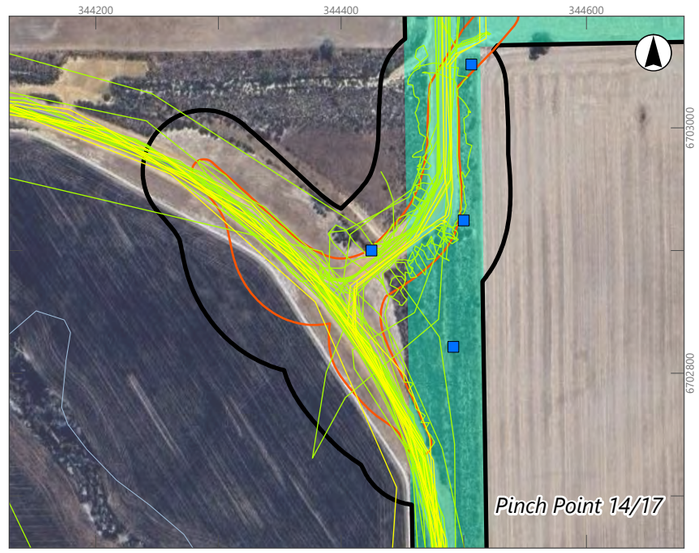
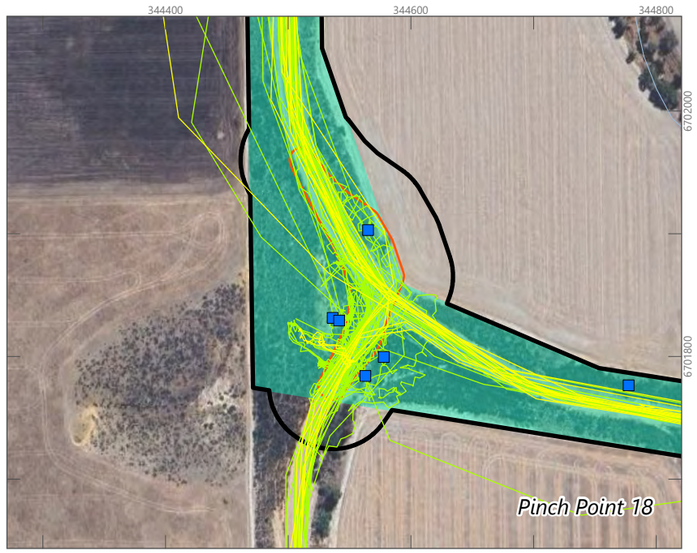
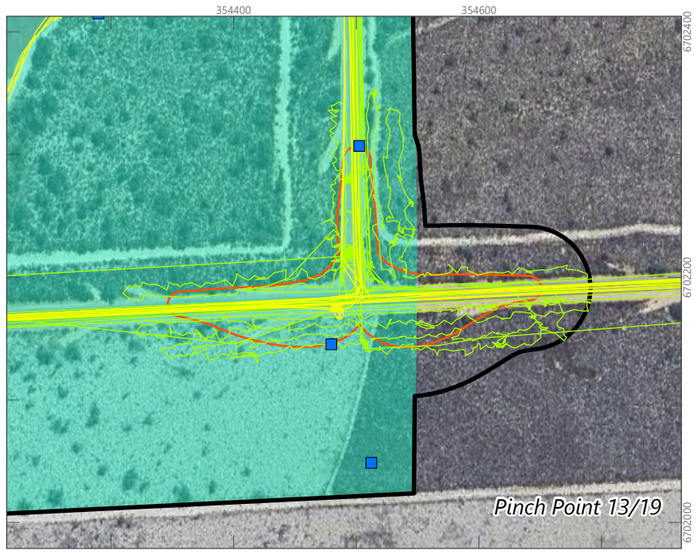
FIGURE 3.1

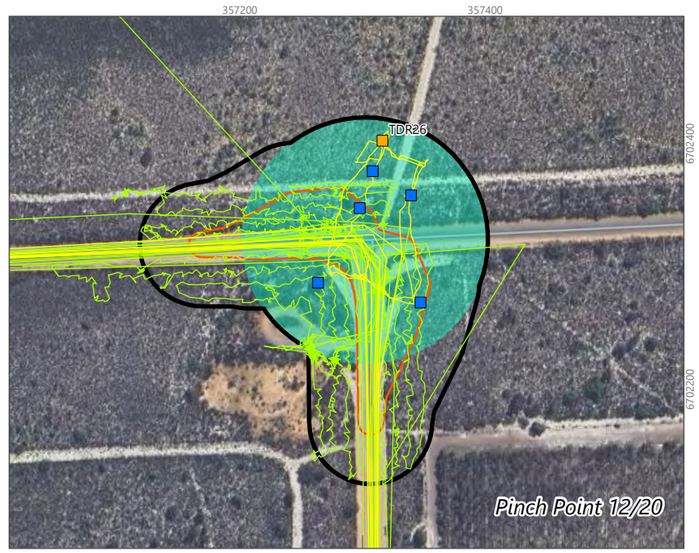
Survey Effort
Pinch Points

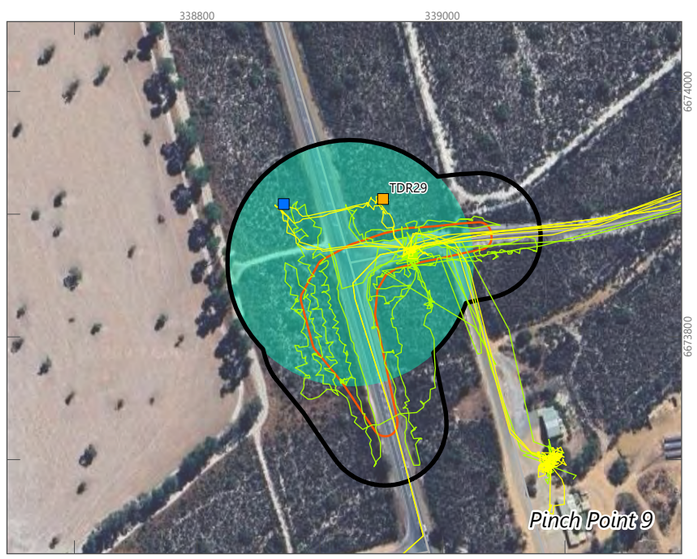


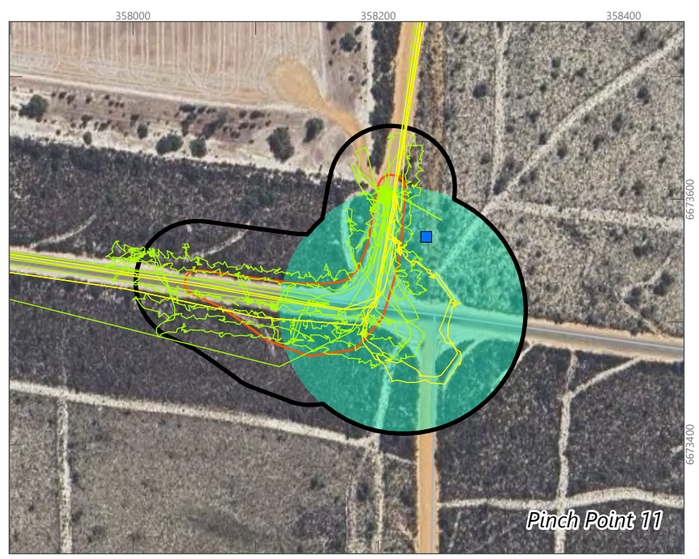












Legend

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- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Trip 1 Survey Area
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- Survey Tracklog
- Trip 2 and 3 Searching Tracklog
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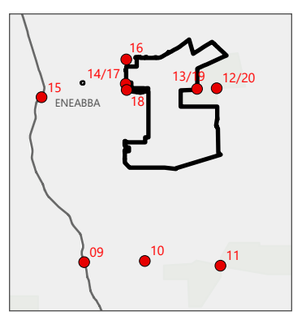
- Vegetation Mapping Note



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3.6 Plant Collection and Identification

At least one reference specimen of all taxa recorded (excluding common, distinctive taxa) was collected for verification and identification purposes (**Section 3.6**), pressed and dried as per WA Herbarium guidelines. Plant identifications were undertaken at the WA Herbarium by Umwelt botanists (**Table 3.2**), with mentoring and quality checks undertaken by Principal Botanist David Coultas (**Section 3.2)**. The identification of all taxa (including significant taxa) used the most up to date information available (including taxonomic keys published in books, journals and online, comparison with herbarium specimens, and consultation with taxonomic experts). External experts of particular families or genera were consulted for any specimens considered to be difficult to identify or of taxonomic interest, including botanists at the WA Herbarium.

Taxon nomenclature generally follows FloraBase (WA Herbarium, 1998-) with all names checked against the current DBCA Max database to ensure their validity. However, in cases where names of plant taxa have been published recently in scientific literature but have not yet been adopted on FloraBase due to time constraints, nomenclature in the published literature is followed.

Specimens of interest, including significant flora taxa, taxa representing range extensions, potential new taxa, and key species in new occurrences of TECs and PECs will be sent to the WA Herbarium for consideration for vouchering as soon as practicable. However, this process is via donation, and the WA Herbarium may not voucher all specimens, dependent upon its own requirements. The specimen vouchering will be supported by completed Threatened and Priority Flora Report Forms submitted to DBCA (Species and Communities Branch) in the case of listed significant flora (i.e. Threatened and Priority flora taxa).

3.7 Vegetation Type Definition, Mapping and Description

The VTs were defined and described using the structural vegetation classification technique as outlined in EPA (2016b). This classification uses vegetation structure and dominant species to describe VTs, with information provided on height of strata, foliage cover and dominant species (EPA, 2016b), as well as substrate and landscape factors. Aerial photography interpretation and field notes taken during the field survey were also used to develop VT mapping polygon boundaries over the Reconnaissance FVSA. Mapping boundaries were developed using aerial photography on a scale of 1:3,000 and reflected changes in vegetation patterns visible at this scale. The VT mapping polygon boundaries were then digitised using Geographic Information System (GIS) software. VT descriptions have been adapted from the National Vegetation Information System (NVIS) Australian Vegetation Attribute Manual Version 6.0 (ESCAVI, 2003) (ESCAVI 2003), as stipulated by EPA (2016b). This model follows nationally agreed-upon guidelines to describe and represent VTs, so that comparable and consistent data are produced nationwide.

3.8 Vegetation Condition Mapping

Vegetation condition was recorded at all relevés, and also opportunistically within the Reconnaissance FVSA during traverses between relevés where areas of disturbance to vegetation were noted (e.g. weed infestations, areas of historical clearing). Vegetation condition was described using the vegetation condition scale presented in EPA (2016b), as presented in **Table 3.4.** Vegetation condition polygon boundaries for the Reconnaissance FVSA were developed using this information in conjunction with aerial photography interpretation and were digitised using GIS software as for VT polygon boundaries.

Table 3.4 Vegetation Condition Scale for the South-West and Interzone Botanical Provinces (EPA, 2016b)

Condition Ranking	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.

3.9 Significant Flora and Vegetation Definitions

3.9.1 Significant Flora Taxa

As per EPA definitions (2016a, 2016b), flora taxa may be significant for a range of reasons, including, but not limited to the following:

- being identified as a Threatened or Priority species (formally listed significant taxa – includes taxa listed under both State and Commonwealth legislation, and classified as Priority by DBCA);
- being locally endemic or associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems (GDEs));
- being a new species or 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);
- being an unusual species, including restricted subspecies, varieties or naturally occurring hybrids; and/or
- having a relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

Significant flora taxa recorded within the Reconnaissance FVSA are discussed in **Section 6.2** with reference to the above categories. Point locations and individuals of significant flora known from the Reconnaissance FVSA are presented in this section.

3.9.2 Significant Vegetation

As per EPA definitions (2016a, 2016b), vegetation may be significant for a range of reasons, including, but not limited to the following:

- being identified as a TEC or PEC (formally listed significant vegetation – includes vegetation listed under Commonwealth or State legislation, or classified as a PEC by DBCA);
- having restricted distribution;
- having a degree of historical impact from threatening processes;
- playing a role as a refuge; and/or
- providing an important function required to maintain ecological integrity of a significant ecosystem.

To determine if any TECs or PECs occurred in the Reconnaissance FVSA, data on the vegetation of the Reconnaissance FVSA was manually compared to key information presented in DBCA (2024c) (including key references) for TECs, and in the PEC list (DBCA, 2023b) for PECs, to determine whether any vegetation may represent a TEC or PEC; specifically, comparisons of dominant taxa, soils, topography and geographical distribution of VTs were made between vegetation in the Reconnaissance FVSA and any TECs or PECs with the potential to occur therein.

A similar process was followed for TECs listed under the EPBC Act, with comparisons made to the appropriate listing and conservation advice for any TECs with the potential to occur in the Reconnaissance FVSA. The remaining significant vegetation criteria other than “being identified as a TEC and PEC” were applied to VTs mapped in the Reconnaissance FVSA to determine whether a VT was significant in a local or regional context.

However, in a regional context, limited information is available for comparison with VTs in the Reconnaissance FVSA. Definitions, categories and criteria for TECs and PECs in WA are presented on the DBCA Threatened species and communities website (DBCA, 2023d)

3.10 Likelihood of Occurrence Assessment

Following completion of the survey, likelihood of occurrence assessments were prepared for conservation significant flora and vegetation identified during the desktop assessment. The assessments considered the likelihood of further occurrences of conservation significant flora or vegetation within (separately) the Reconnaissance FVSA or the Targeted FVSA, and took into consideration:

- The extent of survey undertaken with the survey areas;
- Whether the taxon or community was identifiable at the time of survey;
- Proximity of historical records to the survey areas;

- Reliability of historical records;
- Known range of species;
- Habitat requirements; and
- Potential availability of suitable habitat.

The likelihood categories for assessing significant flora are based on the criteria presented in **Table 3.5.**

Table 3.5 Criteria for Assessing Likelihood of Occurrence

Likelihood Category	Description
Present	The taxon was recorded during the 2024 surveys.
Likely	The species has previously been recorded within the survey area; OR The species has previously been recorded within close proximity of the survey area in habitat that is continuous with the survey area.
Possible	The species has previously been recorded within the Desktop Study area AND there is suitable habitat potentially present with the survey area AND the survey area is within the known range of the species.
Unlikely	The survey area is outside the known range of the species AND/OR suitable habitat is unlikely to be present within the survey area AND/OR Appropriate search effort was conducted over the survey area and the taxon was not found.

4.0 Limitations of Survey

Table 4.1 presents the limitations of the Reconnaissance and Targeted flora and vegetation assessments in accordance with the requirements of EPA Technical Guidance (EPA, 2016b).

No limitations were identified for the either the Reconnaissance or Targeted flora and vegetation assessments.

Table 4.1 Limitations of the Reconnaissance and Targeted Flora and Vegetation Surveys

Limitation	Reconnaissance		Targeted	
	Outcome	Comment	Outcome	Comment
Effort and Extent	Not a limitation	A reconnaissance survey was undertaken across the entire Reconnaissance FVSA. A total of 50 relevés, two quadrats and 671 vegetation mapping notes were recorded. This was considered adequate for a reconnaissance level survey given the limited amount of remnant vegetation present and the size of the Reconnaissance FVSA. Mapping of vegetation boundaries was undertaken using a combination of aerial photography and information collected at the relevé and vegetation mapping note locations. No constraints prevented appropriate sampling techniques (relevé establishment, foot traverses) being employed. Most areas were easy to access using roads and tracks.	Not a limitation	The vegetated areas of the Targeted FVSA were searched via 10 m spaced traverses. Infilling, zig-zagging and more fine-scaled searching was often conducted where significant taxa were recorded. Targeted searching often exceeded the boundary of the Targeted FVSA in order to gather relevant contextual information for EIA.
Competency/ Experience of the team carrying out the survey	Not a limitation	Project Manager /field lead has had previous experience (> 8 years) in conducting flora and vegetation surveys in the South West Province, including the Northern Sandplains bioregion, and the other field lead /Technical Director has had extensive previous experience (>15 years) in conducting flora and vegetation surveys in the South West Province, largely in the Northern Sandplains bioregion. Information relating to identifying characteristics of significant flora taxa and vegetation identified by the desktop assessment as potentially occurring in the Reconnaissance FVSA was provided to all field team members prior to undertaking the field survey.	Not a limitation	The team members conducting the targeted field survey were suitably qualified (**Table 3.2**) and either had 4+ years of experience surveying in the Northern Sandplains or, where personnel had little experience in the region, were provided with reduced tasks. The plant identifications were supervised and reviewed by a Principal Ecologist – Botanist with > 15 years' experience in plant identification for flora of the South-West and Northern Sandplains.

Limitation	Reconnaissance		Targeted	
	Outcome	Comment	Outcome	Comment
Proportion of flora identified, recorded and/or collected, any identification issues	Not a limitation	Dominant vascular flora that were present in the Reconnaissance FVSA were sampled as per the requirements of a reconnaissance level survey. Of the 437 specimens collected (in relation to both Reconnaissance and Targeted survey efforts) for identification, eight were only able to be identified to genus level only. Of these eight, one (*Drosera* sp.) could potentially be conservation significant (potentially *Drosera pedicellaris* (P1), which is already recorded by this survey). This record is from within the Reconnaissance FVSA but not within the Targeted FVSA.	Not a limitation	Of the 153 specimens collected in relation to Targeted survey efforts, all were able to be identified to species or subspecies level, and significance was able to be determined. Where specimens were difficult to identify, had anomalous features, or where of taxonomic interest, external experts were consulted. In all cases this led to resolution of the identification and potential conservation significance.
Sources of information e.g. previously available information (whether historic or recent) as distinct from new data	Not a limitation	Good contextual information for the Reconnaissance FVSA was available prior to the survey. Sources of information used included government databases (DBCA, DCCEEW), as well as numerous general sources pertaining to the climate, geomorphology, flora and vegetation of the region, and flora and vegetation surveys previously conducted in the Desktop Study Area.	Not a limitation	Good contextual information for significant flora and vegetation was available prior to the 2024 surveys. Sources of information used included database and report sources detailed in **Table 3.1**, as well as review of taxonomic keys and physical specimens for significant flora taxa.
Timing/weather/ season/cycle	Not a limitation	The field survey was conducted in June 2024 with supplementary data collected in October 2024. Whilst the June survey does not correspond to the optimum survey or flowering period for the Geraldton Sandplains bioregion. However, the survey aimed to describe and map broad vegetation types, as well as to assess the area for suitable habitat for significant flora taxa to inform Targeted level surveys for the Project.	Not a limitation	Timing (Oct-Nov) of targeted survey efforts was aligned with the identifiability of significant flora returned from the desktop assessment and the possible presence of habitat for these. During the November survey, the entire Targeted FVSA was searched again for the Threatened orchid *Paracaleana dixonii* which is known to flower early to mid November and is difficult to identify outside of this period. Two plants were recorded, in flower, indicating that the survey timing was appropriate.

Limitation	Reconnaissance		Targeted	
	Outcome	Comment	Outcome	Comment
Disturbances (e.g. fire, flood, accidental human intervention etc.), which affected results of survey	Not a limitation	There was evidence of significant impact to vegetation composition and structure throughout the Reconnaissance FVSA as a result of human activities, predominantly due to clearing for farming. However, these disturbances were not a limitation in achieving the objectives of a reconnaissance level survey, with the remnant vegetation able to be confidently described and mapped, and flora taxa mature enough to be identified.	Not a limitation	There was evidence of significant impact to vegetation composition and structure throughout the Targeted FVSA as a result of human activities, predominantly due to clearing for farming. However, these disturbances were not a limitation in achieving the objectives of a targeted level survey; there was no impact from disturbance (such as fire) on determining the presence or identification of significant flora or vegetation.
Remoteness and/or access problems	Not a limitation	The Reconnaissance FVSA was accessed either via the roads, tracks or on foot. All landholder access permissions were obtained prior to surveys and there was no impediment to access.	Not a limitation.	The Targeted FVSA was accessed either via the roads, tracks or on foot. All landholder access permissions were obtained prior to surveys and there was no impediment to access.

5.0 Desktop Results

5.1 Regional Vegetation

The vegetation of WA as it was presumed to have existed prior to European settlement has been mapped at a scale of 1:250,000 as vegetation system associations (VSAs), with the Pre-European Vegetation spatial database created (Beard et al., 2013; DPIRD, 2019). The Government of Western Australia (GoWA) has released vegetation statistics for VSAs that include pre-European extent, current extent, current extent remaining and current extent protected for conservation (DBCA, 2019b). This information has not been updated since 2018 even with the updated Native Vegetation Extent (DPIRD, 2023) and DBCA Legislated Lands and Waters (DBCA, 2023a) spatial data being available. Umwelt has intersected IBRA regions, Pre-European Vegetation Mapping (DPIRD, 2019), Native Vegetation Extent (DPIRD, 2023) and DBCA Legislated Lands and Waters (DBCA, 2023a) shapefiles to re-create the same information as DBCA (2019b) and there is less than ± 0.5% difference between GoWA current extent remaining (DBCA, 2019b) and extent protected for conservation percentages and the re-created percentages. Therefore the DBCA (2019b) data has been presented in **Table 5.1.**

There are four VSAs mapped in the Reconnaissance FVSA as summarised in **Table 5.1** and presented on **Figure 5.1**. The threshold level of retention for pre-European extent of each vegetation complex within a local area and bioregion is considered to be 30% or more (DER, 2014). The current extent remaining for Tathra_379 in the Geraldton Sandplains bioregion is below this 30% threshold (23.74%; **Table 5.1**). Of the current extent of Tathra_379, 5% is protected for conservation. This VSA is also the majority (>70%; **Table 5.1**) of the Reconnaissance FVSA. The current extents of the three remaining VSAs are above the 30% retention threshold, of which 8% to 22% is protected for conservation (**Table 5.1)**.

Table 5.1 Vegetation System Associations of the Reconnaissance FVSA

Vegetation System Association	Description	Pre-European extent (ha)	Current Extent^ (ha)	Extent Remaining (%)	Current Extent Protected for Conservation (%)	Extent in Reconnaissance FVSA (ha)	Extent in Targeted FVSA (ha)
Eridoon_378	Shrublands; scrub-heath with scattered *Banksia* spp, *Eucalyptus todtiana* & *Xylomelum angustifolium* on deep sandy flats in the Geraldton Sandplain Region	93,523.98	60,826.66	65.04	22.00	8.6 (0.05%)	1.03 (0.08%)
Tathra_379	Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region	545,938.38	129,585.93	23.74	5.13	13,066.3 (70.9%)	788.86 (62.40%)
Tathra_391	Shrublands; *Melaeuca uncinata* thicket	3,063.14	1,622.19	52.96	21.08	610.8 (3.3%)	11.92 (0.94%)
Tathra_49	Shrublands; mixed heath	39,719.28	14,489.68	36.48	8.03	4,752.7 (25.8%)	461.13 (36.57%)
					Total	**18,438.4**	**1,260.94**

Note: Current extent protected for conservation are considered to be any areas within International Union for Conservation of Nature (IUCN) categories I to IV (DBCA, 2019b).
^Current Extent Protected for Conservation as a proportion of Current Extent.

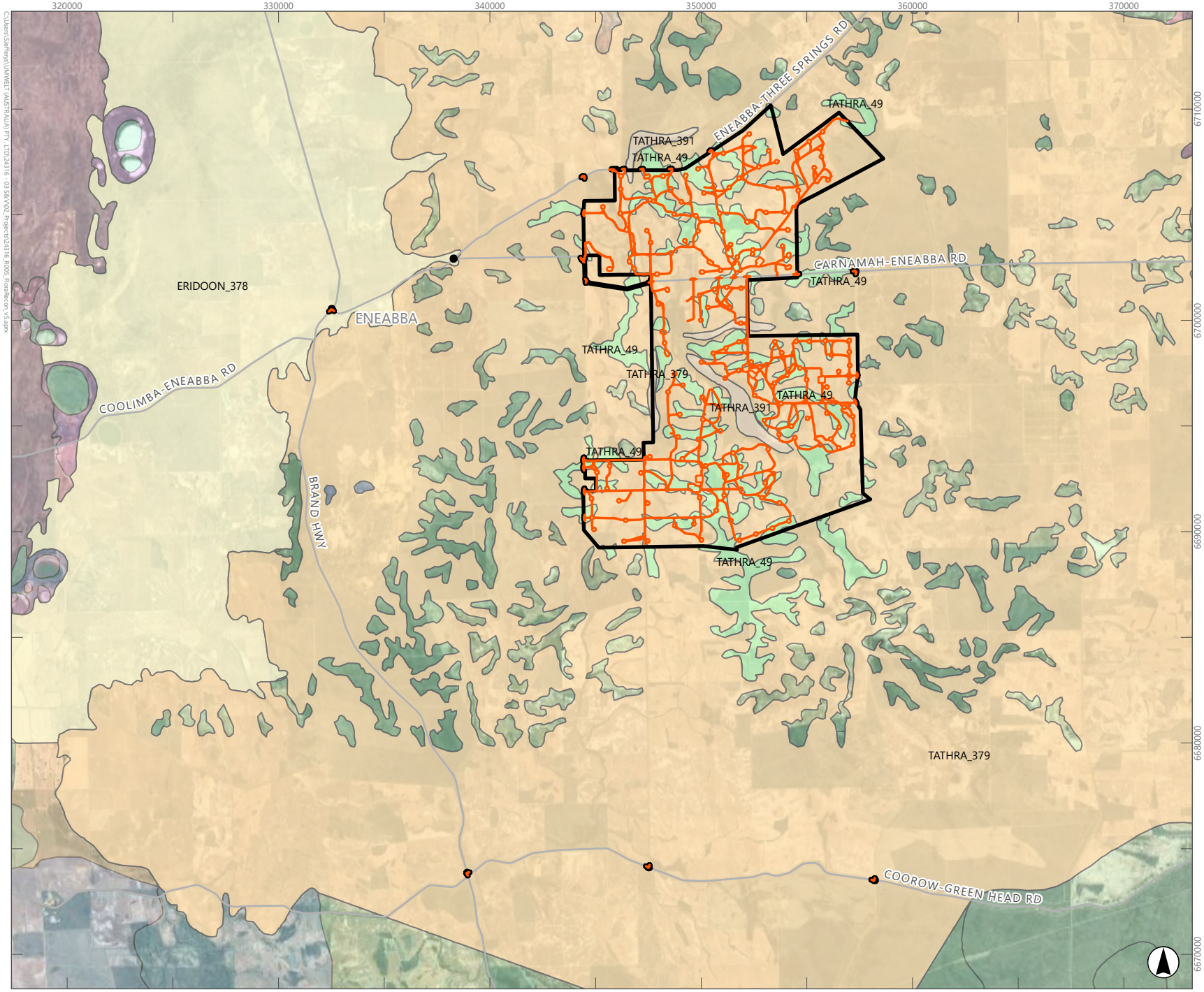

FIGURE 5.1

Vegetation System Associations of the Study Area

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Vegetation System Association

- ERIDOON_378
- TATHRA_49
- TATHRA_379
- TATHRA_391

0 5 10

Kilometres

Scale 1:250,000 at A4
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5.2 Local Flora and Vegetation Surveys

A number of flora and vegetation survey reports have been undertaken within the Desktop Study Area as outlined in **Table 5.2**. This includes publicly available survey reports and reports provided by Synergy RED. **Table 5.2** also lists the scope and key findings for these survey reports. It should be noted that the key findings have been updated to reflect current knowledge, e.g. changes to conservation codes and identifications of flora specimens lodged at the WA Herbarium (1998-).

Table 5.2 Previous Flora and Vegetation Assessments Conducted in the Vicinity of the Reconnaissance FVSA

Title	Location	Survey Timing	Scope	Taxa and Vegetation Types	Significant Vegetation	Significant Flora
Flora, Vegetation and Fauna Assessment – Warradarge Wind Farm (Focused Vision, 2018)	Survey Area is 2.5 km south of the Tathra WF Project area.	October 2018	Reconnaissance and Targeted flora and vegetation survey of selected gap areas to supplement Biota (2012).	10 VTs	None recorded	• 4 Priority taxa
ESA Site Inspection Report C709 (Woodman Environmental, 2016)	Within the Tathra Reconnaissance FVSA.	October 2014; March 2016	Selected Targeted Survey	NA	• Ferricrete Floristic Community (Rocky Springs Type) (TEC) • Wetland area – locally significant	• 3 significant taxa
Eneabba Substation to Karara Mine Tee-off Line Removal: Threatened and Priority Flora Follow-up and Demarcation Survey (Woodman Environmental, 2015)	Much of the southern half of the survey area overlaps with the Tathra Reconnaissance FVSA	October 2014	Selected Targeted Survey	NA	• Ferricrete Floristic Community (Rocky Springs Type) (TEC)	• 30 significant taxa
Warradarge Wind Farm Flora, Vegetation and Fauna Assessment (Biota, 2012)	Survey Area is 2.5 km south of the Tathra WF Project area.	October and November 2011	Detailed flora and vegetation survey	406 taxa 25 VTs	• Lesueur-Coomallo • Floristic Community (D1) (TEC)	• 4 Threatened taxa • 22 Priority taxa
Potential for Impact of Proposed Abstraction on Groundwater Dependent Ecosystems North Perth Basin (Syrinx Environmental, 2007)	Within the Tathra Reconnaissance FVSA	June 2007	Limited to previously identified locations of GDE. Six sites assessed, dominant taxa only.	42 taxa 5 VTs	• Mound Springs SCP (Communities of Tumulus Springs (Organic Mound Spring, Swan Coastal Plain)) (TEC)[1] • Ferricrete Floristic Community (Rocky Springs Type) (TEC)	• none

[1] The "Mound Springs SCP (Communities of Tumulus Springs (Organic Mound Spring, Swan Coastal Plain))" TEC is only known from the Swan Coastal Plain (SCP). The Reconnaissance FVSA does not occur within the SCP. The occurrence recorded by Syrinx (2007) is considered by Umwelt to be erroneous, and more likely to be the "Assemblages of the organic mound springs of the Three Springs area" TEC. As such, the SCP Mound Springs TEC is not discussed further in this report.

5.3 Significant Vegetation

The interrogation of DBCA's Threatened and Priority Ecological Communities Database (DBCA, 2024a) returned records of four listed Threatened Ecological Communities and three Priority Ecological Communities with records within the Desktop Study Area as summarised in **Table 5.3**. Indicative locations of these communities are presented on **Figure 5.3**, these consist of DBCA-applied buffers surrounding known locations, ranging from 200-2,000 m (as per the metadata from the DBCA Threatened and Priority Ecological Communities Database interrogation (DBCA, 2024a). As such, these do not represent known extents of these communities.

The buffer polygon of two significant vegetation communities intersect the Reconnaissance FVSA, being the 'Ferricrete floristic community (Rocky Springs type)' (Critically Endangered (WA)) and 'Assemblages of organic mound springs of the Three Springs area' (Critically Endangered (WA)) (**Figure 5.3**).

The search of DCCEEW's SPRAT Database (DCCEEW, 2024b) identified one Commonwealth-listed TEC which "may occur within the Desktop Study Area", being the Eucalypt Woodlands of the Western Australian Wheatbelt PEC/TEC (P3 (WA); Critically Endangered (EPBC)) (**Table 5.3**).

A nearby survey report from Syrinx (2007) indicated the presence of an additional TEC (Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain) (Critically Endangered)) however this is considered erroneous and more likely to be an occurrence of the 'Assemblages of organic mound springs of the Three Springs area' (Critically Endangered (WA)) (**Table 5.3**).

Table 5.3 Listed Significant Vegetation Known from or Potentially Occurring Within the Desktop Study Area

State TEC/PEC	EPBC TEC	Source*	Description	Comment
Assemblages of organic mound springs of the Three Springs area (CR)	Not Listed	DBCA database	The community occurs in the Three Springs area. The mound spring habitat is characterised by continuous discharge of groundwater in raised areas of peat. The peat and surrounds provide a stable, permanently moist series of microhabitats. There is a high level of heterogeneity of invertebrate fauna assemblages between occurrences, and all are associated with a rich and healthy fauna. The distinctive assemblages are composed of invertebrate groups commonly including beetles, oligochaetes, non-biting midges and bugs. The vegetation component of the community contains many moisture-loving species including an overstorey of *Melaleuca preissiana* (moonah) trees. *Eucalyptus camaldulensis* (river red gum) and *Eucalyptus rudis* (flooded gum) are also found in a number of the mound springs. The shrub layer often includes *Hypocalymma angustifolium* (white myrtle) and *Acacia saligna* (orange wattle) over *Machaerina vaginalis* (sheath twigrush) and other sedges. The herbaceous *Patersonia occidentalis* (purple flag, swamp variant) has been recorded at several occurrences.	Two buffer polygons (DBCA, 2024a) associated with the TEC are centred within the Reconnaissance FVSA. The buffer polygons are comprised of a 5 km radius surrounding potential polygons of approximately 50-150 m. The two polygons are in close proximity to each other in a wetland area. The buffer polygons do not represent the extent of the TEC.
Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain) (CR)	Assemblages of plants and invertebrate animals of tumulus (organic mound) springs of the Swan Coastal Plain (EN)	Syrinx	The community occurs in tumulus springs (organic mound springs) on the Swan Coastal Plain. The habitat of the mound springs is characterised by continuous discharge of groundwater in raised areas of peat. The peat and surrounds provide a stable, permanently moist series of microhabitats, with a high level of heterogeneity of invertebrate fauna assemblages between sites. Groups commonly represented include Ostracoda, Nematoda, Cladocera, Copepoda, Oligochaeta, Tardigrada, Turbellaria and Insecta. Typical and common native vascular plant species associated with the tumulus springs are the trees *Banksia littoralis* (swamp banksia), *Melaleuca preissiana* (moonah) and *Eucalyptus rudis* (flooded gum), and the shrubs *Taxandria linearifolia* (swamp peppermint), *Pteridium esculentum* (bracken fern), *Astartea scoparia* (common astartea) and *Cyclosorus interruptus* (swamp shield-fern).	Only known from the Swan Coastal Plain. The Reconnaissance FVSA does not occur within the Swan Coastal Plain. The occurrence recorded by Syrinx (2007) is considered erroneous, and more likely to be the "Assemblages of the organic mound springs of the Three Springs area" TEC. This TEC is not discussed further in this report.
Eucalypt Woodlands of the Western Australian Wheatbelt (P3)	Eucalypt Woodlands of the Western Australian Wheatbelt (CR)	DCCEEW	The community occurs in the IBRA Avon Wheatbelt 1 and 2 and Western Mallee subregions. It also includes outlying patches in the eastern parts of JAF01 Northern Jarrah Forests and JAF02 Jarrah Forests adjacent to the Avon Wheatbelt, that are off the Darling Range, and receive less than 600 mm mean annual rainfall. The structure of the ecological community is a woodland in which the minimum crown cover of the tree canopy in a mature woodland is 10%. The key dominant or co-dominant species of the tree canopy are species of Eucalyptus trees that typically have a single trunk. Native understorey is present but is of variable composition, being a combination of grasses, other herbs and shrubs.	No known occurrences within Desktop Study Area, however DCCEEW (2024b) considers that this "community may occur within" the Desktop Study Area.
Ferricrete floristic community (Rocky Springs type) (CR)	Not Listed	DBCA database Syrinx Woodman	The community comprises tall shrubland and has been recorded between Arrino and Eneabba, on irregularly inundated red brown sandy loams over ferricrete. It is generally dominated by *Acacia blakelyi*, *Allocasuarina campestris* and *Labichea lanceolata* subsp. *lanceolata*. Associated species include *Alyogyne hakeifolia, Borya sphaerocephala, Isotoma hypocrateriformis* (Woodbridge poison), *Petrophile seminuda*, *Stylidium dichotomum* (pins-and-needles), *Thysanotus patersonii* and *Pterochaeta paniculata* (woolly waitzia).	Two buffer polygons (DBCA, 2024a) associated with this TEC are centred within the Reconnaissance FVSA. The buffer polygons are comprised of a 5 km radius surrounding potential polygons of approximately 800 m. The two polygons are in close proximity to each other in wetland area. The buffer polygon of another occurrence of this TEC is centred outside the Reconnaissance FVSA whilst the 5 km buffer extends into the Reconnaissance FVSA. The buffer polygons do not represent the extent of the TEC.
Lesueur-Coomallo floristic community A1.2 (CR)	Not Listed	DBCA database	The community is known from Warradarge. It comprises a species-rich heath with emergent *Hakea obliqua* (needles and corks) on sand with faithful species of *Hakea obliqua* and *Beaufortia elegans* (elegant beaufortia) and constant species of *Dasypogon bromeliifolius* (pineapple bush) and *Stirlingia latifolia* (blueboy) over well-drained grey sand over pale yellow sand on lateritic uplands. Associated species include *Allocasuarina humilis* (dwarf sheoak), *Calothamnus sanguineus* (silky-leaved blood flower), *Hibbertia hypericoides* (yellow buttercups), *Hypocalymma xanthopetalum*, and *Schoenus subflavus* (yellow bog-rush). The community was originally described by Griffin E.A. and Hopkins A.J.M. in the vegetation chapter (pp. 25–38) in A.A. Burbidge, S.D. Hopper and S. van Leeuwen (Eds.) (1990) Nature conservation, landscape and recreation values of the Lesueur area (a report to the Environmental Protection Authority from the Department of Conservation and Land Management. Bulletin 424, Environmental Protection Authority, Perth).	An occurrence of this TEC is known from 13.6 km south west of the Warradarge (Brand Hwy x Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 30.4 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.

State TEC/PEC	EPBC TEC	Source*	Description	Comment
Lesueur-Coomallo floristic community D1 (CR)	Not Listed	DBCA database Biota	The community occurs in Hill River. It comprises a species-rich low heath on moderately to well-drained lateritic gravels on lower slopes and low rises, dominated by *Allocasuarina microstachya* with *Allocasuarina ramosissima* (priority 3), *Allocasuarina humilis* (dwarf sheoak), *Babingtonia grandiflora* (large-flowered babingtonia), *Borya nitida* (pincushions), *Calytrix flavescens* (summer starflower), Calothamnus sanguineus (silky-leaved blood flower), *Conostylis androstemma* (trumpets), Cryptandra pungens, *Banksia armata* (prickly dryandra), *Gastrolobium polystachyum* (horned poison), *Hakea auriculata, Hakea incrassata* (marble hakea), *Hakea erinacea*, *Hibbertia hypericoides* (yellow buttercups), *Hypocalymma xanthopetalum*, *Melaleuca trichophylla, Petrophile chrysantha*, *Schoenus subflavus* (yellow bog-rush) and *Xanthorrhoea drummondii*. The community was originally described by Griffin E.A. and Hopkins A.J.M. in the vegetation chapter (pp. 25–38) in A.A. Burbidge, S.D. Hopper and S. van Leeuwen (Eds.) (1990) Nature conservation, landscape and recreation values of the Lesueur area (a report to the Environmental Protection Authority from the Department of Conservation and Land Management. Bulletin 424, Environmental Protection Authority, Perth).	An occurrence of this TEC is known from 15.7 km south west of the Warradarge (Brand Hwy x Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 32.4 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.
Lesueur-Coomallo Floristic Community DFGH (P1)	Not Listed	DBCA database	Mixed species-rich heath on lateritic gravel with *Hakea erinacea*, *Melaleuca platycalyx* and *Petrophile seminuda*: a fine scale mixture of four floristically defined communities occurring on lateritic slopes	An occurrence of this TEC is known from 14.4 km south west of the Warradarge (Brand Hwy x Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 31.1 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.
Lesueur-Coomallo Floristic Community M2 (Melaleuca preissiana woodland) (P1)	Not Listed	DBCA database	Woodland dominated by *Melaleuca preissiana* along sandy drainage lines, with faithful species of *Anigozanthos pulcherrimus* and constant species of *Chamaescilla corymbosa*, *Petrophile brevifolia* and *Xanthorrhoea reflexa*.	An occurrence of this TEC is known from 12.5 km south west of the Warradarge (Brand Hwy x Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 29.1 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.
Petrophile chrysantha low heath on Lesueur dissected uplands (Gp200-170) (P2)	Not Listed	DBCA Database	Low heath dominated by *Petrophile chrysantha* on Lesueur Dissected Uplands. Associated species include *Dryandra armata* and *Hakea undulata.*	An occurrence of this TEC is known from 13.2 km south west of the Warradarge (Brand Hwy x Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 28.9 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.

Community names in bold blue = TEC

Community names in light blue = PEC

CR = Critically Endangered; EN = Endangered

**Sources are:*

Biota: Biota (2012)

DBCA Database: DBCA (2024a)

DBCA TEC/PEC lists: DBCA (DBCA, 2023c, 2023e)

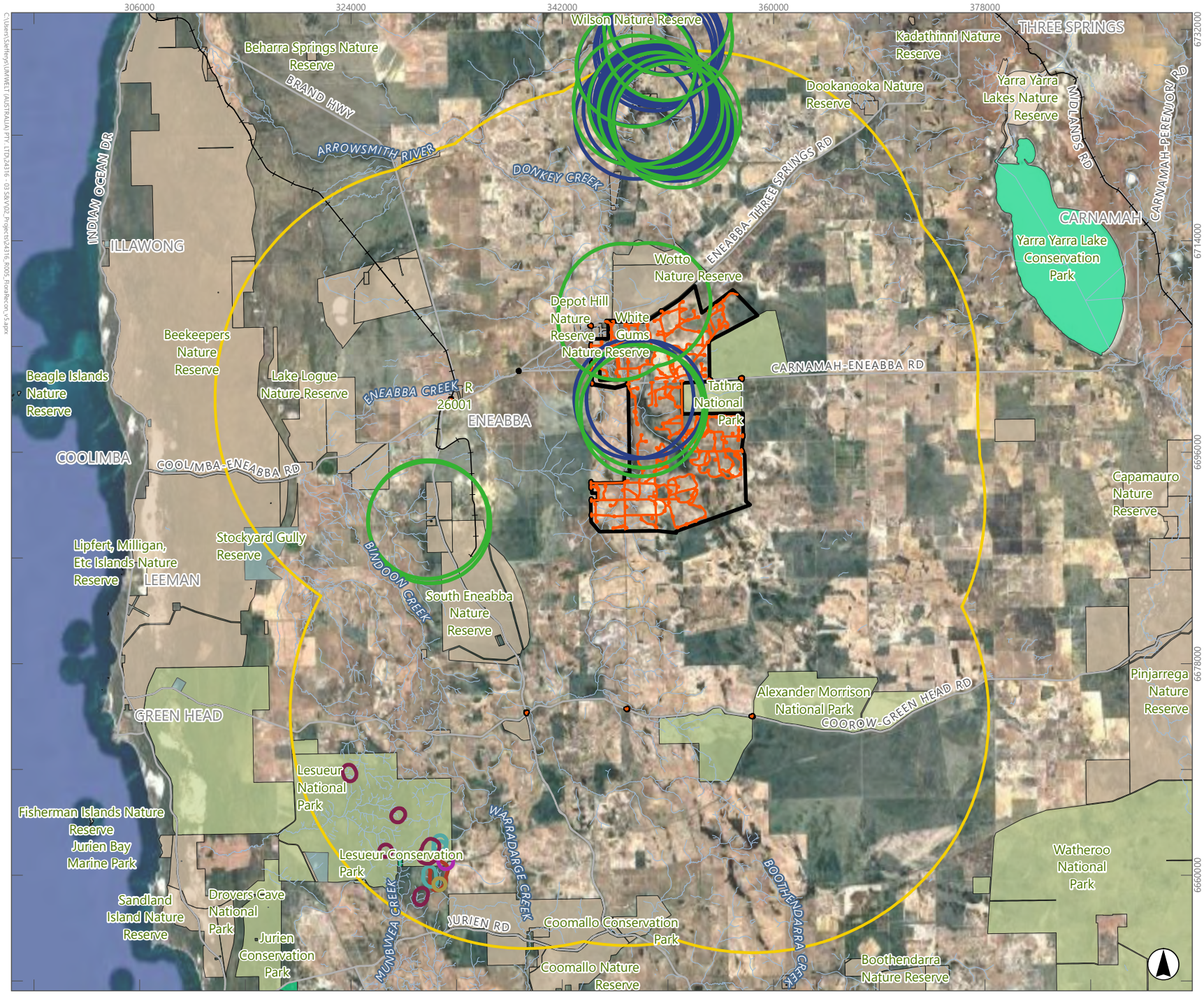
DCCEEW: DCCEEW (2024b)

Syrinx: Syrinx (2007)

Woodman: Woodman Environmental (2015, 2016)

FIGURE 5.2

Significant Vegetation of the Desktop Study Area



Legend

- Desktop Study Area
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse
- Conservation Park
- National Park
- Nature Reserve
- Section 5(1)(g) Reserve
- Section 5(1)(h) Reserve

0 9 18

Kilometres

Scale 1:450,000 at A4
GDA2020 MGA Zone 50

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Significant Vegetation (DBCA)

- Assemblages of organic mound springs of the Three Springs area
- Ferricrete floristic community (Rocky Springs type)
- Lesueur-Coomallo Floristic Community DFGH
- Lesueur-Coomallo Floristic Community M2 (Melaleuca preissiana woodland)
- Lesueur-Coomallo floristic community A1.2 as originally described by Griffin and Hopkins (1990)
- Lesueur-Coomallo floristic community D1 as originally described by Griffin and Hopkins (1990)
- *Petrophile chrysantha* low heath on Lesueur dissected uplands (Gp200-170)

FIGURE 5.2

LEGEND: Significant Vegetation of the Desktop Study Area

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5.4 Significant Flora Taxa

The search of the DCCEEW SPRAT Database (DCCEEW, 2024b) with regard to MNES listed under the EPBC Act identified 49 flora taxa listed as Threatened species, or habitat for such species, that may occur in the Desktop Study Area. See **Appendix A** for the full results of the SPRAT Database.

The search of the DBCA Significant Flora Databases (WA Herbarium specimen database and Threatened and Priority Flora (TPFL) databases) (DBCA, 2024b) and Naturemap search (DBCA, 2007-) identified 204 significant flora taxa within the 10 km (**Table 3.1**) of the Reconnaissance FVSA including 30 Threatened taxa and 174 Priority taxa; this count includes the now delisted *Drosera prophylla* (previously P3), which will not be considered further in this report.

A full list of significant flora taxa known from within the Desktop Study Area is presented in **Appendix B,** with locations presented on **Figure 5.2** (where available). This list has been compiled from the results of the desktop searches as described above (DBCA, 2024b, 2007-; DCCEEW, 2024b) and review of nearby survey reports (**Section 5.2**). A total of 225 significant taxa are known from within the Desktop Study Area including 50 taxa listed as Threatened under the BC Act / EPBC Act, and 174 DBCA-classified Priority flora and one potentially undescribed taxon, being *Grevillea* aff. *stenogyne*.

Grevillea aff. *stenogyne* (Potentially undescribed) was recorded in Biota (2012) as *Grevillea stenogyne* (P1). Review of Florabase indicates that this collection (from 2.6 km south of the Wind Farm Area) was submitted to the WA Herbarium and represents a potentially undescribed entity. A review of specimens held by the WA Herbarium and collected by this survey, with subsequent discussions with WA herbarium experts, concluded that this entity is more likely a hybrid of *G. biternata* and *G. vestita* though it may yet be recognised as a distinct taxon and as such also has potential conservation significance (M. Hislop, *pers. comm.* 2025). *Grevillea* aff. *stenogyne* is hereafter referred to as *G. vestita x biternata*, whilst also retained in tables and counts of significant taxa as a 'potentially undescribed' entity.

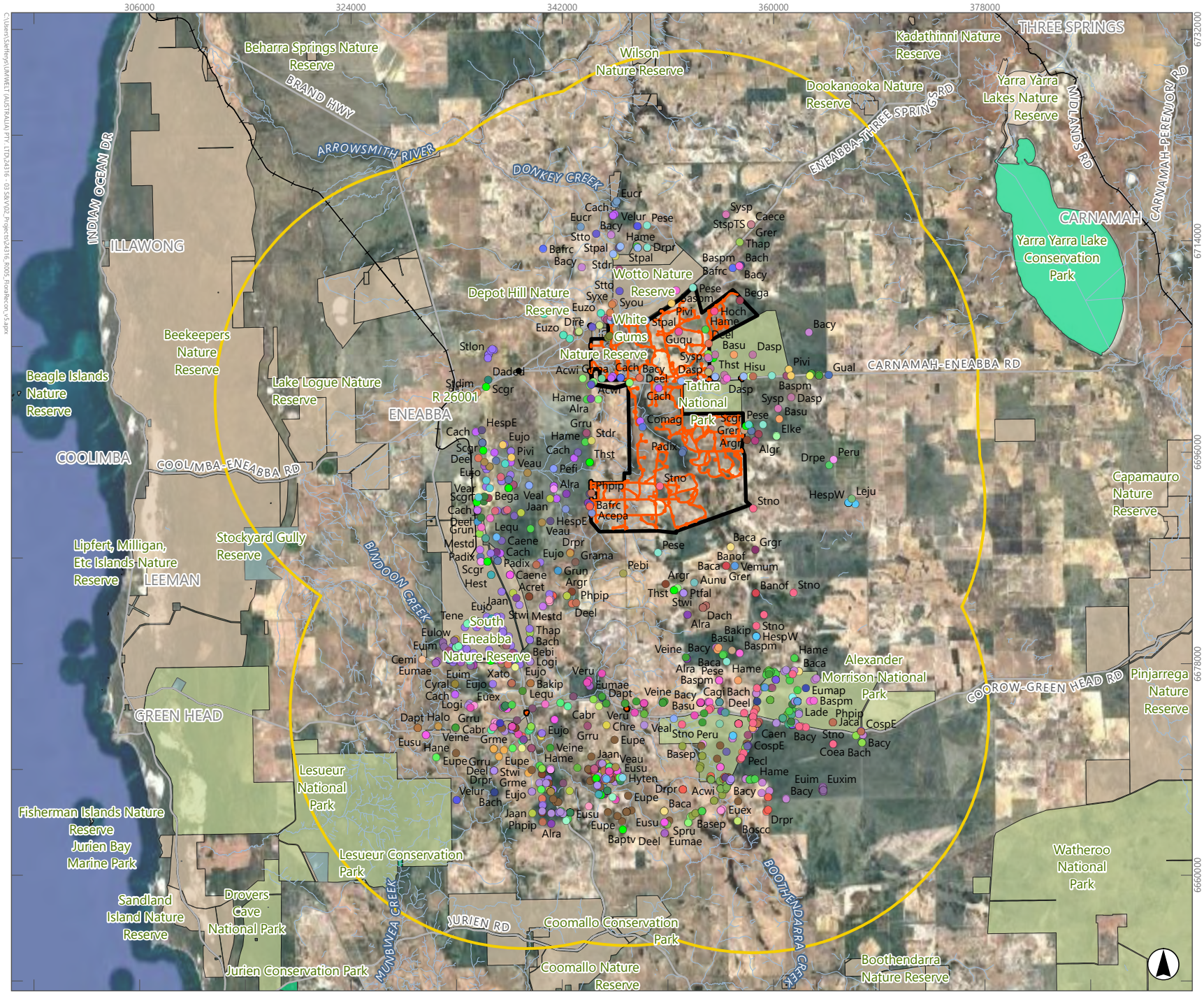

FIGURE 5.3

Significant Flora of the Desktop Study Area

Legend

- Desktop Study Area
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse
- Conservation Park
- National Park
- Nature Reserve
- Section 5(1)(g) Reserve
- Section 5(1)(h) Reserve

Scale 1:450,000 at A4
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Significant Flora (DBCA)

- Accu *Acacia cummingiana* (P3)
- Acepa *Acacia epacantha* (P3)
- Acfla *Acacia flabellifolia* (P3)
- Acret *Acacia retrorsa* (P2)
- Acwi *Acacia wilsonii* (T)
- Algr *Allocasuarina grevilleoides* (P3)
- Alra *Allocasuarina ramosissima* (P3)
- Argr *Arnocrinum gracillimum* (P3)
- Aunu *Austrostipa nunaginensis* (P3)
- Baca *Banksia catoglypta* (T)
- Bach *Banksia chamaephyton* (P4)
- Bacy *Banksia cypholoba* (P3)
- Bafrc *Banksia fraseri* var. *crebra* (P3)
- Bakip *Banksia kippistiana* var. *paenepeccata* (P3)
- Banan *Banksia nana* (P3)
- Banof *Banksia nobilis* subsp. *fragrans* (P3)
- Baptv *Banksia pteridifolia* subsp. *vernalis* (P3)
- Basep *Banksia serratuloides* subsp. *perissa* (T)
- Baspm *Banksia splendida* subsp. *macrocarpa* (P3)
- Basu *Banksia subulata* (P3)
- Bebi *Beaufortia bicolor* (P3)
- Bega *Beyeria gardneri* (P3)
- Boscc *Boronia scabra* subsp. *condensata* (P2)
- Cadea *Caladenia denticulata* subsp. *albicans* (P1)
- Calom *Caladenia longicauda* subsp. *minima* (P2)
- Cabr *Calectasia browneana* (P2)
- Cach *Calytrix chrysantha* (P4)
- Caece *Calytrix ecalycata* subsp. *ecalycata* (P3)
- Caene *Calytrix eneabbensis* (P4)
- Casu *Calytrix superba* (P4)
- Caen *Catacolea enodis* (P2)
- Cagi *Caustis gigas* (P2)
- Cemi *Centrolepis milleri* (P3)
- Chre *Chordifex reseminans* (P2)
- Coea *Conospermum eatoniae* (P3)
- Cosc *Conospermum scaposum* (P3)
- Comag *Conostephium magnum* (P4)
- CospE *Conostylis* sp. Eneabba (M. Hislop 3864) (P2)
- Cyral *Cyanothamnus ramosus* subsp. *lesueuranus* (P2)
- Dach *Darwinia chapmaniana* (T)
- DaspS *Darwinia* sp. Strawberry (M.G. Corrick 8279) (P2)
- Daded *Daviesia debilior* subsp. *debilior* (P2)
- Dapt *Daviesia pteroclada* (P3)
- Dasp *Daviesia speciosa* (T)
- Deel *Desmocladus elongatus* (P4)
- Dire *Diuris recurva* (P4)
- Drat *Drosera atrata* (P3)
- Drpe *Drosera pedicellaris* (P1)
- Drpr *Drosera prophylla* (P3)
- Elke *Eleocharis keigheryi* (T)
- Euab *Eucalyptus abdita* (P2)
- Eucr *Eucalyptus crispata* (T)
- Euex *Eucalyptus exilis* (P4)
- Euim *Eucalyptus impensa*
- Eujo *Eucalyptus johnsoniana* (T)
- Eula *Eucalyptus lateritica*
- Eule *Eucalyptus leprophloia* (T)
- Eulow *Eucalyptus loxophleba x wandoo* (P4)
- Eumae *Eucalyptus macrocarpa* subsp. *elachantha* (P4)
- Eumap *Eucalyptus macrocarpa x pyriformis* (P3)
- Eupe *Eucalyptus pendens* (P4)
- Eusu *Eucalyptus suberea* (T)
- Euzo *Eucalyptus zopherophloia* (P4)
- Euxca *Eucalyptus x carnabyi* (P4)
- Euxim *Eucalyptus x impensa* (T)
- Euxla *Eucalyptus x lateritica* (T)
- Gaha *Gastrolobium hamulosum* (T)
- Grama *Grevillea amplexans* subsp. *adpressa* (P1)
- Grbic *Grevillea biformis* subsp. *cymbiformis* (P3)
- Grcoo *Grevillea cooljarloo* (P1)
- Grer *Grevillea erinacea* (P3)
- Grgr *Grevillea granulosa* (P3)
- Grma *Grevillea makinsonii* (P3)
- Grme *Grevillea metamorpha* (P1)
- Grol *Grevillea olivacea* (P4)
- Grru *Grevillea rudis* (P4)
- Grtht *Grevillea thyrsoides* subsp. *thyrsoides* (P3)
- Grun *Grevillea uniformis* (P3)
- Gual *Guichenotia alba* (P3)
- Guqu *Guichenotia quasicalva* (P2)
- Halor *Haemodorum loratum* (P3)
- Halo *Hakea longiflora* (P3)
- Hame *Hakea megalosperma* (T)
- Hane *Hakea neurophylla* (P4)
- Heru *Hemiandra rutilans* (T)
- HespE *Hemiandra* sp. Eneabba (H. Demarz 3687) (P3)
- HespW *Hemiandra* sp. Watheroo (S. Hancocks 4) (P4)
- Hest *Hensmania stoniella* (P3)
- Hipr *Hibbertia propinqua* (P4)
- Hisu *Hibbertia subvillosa* (P3)
- Hoch *Homalocalyx chapmanii* (P2)
- Hyten *Hypocalymma tenuatum* (P2)
- Hyro *Hypolaena robusta* (P4)
- Jaan *Jacksonia anthoclada* (P3)
- Jaca *Jacksonia carduacea* (P3)
- Lade *Lasiopetalum decoratum* (P2)
- Laru *Lasiopetalum rutilans* (P2)
- Leju *Lechenaultia juncea* (P3)
- Lequ *Lepidobolus quadratus* (P3)
- Lecu *Lepyrodia curvescens* (P2)
- Lico *Liparophyllum congestiflorum* (P4)
- Logi *Loxocarya gigas* (P2)
- Lyex *Lyginia excelsa* (P2)
- Mestd *Mesomelaena stygia* subsp. *deflexa* (P3)
- Padix *Paracaleana dixonii* (T)
- Pefi *Persoonia filiformis* (P3)
- Pebi *Petrophile biternata* (P3)
- Pecl *Petrophile clavata* (P2)
- Peniv *Petrophile nivea* (T)
- Peru *Persoonia rudis* (P3)
- Pese *Petrophile septemfida* (P3)
- Phpip *Phlebocarya pilosissima* subsp. *pilosissima* (P3)
- Pivi *Pityrodia viscida* (P4)
- Ptcli *Ptilotus clivicola* (P2)
- Ptfal *Ptilotus falcatus* (P1)
- Scgr *Schoenus griffinianus* (P4)
- Spru *Spirogardnera rubescens* (T)
- Stdim *Stawellia dimorphantha* (P4)
- StspE *Stenanthemum* sp. Eganu (S. Patrick 4537) (P2)

FIGURE 5.3

LEGEND: Significant Flora of the Desktop Study Area

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Significant Flora (DBCA)

- StcaN *Stylidium carnosum* subsp. Narrow leaves (J.A. Wege 490) (P1)
- Stcor *Stylidium cornuatum* (P2)
- Stdi *Stylidium diplotrichum* (P2)
- Stdr *Stylidium drummondianum* (P3)
- Stinv *Stylidium inversiflorum* (P4)
- Stno *Stylidium nonscandens* (P3)
- StspTS *Stylidium* sp. Three Springs (J.A. Wege & C. Wilkins JAW 600) (P2)
- Stto *Stylidium torticarpum* (P3)
- Stfil *Styphelia filamentosa* (P3)
- Stlon *Styphelia longissima* (T)
- Stob *Styphelia obtecta* (T)
- Stpal *Styphelia pallens* (P2)
- Stwi *Styphelia williamsiorum* (P3)
- Syen *Synaphea endothrix* (P3)
- Syou *Synaphea oulopha* (P3)
- Sysp *Synaphea sparsiflora* (P2)
- Syxe *Synaphea xela* (P2)
- Tean *Tetratheca angulata* (P3)
- Tene *Tetratheca nephelioides* (T)
- Thap *Thelymitra apiculata* (P4)
- Thst *Thelymitra stellata* (T)
- Thgl *Thysanotus glaucus* (P4)
- Thve *Thysanotus vernalis* (P3)
- Veal *Verticordia albida* (T)
- Vear *Verticordia argentea* (P2)
- Veau *Verticordia aurea* (P4)
- Vefr *Verticordia fragrans* (P3)
- Veine *Verticordia insignis* subsp. *eomagis* (P3)
- Velur *Verticordia luteola* var. *rosea* (P1)
- Vemum *Verticordia muelleriana* subsp. *muelleriana* (P3)
- Veru *Verticordia rutilastra* (P3)
- Xato *Xanthosia tomentosa* (P4)

FIGURE 5.3

LEGEND: Significant Flora of the Desktop Study Area

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5.5 Groundwater and Surface Water Values

5.5.1 Groundwater

Phreatophytes are usually deep-rooted perennial taxa that rely on groundwater sources for water uptake. These taxa are often (but not always) found within the riparian zones of permanent and ephemeral rivers, creeks and wetlands where water tables are often very close to the ground surface. Phreatophytes are divided into two main groups:

- **Obligate:** taxa are completely reliant on access to groundwater to survive. This reliance can be continual, seasonal or episodic and is often highly sensitive to alterations in groundwater regimes. Obligate phreatophytes occur in areas where the land surface is close to the groundwater table and directly access groundwater all year round. They can be either supralittoral (generally shallow rooted as groundwater is at a shallow depth under average conditions, for example *Banksia littoralis*), or phreatic (at higher elevations where groundwater is at a greater depth and deeper root systems are required to draw water from the capillary fringe, for example *Banksia ilicifolia*) (Sommer & Froend, 2010). Other taxa in the Northern Sandplains that are obligate phreatophytes include *Melaleuca rhaphiophylla* and occasionally *Melaleuca preissiana*.

- **Facultative:** taxa that rely on groundwater only during extended periods of drought and are generally deep-rooted species occurring on floodplains and higher in the landscape away from very shallow groundwater aquifers. These species tend to be less sensitive to changes in groundwater regimes, however, may suffer stress during prolonged periods of drought. Such taxa can include those with shallow root systems that can survive periods of dryness, as well as periods of inundation and waterlogged soils (for example, *Eucalyptus rudis*), or can survive on soil moisture when available in winter and spring and utilise groundwater only during drier periods or higher elevations (phreatic facultative phreatophytes). Other taxa that are representative of facultative phreatophytes in the Northern Sandplains include *Banksia attenuata* and *Banksia menziesii* (see below; dependence on groundwater depends on the local situation), e.g. *Regelia ciliata*, *Hypocalymma balbakiae*.

Depth-to-groundwater can be used as a potential indicator of groundwater dependence by vegetation. Studies on the Northern Sandplains have shown that there is reduced reliance on groundwater by vegetation where depth to groundwater exceeds 10 m (Eamus et al. (2004) in Froend & Loomes (2004); Froend et al. (2011)). Research on *Banksia* species on the Gnangara Mound groundwater system north of Perth and elsewhere in the South-west of Western Australia (Froend & Loomes, 2004, 2006) proposed three main categories of phreatophytic (groundwater dependent) vegetation: 0–3 m, 3–6 m and 6–10 m depth to groundwater, all of which are assumed to utilise groundwater to some extent. The highest groundwater usage is in the 0–3 m and 3–6 m categories. Studies have shown that *Banksia* tree species (including *Banksia attenuata* and *Banksia menziesii*) have the capacity to access groundwater via their deep root systems and in some cases can be dependent on groundwater to some extent (Groom et al., 2000). *Banksia attenuata* and *Banksia menziesii* are known to be groundwater dependent at groundwater depths of 6–7 m (Dodd & Bell, 1993), and these taxa are unlikely to access groundwater at depths of more than 10 m.

The search of the DCCEEW SPRAT Database with regard to MNES listed under the EPBC Act did not identify any Nationally Important Wetlands or Ramsar Sites within the Desktop Study Area (DCCEEW, 2024b).

The BoM GDE Atlas (BoM, 2024b) is a national dataset of Australian GDEs to inform groundwater planning and management. The Atlas was interrogated using the Desktop Study Area boundary to obtain locations and information about two types of GDEs:

- **Aquatic GDEs:** ecosystems that rely on the surface expression of groundwater – this includes surface water ecosystems that may have a groundwater component, such as rivers, wetlands and springs. Note that marine and estuarine ecosystems can also be groundwater dependent, but these are not mapped in the Atlas.
- **Terrestrial GDEs:** ecosystems that rely on the subsurface presence of groundwater – this includes all vegetation ecosystems.

5.5.1.1 Aquatic GDEs

There are two general areas of mapped potential aquatic GDEs recorded by the BoM GDE Atlas (BoM, 2024b) of 'low', 'moderate' and 'high' potential, with one small area as yet unclassified. The areas (ha) of these potential aquatic GDEs are presented in **Table 5.4.** There are no areas mapped as 'known' aquatic GDEs.

The BoM GDE Atlas (BoM, 2024b) records show an aquatic GDE of high potential GDE occurs within the Reconnaissance FVSA on the western boundary. It is recorded as a wetland and floodplain, of marked wet winter and dry summer. Upstream (north) of this area the narrow watercourse is designated low potential GDE status, whilst downstream (south) is of moderate GDE potential.

An aquatic GDE of 'Unclassified' potential is recorded in a small (~25 m diameter, 0.1 ha) area in the north western part of the Reconnaissance FVSA. Records indicate this is the location of 'Eneabba Springs' and is anticipated to have permanent or near permanent water (BoM, 2024b).

A linear area (named Alexander Morrison Wetland Suite) of potential aquatic GDE occurs in the vicinity (~200 m) of two intersection areas along Coorow-Green Head Rd, though does not intersect with the Reconnaissance FVSA. This is recorded as a saline wetland and palusplain, of marked wet winter and dry summer. It is of 'Unclassified' potential groundwater dependence and is anticipated to have permanent or near permanent water (BoM, 2024b).

5.5.1.2 Terrestrial GDEs

According to the BoM GDE Atlas (BoM, 2024b), the Reconnaissance FVSA includes numerous areas mapped as 'low', 'moderate' and 'high' potential terrestrial GDEs as per the national assessment, which align with the majority of remnant vegetation. The areas (ha) of these potential GDEs are presented in **Table 5.4**. There are no areas mapped as 'known' terrestrial GDEs.

There are three general areas or wetland chains within the Wind Farm Area of the Reconnaissance FVSA which have been mapped as having high GDE potential (BoM, 2024b). All three areas are recorded as 'Shrublands; *Melaleuca uncinata* thicket' in low lying areas of marked wet winter and dry summer.

Additional areas of 'high' GDE potential are mapped around the town of Eneabba, which are partly intersected by the Reconnaissance FVSA over the intersection of Brand Hwy with Eneabba-Three Springs Rd. These are described as 'Shrublands; scrub-heath with scattered *Banksia* spp, *Eucalyptus todtiana* & *Xylomelum angustifolium* on deep sandy flats in the Geraldton Sandplain Region' (BoM, 2024b).

Areas mapped as 'moderate' potential terrestrial GDE occur in five general areas of the Reconnaissance FVSA, notably in vegetation to the east of the Reconnaissance FVSA that is continuous with vegetation in Tathra National Park. These areas are described as 'Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region'. One of the areas is associated with a wetland chain in the centre of the Reconnaissance FVSA, and described as 'Shrublands; *Melaeuca uncinata* thicket' (BoM, 2024b).

Areas mapped as 'low' potential terrestrial GDE occur across large areas of the Reconnaissance FVSA and are described as either 'Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region' or simply 'Shrublands; mixed heath' (BoM, 2024b).

Table 5.4 Areas of potential GDE within the Reconnaissance FVSA

GDE Type	GDE potential	Area (ha) within the Reconnaissance FVSA*
Aquatic	High potential GDE - from national assessment	319.18
	Low potential GDE - from national assessment	21.88
	Moderate potential GDE - from national assessment	18.63
	Unclassified potential GDE - from regional studies	0.10
	Total	**359.79**
Terrestrial	High potential GDE	477.22
	Low potential GDE	3,456.96
	Moderate potential GDE	1,007.58
	Total	**4,512.27**

**Some of the areas mapped as potential Terrestrial GDEs overlap with the potential aquatic GDEs; it is important to not sum the two types or use as % of Reconnaissance FVSA.*

Note that as per the metadata for the BoM GDE Atlas, the national assessment data is taken from a 'national-scale analysis based on a set of rules that describe potential for groundwater/ecosystem interaction and available GIS data'. Known GDEs and their locations were extrapolated to regional scales using a process that relied on the integration of expert opinion, remote sensing data obtained between 2000 and 2010, and GIS analysis (Doody *et al*., 2017). Therefore, the national assessment data provides only an indication of potential GDEs in an area, and site groundwater data is required to confirm the presence of GDEs.

5.5.2 Surface Water

The geomorphic wetlands in the Cervantes / Eneabba area have been mapped by V & C Semeniuk Research Group in 2006. This dataset was updated by DBCA (then Department of Environment and Conservation) and Department of Water and Environmental Regulation (then Department of Water) in 2010 (DEC, 2011) and the spatial dataset made available in 2017 (DBCA, 2017b). Wetlands are classified according to their host landform and hydroperiod. Evaluation of conservation significance is not included in this dataset.

The extent of wetlands mapped by the DBCA (2017b) geomorphic wetlands dataset covers only the western part of the Reconnaissance FVSA. One geomorphic wetland is mapped in this area, being a floodplain (seasonally inundated flat) (DBCA, 2017a). The wetland chain just east of this, which runs through the centre of the Reconnaissance FVSA, is not within the scope of the (DBCA, 2017a) study.

Major streamlines as mapped by DWER (2025) indicate four tributaries from the east meet inside the Reconnaissance FVSA, into a broad central wetland chain. This wetland chain ultimate flows into a significant stream that runs south along the western boundary of Wind Farm Area.

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FIGURE 5.4

Potential Groundwater Dependent Ecosystems within the Reconnaissance FVSA

336000 340000 344000 348000 352000 356000 360000 364000 368000

6708000 6704000 6700000 6696000 6692000 6688000

SECOND AV
ENEABBA-THREE SPRINGS RD
CARNAMAH-ENEABBA RD
BRIMSON RD
FIRST NORTH RD
RESERVE RD
TURKEY
ROSE THOMSON RD
MINERAL SANDS RD
GARIBALDI WILLIS RD
CHATFIELD CLARKE RD
WILLMOTT RD

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Aquatic GDE (BoM)

- High potential GDE - from national assessment
- Moderate potential GDE - from national assessment
- Low potential GDE - from national assessment
- Unclassified potential GDE - from regional studies

Terrestrial GDE (BoM)

- High potential GDE - from national assessment
- Moderate potential GDE - from national assessment
- Low potential GDE - from national assessment

0 2 4

Kilometres

Scale: 1:100,000 at A3
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6.0 Field Survey Results

6.1 Vascular Flora Census

A total of 373 discrete vascular flora taxa were recorded during the 2024 surveys. The taxa represent 46 families and 143 genera. The most well-represented families were Proteaceae (80 taxa), Myrtaceae (76 taxa) and Fabaceae (36 taxa).

A full list of taxa recorded by the survey is presented in **Appendix C**, with raw relevé data and parameters presented in **Appendix D**. Note that some collections could not be identified to species level due to poor material. Some are known to be distinct taxa relative to other taxa recorded by the survey, and therefore have been included in the totals presented above and **Appendix C** (e.g. *Carpobrotus* sp.).

Other collections may represent distinct taxa relative to other taxa recorded by the survey; however, it is more likely that they represent taxa already recorded elsewhere, with the quality of the material such that this distinction cannot be made. Such collections are not included in the totals above.

6.2 Significant Flora Taxa

Table 6.1 presents a summary of data relating to significant flora taxa recorded by the 2024 survey in the Reconnaissance FVSA at relevés or opportunistically. A total of 49 significant flora taxa were recorded, including four Threatened taxa listed under the BC Act and EPBC Act, 42 Priority taxa as classified by the DBCA, and three potentially undescribed taxa.

Note that for the purposes of **Table 6.1**, the number of individuals at locations where plant counts were not recorded (e.g. within relevés) has been attributed an abundance of 1.

Table 6.1 also includes a summary of the VTs within which each significant flora taxon was recorded (VT descriptions provided in **Section 6.4**). Preferred habitat for each taxon has been determined based on proportional location representation within the Targeted FVSA and is indicated in **Table 6.1** with '^'. However, it is worthy of note that some taxa recorded by the 2024 surveys were recorded from only a single location, and therefore there may not be sufficient data to confidently assign preferred habitat for these taxa.

An overview of locations of Threatened and Priority flora taxa recorded in the Reconnaissance FVSA by the 2024 survey are presented on **Figure 6.1** and **Figure 6.2** respectively, with detailed figures provided in **Appendix E**. Detailed descriptions and summary of information for each taxon recorded in the Reconnaissance FVSA is provided in **Sections 6.2.1, Section 6.2.2 and Section 6.2.3**, with GPS locations presented in **Appendix G**.

Table 6.1 Summary of Significant Flora Taxa Counts Recorded in the Reconnaissance FVSA and Targeted FVSA

Taxon	Status (WA)	Status (EPBC)	Reconnaissance FVSA		Targeted FVSA		VTs[2]
			Number of Locations[1]	Number of Individuals[1]	Number of Locations	Number of Individuals	
Acacia epacantha	P3	-	16	99	11	72	AS^
Acacia wilsonii	T	Endangered	4	5	2	2	HH^
Allocasuarina grevilleoides	P3	-	36	180	20	112	AS^, HH^
Allocasuarina ramosissima	P3	-	118	570	72	309	AS^, HH, HM^
Arnocrinum gracillimum	P3	-	2	2	0	0	SEB^
Banksia chamaephyton	P4	-	50 (+3)	107 (+4)	12	26	HH, SBP, SEB^
Banksia cypholoba	P3	-	676 (+10)	1807 (+32)	284	740	AS^, CS, HH, HM, PM, SBP, SEB
Banksia elegans	P4	-	1	1	0	0	SBP^
Banksia fraseri var. *crebra*	P3	-	443	1003	216	499	AS, CS, HH, HM^, RC, SAC, SEB, WM
Banksia kippistiana var. *paenepeccata*	P3	-	71	225	18	73	HH, HM, SEB^
Banksia nobilis subsp. *fragrans*	P3	-	1	1	0	0	HM^
Banksia pteridifolia subsp. *vernalis*	P3	-	25 (+1)	49 (+1)	9	17	SEB^
Banksia splendida subsp. *macrocarpa*	P3	-	81 (+7)	430 (+87)	17	63	HH^, HM, SEB
Banksia subulata	P3	-	25 (+2)	64 (+3)	7	20	SEB^
Beaufortia bicolor	P3	-	58	177	23	80	SEB^
Calothamnus accedens	P4	-	22	163	11	83	HH^, RC^
Calytrix chrysantha	P4	-	6	19	0	0	CS, HH, SEB
Calytrix flavescens s. lat	Potentially undescribed	-	1	1	0	0	HM
Catacolea enodis	P2	-	1	1	1	1	SEB^
Caustis gigas	P2	-	110 (+7)	827 (+49)	38	339	SEB^
Comesperma griffinii	P2	-	13	43	9	33	HM, SEB
Comesperma rhadinocarpum	P3	-	68	124	40	84	HH^, HM, SEB
Conostephium magnum	P4	-	7	107	2	2	SEB^
Daviesia speciosa	T	Endangered	3	52	0	0	HH
Desmocladus elongatus	P4	-	27	35	9	15	HH, HM, SEB^
Desmocladus nodatus	P3	-	1	1	0	0	CS
Drosera pedicellaris	P1	-	13	699	2	12	SEB^
Grevillea aff. *levis*	Potentially undescribed	-	1	1	0	0	SAC
Grevillea erinacea	P3	-	5	5	1	1	HH^, SBP, SEB
Grevillea makinsonii	P3		1	1	0	0	HH^
Grevillea rudis	P4	-	6	8	0	0	AS, HH, SEB^
Grevillea vestita x *biternata* (*Grevillea* aff. *stenogyne)*	potentially undescribed	-	4	7	0	0	HH, SEB

Taxon	Status (WA)	Status (EPBC)	Reconnaissance FVSA		Targeted FVSA		VTs[2]
			Number of Locations[1]	Number of Individuals[1]	Number of Locations	Number of Individuals	
Haemodorum loratum	P3	-	185 (+9)	356 (+23)	77	149	AS, HH^, HM, SBP, SEB
Hakea megalosperma	T	Vulnerable	14	29	1	1	SEB^
Hemiandra sp. Eneabba	P3	-	8	9	2	2	SEB^
Hemiandra sp. Watheroo	P4	-	17	30	6	9	HM, SEB^
Hensmania stoniella	P3	-	10 (+1)	17 (+1)	4	9	SEB^
Hibbertia subglabra	P3	-	2	5	2	5	HH^
Hibbertia subvillosa	P3	-	15	117	15	117	CS, HH^, HM
Hypolaena robusta	P4	-	9	10	4	5	SEB^
Paracaleana dixonii	T	Endangered	2	2	0	0	SEB
Petrophile septemfida	P3	-	2	4	1	3	SEB^
Phlebocarya pilosissima subsp. *pilosissima*	P3	-	1	1	1	1	SEB^
Poranthera asybosca	P1	-	26	536	13	374	HH, SEB^
Schoenus griffinianus	P4	-	162 (+4)	607 (+15)	103	355	HH, HM^, SBP, SEB
Stylidium nonscandens	P3	-	72 (+2)	411 (+6)	26	162	SEB^
Stylidium torticarpum	P3	-	18	303	3	164	CS, HH^, SEB
Styphelia pallens	P2	-	51 (+1)	115 (+5)	31	80	AS, HH, HM^, SEB
Synaphea sparsiflora	P2	-	60 (+2)	177 (+2)	32	79	AS, HH, HM^, SEB

[1]Counts in brackets are additional records from just outside the Reconnaissance Survey Area boundary (up to 65 m)
*[2]Refer to **Section 6.4** for VT descriptions*
^indicates preferred habitat

6.2.1 Threatened (T) taxa

6.2.1.1 Acacia wilsonii (T)

Acacia wilsonii (T) is a spreading, wiry shrub with yellow, globular flowers (**Photo 6.1**). The taxon occurs on plains and flats in white or yellow sand, lateritic gravel, and sandy clay over laterite (WA Herbarium, 1998-). This taxon is listed as Endangered under the EPBC Act and BC Act (DBCA, 2024c). *Acacia wilsonii* (T) is endemic to WA (ALA, 2024), occurring over a range of approximately 60 km from Eneabba to Badgingarra. There are 17 records of this taxon in the WA Herbarium database, potentially representing eight distinct populations, one of which is partly within DBCA conservation estate (Alexander Morrison National Park) (WA Herbarium, 1998-). The Reconnaissance FVSA is located within the known range of this taxon, with two known records within the Reconnaissance FVSA (DBCA, 2024b) returned from desktop searches.

Photo 6.1 *Acacia wilsonii* (T) habit, flower and fruit

Acacia wilsonii (T) was recorded at four locations (five individuals (**Table 6.1**)) in the Reconnaissance FVSA of which two locations (two individuals) are within the Targeted FVSA. It was recorded on lateritic slopes and mesas within VT HH (**Figure 6.1; Appendix E**).

The records represent two populations, one of which is a known population reflected in the WA Herbarium database, at the intersection of Carnamah-Eneabba Rd and Rose Thomson Rd (“Pinch Point 18”). A new population of at least two plants was recorded in the southeast of Lot 10847 of the Reconnaissance FVSA in the heath atop a lateritic mesa.

6.2.1.2 Daviesia speciosa (T)

Daviesia speciosa (T) is a many-stemmed shrub with red flowers (**Photo 6.2)**. The taxon occurs on hillslopes, ridges, sandplains with white or grey sand over laterite (WA Herbarium, 1998-). This taxon is listed as Endangered under the EPBC Act and BC Act (DBCA, 2024c). *Daviesia speciosa* (T) is endemic to WA (ALA, 2024), occurring over a range of approximately 70 km from Mingenew to Eneabba, with one probably erroneous record 1,000 km away, east of Esperance. There are 16 records of this taxon in the WA Herbarium database, potentially representing 10 distinct populations, three of which are within DBCA conservation estate (Tathra National Park) (WA Herbarium, 1998-).

Photo 6.2 *Daviesia speciosa* (T) branchlets and flowers

The Reconnaissance FVSA is located within the known range of this taxon, with one known record within the Reconnaissance FVSA (DBCA, 2024b) returned from desktop searches.

Daviesia speciosa (T) was recorded at three locations in the Reconnaissance FVSA (**Table 6.1**) during the current survey. It was recorded on sandy slopes with laterite pebbles within VT HH (**Figure 6.1;**). The records represent two populations, one of which is a known population reflected in the WA Herbarium database. A new population of at least 50 plants was recorded in the northeast of Lot 10890.

6.2.1.3 Hakea megalosperma (T)

Hakea megalosperma (T) is a spreading, lignotuberous shrub, growing to 2 m high (**Photo 6.3**). The taxon occurs on laterite hills, slopes and breakaways with grey sandy loam or sand (WA Herbarium, 1998-). This taxon is listed as Vulnerable under the EPBC Act and BC Act (DBCA, 2024c). *Hakea megalosperma* (T) is endemic to WA (ALA, 2024), occurring over a range of approximately 100 km from west of Dandaragan to north-east of Eneabba. There are 59 records of this taxon in the WA Herbarium database, representing approximately 30 broad localities, 10 of which are within DBCA conservation estate including Wotto Nature Reserve, Lesueur National Park, South Eneabba Nature Reserve, Alexander Morrison National Park, Coomallo Nature Reserve and Badgingarra National Park (WA Herbarium, 1998-).

Photo 6.3 *Hakea megalosperma* (T) habit and fruit

The Reconnaissance FVSA is located within the known range of this taxon, with three records 1 km outside the boundary (DBCA, 2024b), though none within, returned from desktop searches.

H. megalosperma was recorded at 14 locations within the Reconnaissance FVSA by the current survey, of which one location occurs in the Targeted FVSA (**Table 6.1**). The records from this survey represent three new populations of this taxon. It was recorded on grey sands on plains and slopes within VT SEB, within intact vegetation on Lot 10890, and in the road reserve in the vicinity of “Site Entry 5” and “Site Entry 6” (**Figure 6.1; Appendix E**).

6.2.1.4 Paracaleana dixonii (T)

Paracaleana dixonii is a tuberous terrestrial orchid belonging to the group of orchids known as duck-orchids (Paracaleana) and is listed as Endangered under the EPBC Act and BC Act (DBCA, 2024c). This taxon is endemic to WA and occurs over a range of approximately 150 km between Arrowsmith in the north and Hill River in the south (WA Herbarium, 1998-). There are 20 records for this taxon in the WA Herbarium database, of which six are in conservation estate (Badgingarra NP, Coomallo NR, Lesueur NP, South Eneabba NR and Lake Logue NR) (WA Herbarium, 1998-).

P. dixonii produces one to two yellowish-green flowers with maroon blotches and markings at the end of fleshy stems during its flowering period. It is known to flower later than other orchid species that occur in similar habitat with flowers emerging once temperatures begin to reach 37°C, by which time its single leaf has withered and dried. Flowers are borne at the end of a fleshy, nutrient-rich stem that is believed to assist in coping with the hot and dry conditions experienced during their flowering period (DCCEEW, 2023c).

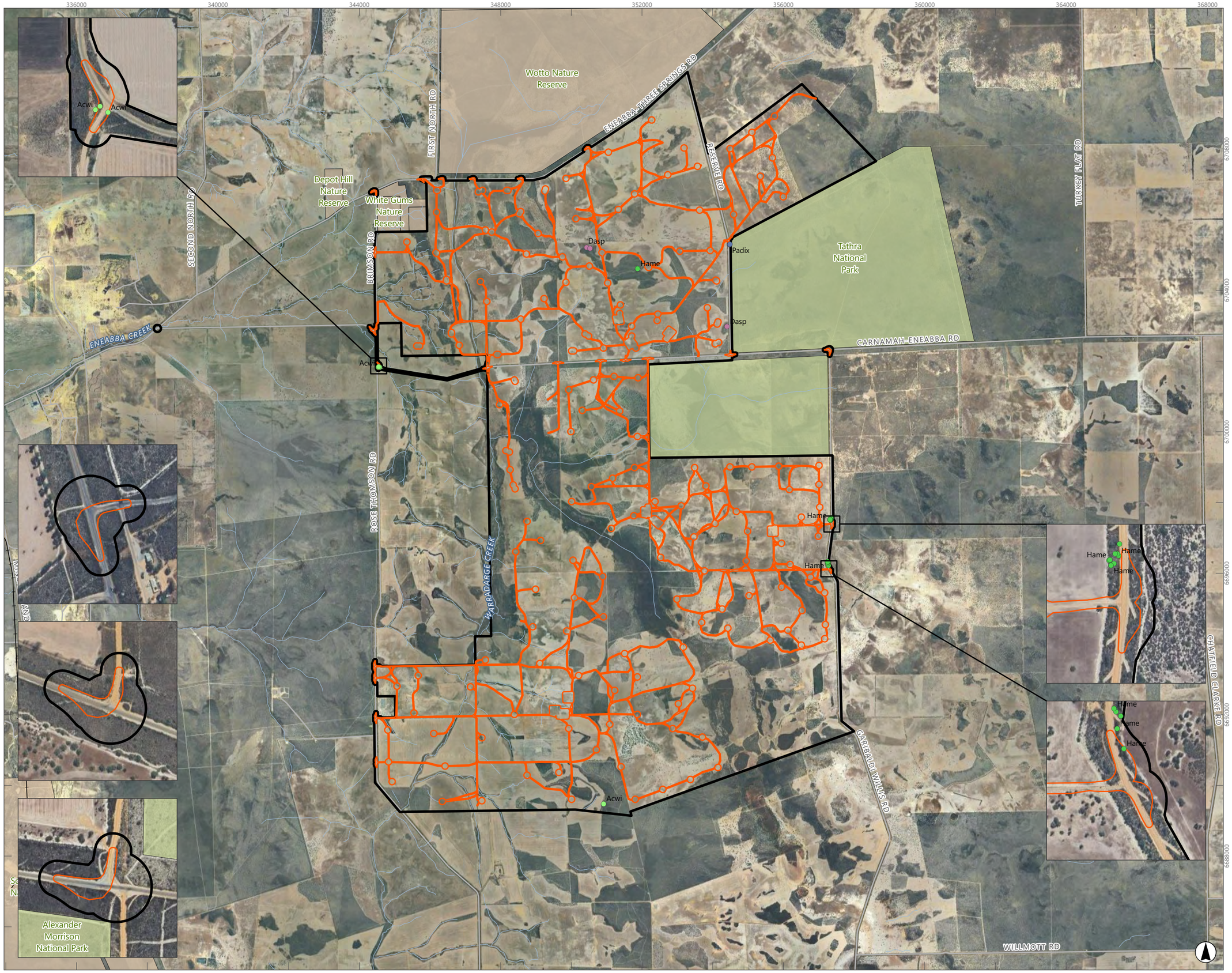
Photo 6.4 *Paracaleana dixonii* (T)

The Reconnaissance FVSA is located within the known range of this taxon, with two records within the Reconnaissance FVSA (DBCA, 2024b) returned from desktop searches.

Two plants of *Paracaleana dixonii* were recorded during the November field survey, in the Reconnaissance FVSA (**Table 6.1**) within 12 m of each other and 25 and 28 m from the Targeted FVSA boundary. The records were in the vicinity of "Site Entry 7" along Garibaldi Wilis Rd in sandy soils within VT SEB (**Figure 6.1**, **Appendix E**) and represent one new population of this taxon.

FIGURE 6.1

Threatened Flora Records from 2024 Reconnaissance and Targeted Surveys – Overview



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse
- National Park
- Nature Reserve

Threatened Flora (Umwelt)

- Acwi *Acacia wilsonii* (T)
- Dasp *Daviesia speciosa* (T)
- Hame *Hakea megalosperma* (T)
- Padix *Paracaleana dixonii* (T)

0 2 4

Kilometres

Scale: 1:100,000 at A3
GDA2020 MGA Zone 50

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6.2.2 Priority taxa

6.2.2.1 Acacia epacantha (P3)

Acacia epacantha (P3) is a dioecious, dense, spiny shrub up to 0.5 m high (**Photo 6.5**). It occurs on lateritic gravelly loam or clay (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as Priority three by DBCA (2024c). *A. epacantha* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 100 km from Dandaragan to Southeast of Carnamah. There are 17 records of this taxon in the WA Herbarium database, potentially representing 13 distinct populations, none of which are within DBCA conservation estate. The Reconnaissance FVSA is located within the known range of this taxon, with one WA Herbarium record within the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.5 *Acacia epacantha* (P3) specimen

A. epacantha (P3) was recorded at 16 locations in the Reconnaissance FVSA (99 individuals (**Table 6.1**)), 14 locations (72 individuals) of which occur within the Targeted FVSA. It was recorded on sandy soils or loams with laterite pebbles within VT AS, which is considered its preferred habitat (**Figure 6.1; Appendix E**).

6.2.2.2 Allocasuarina grevilleoides (P3)

Allocasuarina grevilleoides (P3) is a dioecious, lignotuberous shrub **(Photo 6.6)**. The taxon occurs on breakaways, hilltops and slopes with gravelly grey, brown or white sand or clay loam over laterite (WA Herbarium, 1998-).This taxon is not listed under the EPBC Act or BC Act but is classified as Priority three by DBCA (2024c). *A. grevilleoides* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 300 km from southeast of Dongara to Perth. There are 25 records of this taxon in the WA Herbarium database, potentially representing 20 distinct populations, eight of which are within DBCA conservation estate (Wandoo National Park, Badgingarra National Park, Leseur National Park, South Eneabba Nature Reserve and Tathra National Park) and one is within City of Gosnell's Park, Ellis Brook Valley Reserve. The Reconnaissance FVSA is located within the known range of this taxon, with one WA Herbarium record within 500 m of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.6 *Allocasuarina grevilleoides* (P3) specimen

A. grevilleoides (P3) was recorded at 36 locations (180 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 23 locations of which are in the Targeted FVSA (112 individuals). It was recorded on brown sandy clay loam with laterite pebbles, within VTs AS and HH, both of which are considered its preferred habitat (**Figure 6.1; Appendix E**).

6.2.2.3 Allocasuarina ramosissima (P3)

A. ramosissima (P3) is a dioecious, somewhat divaricate shrub to 0.4 m high **(Photo 6.7)**, occurring on lateritic breakaways and slopes with brown, grey sand or loam with lateritic gravel (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *A. ramosissima* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 200 km from north of Bindoon to south of Mingenew, with most populations in a range of 80 km between Eneabba and Dandaragan. There are 26 records of this taxon in the WA Herbarium database, potentially representing 20 distinct populations, one of which is within DBCA conservation estate (South Eneabba Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with one WA Herbarium record within 500 m of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.7 ***Allocasuarina ramosissima*** **(P3)**

Allocasuarina ramosissima (P3) was recorded at 118 locations (570 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 70 locations of which (309 individuals) are in the Targeted FVSA. It was found on low grey sands, sandy clay loams, and rocky slopes on crests in VTs AS, HH, and HM, of which HM is considered its preferred habitat (**Figure 6.2**; **Appendix E**).

6.2.2.4 Arnocrinum gracillimum (P3)

Arnocrinum gracillimum (P3) is a dioecious, rhizomatous herb up to 0.4 m high **(Photo 6.8)**, occurring on white, grey or yellow with lateritic sand (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *A. gracillimum* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 100 km from southeast of Carnamah to north of Cataby, with most populations in a range of 30 km between South Eneabba Nature Reserve and Coomallo Nature Reserve. There are 21 records of this taxon in the WA Herbarium database, potentially representing 16 distinct populations, one of which is within DBCA conservation estate (Coomallo Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with one WA Herbarium record within 0.3 km of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.8 *Arnocrinum gracillimum* (P3)

Arnocrinum gracillimum (P3) was recorded at two locations (two individuals (**Table 6.1**)) in the Reconnaissance FVSA, none of which occur within the Targeted FVSA. It was recorded on grey sands on plains and slopes within VT SEB which is considered its preferred habitat (**Figure 6.2; Appendix E**).

6.2.2.5 Banksia chamaephyton (P4)

Banksia chamaephyton (P4) is a low, lignotuberous shrub to 0.4 m high and to 2 m wide **(Photo 6.9)**. It occurs on slopes, breakaways and flats with grey or white sand over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c). *B. chamaephyton* (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 170 km from Kadathinni to Boonanarring. There are 40 records of this taxon in the WA Herbarium database, potentially representing 32 regional populations, 10 of which are within DBCA conservation estate (Badgingarra National Park, South Eneabba Nature Reserve, Boonanarring Nature Reserve and Alexander Morrison National Park). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium records within 1 km of the of the intersection of Brand Hwy with Coorow-Greenhead Rd section of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.9 *Banksia chamaephyton* (P4)

B. chamaephyton (P4) was recorded at 50 locations (107 individuals (**Table 6.1**)) in the Reconnaissance FVSA with an additional three locations (four individuals) recorded just outside the boundary. 12 locations (26 individuals) are in the Targeted FVSA. It was recorded rocky upper slopes as well as yellow and grey sands on slopes within VTs HH, SBP, and SEB, of which SEB is considered its preferred habitat (**Figure 6.1; Appendix E**).

6.2.2.6 Banksia cypholoba (P3)

B. cypholoba (P3) is a prostrate, dwarf, lignotuberous shrub with yellow-brown flowers (**Photo 6.10**). It occurs on flats, plains and slopes with grey sand, sometimes with laterite gravel (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *B. cypholoba* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 100 km from Arrino to Badgingarra. There are 41 records of this taxon in the WA Herbarium database, potentially representing 32 individual regional populations, 6 of which are within DBCA conservation estate (South Eneabba Nature Reserve, Boothendarra Nature Reserve and Alexander Morrison National Park). The Reconnaissance FVSA is located within the known range of this taxon, with one WA Herbarium specimen within the Reconnaissance FVSA (WA Herbarium, 1998-).

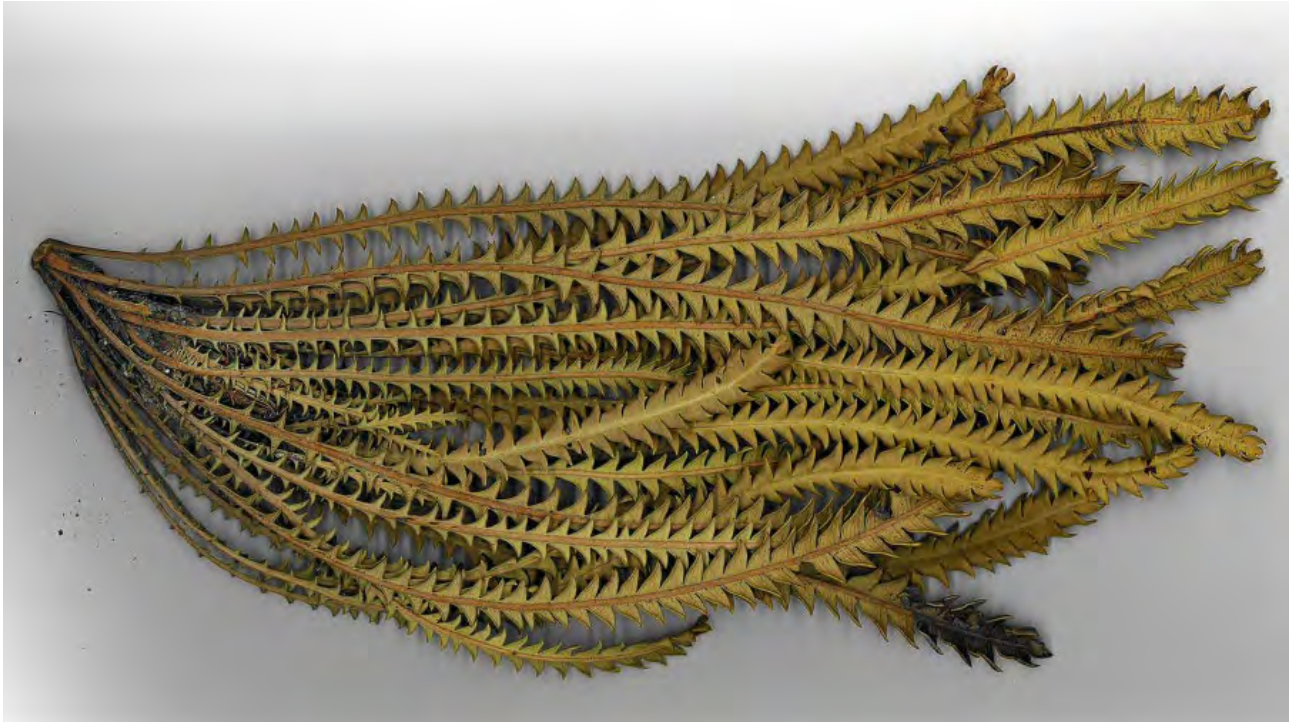


Photo 6.10 *Banksia cypholoba* (P3) specimen

B. cypholoba (P3) was recorded at 677 locations (1807 individuals (**Table 6.1**)) in the Reconnaissance FVSA with one additional location (one individual) recorded just outside the boundary. 282 locations (740 individuals) are in the Targeted FVSA. It was recorded in a variety of sandy habitats and cleared or modified lands within VTs AS, CS, HH, HM, PM, SBP, and SEB, of which AS is considered its preferred habitat (**Figure 6.2**; **Appendix E**).

6.2.2.7 Banksia elegans (P4)

B. elegans (P4) is a suckering shrub up to 4 m high with yellow, green flowers **(Photo 6.11)**. It occurs on sandplains, low consolidated dunes with yellow, white or red sand(WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c). *B. elegans* (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 170 km from Greenough River to Hill River. There are 44 records of this taxon in the WA Herbarium database, potentially representing 34 regional populations, eight of which are within DBCA conservation estate (Coomallo Nature Reserve, Leseur National Park, Lake Logue Nature Reserve, Yardanogo Nature Reserve and Unnamed Nature Reserve WA39744). The Reconnaissance FVSA is located within the known range of this taxon, though no WA Herbarium records are known from within a 10 km radius of the Reconnaissance FVSA (WA Herbarium, 1998-). As such, the population recorded on the Reconnaissance FVSA indicates a range extension.

Photo 6.11 *Banksia elegans* (P4) habit and inflorescence

B. elegans (P4) was recorded opportunistically at one location (one individual (**Table 6.1**)) within the Reconnaissance FVSA with no records in the Targeted FVSA. It was recorded in low woodland on yellow sand within VT SBP which is considered its preferred habitat (**Figure 6.1; Appendix E**).

6.2.2.8 *Banksia fraseri* var. *crebra* (P3)

B. fraseri var. *crebra* (P3) is a shrub up to 0.2-6 m high with yellow, green flowers (**Photo 6.12**). It occurs on plains with white, grey or yellow sand (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *B. fraseri* var. *crebra* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 160 km from east of Dongara to south-west of Dandaragan. There are 16 records of this taxon in the WA Herbarium database, potentially representing 14 regional populations, none of which are in DBCA tenure. The Reconnaissance FVSA is located within the known range of this taxon, with one herbarium record within the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.12 *Banksia fraseri* var. *crebra* (P3)

B. fraseri var. *crebra* (P3) was recorded at 443 locations (1003 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 216 locations (499 individuals) of which are in the Targeted FVSA. It was recorded in a variety of habitats including sandy flats, rocky loams, drainage lines, within VTs AS, CS, HH, HM, RC, SAC, SEB, and WM, of which HM is considered its preferred habitat (**Figure 6.1; Appendix E**). It was often recorded in areas of low (Good or Degraded) vegetation condition or where vegetated areas bordered on disturbed or cleared areas.

6.2.2.9 Banksia kippistiana var. paenepeccata (P3)

B. kippistiana var. *paenepeccata* (P3) is an erect, prickly, lignotuberous shrub to 1.2 m high **(Photo 6.13**). It occurs on hills and slopes with white/yellow or grey sand over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *B. kippistiana* var. *paenepeccata* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 270 km from Eneabba to Byford. There are 28 records of this taxon in the WA Herbarium database, potentially representing 20 regional populations, 7 of which are in within DBCA conservation estate (Leseur National Park, Boonanaring Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with one herbarium record within 2.5 km of the intersection of Brand Hwy with Coorow-Greenhead Rd area of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.13 *Banksia kippistiana* var. *paenepeccata* (P3) specimen

B. kippistiana var. *paenepeccata* (P3) was recorded at 72 locations (225 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 19 locations (73 individuals) of which in the Targeted FVSA. It was recorded on sand with laterite, rocky hills within VTs, HH, HM and SEB including areas of disturbance or where these VTs bordered on cleared areas. (**Figure 6.2**; **Appendix E**). The location of this taxon recorded within the Reconnaissance FVSA represents a small range extension of approximately 18 km to the north-east.

6.2.2.10 Banksia nobilis subsp. fragrans (P3)

B. nobilis subsp. *fragrans* (P3) is an erect, non-lignotuberous shrub from 0.6 m to 2 m high with yellow, green or pink flowers **(Photo 6.14)**. It occurs on hillslopes with grey sand, lateritic gravel and laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024). *B. nobilis* subsp. *fragrans* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 50 km from south of Eneabba to Badgingarra. There are nine records of this taxon in the WA Herbarium database, potentially representing six individual regional populations, none of which are within DBCA conservation estate. The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium specimens within 5 km of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.14 *Banksia nobilis* subsp. *fragrans* (P3) specimen

B. nobilis subsp. *fragrans* (P3) was recorded at one location (one individual) in the Reconnaissance FVSA. It was recorded on a rocky slope with sandy clay loam and gravelly laterite within VT HM (**Figure 6.1; Appendix E**).

6.2.2.11 Banksia pteridifolia subsp. vernalis (P3)

B. pteridifolia subsp. *vernalis* (P3) is a prostrate, lignotuberous shrub up to 0.4 m high with white and yellow flowers (**Photo 6.15**). It occurs on plains or lower slopes with white and grey sand over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024). *B. pteridifolia* subsp. *vernalis* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 200 km from Southeast Perth to Southeast of Coorow. There are 38 records of this taxon in the WA Herbarium database, potentially representing 23 individual regional populations, 15 of which occur in DBCA conservation estate (Boonanarring Nature Reserve, Fynes Road NRE, Alexander Morrison National Park, Brae Road reserve, Bundarra nature reserve). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium specimens within 1.2 km of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.15 *Banksia pteridifolia* subsp. *vernalis* (P3)

B. pteridifolia subsp. *vernalis* (P3) was recorded at 25 locations (49 individuals (**Table 6.1**)) in the Reconnaissance FVSA with one additional location (one individual) recorded just outside the boundary. Nine locations (17 individuals) of which are in the Targeted FVSA. It was recorded on grey sands within VT SEB (**Figure 6.1; Appendix E**).

6.2.2.12 Banksia splendida subsp. macrocarpa (P3)

B. splendida subsp. *macrocarpa* (P3) is a bushy, non-lignotuberous shrub from 0.3 m to 1.5 m high with yellow, orange or red flowers (Photo 6.16). It occurs on hilltops, slopes and breakaways with gravelly brown, grey or yellow sand or clay loam over laterite or sandstone (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *B. splendida* subsp. *macrocarpa* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 80 km from Carnamah to Badgingarra. There are 33 records of this taxon in the WA Herbarium database, potentially representing 26 individual regional populations, 8 of which are within DBCA conservation estate (Wotto Nature Reserve, Tathra National Park, Alexander Morrison National Park and Coomallo Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium specimens within 500 m of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.16 ***Banksia splendida* subsp. *macrocarpa* (P3)**

B. splendida subsp. macrocarpa P3 was recorded at 81 locations (430 individuals (**Table 6.1**)) in the Reconnaissance FVSA with an additional seven locations (87 individuals) recorded just outside the boundary. 17 locations (63 individuals) of which are in the Targeted FVSA. It was recorded in slopes with sandy loam, rocky slopes, and modified habitats within VTs HH, HM, and SEB (**Figure 6.2**; **Appendix E**).

6.2.2.13 Banksia subulata (P3)

B. subulata (P3) is a bushy, non-lignotuberous shrub up to 0.4 m high with yellow, brown flowers located close to the ground (**Photo 6.17**). It occurs on white, grey or yellow sand over laterite, gravelly laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *B. subulata* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 80 km from Carnamah to Badgingarra. There are 21 records of this taxon in the WA Herbarium database, potentially representing 17 individual regional populations, 6 of which are within DBCA conservation estate (Alexander Morrison National Park). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium specimens within 900 m of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.17 *Banksia subulata* (P3)

B. subulata (P3) was recorded at 25 locations (64 individuals (**Table 6.1**)) in the Reconnaissance FVSA with an additional two locations (three individuals) recorded just outside the boundary. Seven locations (20 individuals) are in the Targeted FVSA. It was recorded in low woodland on grey sands within VT SEB (**Figure 6.2**; **Appendix E**).

6.2.2.14 Beaufortia bicolor (P3)

Beaufortia bicolor (P3) is a tufted, rhizomatous sedge, growing to 0.2 m high (**Photo 6.18**). It occurs on winter-wet flats, depressions and wetlands with grey clay loam or sandy loam (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c) *B. bicolor* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 40 km from east of Cervantes to north-west of Regans Ford. There are 21 records of this taxon in the WA Herbarium database, representing approximately 18 regional populations, 1 of which occurs within DBCA tenure (Wongonderrah Nature Reserve) (WA Herbarium, 1998-). The nearest WA Herbarium record of this taxon to the Reconnaissance FVSA is less than 1 km to the north-east of the intersection of Brand Hwy with Coorow-Greenhead Rd section of the Reconnaissance FVSA (DBCA, 2024b).

Photo 6.18 *Beaufortia bicolor* (P3)

B. bicolor (P3) was recorded at 58 locations (177 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 23 locations (80 individuals) of which are in the Targeted FVSA. All records were located in the intersection area (of the Reconnaissance FVSA) near Warradage, of Brand Hwy and Coorow-Green Head Rd. It was recorded on a midslope with grey sandy loam, within VT SEB (**Figure 6.1; Appendix E**).

6.2.2.15 Calothamnus accedens (P4)

Calothamnus accedens (P4) is an erect, slender shrub growing to 1.8 m high, with pink, red flowers (**Photo 6.19**), occurring on hills, low rises and flats with brown or grey clay loam over laterite or occasionally granite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c). *C. accedens* (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 300 km from south of Jarrahdale to west of Three Springs. There are 40 records of this taxon in the WA Herbarium database, representing approximately 25 regional populations, 2 of which occurs within DBCA tenure (Watheroo National Park and Jarrahdale State Forest).The Reconnaissance FVSA is located within the known range of this taxon, though no WA Herbarium records are known from within a 10 km radius of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.19 *Calothamnus accedens* (P4) specimen

C. accedens (P4) was recorded at 22 locations (163 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 11 (83 individuals) of which are in the Targeted FVSA. It was recorded rocky slopes and breakaways with clayey soils within VTs HH, and RC (**Figure 6.2**; **Appendix E**).

6.2.2.16 Calytrix chrysantha (P4)

Calytrix chrysantha (P4) is a shrub 0.3–1.3 m high with yellow flowers in the summer (**Photo 6.20**). It occurs on flats with white, grey or yellow/brown sand (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c). *C. chrysantha* (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 130 km from Morawa to Coomallo. There are 36 records of this taxon in the WA Herbarium database, potentially representing 32 regional populations, seven of which are within DBCA conservation estate (Unnamed Nature Reserve WA39744, Lake Logue Nature Reserve, South Eneabba Nature Reserve, Coomallo Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with three herbarium records within the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.20 ***Calytrix chrysantha* (P4)**

C. chrysantha (P4) was recorded at six locations (19 individuals (**Table 6.1**)) in the Reconnaissance FVSA, none of which occur within the Targeted FVSA. It was recorded grey sands on plains and slopes within VTs CS, HH, and SEB (**Figure 6.2**; **Appendix E**).

6.2.2.17 Catacolea enodis (P2)

Catacolea enodis (P2) is a rhizomatus, perennial herb 0.1–0.3 m high with flowered spikelets (**Photo 6.21**), occurring on deep white sand over laterite and tall heath (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority two by DBCA (2024c). *C. enodis (P2)* is endemic to WA (ALA, 2024), occurring over a range of approximately 50 km from Badgingarra to South East Coorow. There are 12 records of this taxon in the WA Herbarium database, potentially representing 6 regional populations, 6 of which are within DBCA conservation estate (Brand highway reserve, Alexander Morrison National Park). The Reconnaissance FVSA is located within the known range of this taxon, with records 2.5 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.21 *Catacolea enodis* (P2) specimen

C. enodis (P2) was recorded at one location (one individual (**Table 6.1**)) in the Reconnaissance FVSA, which is also within the Targeted FVSA - at the intersection of Garibaldi Willis Rd with Coorow-Greenhead Rd. It was recorded in low woodlands on grey sands within VTs SEB (**Figure 6.2**; **Appendix E**).

6.2.2.18 Caustis gigas (P2)

Caustis gigas (P2) is a rhizomatous, robust, grass-like herb or sedge to 2 m high (**Photo 6.22**). It occurs on flats with white or grey sand (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority two by DBCA (2024c). *C. gigas* (P2) is endemic to WA (ALA, 2024), occurring over a range of approximately 170 km, with a majority of known populations east of Warradarge and one disjunct record near Chittering. There are eleven records of this taxon in the WA Herbarium database, potentially representing nine regional populations, three of which are within DBCA conservation estate (Alexander Morrison National Park). The Reconnaissance FVSA is located within the known range of this taxon, with one herbarium record within the intersection area of Garibaldi Willis Rd and Coorow-Green Head Rd (WA Herbarium, 1998-).

Photo 6.22 *Caustis gigas* (P2)

C. gigas (P2) was recorded at 110 locations (49 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 39 (339 individuals) of which are in the Targeted FVSA. It was recorded on grey sands as well in cleared lands within VT SEB, including borders of this VT with cleared or degraded areas such as road verges. The records were all from the vicinity of the known location, at the intersection area of Garibaldi Willis Rd and Coorow-Green Head Rd (**Figure 6.2**; **Appendix E**).

6.2.2.19 Comesperma griffinii (P2)

Comesperma griffinii (P2) is an annual or perennial herb up to 0.15 m high with white, yellow or blue flowers (Photo 6.23). It occurs on undulating plains, valley slopes, and flats with grey, brown or yellow sand or sandy loam (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority two by DBCA (2024c). *C. griffinii* (P2) is endemic to WA (ALA, 2024), occurring over a range of approximately 800 km from Esperance to east of Geraldton. There are 16 records of this taxon in the WA Herbarium database, potentially representing 15 regional populations, 8 of which are within DBCA conservation estate (Yardanogo Nature Reserve, Tutanning Nature Reserve, Helms Forestry Reserve, Petrudor Rock Reserve, Indarra Nature Reserve, Tarin Rock Wheatbin Reserve, South Eneabba Nature Reserve, Charles Darwin Conservation Reserve). The Reconnaissance FVSA is located within the known range of this taxon, though no WA Herbarium records are known from within a 20 km radius of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.23 *Comesperma griffinii* (P2)

Comesperma griffinii (P2) was recorded at 13 locations (43 individuals (**Table 6.1**)) in the Reconnaissance FVSA, nine locations (33 individuals) of which are in the Targeted FVSA. It was recorded predominately within VTs HM and SEB, particularly on the disturbed boundaries of these VTs with cleared land, such as road verges (**Figure 6.2**; **Appendix E**).

6.2.2.20 Comesperma rhadinocarpum (P3)

C. rhadinocarpum (P3) is a perennial herb up to 0.4 m high with blue or purple flowers (**Photo 6.24**), occurring on undulating plains, valley slopes, and flats with grey, brown or yellow sandy loam or sand (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *C. rhadinocarpum* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 500 km from Perth to north of Gregory, with majority of known populations over 200 km between Badgingarra and Geraldton and two disjunct records near Kalgoorlie. There are 19 records of this taxon in the WA Herbarium database, potentially representing 17 regional populations, 7 of which are within DBCA conservation estate (Fynes Road Nature Reserve, Brand Highway reserve, Lake Logue Nature Reserve, Drummond Nature Reserve, Badgingarra National Park, Howatharra Hill Reserve, Nature reserve owned by University of Western Australia). The Reconnaissance FVSA is located within the known range of this taxon, though no WA Herbarium records are known from within a 8 km radius of the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.24 *Comesperma rhadinocarpum* (P3) specimen

C. rhadinocarpum (P3) was recorded at 68 locations (124 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 40 locations (84 indiviudals) of which are in the Targeted FVSA. It was recorded predominantly in cleared land and on sandy loams and rocky slopes within VTs HH, HM, and SEB, particularly on the border of these VTs with cleared or degraded areas (**Figure 6.2**; **Appendix E**). These records represent a range extension of 20 km to the East for this taxon.

6.2.2.21 Conostephium magnum (P4)

Conostephium magnum (P4) is an erect, compact, many-stemmed shrub, growing to 2 m high (**Photo 6.25**). It occurs on sandplains and slopes with white, grey sand, often over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c).
C. magnum (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 120 km from east of Lancelin to the south Eneabba. There are 33 records of this taxon in the WA Herbarium database, representing approximately 27 regional populations, 9 of which occurs within DBCA tenure including Badgingarra National Park, Coomallo Nature Reserve, South Eneabba Nature Reserve and unnamed reserve R 41986 (WA Herbarium, 1998-). There is one WA Herbarium record within the Reconnaissance FVSA, which represents the northern end of the range of this taxon (WA Herbarium, 1998-).

Photo 6.25 Conostephium magnum (P4)

C. magnum (P4) was recorded at seven locations (107 individuals (**Table 6.1**)) in the Reconnaissance FVSA, two locations (two individuals) of which in the Targeted FVSA. It was recorded in low woodlands with grey sands within VT SEB (**Figure 6.1; Appendix E**).

6.2.2.22 Desmocladus elongatus (P4)

Desmocladus elongatus (P4) is a rhizomatous perennial sedge, growing to 0.5 m high (**Photo 6.26**). It occurs on undulating plains, slopes and adjacent to breakaways, on grey, white or red sand, often over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c). *D. elongatus* (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 110 km from west of Moora to north-west of Eneabba. There are 43 records of this taxon in the WA Herbarium database, representing approximately 35 regional populations, 10 of which occurs within DBCA tenure (Alexander Morrison National Park, Badgingarra National Park, Coomallo Nature Reserve, Lake Logue Nature Reserve, South Eneabba Nature Reserve and Tathra National Park) (WA Herbarium, 1998-). The Reconnaissance FVSA is located within the known range of this taxon, with two WA Herbarium records of this taxon within the Reconnaissance FVSA (DBCA, 2024b; WA Herbarium, 1998-).

Photo 6.26 ***Desmocladus elongatus*** **(P4)**

D. elongatus (P3) was recorded at 27 locations (35 individuals (**Table 6.1**)) in the Reconnaissance FVSA and 9 locations (15 individuals) in the Targeted FVSA. It was recorded in grey sands on plains, and rocky slopes with sandy loams within VTs HH, HM, and SEB (**Figure 6.1; Appendix E**).

6.2.2.23 Desmocladus nodatus (P3)

D. nodatus (P3) is a tufted, rhizomatous sedge, growing to 0.2 m high (**Photo 6.27**). It occurs on winter-wet flats, depressions and wetlands with grey clay loam or sandy loam (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but it is classified as a priority three by DBCA (2024c). *D. nodatus* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 40 km from east of Cervantes to north-west of Regans Ford. There are 21 records of this taxon in the WA Herbarium database, representing approximately 18 regional populations, one of which occurs within DBCA tenure (Wongonderrah Nature Reserve) (WA Herbarium, 1998-). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest WA Herb record of this taxon to the Reconnaissance FVSA approximately 70 km to the south (WA Herbarium, 1998-).

Photo 6.27 *Desmocladus nodatus* (P3)

D. nodatus (P3) was recorded at one location (one individual (**Table 6.1**)) in the Reconnaissance FVSA, within relevé TDR27, with no records in the Targeted FVSA. It was recorded on a flat with brown sandy clay, within VT CS (**Figure 6.1; Appendix E**). The location of this taxon recorded within the Reconnaissance FVSA represents a range extension of approximately 84 km to the north.

6.2.2.24 Drosera pedicellaris (P1)

Drosera pedicellaris (P1) is a fibrous-rooted perennial herb, growing to 0.15 m high with white flowers (**Photo 6.28**). It occurs on heathlands with white or grey sand (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority one by DBCA (2024c). *D. pedicellaris* (P1) is endemic to WA (ALA, 2024), occurring over a range of approximately 100 km from South of Cervantes to East of Badgingarra. There are eight records of this taxon in the WA Herbarium database, representing approximately four regional populations, all of which occurs within DBCA tenure (Badgingarra National Park) (WA Herbarium, 1998-). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest WA Herb record of this taxon to the Reconnaissance FVSA approximately 7.2 km (WA Herbarium, 1998-).

Photo 6.28 *Drosera pedicellaris* (P1)

D. pedicellaris (P1) was recorded at 13 locations (699 individuals (**Table 6.1**)) in the Reconnaissance FVSA, two locations (12 individuals) of which are in the Targeted FVSA. It was recorded in low woodlands on grey sands within VT SEB (**Figure 6.1; Appendix E**). The location of this taxon recorded within the Reconnaissance FVSA represents a range extension of approximately 84 km to the north.

6.2.2.25 Grevillea erinacea (P3)

Grevillea erinacea (P3) is a spindly, sparingly branched shrub, growing to 1.8 m high (**Photo 6.29**). It occurs on plains, flats and hillslopes with white, grey sand, often over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by (DBCA, 2024c). *G. erinacea* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 160 km from Geraldton to north-east of Warradarge. There are 37 records of this taxon in the WA Herbarium database, representing approximately 27 regional populations, 5 of which occurs within DBCA tenure (Beekeepers Nature Reserve and Burma Road Nature Reserve) (WA Herbarium, 1998-). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest WA Herb record of this taxon to the Reconnaissance FVSA is approximately 0.1 km to the east (DBCA, 2024b).

Photo 6.29 *Grevillea erinacea* (P3) specimen

G. erinacea (P3) was recorded at five locations (five individuals (**Table 6.1**)) in the Reconnaissance FVSA, within relevés TDR15 and TDR25 and 1 location (1 individual) within the Targeted FVSA. It was recorded on dunes slopes with yellow sand, VTs HH, SBP, and SEB (**Figure 6.1; Appendix E**).

6.2.2.26 Grevillea makinsonii (P3)

G. makinsonii (P3) is an erect shrub, 0.6–1 m high with yellow flowers. It occurs on slopes, and hillsides, with yellow, brown clay sand over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but it is classified as priority three by DBCA (2024c). *G. makinsonii* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 50 km from east of Carnamah to South of Mingenew with one isolated record in Watheroo. There are 14 records of this taxon in the WA Herbarium database, representing approximately 8 regional populations, 2 of which are in DBCA conservation estates (Wilson Nature Reserve, Dookanooka Nature Reserve). The Reconnaissance FVSA is within the known distribution of this taxon with herbarium records found within the Reconnaissance FVSA (DBCA, 2024c).

A single plant at the known (DBCA, 2024b) location of *G. makinsonii* (P3) was relocated during familiarisation activities at the commencement of the field survey, at the intersection of Carnamah-Eneabba Rd and Rose Thomson Rd (**Figure 6.1; Appendix E**). It was recorded at 1 location (1 individual (**Table 6.1**)) in the Reconnaissance FVSA, with no locations in the Targeted FVSA.

6.2.2.27 Grevillea rudis (P4)

G. rudis (P4) is an erect, spreading shrub, growing between 0.2–1.2 m high (**Photo 6.30**). It occurs on hills and slopes with white, grey, yellow or red sand, often with gravel and laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c). *G. rudis* (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 230 km from North of Cataby to Three springs. There are 72 records of this taxon in the WA Herbarium database, representing approximately 30 regional populations, 5 of which occurs within DBCA tenure (Badgingarra National Park Coomallo Nature Reserve, Alexander Morrison National Park) (WA Herbarium, 1998-). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest WA Herb record of this taxon to the Reconnaissance FVSA approximately 0.2 km (DBCA, 2024b).

Photo 6.30 *Grevillea rudis* (P4) habit and inflorescence

G. rudis (P4) was recorded at six locations (eight individuals (**Table 6.1**)) in the Reconnaissance FVSA, with no locations within the Targeted FVSA. It was recorded on grey sand within VTs AS, HH, and SEB (**Figure 6.1; Appendix E**).

6.2.2.28 Haemodorum loratum (P3)

Haemodorum loratum (P3) is a bulbaceous, perennial, herb, to 0.45–1.2 m high shrub with black, brown, green flowers (**Photo 6.31**). It occurs on uplands and sandplains with grey, white or yellow sand and gravel (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *H. loratum* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 400 km from south of Mingenew to east of Perth. There are 25 records of this taxon in the WA Herbarium database, representing approximately 20 regional populations, 7 of which are in conservation estate (Lesueur National Park, Coomallo Nature Reserve, Moore River National Park and South Eneabba Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with two records from Woodman (2014) occurring within the Reconnaissance FVSA.

Photo 6.31 *Haemodorum loratum* (P3) habit and solitary leaf

Haemodorum loratum (P3) was recorded at 185 locations (356 individuals (**Table 6.1**)) in the Reconnaissance FVSA, with an additional nine locations (23 individuals) recorded just outside the boundary. 77 locations (149 individuals) occur within the Targeted FVSA. It was recorded in a range of sandy soils or sand over laterite, on slopes or plains within VTs AS, HH, HM, SBP, and SEB, including on the edges of these VTs with disturbed or cleared areas (**Figure 6.1; Appendix E**). The populations recorded in the Reconnaissance FVSA indicate a range extension of 25 km to the east.

6.2.2.29 *Hemiandra* sp. Eneabba (P3)

Hemiandra sp. Eneabba (P3) is a sprawling, perennial, erect shrub, 50–100 cm high, to 40 cm wide (**Photo 6.32**). It occurs on plains with grey, brown or yellow sands (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but it is classified as priority three by DBCA (2024c). *H.* sp. Eneabba occurs over a range of approximately 69 km from South Eneabba to Yardanogo Nature Reserves. There are 35 records of this taxon in the WA Herbarium database, representing approximately 31 regional populations, 2 of which are in DBCA conservation estates (Yardanogo Nature Reserve and South Eneabba Nature Reserve) (WA Herbarium, 1998-). The Reconnaissance FVSA is located just on the southeastern boundary of the known range of this taxon, with the nearest known record approximately 0.4 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.32 *Hemiandra* sp. Eneabba (P3) habit and flowers

Hemiandra sp. Eneabba (P3) was recorded at eight locations (nine individuals (**Table 6.1**)) in the Reconnaissance FVSA, two locations (two individuals) of which are in the Targeted FVSA. It was recorded on grey sands on slopes and plains within VT SEB **(Figure 6.1; Appendix E**).

6.2.2.30 *Hemiandra* sp. Watheroo (P4)

Hemiandra. sp. Watheroo (P4) is a low to prostrate sprawling shrub, 30–60 cm high, to 0.6–0.7 m wide (**Photo 6.33**). This taxon has glabrous, glossy-green foliage with red flowers and red lines on throat. It occurs on plains and flats with grey or yellow sand over laterite. This taxon is not listed under the EPBC Act or BC Act, but it is classified as priority four by DBCA (2024c). *H.* sp. Watheroo (P4) occurs over a range of approximately 84 km from Lesueur National Park to 10 km southwest of Three Springs. There are 50 records of this taxon in the WA Herbarium database, representing approximately 17 regional populations, six of which are in DBCA conservation estates (Alexander Morrison National Park, Lesueur National Park, Wandoo National Park). The Reconnaissance FVSA is located west of the known range of this taxon with the nearest known record approximately 9.5 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.33 *Hemiandra* sp. Watheroo (P4) branchlet, leaves and flowers

H. sp. Watheroo (P4) was recorded at 18 locations (30 individuals (**Table 6.1**)) in the Reconnaissance FVSA, six locations (nine individuals) of which are in the Targeted FVSA. It was recorded on sandy slopes and rocky upper slopes within VTs HM and SEB (**Figure 6.2**; **Appendix E**).

6.2.2.31 Hensmania stoniella (P3)

Hensmania stoniella (P3) is a low to prostrate clumping perennial herb, 10–20 cm high, 25 cm wide (**Photo 6.34**). It occurs on flats and slopes on lowland plains with white sand over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but it is classified as priority three by DBCA (2024c). *H. stoniella* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 178 km from Regans Ford to Yardanogo. There are 47 records of this taxon in the WA Herbarium database, representing approximately 41 regional populations, 11 of which are in DBCA conservation estates (Badgingarra National Park, Drovers Cave National Park, Lesueur National Park, South Eneabba Nature Reserve, Alexander Morrison National Park, Pinjarrega Nature Reserve, Watheroo National Park). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium records of this taxon within the Reconnaissance FVSA (DBCA, 2024c).

Photo 6.34 *Hensmania stoniella* (P3) habit and flowers

H. stoniella (P3) was recorded at 10 locations (17 individuals (**Table 6.1**)) in the Reconnaissance FVSA with an additional one location (one individual) recorded just outside the boundary. Four locations (nine individuals) occur within the Targeted FVSA. It was recorded grey sands on plains and slopes within VTs SEB including on the edge of this VT with cleared areas (**Figure 6.2**; **Appendix E**).

6.2.2.32 Hibbertia subglabra (P3)

Hibbertia subglabra (P3) is a spreading shrub, to 0.5 m high shrub with yellow flowers **(Photo 6.35**) It occurs on slopes of hills with grey or white sand and lateritic gravel (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *H. subglabra (P3)* is endemic to WA (ALA, 2024), occurring over a range of approximately 140 km from southeast of Three Springs to Mogumber. There are 11 records of this taxon in the WA Herbarium database, representing approximately 9 regional populations, 3 of which are within DBCA conservation estate (Coomallo Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest herbarium record being 8 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.35 *Hibbertia subglabra* (P3) specimen

H. subglabra (P3) was recorded at two locations (five individuals (**Table 6.1**)) in the Reconnaissance FVSA, all of which occur within the Targeted FVSA. It was recorded on slopes lateritic gravel over grey sand within VT HH (**Figure 6.1; Appendix E**).

6.2.2.33 Hibbertia subvillosa (P3)

Hibbertia subvillosa (P3) is an erect to sprawling, spindly openly branching shrub, to 1 m high, with yellow flowers (**Photo 6.36**), occurring on hillsides, midslopes with dry grey, brown or white sand or loam over rock or laterite sandy creek beds, with heavier soils that *H. striata*, and often disturbed sites (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *H. subvillosa (P3)* is endemic to WA (ALA, 2024), occurring over a range of approximately 200 km from Mingenew to Mogumber. There are 65 records of this taxon in the WA Herbarium database, representing approximately 47 regional populations, 8 of which are within DBCA conservation estate (Kokeby Reserve, Wallaby Hills Nature Reserve, Goldfields Nature Reserve, Boothendarra Hill Reserve, Wognan Hills Flora Reserve, Tathra National Park). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest herbarium record being 8 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.36 *Hibbertia subvillosa* (P3)

H. subvillosa (P3) was recorded at 15 locations (117 individuals (**Table 6.1**)) in the Reconnaissance FVSA, all of which also fall in the Targeted FVSA. It was recorded in clay loams with laterite pebbles and rocky slopes within VTs, CS, HH, and HM (**Figure 6.1; Appendix E**).

6.2.2.34 Hypolaena robusta (P4)

Hypolaena robusta (P4) is a rhizomatous perennial dioecious herb, 0.3–0.5 m high (**Photo 6.37**). It occurs in gullies on dark orange brown sandy loam or sandplains with grey sand with laterite gravel (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority four by DBCA (2024c). *H. robusta* (P4) is endemic to WA (ALA, 2024), occurring over a range of approximately 71 km from Ellenbrook to Beermullah, 86.5 km from Cataby to South Eneabba and scattered records in Southwest WA in Collie, Boallia and Shire of Augusta Margaret River. There are 48 records of this taxon in the WA Herbarium database, representing approximately 31 regional populations, 11 of which are within DBCA conservation estates (Boallia Nature Reserve, Boonanarring Nature Reserve, Badgingarra Conservation Park, Coomallo Nature Reserve, Lesueur National Park). The Reconnaissance FVSA is located north of the known range of this taxon, with the nearest herbarium record being found 8.5 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.37 *Hypolaena robusta* (P4) specimen

H. robusta (P4) was recorded at nine locations (10 individuals (**Table 6.1**)) in the Reconnaissance FVSA, four locations (five individuals) are in the Targeted FVSA. It was recorded on grey sands on plains and slopes within VT SEB.

6.2.2.35 Petrophile septemfida (P3)

Petrophile septemfida (P3) is an erect, compact shrub 0.8 m high and 0.8 m wide (**Photo 6.38**). It occurs on dry white or grey sand with laterite fragments (WA Herbarium, 1998-). This taxon is not listed under the EPBC or BC Act but it is classified as priority three by DBCA (2024c). *P. septemfida* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 72 km from Boothendarra Nature Reserve to Wotto Nature Reserve. There are 18 records of this taxon in the WA Herbarium database, representing approximately 16 regional populations, 5 of which are within DBCA conservation estates (Boothendarra Nature Reserve, Pinjarrega Nature Reserve, Tathra National Park, Wotto Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest herbarium record being found 2 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.38 *Petrophile septemfida* (P3) specimen

P. septemifida (P4) was recorded at two locations (four individuals (**Table 6.1**)) in the Reconnaissance FVSA, one location (3 individuals) are in the Targeted FVSA. It was recorded on grey sands on plains and slopes within VT SEB.

6.2.2.36 Phlebocarya pilosissima subsp. pilosissima (P3)

Phlebocarya pilosissima subsp. pilosissima (P3) is a shortly rhizomatous, tufted perennial, grass-like or herb, 0.15–0.4 m high with cream-white flowers (**Photo 6.39**). It occurs on slopes with sand over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC or BC Act but it is classified as priority three by DBCA (2024c). *P. pilosissima subsp. pilosissima* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 250 km from south of Perth to Tathra nature reserve. There are 57 records of *P. pilosissima subsp. pilosissima* (P3) in the WA Herbarium database, representing approximately 45 regional populations, 9 of which are within DBCA conservation estates (Badgingarra National Park, Alexander Morrison National Park, Tathra National Park, Leseur National Park, Bibby Road Reserve, Nambung National Park). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium records of this taxon within the Reconnaissance FVSA (WA Herbarium, 1998-)

Photo 6.39 ***Phlebocarya pilosissima* subsp*. pilosissima* (P3) specimen**

P. pilosissima subsp. *pilosissima* (P3) was recorded at one location (one individual (**Table 6.1**)) in the Reconnaissance FVSA, which also falls within the Targeted FVSA. It was recorded on the edge of VT SEB with the cleared road shoulder. VT SEB would be considered its preferred habitat.

6.2.2.37 Poranthera asybosca (P1)

Poranthera asybosca (P1) is an erect, annual herb 0.2 cm high with yellow, green flowers **(Photo 6.40**). It occurs on white or grey sandy soil (WA Herbarium, 1998-). This taxon is not listed under the EPBC or BC Act but it is classified as priority one by DBCA (2024c). *P. asybosca* (P1) is endemic to WA (ALA, 2024), occurring over a range of approximately 100 km from Wongonderrah Nature Reserve to Beekeeper Reserve. There are two records of *P. asybosca* (P1) in the WA Herbarium database, representing two regional populations, both of which are within DBCA conservation estates (Wongonderrah Nature Reserve, Beekeeper Reserve). The Reconnaissance FVSA is located within the known range of this taxon, though no WA Herbarium records are known from within a 18 km radius of the Reconnaissance FVSA.

Photo 6.40 *Poranthera asybosca* (P1) habit, flower buds

P. asybosca (P1) was recorded at 26 locations (536 individuals (**Table 6.1**)) in the Reconnaissance FVSA, 13 locations (374 individuals) of which are within the Targeted FVSA. It was recorded primarily on sandy soils of plains and slopes within VTs HH and SEB including on the edges of these VTs with disturbed or cleared areas (**Figure 6.2**; **Appendix E**).

6.2.2.38 Schoenus griffinianus (P4)

Schoenus griffinianus (P4) is a small, perennial, herbaceous sedge growing to 0.1 m high (**Photo 6.41**). It occurs on undulating sandplains, lower slopes, flats and depressions with grey sand (WA Herbarium 1998-). It has a range of approximately 600 km in WA however most of the records occur over a range of 370 km from south-east of Geraldton in the north to east of Perth with one isolated record in Tarin Rock Nature Reserve. This taxon is known from 45 records on DBCA databases, 6 of which occur within DBCA conservation tenure (Tarin rock Nature Reserve, Moore River National Park, Fynes Nature Reserve, Yardanogo nature Reserve, Melaleuca Park conservation area) (WA Herbarium 1998-). The Reconnaissance FVSA is located within the known range of this taxon, with the nearest herbarium record being found 0.2 km from the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.41 *Schoenus griffinianus* (P4) habit

Schoenus griffinianus (P4) was recorded at 162 locations (607 individuals (**Table 6.1**)) in the Reconnaissance FVSA with four locations (15 individuals) recorded just outside the boundary. 103 locations (355 individuals) are within the Targeted FVSA. It was recorded in grey or yellow sandy soils and on rocky slopes within VTs HH, HM, SBP, and SEB, particularly on the border of these VTs with cleared or disturbed areas (**Figure 6.2**; **Appendix E**).

6.2.2.39 Stylidium nonscandens (P3)

Stylidium nonscandens (P3) is a erect perennial herb, 0.18–0.46 m high (**Photo 6.42**). It occurs on sand over laterite, hillslopes and crests (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *S. nonscandens* (P3) is endemic to WA (ALA, 2024), occurring over a range of approximately 160 km from Mogumber to east of Coorow. There are 39 records of *S. nonscandens (P3)* in the WA Herbarium database, representing approximately 26 regional populations, 16 of which are within DBCA conservation estates (Badgingarra National Park, Alexander Morrison National Park, Coomallo Nature Reserve, Moore River National Park). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium records of this taxon within the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.42 *Stylidium nonscandens* (P3) specimen

S. nonscandens (P3) was recorded at 72 locations (411 individuals (**Table 6.1**)) in the Reconnaissance FVSA with an additional two locations (six individuals). 26 locations (162 individuals) are in in the Targeted FVSA. It was recorded in grey sands on plains and slopes within VT SEB (**Figure 6.2**; **Appendix E**).

6.2.2.40 Stylidium torticarpum (P3)

S. torticarpum (P3) is a caespitose herb, 0.12–0.27 m high, 0.6–1.5 mm wide with pink flowers (**Photo 6.43**). It occurs adjacent to drainage lines, depressions, and beneath breakaways, heath or mallee shrubland on sandy clay or clay loam over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority three by DBCA (2024c). *S. torticarpum (P3)* is endemic to WA (ALA, 2024), occurring over a range of approximately 200 km from North of Dandaragan to south east of Geraldton and two populations south of Kalbarri National Park. There are 51 records of this taxon in the WA Herbarium database, representing approximately 41 regional populations, 10 of which are within DBCA conservation estates (Wotto Nature Reserve, White Gums Nature Reserve, Coomallo nature reserve, Lesueur National Park, Dookanooka Nature Reserve, Lesueur National Park, Rocky springs Nature Reserve, South Eneabba Nature Reserve). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium records of this taxon within the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.43 *Stylidium torticarpum* (P3) branchlet, flowers

S. torticarpum P3 was recorded at 18 locations (303 individuals (**Table 6.1**)) in the Reconnaissance FVSA and three locations (164 individuals) in the Targeted FVSA. It was recorded in sandy soils and clay loam with lateritic pebbles within VTs CS, HH, and SEB (**Figure 6.2**; **Appendix E**).

6.2.2.41 Styphelia pallens (P2)

S. pallens (P2) is a low perennial shrub, up to 0.5 high and 0.5 cm wide, with yellow, green or white flowers (**Photo 6.44**). It occurs high in the landscape in sand or light loam over laterite, heath or mallee shrubland on sandy clay or clay loam over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority two by DBCA (2024c). *S. pallens* (P2) is endemic to WA (ALA, 2024), occurring over a range of approximately 15 km from Tathra National Park to Wotto Nature Reserve. There are 14 records of *S. pallens* (P2) in the WA Herbarium database, representing approximately 9 regional populations, 8 of which are within DBCA conservation estates (Wotto Nature Reserve, Tathra National Park). The Reconnaissance FVSA is located within the known range of this taxon, with WA Herbarium records of this taxon within the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.44 *Styphelia pallens* (P2) branchlet, leaves, flowers

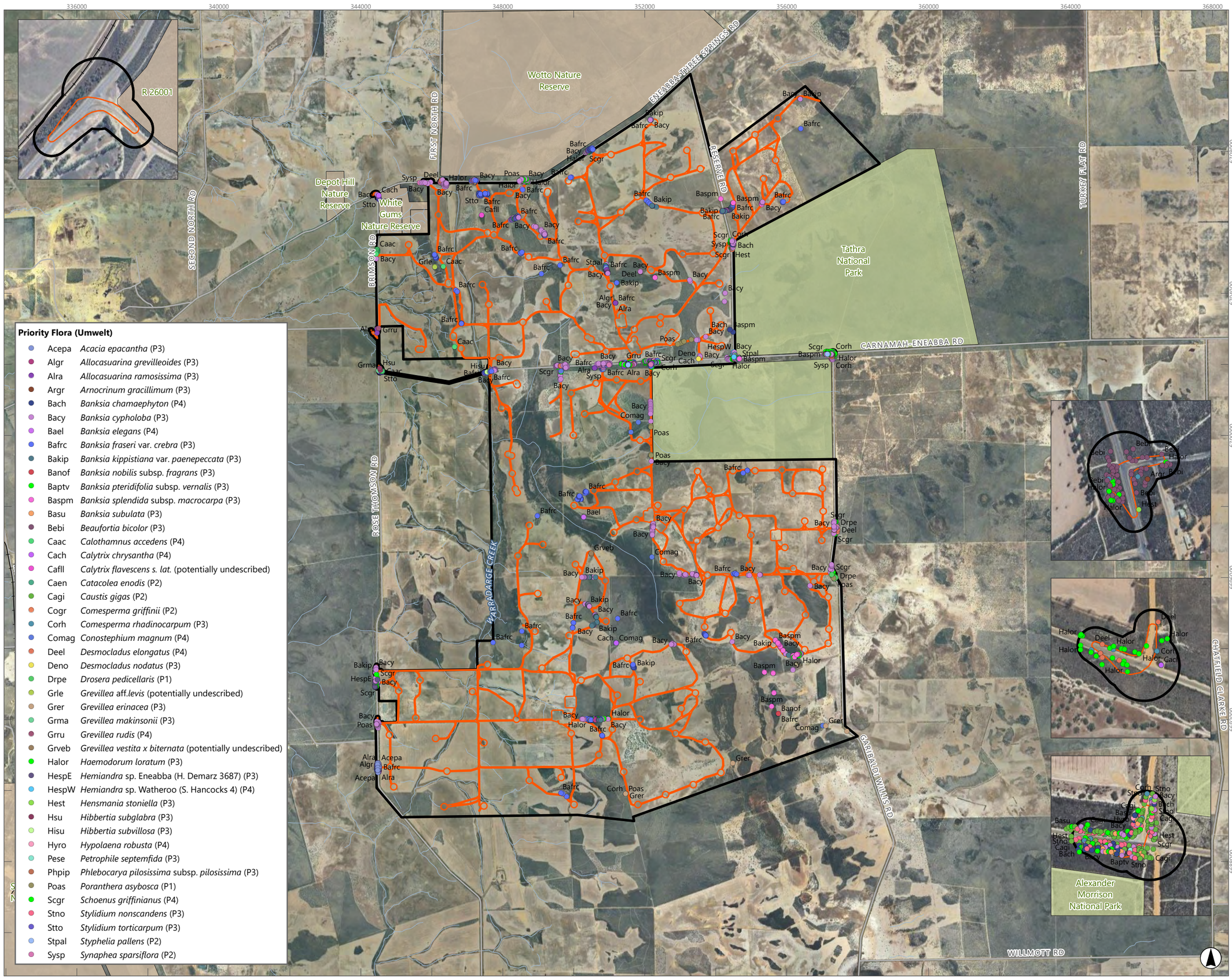
Styphelia pallens (P2) was recorded at 51 locations (115 individuals (**Table 6.1**)) in the Reconnaissance FVSA with one additional location (five individuals) just outside the boundary. 31 locations (80 individuals) are in the Targeted FVSA. It was recorded in orange or brown clay loams and on rocky slopes within VTs AS, HH, HM, and SEB (**Figure 6.2**; **Appendix E**).

6.2.2.42 Synaphea sparsiflora (P2)

Synaphea sparsiflora (P2) is to 0.6 m high and 1 m wide shrub with yellow flowers (**Photo 6.45**), occurring on sandy loam over laterite (WA Herbarium, 1998-). This taxon is not listed under the EPBC Act or BC Act but is classified as priority two by DBCA (2024c). *S. sparsiflora* (P2) is endemic to WA (ALA, 2024), occurring over a range of approximately 180 km from south of Mingenew to north of Mogumber. There are 17 records of this taxon in the WA Herbarium database, representing approximately 10 regional populations, none of which are within DBCA conservation estate. The Reconnaissance FVSA is located within the known range of this taxon, with two herbarium records within the Reconnaissance FVSA (WA Herbarium, 1998-).

Photo 6.45 *Synaphea sparsiflora* (P2) specimen

S. sparsiflora (P2) was recorded at 60 locations (177 individuals (**Table 6.1**) in the Reconnaissance FVSA with an additional two locations (two individuals) just outside the boundary. 32 locations (79 individuals) of which in the Targeted FVSA. It was recorded in sandy soils on slopes and hills often with lateritic gravel and stones within VTs AS, HH, HM, and SEB (**Figure 6.2; Appendix E**).



Priority Flora (Umwelt)

- Acepa *Acacia epacantha* (P3)
- Algr *Allocasuarina grevilleoides* (P3)
- Alra *Allocasuarina ramosissima* (P3)
- Argr *Arnocrinum gracillimum* (P3)
- Bach *Banksia chamaephyton* (P4)
- Bacy *Banksia cypholoba* (P3)
- Bael *Banksia elegans* (P4)
- Bafrc *Banksia fraseri* var. *crebra* (P3)
- Bakip *Banksia kippistiana* var. *paenepeccata* (P3)
- Banof *Banksia nobilis* subsp. *fragrans* (P3)
- Baptv *Banksia pteridifolia* subsp. *vernalis* (P3)
- Baspm *Banksia splendida* subsp. *macrocarpa* (P3)
- Basu *Banksia subulata* (P3)
- Bebi *Beaufortia bicolor* (P3)
- Caac *Calothamnus accedens* (P4)
- Cach *Calytrix chrysantha* (P4)
- Cafll *Calytrix flavescens s. lat.* (potentially undescribed)
- Caen *Catacolea enodis* (P2)
- Cagi *Caustis gigas* (P2)
- Cogr *Comesperma griffinii* (P2)
- Corh *Comesperma rhadinocarpum* (P3)
- Comag *Conostephium magnum* (P4)
- Deel *Desmocladus elongatus* (P4)
- Deno *Desmocladus nodatus* (P3)
- Drpe *Drosera pedicellaris* (P1)
- Grle *Grevillea* aff.*levis* (potentially undescribed)
- Grer *Grevillea erinacea* (P3)
- Grma *Grevillea makinsonii* (P3)
- Grru *Grevillea rudis* (P4)
- Grveb *Grevillea vestita x biternata* (potentially undescribed)
- Halor *Haemodorum loratum* (P3)
- HespE *Hemiandra* sp. Eneabba (H. Demarz 3687) (P3)
- HespW *Hemiandra* sp. Watheroo (S. Hancocks 4) (P4)
- Hest *Hensmania stoniella* (P3)
- Hsu *Hibbertia subglabra* (P3)
- Hisu *Hibbertia subvillosa* (P3)
- Hyro *Hypolaena robusta* (P4)
- Pese *Petrophile septemfida* (P3)
- Phpip *Phlebocarya pilosissima* subsp. *pilosissima* (P3)
- Poas *Poranthera asybosca* (P1)
- Scgr *Schoenus griffinianus* (P4)
- Stno *Stylidium nonscandens* (P3)
- Stto *Stylidium torticarpum* (P3)
- Stpal *Styphelia pallens* (P2)
- Sysp *Synaphea sparsiflora* (P2)

FIGURE 6.2

Priority Flora Records from Reconnaissance and Targeted Surveys – Overview

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse
- National Park
- Nature Reserve

0 2 4

Kilometres

Scale: 1:100,000 at A3
GDA2020 MGA Zone 50

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Image Source: ESRI Basemap (2023) | **Data Source:** Landgate (2024), SynergyRED (2024), Umwelt (2024)

6.2.3 Other Flora Taxa of Interest

6.2.3.1 *Calytrix flavescens* s. lat. (potentially undescribed)

As currently recognised *C. flavescens* almost certainly includes segregate taxa. A specimen collected during the June Reconnaissance survey (**Figure 6.2**) appears to be a particularly hairy variant of one of those. As and when it is recognised it is unlikely to warrant conservation ranking (M. Hislop, *pers. comm.* 2024), however it is considered significant for the reason of "new species or anomalous features that indicate a potential new species" (EPA, 2016a, p3).

6.2.3.2 *Grevillea* aff. *levis* (potentially undescribed)

One collection was made within the Reconnaissance FVSA (**Figure 6.2**) during the 2024 June Reconnaissance Survey of an entity which was initially identified as *Grevillea* sp.. This specimen was sent to the WA Herbarium for identification and was examined by Peter Olde; a taxonomist specialising in the *Grevillea* genus, and currently working on the systematics of several taxonomically unresolved species of *Grevillea*. Peter identified this entity as belonging in *Grevillea levis* but advised that this group will likely be recognised as a new species. (P. Olde *pers. comm*. 2024), and as such, is referred to as *Grevillea* aff. *levis* in this report. Based on the distribution of this group (range from west of Kalgoorlie to east of Kalbarri, it seems unlikely to have conservation implications (M. Hislop *pers. comm*. 2024) however it is considered significant for the reason of "new species or anomalous features that indicate a potential new species" (EPA, 2016a, p3).

6.2.3.3 Grevillea vestita x biternata (Grevillea aff. stenogyne) (potentially undescribed)

Two collections were made within the Reconnaissance FVSA (**Figure 6.2**) during the 2024 October Targeted Survey of an entity which matched specimens within the WA herbarium collection designated *Grevillea* aff. *stenogyne* (potentially undescribed). Inspection of further specimens within the WA Herbarium collection and subsequent discussions with WA herbarium experts, concluded that this entity is more likely a hybrid though it may yet be recognised as a distinct taxon and as such also has potential conservation significance (M. Hislop, *pers. comm.* 2025); it is considered significant for the reason of "new species or anomalous features that indicate a potential new species" (EPA, 2016a, p3).

6.2.3.4 Distribution Extensions and Distribution Gaps

Table 6.2 presents taxa where collections made within the Reconnaissance FVSA by the current survey represent extensions to the known distribution of such taxa, or otherwise fill gaps within their known distributions, according to FloraBase (WA Herbarium, 1998-).

A total of 23 native taxa and one naturalised taxon recorded by the current survey represent range extensions or fill gaps within the taxon's known distribution. Specimen material from these taxa will be lodged at the WA Herbarium by Umwelt as per the requirements of EPA (2016b), where such material is of sufficient quality.

Collections of taxa that are 'representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range)' can be considered significant taxa as per EPA (2016a, 2016b). Only one taxon listed in **Table 6.2** is considered to be significant taxa in this context, being *Desmocladus nodatus* (due to an 84 km range extension) however this taxon is already formally conservation listed (P3) and as such is already treated as significant in this report.

Table 6.2 Taxa Where Collections Represent Range Extensions or Fill Distribution Gaps

Taxon	Reason	Significant
Acacia barbinervis* subsp. *borealis	Range extension to the northeast (by ~20 km)	No
Acacia ulicina	Range extension to the west (by ~30 km)	No
Allocasuarina acuaria	Range extension to the west (by ~30 km)	No, widespread taxon, likely under surveyed/recorded.
Banksia armata* var. *ignicida	Range extension to the north-west by 46 km	No, despite the distance this is a widespread taxon. Likely under survey/recorded due to similarity with other variety.
***Banksia elegans* (P4)**	Locality hole (nearest record is 18 km to the west)	No
***Banksia kippistiana var. paenepeccata* (P3)**	Range extension to the northeast (18 km)	No
Banksia stenoprion	Range extension to the northeast (by ca.20 km)	No
***Calothamnus accedens* (P4)**	Locality hole (nearest record is 20 km to the north)	No
Casuarina obesa	Locality hole (nearest record is 26 km to the west)	No
***Comesperma griffinii* (P2)**	Locality hole (nearest record is 20 km to the west)	No
***Comesperma rhadinocarpum* (P3)**	Range extension to the east (by ca. 20 km)	No
****Corynephorus fasciculatus***	Range extension to the north (by ca. 120 km)	No (introduced taxon)
Corynotheca micrantha	Locality hole (nearest record is 24 km to the south-west)	No
Crassula closiana	Locality hole (nearest record is ca.20 km to the south-west)	No
***Desmocladus nodatus* (P3)**	Range extension to the north by 84 km	**Yes, very disjunct, however already formally listed as conservation significant**
Gompholobium glutinosum	Range extension to the west by ca. 22 km	No
Gompholobium pungens	Locality hole (nearest record is 20 km to the west)	No
***Haemodorum loratum* (P3)**	Range extension to the east (ca. 25 km)	No
***Halgania* sp. Wongan Hills (K.F. Kenneally 2393)**	Locality hole (nearest records ca. 20 km to the south)	No
Jacksonia eremodendron	Range extension to the west (ca. 40 km)	No, widespread taxon, likely under surveyed/recorded.
Mesomelaena tetragona	Locality hole (nearest record is ca.20 km to the west)	No
***Poranthera asybosca* (P1)**	Range extension to the east (by >30 km)	No, cryptic and under surveyed
Regelia ciliata	Locality hole (nearest verifiable record is 55 km to the north-west)	No, widespread taxon, likely under surveyed/recorded.
Stenanthemum reissekii	Range extension to the north (by ca. 35 km)	No

6.2.4 Likelihood of Occurrence of Further Significant Flora

Appendix H presents an assessment of the likelihood of occurrence of significant taxa within the Reconnaissance FVSA. This list includes significant taxa identified as occurring (or potentially occurring) within the Desktop Study Area prior to survey (listed in **Appendix B**) as well two additional significant (potentially undescribed) taxa recorded by this survey (listed in **Table 6.1**). The assessment considered the known range of the taxon, if habitat is present in the Reconnaissance FVSA and proximity of known records to the Reconnaissance FVSA, when determining the potential for a taxon to occur in the Reconnaissance FVSA.

A total of 231 taxa have been assessed within **Appendix H** including 54 Threatened taxa, 174 Priority listed taxa and three potentially undescribed taxa. These likelihood categories are based on the criteria presented in **Table 3.5.**

Of the 231 taxa assessed, 49 taxa were recorded within the Reconnaissance FVSA by the 2024 surveys. Of the remaining 178 taxa, it is considered that 19 taxa are likely, 98 are possible and 70 taxa are unlikely to occur in the Reconnaissance FVSA.

Of the 231 taxa assessed, 39 taxa were recorded within the Targeted FVSA by the 2024 surveys. Of the remaining 192 taxa, all are considered unlikely to occur in the Targeted FVSA.

It is worth noting that 'suitable habitat' as used to inform the assessment has been determined using details recorded at known locations. However, for many of the taxa known from the general vicinity of the Reconnaissance FVSA, suitable habitat is difficult to define, as available habitat information is often vague or very broad and difficult to interpret. Therefore, a precautionary approach has been adopted when assessing whether suitable habitat for a species is present in the Reconnaissance FVSA.

6.3 Introduced Flora Taxa

Eight introduced flora taxa were recorded within the Reconnaissance FVSA during the 2024 surveys (**Table 6.3**). Of these, one (**Echium plantagineum* (Paterson's curse)) is a declared pest under the BAM Act (DPIRD 2022). None are WoNS (Weeds Australia 2022). **Table 6.3** lists location information and comments regarding the significance of these taxa, including ecological impact and invasiveness ratings for each introduced taxon under Ecological Impact and Invasiveness Ratings from the Department of Parks and Wildlife for the Midwest Region (DBCA 2014).

Two introduced flora taxa (**Echium plantaginium* and **Ursinia anthemoides*) recorded in the Reconnaissance FVSA by the 2024 surveys are rated as having 'High' ecological impact (**Table 6.3**). Taxa with this ecological impact rating are considered significant weeds capable of causing acute disruption of ecological processes, as well as dominating and/or significantly altering the vegetation structure, composition and function of ecosystems (DBCA 2014).

Five introduced flora taxa recorded in the Reconnaissance FVSA by the 2024 survey are rated as having 'Rapid' invasiveness in native vegetation (**Table 6.3**) (DBCA 2014). These taxa are typically disturbance opportunists and are relatively common around disturbance areas, and as well as along drainage lines and other areas of periodic inundation. Locations of introduced flora taxa are presented in **Appendix F**.

Table 6.3 Introduced Flora Taxa Recorded in the Reconnaissance FVSA

Taxon	Common Name	Number of Locations	Recorded in VT	Ecological Impact[1]	Invasiveness[1]
***Bromus madritensis**	Madrid Brome	1	SEB	Unknown	Slow
***Corynephorus fasciculatus**	Clubawn Grass	2	HH, SEB	-	-
***Echium plantagineum**	Paterson's Curse	5	HH, CS	High	Rapid
***Hypochaeris glabra**	Flatweed, Smooth Catsear	2	HH, SEB	Low	Rapid
***Pentameris airoides** subsp. *airoides*	False Hairgrass	1	HH	Unknown	Rapid
***Trifolium arvense** var. *arvense*	Hairsfoot Clover	1	SEB	Unknown	Moderate
***Ursinia anthemoides**	Ursinia	1	SEB	High	Rapid
***Wahlenbergia capensis**	Cape Bluebell	1	HH	Unknown	Rapid

[1]*Data from DBCA (2014)*

6.4 Vegetation of the Reconnaissance FVSA

A total of 12 VTs were described in the Reconnaissance FVSA by this survey via structural vegetation classification utilising relevé data and vegetation mapping notes. A total of 5,380 ha of remnant native vegetation, ranging in condition from Degraded to Excellent, was mapped within the Reconnaissance FVSA, representing 29% of its total area. **Table 6.4** presents a description of each of the VTs including location, area mapped, sample sites, significant flora recorded and a description of variation found within the VT. **Figure 6.3** presents an overview of the VT mapping of the Reconnaissance FVSA. Detailed VT mapping, including quadrat and relevé locations is presented in **Appendix E.**

In addition, due to the long history of disturbance within the Reconnaissance FVSA (primarily as a result of farming), five highly modified areas were described and mapped in the Reconnaissance FVSA including dams, isolated remnant trees over pasture, planted areas and cleared land. A total of 13,059 ha of Highly Modified Areas were mapped within the Reconnaissance FVSA, representing 71% of its total area. These are described in **Table 6.4** and presented on **Figure 6.3** and **Appendix E**.

Table 6.4 Summary of Vegetation Types Mapped in the Reconnaissance FVSA

	Description	Photo
Vegetation Types		
AS	**Description:** Sparse mid shrubland of *Allocasuarina campestris* over low sparse heathland of *Melaleuca aspalathoides* over open mid sedgeland of *Ecdeiocolea monostachya* on grey sand flats and slopes. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 69.94 ha (0.38%) **Sample Sites:** Releve TCR19 and nine vegetation mapping notes **Significant Flora Taxa:** *Acacia epacantha* (P3), A*llocasuarina grevilleoides* (P3), *Allocasuarina ramosissima* (P3), *Banksia cypholoba* (P3), *Banksia fraseri* var. *crebra* (P3), *Grevillea rudis* (P4), *Haemodorum loratum* (P3), *Styphelia pallens* (P2) and *Synaphea sparsiflora* (P2).	 Photo 6.46 Releve Site TCR19
CAM	**Description:** Low woodland of *Eucalyptus camaldulensis* subsp. *arida* over *Melaleuca rhaphiophylla, M. concreta*, and/or *Banksia menziesii* tall open shrubland over sparse sedgeland. Associated with wetland and drainage areas. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 83.75 ha (0.45%) **Sample Sites:** Releve TCR03 and seven vegetation mapping notes. **Significant Flora Taxa:** none recorded.	 Photo 6.47 Releve Site TCR03
CS	**Description:** Isolated *Callitris pyramidalis* and Eucalyptus *drummondii* over tall closed shrubland of *Calothamnus quadrifidus* subsp. *angustfolius*, *Banksia leptophylla* var. *leptophylla*, *Thryptomene mucronulata* and *Melaleuca ryeae* over isolated shrubs over sparse sedgeland. Associated with edges of drainage lines on white to brown sand or sandy clay loam. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA):** 154.47 ha (0.84%) **Sample Sites:** Releves TCR08, TCR09, TDR23, TDR27 and five vegetation mapping notes. **Significant Flora Taxa:** *Banksia cypholoba* (P3), *Banksia fraseri var. crebra (*P3), *Calytrix chrysantha* (P4), *Desmocladus nodatus* (P3), *Hibbertia subvillosa* (P3) and *Stylidium torticarpum* (P3).	 Photo 6.48 Releve Site TDR27

	Description	Photo
HH	**Description:** Sparse mid heathland of mixed *Allocasuarina* species over sparse low heath of mixed proteaceous species over low isolated sedges. Generally associated with lateritic slopes on white or grey sand, or orange or brown clay loam; with laterite pebbles. Notes: May have isolated *Eucalyptus drummondii* and/or *Eucalyptus todtiana.* **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 872.20 ha (4.73%) **Sample Sites:** Quadrat TMQ01, Releves TCR05, TCR06, TCR12, TCR13, TDR01, TDR06, TDR16, TDR28 and 89 vegetation mapping notes. **Significant Flora Taxa:** *Acacia epacantha* (P3), *Acacia wilsonii* (T), *Allocasuarina grevilleoides* (P3) *Allocasuarina ramosissima* (P3), *Banksia chamaephyton* (P4), *Banksia cypholoba* (P3), *Banksia fraseri* var. *crebra* (P3), *Banksia kippistiana* var. *paenepeccata* (P3), *Banksia splendida* subsp. *macrocarpa* (P3), *Calothamnus accedens* (P4), *Calytrix chrysantha* (P4), *Comesperma rhadinocarpum* (P3), *Daviesia speciosa* (T), *Desmocladus elongatus* (P4), *Grevillea erinacea* (P3), *Grevillea rudis* (P4), *Grevillea vestita* x *biternata* (potentially undescribed), *Haemodorum loratum* (P3), *Hibbertia subvillosa* (P3), *Poranthera asybosca* (P1), *Schoenus griffinianus* (P4), *Stylidium torticarpum* (P3), *Styphelia pallens* (P2) and *Synaphea sparsiflora* (P2)	 Photo 6.49 Releve Site TCR05
HM	**Description:** Low *Eucalyptus gittinsii* subsp. *illucida* annd/or *Eucalyptus drummondii* woodland over tall open shrubland of *Banksia armata* and/or *B. kippistiana* and *Petrophile shuttleworthiana* over isolated sedges. Associated with rocky upper slopes and crests on sandy clay loam with gravelly laterite. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 420.07 ha (2.28%) **Sample Sites:** Releves TCR17, TDR02, TDR12, TDR13, TDR17 and 49 vegetation mapping notes. **Significant Flora Taxa:** *Allocasuarina ramosissima* (P3), *Banksia cypholoba* (P3), *Banksia fraseri* var. *crebra* (P3), *Banksia kippistiana* var. *paenepeccata* (P3), *Banksia nobilis* subsp. *fragrans* (P3), *Banksia splendida* subsp. *macrocarpa* (P3), *Calytrix flavescens* (potentially undescribed), *Comesperma griffinii* (P2), *Comesperma rhadinocarpum* (P3), *Desmocladus elongatus* (P4), *Haemodorum loratum* (P3), *Hemiandra* sp. Watheroo (S. Hancocks 4) (P4), *Hibbertia subvillosa* (P3), *Schoenus griffinianus* (P4), *Styphelia pallens* (P2) and *Synaphea sparsiflora* (P2).	 Photo 6.50 Releve Site TCR17
PFE	**Description:** Low open woodland of *Eucalyptus accedens* and/or *Eucalyptus drummondii,* over tall open shrubland of *Banksia strictifolia and/*or *Banksia sessilis,* or with *Isopogon divergens* or *Melaleuca concreta,* over mixed low sparse understorey species. Associated with exposed ironstone bedrock and coarse fragments on red-brown clay loam or light clay plains or lower slopes, especially seasonally inundated areas. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 322.30 ha (1.75%) **Sample Sites:** Releves TCR15, TDR09 and 12 vegetation mapping notes. **Significant Flora Taxa:** none recorded.	 Photo 6.51 Releve Site TDR09

	Description	Photo
PM	**Description:** Tall shrubland of *Melaleuca acutifolia* and *Melaleuca concreta* over mixed low to mid sparse understorey shrubs. Occasionally with low woodland of *Eucalyptus diminuta*. Associated with seasonally inundated areas, mostly on red-brown light clay to clay loam soils, with exposed ironstone bedrock and coarse fragments. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 118.18 ha (0.64%) **Sample Sites:** Releves TCR14, TDR08 and three vegetation mapping notes. **Significant Flora Taxa:** *Banksia cypholoba* (P3)	 Photo 6.52 Releve Site TDR08
RC	**Description:** Sparse to open low *Eucalyptus* woodland of mixed mallee species, over tall shrubland to open shrubland of *Melaleuca concreta, M. marginata* and/or *M. tinkeri*, over *Lepidosperma* sparse sedgeland. Associated with rocky slopes and breakaways on clay. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 90.14 ha (0.49%) **Sample Sites:** Releves TCR16, TDR04, TDR22 and 10 vegetation mapping notes. **Significant Flora Taxa:** *Banksia fraseri* var. *crebra* (P3) and *Calothamnus accedens* (P4). **Variation:** The Eucalyptus species of the upper stratum vary, and include: *Eucalyptus accedens, Eucalyptus arachnaea* subsp*. arachnaea, Eucalyptus gittinsii* subsp*. illucida* and/or *Eucalyptus drummondii.*	 Photo 6.53 Releve Site TCR16 Photo 6.54 Releve Site TDR04

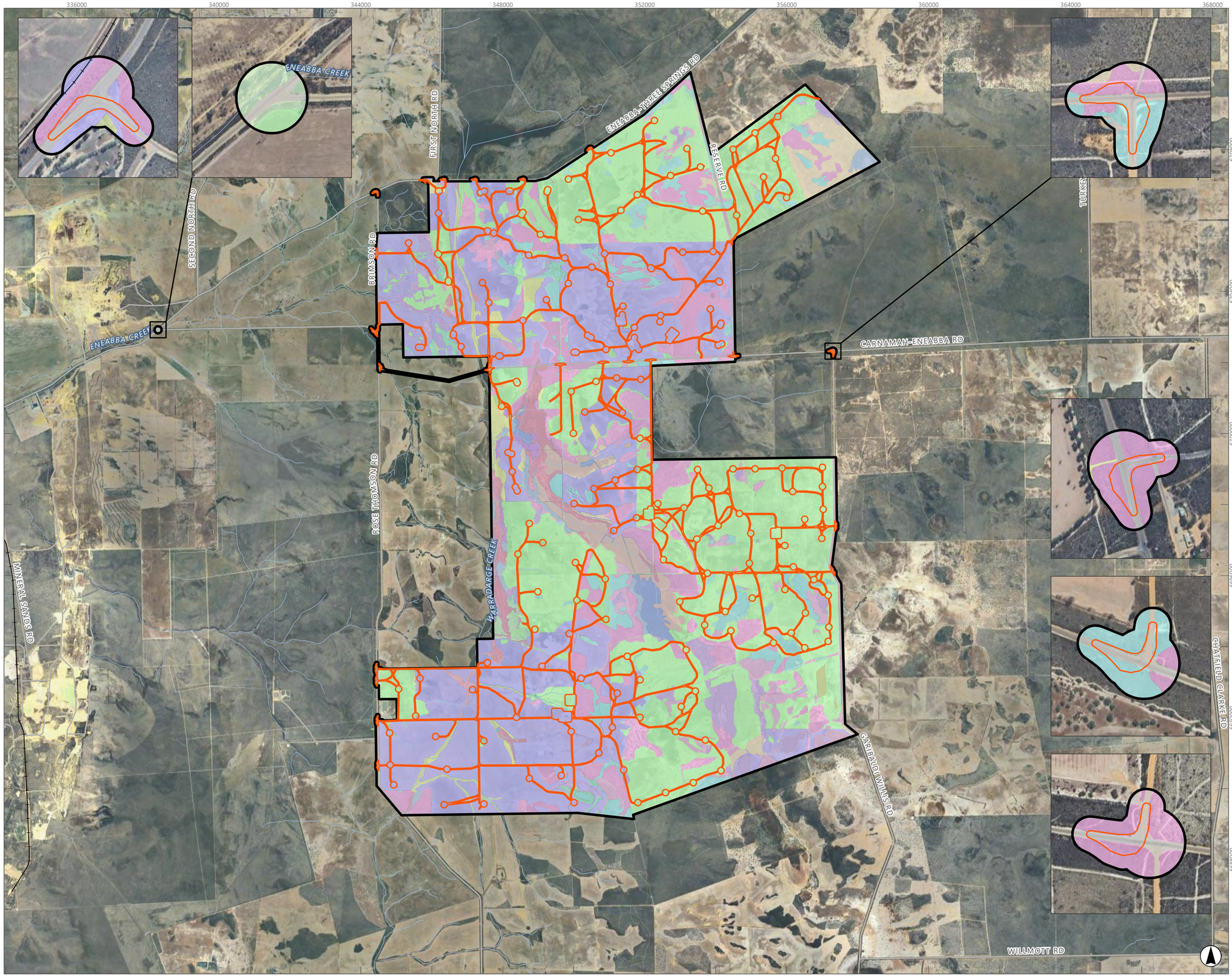
	Description	Photo
SAC	**Description:** Low open *Eucalyptus accedens* (occassionally with *E. loxophleba* subsp. *loxophleba*) woodland over sparse low to mid shrubland of proteaceous species, over sparse mid sedgeland of *Ecdeiocolea monostachya*. Associated with mid to lower slopes and flats on grey sand or light clay over laterite, or sandstone crests (see variation). **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 444.86 ha (2.41%) **Sample Sites:** Releves TCR10, TDR11, TDR14, TDR18, TDR21 and 28 vegetation mapping notes. **Significant Flora Taxa:** *Banksia fraseri* var. *crebra* (P3), *Grevillea* aff. *levis* (potentially undescribed) **Variation:** In the north west of the Reconnaissance FVSA there are areas (recorded using vegetation mapping notes only) of this VT in which *Eucalyptus loxophleba* is dominant or co-dominant; these occurrences were all in Degraded condition and appear to be associated with lower lying areas. Also in the north-west of the Reconnaissance FVSA there is an area (represented by TDR21) of this VT which occurs uniquely on sandstone, on a crest. This area was in only Good condition.	 Photo 6.55 Releve Site TDR18 Photo 6.56: Releve Site TDR21
SBP	**Description:** Low sparse woodland of *Xylomelum angustifolium, Banksia prionotes* and *Banksia attenuata* or *Eucalyptus todtiana* over mid sparse shrubland of *Banksia candolleana* or *Scholtzia laxiflora* over isolated low shrubs or sedges of mixed species. Associated with yellow sand. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 338.25 ha (1.83%) **Sample Sites:** Releves TDR15, TDR19, TDR25, TDR26 and 19 vegetation mapping notes. **Significant Flora Taxa:** *Banksia chamaephyton* (P4), *Banksia cypholoba* (P3), *Banksia elegans* (P4), *Grevillea erinacea* (P3), *Haemodorum loratum* (P3) and *Schoenus griffinianus* (P4)	 Photo 6.57 Releve Site TDR25

	Description	Photo
SEB	**Description:** Low sparse woodland of *Eucalyptus todtiana* and *Banksia* spp. over mid sparse shrubland of proteaceous and myrtaceous species, over low sparse sedgeland of *Mesomelaena pseudostygia* or *Ecdeiocolea monostachya.* Associated with white to grey sands on plains and low slopes. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 2,062.64 ha (11.18%) **Sample Sites:** Quadrat TMQ02, Releves TCR01, TCR04, TCR11, TDR03, TDR05, TDR07, TDR24, TDR29 and 140 vegetation mapping notes. **Significant Flora Taxa:** *Arnocrinum gracillimum* (P3), *Banksia chamaephyton* (P4), *Banksia cypholoba* (P3), *Banksia fraseri* var. *crebra* (P3), *Banksia kippistiana* var. *paenepeccata* (P3), *Banksia pteridifolia* subsp. *vernalis* (P3), *Banksia splendida* subsp. *macrocarpa* (P3), *Banksia subulate* (P3), *Beaufortia bicolor* (P3), *Calytrix chrysantha* (P4), *Catacolea enodis* (P2), *Caustis gigas* (P2), *Comesperma griffinii* (P2), *Comesperma rhadinocarpum* (P3), *Conostephium magnum* (P4), *Desmocladus elongatus* (P4), *Drosera pedicellaris* (P1), *Grevillea erinacea* (P3), *Grevillea rudis* (P4), *Grevillea vestita* x *biternata* (potentially undescribed), *Haemodorum loratum* (P3), *Hakea megalosperma* (T), *Hemiandra* sp. Eneabba (H. Demarz 3687) (P3), *Hemiandra* sp. Watheroo (S. Hancocks 4) (P4), *Hensmania stoniella* (P3), *Hypolaena robusta* (P4), *Paracaleana dixonii* (T), *Petrophile septemfida* (P3), *Poranthera asybosca* (P1), *Schoenus griffinianus* (P4), *Stylidium nonscandens* (P3), *Styphelia pallens* (P2) and *Synaphea sparsiflora* (P2). **Variation:** An area of this VT in the vicinity of the town of Eneabba, represented by TDR24, lacks *Eucalyptus todtiana* and contains *Eucalyptus pleurocarpa* in the upper stratum.	 Photo 6.58 Releve Site TDR07
WM	**Description:** Tall shrubland to closed shrubland of *Melaleuca concreta*, *M. viminea* subsp. *viminea* and *M. rhaphiophylla* over sparse to open shrubland of *Kunzea micrantha* subsp. *petiolata*, *Thryptomene mucronulata* and *Calytrix flavescens* over sparse sedgeland. Associated with wetland and drainage areas. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 402.76 ha (2.18%) **Sample Sites:** Releves TCR02, TCR07, TCR18, TDR10, TDR20 and 29 vegetation mapping notes **Significant Flora Taxa:** *Banksia fraseri* var. *crebra* (P3) **Variation:** A small area of this VT associated with a drainage line that runs north-south on the western side of the Reconnaissance FVSA (represented by TCR07) contains an additional upper stratum of low open woodland of *Casuarina obesa* above the *Melaleuca* tall shrubland. This area was in degraded condition and lacking the lower shrub and sedge understory.	 Photo 6.59 Releve Site TCR18 Photo 6.60 Releve Site TCR07

Highly Modified Areas			
DAM	**Description:** Dams, artificial water bodies. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 6.73 ha (0.04%)		
M1	**Description:** Mostly cleared, with isolated remnant trees over pasture. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 7,156.96 ha (38.81%)	 Photo 6.61 Remnant *Eucalyptus todtiana* over pasture	 Photo 6.62 Remnant *Eucalyptus drummondii* over pasture
M2	**Description:** Planted areas, including plantations, gardens, revegetated riparian areas, and tree-lined driveways. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 364.72 ha (1.98%)	 Photo 6.63 Revegetated riparian area	 Photo 6.64 Tree-lined driveway
M3	**Description:** Cleared land with no native vegetation including minor tracks and crop areas. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 5,435.23 ha (29.47%)		
CL	**Description:** Cleared land including bitumen roads and infrastructure. **Area (ha) and proportion (%) mapped in Reconnaissance FVSA:** 97.71 ha (0.53%)		

FIGURE 6.3

Vegetation Types of the Study Area – Overview



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse

Vegetation Type

- AS
- CAM
- CS
- HH
- HM
- PFE
- PM
- RC
- SAC
- SBP
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL

0 2 4

Kilometres

Scale: 1:100,000 at A3
GDA2020 MGA Zone 50

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Image Source: ESRI Basemap (2023) | **Data Source:** Landgate (2024), SynergyRED (2024), Umwelt (2024)

C:\Users\Jake.Reep\UMWELT (AUSTRALIA) PTY LTD\24316 - 03 SSKV\02 Projects\24816.R005.FloraBeacon.v5.aprx - 24316.R005.[002] VegType Overview SA_LEGEND_A4L

Vegetation Type

- AS Sparse mid heathland of *Allocasuarina campestris* over low sparse heathland of *Melaleuca aspalathoides* over open mid sedgeland of *Ecdeiocolea monostachya*. Associated with grey sand, lower on the landscape.
- CAM Low woodland of *Eucalyptus camaldulensis* subsp. *arida* over *Melaleuca rhaphiophylla, M. concreta*, and/or *Banksia menziesii* tall open shrubland over sparse sedgeland. Associated with wetland and drainage areas.
- CS Isolated *Callitris pyramidalis* and Eucalyptus *drummondii* over tall closed shrubland of *Calothamnus quadrifidus* subsp. *angustfolius*, *Banksia leptophylla* var. *leptophylla*, *Thryptomene mucronulata* and *Melaleuca ryeae* over isolated shrubs over sparse sedgeland. Associated with edges of drainage lines on white to brown sand or sandy clay loam.
- HH Sparse mid heathland of mixed *Allocasuarina* species over sparse low heath of mixed proteaceous species over low isolated sedges. Generally associated with slopes on white or grey sand, or orange or brown clay loam; with laterite pebbles. Notes: May have isolated *Eucalyptus drummondii* and/or *Eucalyptus todtiana*.
- HM Low *Eucalyptus gittinsii* subsp. *illucida* annd/or *Eucalyptus drummondii* woodland over tall open shrubland of *Banksia armata* and/or *B. kippistiana* and *Petrophile shuttleworthiana* over isolated sedges. Associated with rocky upper slopes and crests on sandy clay loam with gravelly laterite.
- PFE Low open woodland of *Eucalyptus accedens* and/or *Eucalyptus drummondii,* over tall open shrubland of *Banksia strictifolia and/*or *Banksia sessilis,* or with *Isopogon divergens* or *Melaleuca concreta,* over mixed low sparse understorey species. Associated with exposed ironstone bedrock and coarse fragments.
- PM Tall shrubland of *Melaleuca acutifolia* and *Melaleuca concreta* over mixed low to mid sparse understorey shrubs. Occasionally with low woodland of *Eucalyptus diminuta*. Associated with exposed ironstone bedrock and coarse fragments.
- RC Sparse to open low *Eucalyptus* woodland of mixed mallee species, over tall open shrubland of *Melaleuca concreta, M. marginata* and/or *M. tinkeri*, over *Lepidosperma* sparse sedgeland. Associated with rocky slopes and breakaways on clay. Notes: Eucalyptus species include: *Eucalyptus accedens, Eucalyptus arachnaea* subsp. *arachnaea, Eucalyptus gittinsii* subsp. *illucida, Eucalyptus drummondii*.
- SAC Low open *Eucalyptus accedens* (occassionally with *E. loxophleba* subsp. *loxophleba*) woodland over sparse low to mid shrubland of proteaceous species, over sparse mid sedgeland of *Ecdeiocolea monostachya*. Associated with mid to lower slopes and flats on grey sand.
- SBP Low sparse woodland of *Xylomelum angustifolium, Banksia prionotes* and *Banksia attenuata* or *Eucalyptus todtiana* over mid sparse shrubland of *Banksia candolleana* or *Scholtzia laxiflora* over isolated low shrubs or sedges of mixed species. Associated with yellow sand.
- SEB Low sparse woodland of *Eucalyptus todtiana* and *Banksia* spp. over mid sparse shrubland of proteaceous and myrtaceous species, over low sparse sedgeland of *Mesomelaena pseudostygia* or *Ecdeiocolea monostachya.* Associated with grey sands on plains and slopes.
- WM Tall shrubland to closed shrubland of *Melaleuca concreta*, *M. viminea* subsp. *viminea* and *M. raphiophylla* over sparse to open shrubland of *Kunzea micrantha* subsp. *petiolata*, *Thryptomene mucronulata* and *Calytrix flavescens* over sparse sedgeland. Associated with wetland and drainage areas.

Highly Modified Areas

- DAM Dams, artificial water bodies
- M1 Mostly cleared, with isolated remnant trees over pasture
- M2 Planted areas, including plantations, gardens, revegetation
- M3 Planted areas, including plantations, gardens, revegetation
- CL Cleared land including bitumen roads and infrastructure

FIGURE 6.3

LEGEND: Vegetation Types of the Study Area – Overview

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6.5 Significant Vegetation

6.5.1 Listed Significant Vegetation

As the assessment of the Reconnaissance FVSA was reconnaissance level, only broad vegetation types were mapped and described, with no detailed assessment or statistical analyses undertaken. Therefore, a preliminary qualitative assessment only has been undertaken; broad VTs have been described, mapped and assessed against descriptions of listed significant vegetation communities.

Of the seven formally listed significant communities identified during the desktop assessment (**Table 5.3**), two Threatened Ecological Communities (TECs) are considered to be present within the Reconnaissance FVSA:

- the 'Ferricrete floristic community (Rocky Springs type)' TEC, which potentially occurs within VTs 'PFE' and 'PM'; and
- the 'Assemblages of organic mound springs of the Three Springs' TEC., which potentially occurs within areas of VTs 'CAM' and/or 'WM'.

It is not intended that the mapped extent of these VTs be considered entirely representative of the TECs, rather that occurrences of the TECs may be present within them; the concept of a vegetation type is broader than that of either TEC. The mapped extents of these VTs, thus showing the area within which the TECs may occur, is present in **Figure 6.4**.

Occurrences of these two listed communities were already known from within the Reconnaissance FVSA (DBCA, 2024a). No additional listed communities have been identified within the Reconnaissance FVSA by this survey.

In addition to the known TEC locations (DBCA, 2024a), one additional area of permanently moist peat soil with *E. camaldulensis* was recorded approximately 1 km south of the two known locations, in the same wetland chain, in an area mapped as VT CAM. This area is likely a spring and considered representative of the Assemblages of organic mound springs of the Three Springs' TEC.

The buffer vegetation of this new mound spring location extends via a degraded *E. camaldulensis* creek line into a 0.24 ha intersecting area of the Targeted FVSA (**Photo 6.65**). Whilst this area is not itself a mound spring (lacking any peat soil in a raised mound or otherwise), or additional indicator taxa it would be considered part of the critical habitat buffer of the 'Assemblages of organic mound springs of the Three Springs' TEC due to proximity, connectivity of vegetation and connectivity of hydrological processes to the mound spring (**Table 6.5**).

It is worth noting that although the vegetation in this area of the creek line is in Degraded condition, including a well-used track (**Photo 6.65**), there are no condition or patch size thresholds for determination of this TEC; all known habitat is considered critical habitat and all occurrences are important (CALM, 2005).

No further occurrences of listed significant vegetation are considered to occur within the Targeted FVSA (**Table 6.5**).

Photo 6.65 Area of the 'Assemblages of organic mound springs of the Three Springs' TEC buffer vegetation within the Targeted FVSA

6.5.2 Likelihood of Occurrence of Further Listed Significant Vegetation

As discussed in **Section 5.3**, seven listed significant vegetation communities were identified as potentially occurring in the Desktop Study Area. Of these, two TECs are considered to occur in the Reconnaissance FVSA (**Section 6.5.1**). **Table 6.5** presents an assessment of the potential presence of the remaining five significant vegetation communities in the Reconnaissance FVSA. The assessed likelihood of further listed significant vegetation occurring within the Wind Farm Area or the Reconnaissance FVSA is Unlikely.

Table 6.5 Potential Presence of Significant Vegetation Communities in Intact Vegetation in the Reconnaissance FVSA

State Listed TEC/PEC	EPBC Listed TEC	Description and identification	Nearest Known Location	Potential Presence within the Reconnaissance FVSA	Potential Presence within the Targeted FVSA
Assemblages of the organic mound springs of the Three Springs area (CR)	Not listed	The habitat of this community is characterised by continuous discharge of groundwater in raised areas of peat. The peat and surrounds provide a stable, permanently moist series of micro-habitats. There is a high level of heterogeneity of invertebrate fauna assemblages between occurrences, and all are associated with a rich and healthy fauna. The vegetation component of the community contains many moisture loving species including an overstorey of *Melaleuca preissiana* trees. *Eucalyptus camaldulensis* and *Eucalyptus rudis* are also found in a number of the mound springs. The shrub layer often includes *Hypocalymma angustifolium* and *Acacia saligna* over *Machaerina vaginalis* and other sedges. The herbaceous *Patersonia occidentalis* (swamp variant) was recorded at several mound springs (CALM, 2005). Habitat considered critical to the survival of this community includes both the mound springs themselves and a surrounding vegetation buffer (though the extent of this buffer is undefined) as well as the hydrological catchment that feeds the mound springs (CALM, 2005).	Two buffer polygons (DBCA, 2024a) associated with the TEC are centred within the Reconnaissance FVSA. The buffer polygons are comprised of a 5 km radius surrounding potential polygons of approximately 50-150 m. The two polygons are in close proximity to each other in a wetland area. The buffer polygons do not represent the extent of the TEC.	**Present** Database results from DBCA (2024a) indicate two occurrences of this TEC just inside the western boundary. Approximate centrepoints of the buffered (5 km) data (DBCA, 2024a) point to two locations which were visited by this survey. One occurrence of the TEC is within a stand of *Eucalyptus camaldulensis* with *Melaleuca preissiana* (mapped as VT CAM by this survey) and a second approximately 1 km east within a grove of *M. preissiana* with an understory containing *Hypocalymma balbakiae* (previously *H. angustifolium*) which occurs within a densely vegetated area mapped as VT WM by this survey. One additional area of permanently moist peat soil with *E. camaldulensis* was recorded approximately 1 km south of the two known locations, in the same wetland chain in an area mapped as VT CAM. This area is likely a spring and considered representative of the TEC. Given that this TEC exists in very small extents it is possible there are further occurrences within the Reconnaissance FVSA; these would be expected to occur in VT WM or CAM and in the same wetland chain as the known locations. While *Eucalyptus camaldulensis* was recorded in a small number of locations, the characteristic taxa *Eucalyptus rudis*, *Melaleuca preissiana, Acacia saligna, Hypocalymma angustifolium* and *Machaerina vaginalis* were not recorded elsewhere (than the known TEC locations) by the current survey.	**Present – part of critical habitat buffer** One area of VT CAM (containing *Eucalyptus camaldulensis*) occurs in a minor creek line that intersects the Targeted FVSA near the western boundary. Whilst this area lacks peat substrate or indicator species other than *E. camaldulensis*, it would be considered the TEC under the critical habitat considerations of 'surrounding vegetation' and connectivity of hydrological processes; it is 300 m west of the new spring location recorded by this survey. Whilst the Targeted FVSA intersects areas of VT WM, which contain *Melaleuca* species, these areas are lacking *Melaleuca preissiana* or any other indicator taxa and also do not have a peat substrate.
Eucalypt Woodlands of the Western Australian Wheatbelt (P3)	Eucalypt Woodlands of the Western Australian Wheatbelt (CR)	The community occurs in the IBRA Avon Wheatbelt 1 and 2 and Western Mallee subregions. It also includes outlying patches in the eastern parts of JAF01 Northern Jarrah Forests and JAF02 Jarrah Forests adjacent to the Avon Wheatbelt, that are off the Darling Range, and receive less than 600 mm mean annual rainfall. The structure of the ecological community is a woodland in which the minimum crown cover of the tree canopy in a mature woodland is 10%. The key dominant or co-dominant species of the tree canopy are species of Eucalyptus trees that typically have a single trunk. Native understorey is present but is of variable composition, being a combination of grasses, other herbs and shrubs.	No known locations within the Desktop Study Area, however DCCEEW (2024) indicates that this TEC 'may occur within the Desktop Study Area'.	**Unlikely** Reconnaissance FVSA is not within the recognised Wheatbelt area. The Desktop Study Area extends 20 km further east towards the Wheatbelt; it is this eastern extent that overlaps with the Wheatbelt and where the TEC may occur, however the Reconnaissance FVSA itself is 13 km west of the Avon Wheatbelt Bioregion.	**Absent** Reconnaissance FVSA is not within the recognised Wheatbelt area. The Desktop Study Area extends 20 km further east towards the Wheatbelt; it is this eastern extent that overlaps with the Wheatbelt and where the TEC may occur, however the Targeted FVSA itself is 13 km from the Avon Wheatbelt Bioregion.

State Listed TEC/PEC	EPBC Listed TEC	Description and identification	Nearest Known Location	Potential Presence within the Reconnaissance FVSA	Potential Presence within the Targeted FVSA
Ferricrete Floristic Community (Rocky Springs Type) (CR)	Not listed	This tall shrubland is located on irregularly inundated red brown sandy loams over ferricrete dominated by *Acacia blakelyi*, *Allocasuarina campestris*, *Banksia strictifolia* and *Labichea lanceolata* subsp. *lanceolata*. Associated species include *Alyogyne hakeifolia*, *Borya sphaerocephala*, *Isotoma hypocrateriformis*, *Petrophile seminuda*, *Stylidium dichotomum*, *Thysanotus patersonii* and *Waitzia paniculata* (CALM, 2004).	Two buffer polygons (DBCA, 2024a) associated with this TEC are centred within the Reconnaissance FVSA. The buffer polygons are comprised of a 5 km radius surrounding potential polygons of approximately 800 m. The two polygons are in close proximity to each other in wetland area. The buffer polygon of another occurrence of this TEC is centred outside the Reconnaissance FVSA whilst the 5 km buffer extends into the Reconnaissance FVSA. The buffer polygons do not represent the extent of the TEC.	**Present** Database results from DBCA (2024a) indicate two occurrences of this TEC lies just inside the western boundary in an area mapped as VT PM. DBCA (2022) refers to comparison of key substrate characteristics, and associated assemblages to descriptions in key references. Areas of ferricrete or red-brown soils were recorded in intact vegetation of the Reconnaissance FVSA in association with VT PFE and VT PM. *Labichea lanceolata* subsp. *lanceolata* was not recorded in the Reconnaissance FVSA. The other dominant taxa *Acacia blakelyi*, *Allocasuarina campestris*, *Banksia strictifolia* were recorded in a small number of locations across multiple VTs and substrates. A full census of taxa in VTs PM and PFE was not conducted as part of the Reconnaissance level survey; it may conservatively be considered that areas of VTs PFE and PM may represent the TEC.	**Absent** Occurrences of this TEC are likely aligned to some of the areas mapped as VT PFE and PM. VT PFE does not occur within the Targeted FVSA. VT PM occurs in 0.1 ha of the Targeted FVSA – however this area is lacking both the ironstone and the red-brown substrate of the TEC.
Lesueur-Coomallo Floristic Community A1.2 (EN)	Not Listed	Species-rich heath with emergent *Hakea obliqua*[1] on sand with faithful species *of Hakea obliqua* and *Beaufortia elegans* and constant species of *Dasypogon bromeliifolius* and *Stirlingia latifolia* over well-drained grey sand over pale yellow sand on lateritic uplands. Associated species include *Allocasuarina humilis*, *Calothamnus sanguineous*, *Hibbertia hypericoides*, *Hypocalymma xanthopetalum* and *Schoenus subflavus* (CALM, 2002a). According to DBCA (2022), this community is known from a single location in the Lesueur area. The community is strongly associated with the Banovich Upland landform and soil distribution, and is characterised by old undulating lateritic slopes and a distinctive sand heath (DBCA, 2022).	An occurrence of this TEC is known from 13.6 km south west of the Warradarge (Brand Hwy and Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 30.4 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.	**Unlikely** DBCA (2022) refers to comparison of substrate and habitat, and associated distinctive assemblage, with summary description and description in key references. Whilst the faithful species *Hakea psilorrhynca*, *Beaufortia elegans* (in VTs SEB, SBP and HH) and *Dasypogon bromeliifolius* were recorded within the Reconnaissance FVSA these species are generally common and widespread in the Lesueur Sandplain IBRA subregion where lateritic gravelly soils occur. This TEC was described by a study that focused specifically on the Mount Lesueur area; it is considered unlikely to occur in the Reconnaissance FVSA primarily because it is considered inappropriate to compare vegetation outside the area sampled by that study via a qualitative comparison. Additionally, the Banovich Uplands, the landform with which this TEC is strongly associated, does not occur within the Reconnaissance FVSA. The Warradarge intersection area, which is nearest the TEC, is mapped as VT SEB with records of *Hakea psilorrhynca* and *Dasypogon bromelifolius*. However the substrate in this area was recorded as grey sandy loam on a very gently inclined slope, notably lacking any rocks.	**Absent** Not considered present within the Reconnaissance FVSA.

State Listed TEC/PEC	EPBC Listed TEC	Description and identification	Nearest Known Location	Potential Presence within the Reconnaissance FVSA	Potential Presence within the Targeted FVSA
Lesueur-Coomallo Floristic Community D1 (CR)	Not Listed	This community comprises a species-rich low heath, on moderately to well-drained lateritic gravels on lower slopes and low rises, dominated by *Allocasuarina microstachya* with *Allocasuarina ramosissima* (P3), *Allocasuarina humilis*, *Babingtonia grandiflora*, *Borya nitida*[2], *Calytrix flavescens*, *Calothamnus sanguineous*, *Conostylis androstemma*, *Cryptandra pungens*, *Banksia armata*, *Gastrolobium polystachyum*, *Hakea auriculata*, *Hakea incrassata*, *Hakea* aff. *Erinacea*[3], *Hibbertia hypericoides*, *Hypocalymma xanthopetalum*, *Melaleuca trichophylla*, *Petrophile chrysantha*, *Schoenus subflavus* and *Xanthorrhoea drummondii* (CALM, 2002b)	An occurrence of this TEC is known from 15.7 km south west of the Warradarge (Brand Hwy and Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 32.4 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.	**Unlikely** Although there are similarities between this TEC and VT 'HH', many of the species that are common to this TEC and VT 'HH' are generally common and widespread in the Lesueur Sandplain IBRA subregion where lateritic gravelly soils occur. This TEC was described by a study that focused specifically on the Mount Lesueur area; it is considered unlikely to occur in the Reconnaissance FVSA primarily because it is considered inappropriate to compare vegetation outside the area sampled by that study via a qualitative comparison. Additionally, the occurrence reported from immediately south of the proposed Wind Farm Area (by Biota, 2012) has not been recognised by the DBCA.	**Absent** Not considered present within the Reconnaissance FVSA.
Lesueur-Coomallo Floristic Community DFGH (P1)	Not Listed	Mixed species-rich heath on lateritic gravel with *Hakea erinacea*, *Melaleuca platycalyx* and *Petrophile seminuda*: a fine scale mixture of four floristically defined communities occurring on lateritic slopes (DBCA, 2021).	An occurrence of this TEC is known from 14.4 km south west of the Warradarge (Brand Hwy and Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 31.1 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.	**Unlikely** Of the three indicator taxa of this community, *Melaleuca platycalyx* was recorded within the Reconnaissance FVSA in VT PM which is associated with red clay-loam plains rather than the lateritic slopes associated with the PEC. *Hakea erinacea* was not recorded and the Reconnaissance FVSA occurs outside the known range of this taxon *Petrophile seminuda* was not recorded. This PEC was described by a study that focused specifically on the Mount Lesueur area; it is considered unlikely to occur in the Reconnaissance FVSA additionally because it is considered inappropriate to compare vegetation outside the area sampled by that study via a qualitative comparison.	**Absent** Not considered present within the Reconnaissance FVSA.
Lesueur-Coomallo Floristic Community M2 (*Melaleuca preissiana woodland*) (P1)	Not Listed	Woodland dominated by *Melaleuca preissiana* along sandy drainage lines, with faithful species of *Anigozanthos pulcherrimus* and constant species of *Chamaescilla corymbosa*, *Petrophile brevifolia* and *Xanthorrhoea reflexa*[4] (DBCA, 2021).	An occurrence of this TEC is known from 12.5 km south west of the Warradarge (Brand Hwy and Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 29.1 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.	**Unlikely** The dominant indicator taxon of this PEC *Melaleuca preissiana* was not recorded in the Reconnaissance FVSA, neither were *Anigozanthos pulcherrimus* and *Chamaescilla corymbosa*. While *Petrophile brevifolia* was recorded variously in intact vegetation the absence of *Melaleuca preissiana* is considered to exclude this vegetation community. This PEC was described by a study that focused specifically on the Mount Lesueur area; it is considered unlikely to occur in the Reconnaissance FVSA additionally because it is considered inappropriate to compare vegetation outside the area sampled by that study via a qualitative comparison.	**Absent** Not considered present within the Reconnaissance FVSA.

State Listed TEC/PEC	EPBC Listed TEC	Description and identification	Nearest Known Location	Potential Presence within the Reconnaissance FVSA	Potential Presence within the Targeted FVSA
***Petrophile chrysantha* low heath on Lesueur dissected uplands (Gp200-170) (P2)**	Not Listed	Low heath dominated by *Petrophile chrysantha* on Lesueur Dissected Uplands. Associated species include *Banksia armata* and *Hakea undulata* (DBCA, 2021).	An occurrence of this TEC is known from 13.2 km south west of the Warradarge (Brand Hwy and Coorow-Greenhead Rd) intersection area of the Reconnaissance FVSA, or 28.9 km south west of the Wind Farm area. There are no known occurrences of this TEC within the Reconnaissance FVSA.	**Unlikely** While *Petrophile chrysantha* and *Banksia armata* were recorded they occurred in areas with a mallee upper stratum. Hakea undulata not recorded by this survey. This PEC was described by a study that focused specifically on the Mount Lesueur area; it is considered unlikely to occur in the Reconnaissance FVSA additionally because it is considered inappropriate to compare vegetation outside the area sampled by that study via a qualitative comparison. Addionally, the Lesueur Dissected Uplands, the landform with which this PEC is associated, does not occur within the Reconnaissance FVSA.	**Absent** Not considered present within the Reconnaissance FVSA.

Community names in bold blue = TEC
Community names in light blue = PEC
CR = Critically Endangered; EN = Endangered
[1] Hakea obliqua has been split and renamed H. psilorrhynca in this area (Barker, 1990).
[2] Borya nitida is now known only from the South Coast region (WA Herbarium, 1998-). The entity referred to in this description is likely represented by either Borya scirpoidea or Borya sphaerocephala, neither of which was recorded in the Reconnaissance FVSA. Borya constricta, which was revised in 1984 (a few years before the vegetation survey that described this vegetation community), was previously known as Borya nitida var. sublanosa (Churchill, 1984), but this species is not known from the Lesueur area (WA Herbarium, 1998-).
[3] It is not clear what entity Hakea aff. erinacea represents; Hakea erinacea is known from the Lesueur area, including records in Lesueur National Park and in very close proximity to Coomallo Nature Reserve (WA Herbarium, 1998-), where the vegetation surveys that described this vegetation community were conducted.
[4] Xanthorrhoea reflexa is no longer current and could represent either X. drummondii or X. sp Lesueur.

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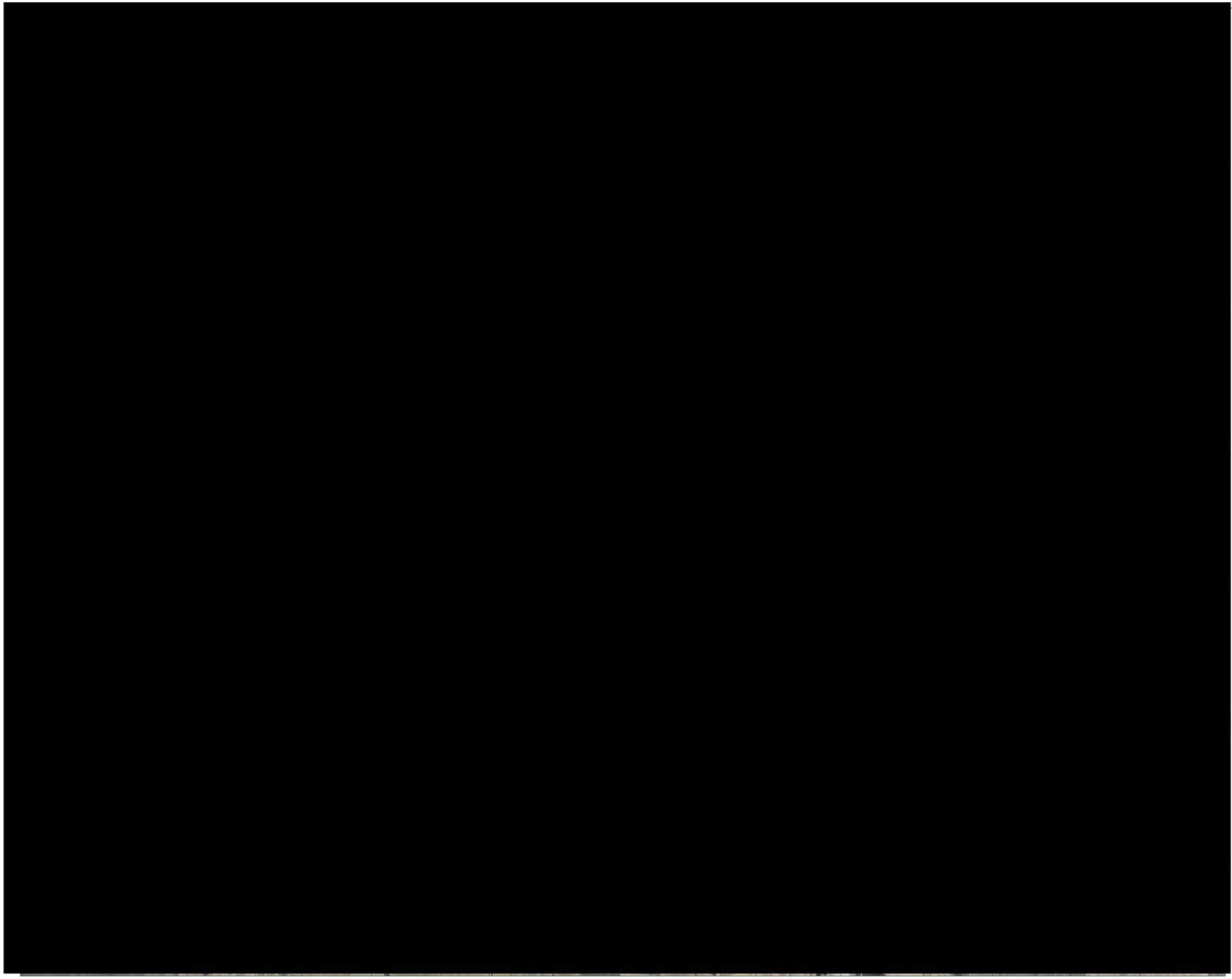
FIGURE 6.4

Vegetation Types Potentially Containing Areas of Threatened Ecological Communities



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse

Potential Threatened Ecology Community

- VT "PFE" – potentially containing areas of Ferricrete floristic community (Rocky Springs type) (TEC – CR)
- VT "PM" – potentially containing areas of Ferricrete floristic community (Rocky Springs type) (TEC – CR)
- VT "VM" – potentially containing areas of Assemblages of the organic mound springs of the Three Springs area (TEC)
- VT "VM" – potentially containing areas of Assemblages of the organic mound springs of the Three Springs area (TEC)

0 2 4

Kilometres

Scale: 1:100,000 at A3
GDA2020 MGA Zone 50

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6.5.3 Other significant vegetation

An assessment of the potential local and regional significance of VTs of the Reconnaissance FVSA is presented in **Table 6.6**. Also presented in **Table 6.6** is the mapped area of each VT in the Reconnaissance FVSA (presented as a proportion of the total area of the Reconnaissance FVSA).

All remaining intact vegetation can be considered significant due to its occurrence within an otherwise cleared landscape (71% of the Reconnaissance FVSA has been cleared of native vegetation). However, a local and regional assessment of significance has been conducted (**Table 6.6**) based on the percentage mapped of each VT and their distinguishing features including landscape and soil.

As discussed in **Section 6.5.1**, areas of VTs PFE and PM potentially align with the 'Ferricrete floristic community (Rocky Springs type)' TEC and thus are considered significant in a regional context. Similarly, VTs CAM and WM may align in areas with 'Assemblages of the organic mound springs of the Three Springs area' TEC - either as mound springs proper or as critical habitat (CALM, 2005) and thus are considered significant in a regional context.

An additional two VTs (VTs CS, RC) are considered potentially significant in a local and regional context for reasons other than formal listing (**Table 6.6**), as per EPA guidance (2016a, 2016b) (Section 3.10.2).

One VT (AS) is considered potentially significant in a local (but not regional) context, for reasons other than formal listing (**Table 6.6**), as per EPA guidance (2016a, 2016b) (Section 3.10.2).

Areas of Highly Modified Vegetation (DAM, M1, M2, M3 and CL) do not represent significant vegetation (neither formally listed nor significant for other reasons).

Table 6.6 Assessment of Potential Local and Regional Significance of VTs of the Reconnaissance FVSA

VT	Proportion (%) of Reconnaissance FVSA	Summary of Potential Significance	
		Local Context	Regional Context
AS	0.38	**Potentially significant in a local context** • Mapped in three small occurrences in the Reconnaissance FVSA; • Restricted extent (<0.5%) within the Reconnaissance FVSA; • However, mapped on soil and landform which is not restricted locally or regionally.	Not considered significant in a regional context • Landform type (grey sand flats and slopes) is not restricted regionally.
CAM	0.45	**Considered significant in a local context** • Areas of the State listed TEC 'Assemblages of organic mound springs of the Three Springs area' and critical habitat for, may occur within this VT; • Mapped in four areas of the Reconnaissance FVSA; • Restricted extent (<0.5%) within the Reconnaissance FVSA; • The vegetation provides an important function required to maintain ecological integrity of a drainage lines or wetland areas; and • Provides a role as a refuge.	**Considered significant in a regional context** • Areas of the State listed TEC 'Assemblages of organic mound springs of the Three Springs area' and critical habitat for, may occur within this VT; • Landform type is likely to be restricted regionally; • The vegetation provides an important function required to maintain ecological integrity of drainage lines or wetland areas; and • Provides a role as a refuge.
CS	0.84	**Potentially significant in a local context** • Mapped in 12 areas of the Reconnaissance FVSA • Restricted extent (<1%) within the Reconnaissance FVSA	**Potentially significant in a regional context** • Landform type (fringes and bordering floodplains of wetlands) is likely to be restricted regionally.
HH	4.73	Not considered significant in a local context • Mapped over many large occurrences throughout the Reconnaissance FVSA; • Does not occur on a restricted landform; and • Not restricted in the Reconnaissance FVSA.	Not considered significant in a regional context • Landform type is unlikely to be restricted regionally; • Aerial imagery indicates likely occurrences in Tathra National Park, Wotto Nature Reserve, and areas of intact vegetation to the west and south of the proposed Wind Farm Area.
HM	2.28	No considered significant in a local context • Mapped in many though small areas across the Reconnaissance FVSA; • Restricted extent within the Reconnaissance FVSA.	Not considered significant in a regional context • Landform type is unlikely to be restricted regionally.

VT	Proportion (%) of Reconnaissance FVSA	Summary of Potential Significance	
		Local Context	Regional Context
PFE	1.75	**Considered significant in a local context** • Potentially equivalent to the State listed TEC 'Ferricrete Floristic Community (Rocky Springs Type)'; • Mapped in two branches of a wetland that runs north-south and east-west through the centre of the Reconnaissance FVSA; • Occurs on a restricted landform and substrate (seasonally inundated red- brown clayey soils with exposed ironstone bedrock); • Restricted extent (<2%) within the Reconnaissance FVSA.	**Considered significant in a regional context** • Potentially equivalent to the State listed TEC 'Ferricrete Floristic Community (Rocky Springs Type)'; • Landform and substrate type is likely to be restricted regionally.
PM	0.64	**Considered significant in a local context** • Potentially equivalent to the State listed TEC 'Ferricrete Floristic Community (Rocky Springs Type)'; • Mapped in three areas within the Reconnaissance FVSA; • Occurs on a restricted landform and substrate (seasonally inundated red- brown clayey soils with exposed ironstone bedrock); • Restricted extent (<1%) within the Reconnaissance FVSA.	**Considered significant in a regional context** • Potentially equivalent to the State listed TEC 'Ferricrete Floristic Community (Rocky Springs Type)' • Landform and substrate type is likely to be restricted regionally.
RC	0.49	**Potentially significant in a local context** • Mapped in six localities within the Reconnaissance FVSA • Occurs on a restricted landform (lateritic slopes, ridges and breakaways on clay). • Restricted extent (<0.5%) within the Reconnaissance FVSA.	**Potentially significant in a regional context** • Landform type is likely to be restricted regionally, • However, aerial imagery indicates potential occurrences in Tathra National Park, Alexander Morrisson National Park, and areas of intact vegetation the west of the Reconnaissance FVSA.
SAC	2.41	Not considered significant in a local context • Mapped over many large occurrences throughout the Reconnaissance FVSA • Does not occur on a restricted landform • Not restricted in the Reconnaissance FVSA	Not considered significant in a regional context • Landform type is unlikely to be restricted regionally. • Aerial imagery indicates potential occurrences in Tathra National Park, Alexander Morrisson National Park, and areas of intact vegetation the south and west of the proposed Wind Farm Area

VT	Proportion (%) of Reconnaissance FVSA	Summary of Potential Significance	
		Local Context	Regional Context
SBP	1.83	No considered significant in a local context • Distribution across the Reconnaissance FVSA is restricted, except for the north eastern corner; • Restricted extent within Reconnaissance FVSA, however this VT extends into the vegetation immediately outside the boundary of the Reconnaissance FVSA - into Tathra National Park and intact vegetation to the south of the Wind Farm Area.	Not considered significant in a regional context • Landform has been subject to historical impact from threatening processes (conversion to farmland); • However, landform type is unlikely to be restricted regionally; • Aerial imagery indicates that this VT extends into Tathra National Park as a dominant vegetation type, and potential occurrences in intact vegetation to the south of the proposed Wind Farm Area.
SEB	11.18	Not considered significant in a local context • Mapped over many large occurrences in the Reconnaissance FVSA; • Does not occur on a restricted landform; and • Not restricted in the Reconnaissance FVSA.	Not considered significant in a regional context • Whilst the landform has been subject to historical impact from threatening processes (conversion to farmland); • Landform type is unlikely to be restricted regionally; and • Aerial imagery indicates that this VT likely extends into both Tathra National Park, Wotto Nature Reserve and areas of intact vegetation surrounding the Reconnaissance FVSA.
WM	2.18	**Considered significant in a local context** • Areas of the State listed TEC 'Assemblages of organic mound springs of the Three Springs area' and critical habitat for, may occur within this VT; • Occurs on wetter sites, some of which are potentially influenced by groundwater (notably those areas including *Melaleuca rhaphiophylla*); • However, the Degraded condition of the majority of this VT reduces potential for significance, where it is not considered an occurrence of the TEC.	**Considered significant in a regional context** • Areas of the State listed TEC 'Assemblages of organic mound springs of the Three Springs area' and critical habitat for, may occur within this VT; • Landform type is likely to be restricted regionally; • The vegetation provides an important function required to maintain ecological integrity of drainage lines and wetland areas; and • Provides a role as a refuge.

6.6 Wetlands and Groundwater Dependent Ecosystems / Vegetation

The following VTs mapped in the Reconnaissance FVSA occur in association with watercourses and/or wetlands:

- VT CAM: Low woodland of *Eucalyptus camaldulensis* subsp. *arida* over *Melaleuca rhaphiophylla, M. concreta,* and/or *Banksia menziesii* tall open shrubland over sparse sedgeland. Associated with wetland and drainage areas. An 'unclassified' potential aquatic GDE in BoM's (20017b) GDE Atlas (**Section 5.5.1.1**) is within this VT.

- VT CS: Isolated Callitris pyramidalis and Eucalyptus drummondii over tall closed shrubland of Calothamnus quadrifidus subsp. angustfolius, Banksia leptophylla var. leptophylla, Thryptomene mucronulata and Melaleuca ryeae over isolated shrubs over sparse sedgeland. Associated with edges of drainage lines on white to brown sand or sandy clay loam.

- VT PFE: Low open woodland of *Eucalyptus accedens* and/or *Eucalyptus drummondii,* over tall open shrubland of *Banksia strictifolia and/*or *Banksia sessilis,* or with *Isopogon divergens* or *Melaleuca concreta,* over mixed low sparse understorey species. Associated with exposed ironstone bedrock and coarse fragments on red-brown clay loam or light clay plains or lower slopes, especially seasonally inundated areas.

- VT PM: Tall shrubland of *Melaleuca acutifolia* and *Melaleuca concreta* over mixed low to mid sparse understorey shrubs. Occasionally with low woodland of *Eucalyptus diminuta*. Associated with seasonally inundated areas, mostly on red-brown light clay to clay loam soils, with exposed ironstone bedrock and coarse fragments.

- VT WM: Tall shrubland to closed shrubland of *Melaleuca concreta*, *M. viminea* subsp. *viminea* and *M. raphiophylla* over sparse to open shrubland of *Kunzea micrantha* subsp. *petiolata*, *Thryptomene mucronulata* and *Calytrix flavescens* over sparse sedgeland. Associated with wetland and drainage areas.

These communities are considered likely to be partially or totally dependent on surface water flow for survival. Some areas potentially also represent Groundwater Dependent Vegetation. Within the Reconnaissance FVSA, the sum area of these VTs is 1,081 ha or 5.9%.

The obligate phreatophytes *Eucalyptus camaldulensis* and *Melaleuca rhaphiophylla* were recorded in the following VTs:

- VT CAM: Low woodland of *Eucalyptus camaldulensis* subsp. *arida* over *Melaleuca rhaphiophylla, M.concreta,* and/or *Banksia menziesii* tall open shrubland over sparse sedgeland.Associated with wetland and drainage areas. An 'unclassified' potential aquatic GDE in BoM's (20017b) GDE Atlas (**Section 5.5.1.1**) is within this VT.

- VT WM: Tall shrubland to closed shrubland of *Melaleuca concreta*, *M. viminea* subsp. *viminea* and *M. raphiophylla* over sparse to open shrubland of *Kunzea micrantha* subsp. *petiolata*, *Thryptomene mucronulata* and *Calytrix flavescens* over sparse sedgeland. Associated with wetland and drainage areas.

Groundwater dependent vegetation is generally indicated by the presence of one or several phreatophytic taxa. Potentially obligate phreatophytic taxa were recorded in the Reconnaissance FVSA, including

Eucalyptus camaldulensis (VT CAM) and *Melaleuca rhaphiophylla* (in parts of VT WM). These may be sensitive to changes in groundwater regimes as they are considered to be completely reliant on access to groundwater to survive. Based on the landforms which these taxa occur on (drainage lines), they may rely on groundwater to some extent.

The facultative phreatophytes *Banksia attenuata* and *B. menziesii* have been recorded in association with some areas of VTs SEB and SBP. Where these taxa occur in areas where the groundwater is within 10 m of the surface, they are potentially dependent on this groundwater source for at least part of the year, and particularly in times of drought. Although these VTs are typically dryland communities, both of these *Banksia* species are known to be facultative phreatophytes and will use accessible groundwater sources where they are available.

The VTs which may contain GDEs or GDVs are CAM, CS, PFE, PM, WM, and areas of SEB and SBP where the groundwater is within 10 m of the surface.

6.7 Vegetation Condition

6.7.1 Reconnaissance FVSA

The majority (71.00%) of vegetation of the Reconnaissance FVSA was mapped as one of five types of Highly Modified vegetation (including areas such as paddocks, planted trees, dams, roads and infrastructure) and thus in Completely Degraded condition or Cleared **Table 6.7**.

Areas of remnant native vegetation were mapped across 29.00% of the Reconnaissance FVSA and were largely in Good or better condition (**Table 6.7**). Such areas had generally been subject to some degree of disturbance relating to agricultural activities, particularly grazing, trampling and introduction of agricultural weeds. Areas mapped as degraded showed more obvious signs of multiple disturbances including historical clearing, in addition to grazing, trampling and agricultural weeds. Some areas (1,218 ha) of remnant vegetation were large enough and/or fenced off to exclude access to livestock such that the vegetation was mapped as Excellent. No areas were mapped as Pristine.

Table 6.7 Condition of the Vegetation of the Reconnaissance FVSA

	Excellent	Very Good	Good	Degraded	Completely Degraded	Cleared or Dam	Total (ha)	% of survey area
Vegetation Types								
AS	7.02	8.53	17.61	36.78			69.94	0.38%
CAM			19.18	64.57			83.75	0.45%
CS	9.29	77.28	57.60	10.30			154.47	0.84%
HH	334.37	271.99	198.15	67.70			872.20	4.73%
HM	98.87	196.92	59.08	65.20			420.07	2.28%
PFE		233.48	81.54	7.29			322.30	1.75%
PM		100.95	17.24				118.18	0.64%
RC	24.97	34.69	21.26	9.22			90.14	0.49%
SAC		15.78	179.89	249.19			444.86	2.41%
SBP	218.82	78.06	19.98	21.39			338.25	1.83%
SEB	524.38	557.69	597.06	383.51			2,062.64	11.18%
WM		53.13	148.02	201.62			402.76	2.18%
Subtotal	**1,217.71**	**1,628.47**	**1,416.61**	**1,116.77**	**0**	**0**	**5,379.56**	**29.00%**
Highly modified vegetation								
CL				0.31		97.40	97.71	0.53%
DAM						6.73	6.73	0.04%
M1					7,156.73		7,156.63	38.81%
M2				0.56	364.15		364.72	1.98%
M3					5,432.94		5,432.94	29.47%
Subtotal	**0**	**0**	**0**	**0.88**	**12,953.82**	**104.13**	**7,626.11**	**71.00%**
Total (ha)	**1,217.71**	**1,628.47**	**1,416.91**	**1,117.79**	**12,953.82**	**104.13**	**18,438.39**	
% of survey area	**6.60%**	**8.83%**	**7.68%**	**6.06%**	**70.25%**	**0.56%**		

6.7.2 Targeted FVSA

The vast majority (97.45%) of the Targeted FVSA was mapped as one of five types of Highly Modified vegetation (including areas such as paddocks, planted trees, dams, roads and infrastructure) and thus in Completely Degraded condition or Cleared (**Table 6.8**).

Areas of remnant native vegetation were mapped across only 2.55% of the Targeted FVSA and were largely in Good or better condition (**Table 6.8**). Much of the remnant vegetation within the Targeted FVSA shows signs of disturbance consistent with edge effects due to proximity to cleared areas such as roads and paddocks – grazing, trampling, introduction of agricultural weeds and clearing.

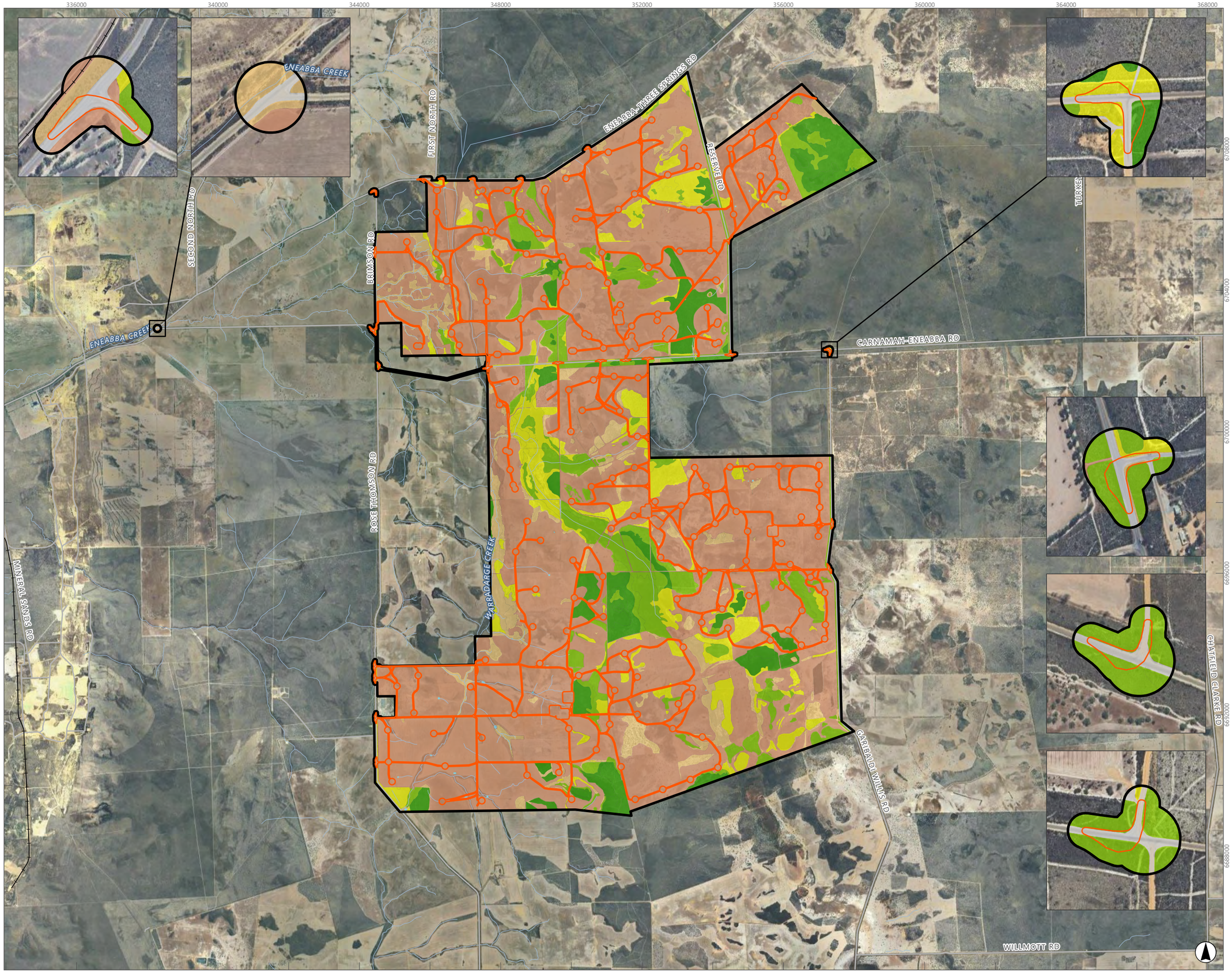
No areas were mapped as Pristine.

Table 6.8 Condition of the Vegetation of the Targeted FVSA

	Excellent	Very Good	Good	Degraded	Completely Degraded	Cleared or Dam	Total (ha)	% of Targeted FVSA
Vegetation Types								
AS	0.09	0.88	0.67				1.64	0.13%
CAM				0.24			0.24	0.02%
CS			0.04	0.21			0.24	0.02%
HH	2.04	2.16	2.98	1.21			8.38	0.67%
HM		1.32	0.48	3.06			4.86	0.38%
PFE							0.00	0.00%
PM		0.10					0.10	0.01%
RC		0.17	0.16	0.00			0.33	0.03%
SAC			0.37	0.88			1.25	0.10%
SBP		0.08					0.08	0.01%
SEB	2.15	3.65	6.03	2.76			14.59	1.16%
WM			0.02	0.41			0.43	0.07%
Subtotal	**4.28**	**8.37**	**10.74**	**8.77**	**0.00**	**0.00**	**32.15**	**2.55%**
Highly modified vegetation								
CL				0.31		18.40	18.71	1.48%
DAM						0.03	0.03	0.00%
M1					664.88		664.88	52.74%
M2				0.30	21.21		21.51	1.71%
M3					523.40		523.40	41.52%
Subtotal	**0.00**	**0.00**	**0.00**	**0.61**	**1,209.49**	**18.43**	**1,236.91**	**97.45%**
Total	**4.28**	**8.37**	**10.74**	**9.38**	**1,209.49**	**18.47**	**1,260.68**	
% of Targeted FVSA	**0.34%**	**0.66%**	**0.85%**	**0.74%**	**95.94%**	**1.47%**		

FIGURE 6.5

Vegetation Condition Ratings for VTs Described in the Study Area – Overview



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared

0 2 4

Kilometres

Scale: 1:100,000 at A3
GDA2020 MGA Zone 50

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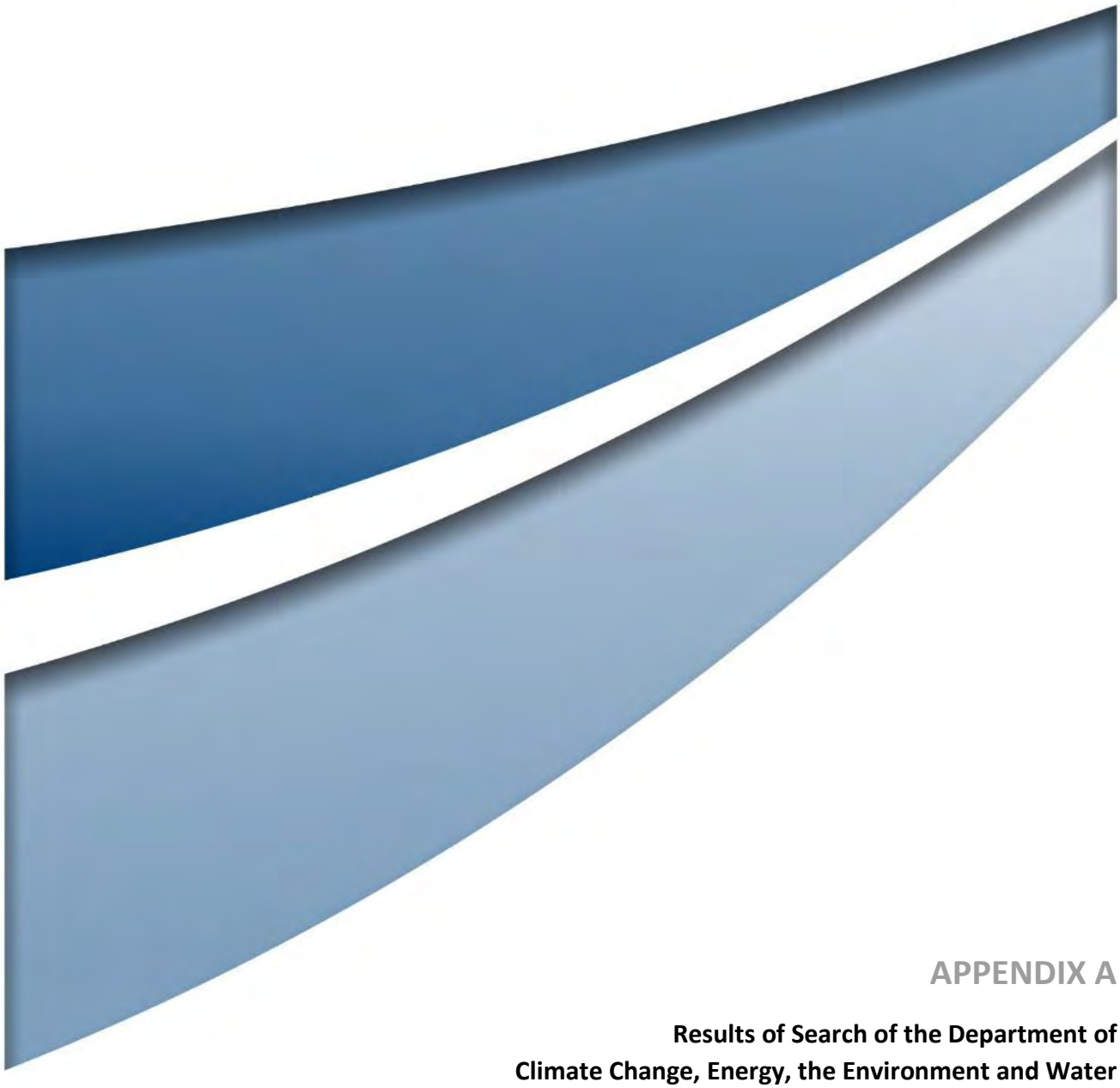

APPENDIX A

Results of Search of the Department of Climate Change, Energy, the Environment and Water Species Profile and Threats Database (DCCEEW, 2024a)

Australian Government

Department of Climate Change, Energy, the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 04-Jun-2024

Summary

Details

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

Caveat

Acknowledgements

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	66
Listed Migratory Species:	8

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	3
Commonwealth Heritage Places:	None
Listed Marine Species:	14
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	22
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	15
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status
Natural		
Lesueur National Park	WA	Listed place

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Eucalypt Woodlands of the Western Australian Wheatbelt	Critically Endangered	Community may occur within area

Listed Threatened Species [Resource Information]

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

Scientific Name	Threatened Category	Presence Text
BIRD		
Aphelocephala leucopsis		
Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Falco hypoleucos		
Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata		
Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
[Numenius madagascariensis](#)		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
[Pezoporus occidentalis](#)		
Night Parrot [59350]	Endangered	Species or species habitat may occur within area
[Rostratula australis](#)		
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
[Tringa nebularia](#)		
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area
[Zanda latirostris listed as Calyptorhynchus latirostris](#)		
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding known to occur within area
MAMMAL		
[Dasyurus geoffroii](#)		
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area
[Macroderma gigas](#)		
Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area
[Parantechinus apicalis](#)		
Dibbler [313]	Endangered	Species or species habitat may occur within area
PLANT		
[Acacia aprica](#)		
Blunt Wattle [64821]	Endangered	Species or species habitat may occur within area
[Acacia cochlocarpa subsp. cochlocarpa](#)		
Spiral-fruited Wattle [23877]	Endangered	Species or species habitat may occur within area
[Acacia forrestiana](#)		
Forest's Wattle [17235]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Acacia recurvata Recurved Wattle [64825]	Endangered	Species or species habitat likely to occur within area
Acacia wilsonii Wilson's Wattle [65228]	Endangered	Species or species habitat known to occur within area
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area
Banksia catoglypta [85021]	Vulnerable	Species or species habitat known to occur within area
Banksia serratuloides subsp. perissa Northern Serrate Dryandra [82767]	Critically Endangered	Species or species habitat known to occur within area
Caladenia hoffmanii Hoffman's Spider-orchid [56719]	Endangered	Species or species habitat may occur within area
Caleana dixonii listed as Paracaleana dixonii Sandplain Duck Orchid [87944]	Endangered	Species or species habitat known to occur within area
Chorizema humile Prostrate Flame Pea [32573]	Endangered	Species or species habitat may occur within area
Conostylis dielsii subsp. teres Irwin's Conostylis [3614]	Endangered	Species or species habitat likely to occur within area
Conostylis micrantha Small-flowered Conostylis [17635]	Endangered	Species or species habitat may occur within area
Darwinia chapmaniana Chapman's Bell [64877]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Dasymalla axillaris Native Foxglove [38829]	Critically Endangered	Species or species habitat may occur within area
Daviesia dielsii Diels' Daviesia [19617]	Endangered	Species or species habitat may occur within area
Daviesia speciosa Beautiful Daviesia [56698]	Endangered	Species or species habitat known to occur within area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat known to occur within area
Eremophila glabra subsp. chlorella [84927]	Endangered	Species or species habitat known to occur within area
Eremophila nivea Silky Eremophila [14431]	Endangered	Species or species habitat may occur within area
Eremophila subangustifolia listed as Eremophila sp. Narrow leaves (J.D.Start D12-150) [89829]	Critically Endangered (listed as Eremophila sp. Narrow leaves	Species or species habitat known to occur within area
Eucalyptus absita Badgingarra Box [24260]	Endangered	Species or species habitat may occur within area
Eucalyptus crispata Yandanooka Mallee [24268]	Vulnerable	Species or species habitat known to occur within area
Eucalyptus impensa Eneabba Mallee [56711]	Endangered	Species or species habitat known to occur within area
Eucalyptus johnsoniana Johnson's Mallee [14516]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Eucalyptus lateritica Laterite Mallee [6271]	Vulnerable	Species or species habitat likely to occur within area
Eucalyptus leprophloia Scaly Butt Mallee, Scaly-butt Mallee [56712]	Endangered	Species or species habitat known to occur within area
Eucalyptus pruiniramis Midlands Gum, Jingymia Gum [56403]	Endangered	Species or species habitat known to occur within area
Eucalyptus rhodantha Rose Mallee [9362]	Vulnerable	Species or species habitat likely to occur within area
Eucalyptus suberea Cork Mallee, Mount Lesueur Mallee [5529]	Vulnerable	Species or species habitat known to occur within area
Gastrolobium hamulosum Hook-point Poison [9212]	Endangered	Species or species habitat may occur within area
Grevillea althoferorum [64906]	Endangered	Species or species habitat likely to occur within area
Grevillea batrachioides Mt Lesueur Grevillea [21735]	Endangered	Species or species habitat known to occur within area
Grevillea christineae Christine's Grevillea [64520]	Endangered	Species or species habitat likely to occur within area
Grevillea curviloba subsp. incurva Narrow curved-leaf Grevillea [64909]	Endangered	Species or species habitat known to occur within area
Grevillea humifusa Spreading Grevillea [61182]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Hakea megalosperma Lesueur Hakea [10505]	Vulnerable	Species or species habitat known to occur within area
Hemiandra gardneri Red Snakebush [7945]	Endangered	Species or species habitat known to occur within area
Hemiandra rutilans Sargents Snakebush, Colourful Snakebush [17932]	Endangered	Species or species habitat may occur within area
Hensmania chapmanii Chapman's Hensmania [10481]	Vulnerable	Species or species habitat known to occur within area
Jacksonia pungens Pungent Jacksonia [64920]	Endangered	Species or species habitat may occur within area
Leucopogon marginatus Thick-margined Leucopogon [12527]	Endangered	Species or species habitat may occur within area
Leucopogon obtectus Hidden Beard-heath [19614]	Endangered	Species or species habitat known to occur within area
Petrophile nivea [75847]	Vulnerable	Species or species habitat known to occur within area
Roycea pycnophylloides Saltmat [21161]	Endangered	Species or species habitat likely to occur within area
Spirogardnera rubescens Spiral Bush [15667]	Endangered	Species or species habitat known to occur within area
Styphelia longissima [89333]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Tetratheca nephelioides [83217]	Critically Endangered	Species or species habitat known to occur within area
Thelymitra stellata Star Sun-orchid [7060]	Endangered	Species or species habitat known to occur within area
Verticordia albida White Featherflower [55635]	Endangered	Species or species habitat likely to occur within area
Wurmbea tubulosa Long-flowered Nancy [12739]	Endangered	Species or species habitat likely to occur within area
REPTILE		
Egernia stokesii badia Western Spiny-tailed Skink, Baudin Island Spiny-tailed Skink [64483]	Endangered	Species or species habitat known to occur within area
SPIDER		
Idiosoma nigrum Shield-backed Trapdoor Spider, Black Rugose Trapdoor Spider [66798]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species [Resource Information]

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

Scientific Name	Threatened Category	Presence Text
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
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

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

Commonwealth Land Name	State
Unknown	
Commonwealth Land - [52116]	WA
Commonwealth Land - [52114]	WA
Commonwealth Land - [51485]	WA

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat may occur within area overfly marine area
Tringa nebularia		
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Alexander Morrison	National Park	WA
Coomallo	Nature Reserve	WA
Depot Hill	Nature Reserve	WA
Dookanooka	Nature Reserve	WA
Kadathinni - Part lot 3 on Plan 15105	NRS Addition - Gazettal in Progress	WA
Lake Logue	Nature Reserve	WA
Lesueur	National Park	WA
South Eneabba	Nature Reserve	WA
Tathra	National Park	WA
Unnamed WA12705	Nature Reserve	WA
Unnamed WA25495	Nature Reserve	WA
Unnamed WA26001	Nature Reserve	WA
Unnamed WA26125	Nature Reserve	WA
Unnamed WA29901	Conservation Park	WA
Unnamed WA39744	Nature Reserve	WA
Unnamed WA42481	Nature Reserve	WA
Unnamed WA46713	Nature Reserve	WA
Unnamed WA48098	Nature Reserve	WA

Protected Area Name	Reserve Type	State
Unnamed WA51272	Conservation Park	WA
White Gums	Nature Reserve	WA
Wilson	Nature Reserve	WA
Wotto	Nature Reserve	WA

EPBC Act Referrals

[Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Ocean Hill 3D seismic survey, Eneabba, WA	2017/7970		Completed
Zemira 3D Seismic Survey	2020/8658		Completed
Controlled action			
Central West Coal Project near Enneabba, WA	2007/3869	Controlled Action	Completed
Coolimba Coal Power Project	2007/3876	Controlled Action	Completed
Expansion of mineral sand mine	2008/4192	Controlled Action	Completed
IPL North Project - Eneabba Mineral Sands Mine, WA	2012/6408	Controlled Action	Proposed Decision
open cut mine & assoc infrastructure	2005/2381	Controlled Action	Post-Approval
Trieste 3D seismic survey, WA	2017/8133	Controlled Action	Post-Approval
Warro Gas Project 3D Seismic Onshore Exploration Survey	2010/5454	Controlled Action	Post-Approval
Not controlled action			
Iluka Eneabba Rare Earth Refinery	2021/9096	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
Northern Looping project, Karratha to Gingin	2005/2251	Not Controlled Action	Completed
Not controlled action (particular manner)			
Transmission Line Rebuild and Extension	2009/5105	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
UIL Energy 2D Seismic Survey, Perth Basin, WA	2015/7554	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
Transmission Line Rebuild and Extension	2009/4972	Referral Decision	Completed

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

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

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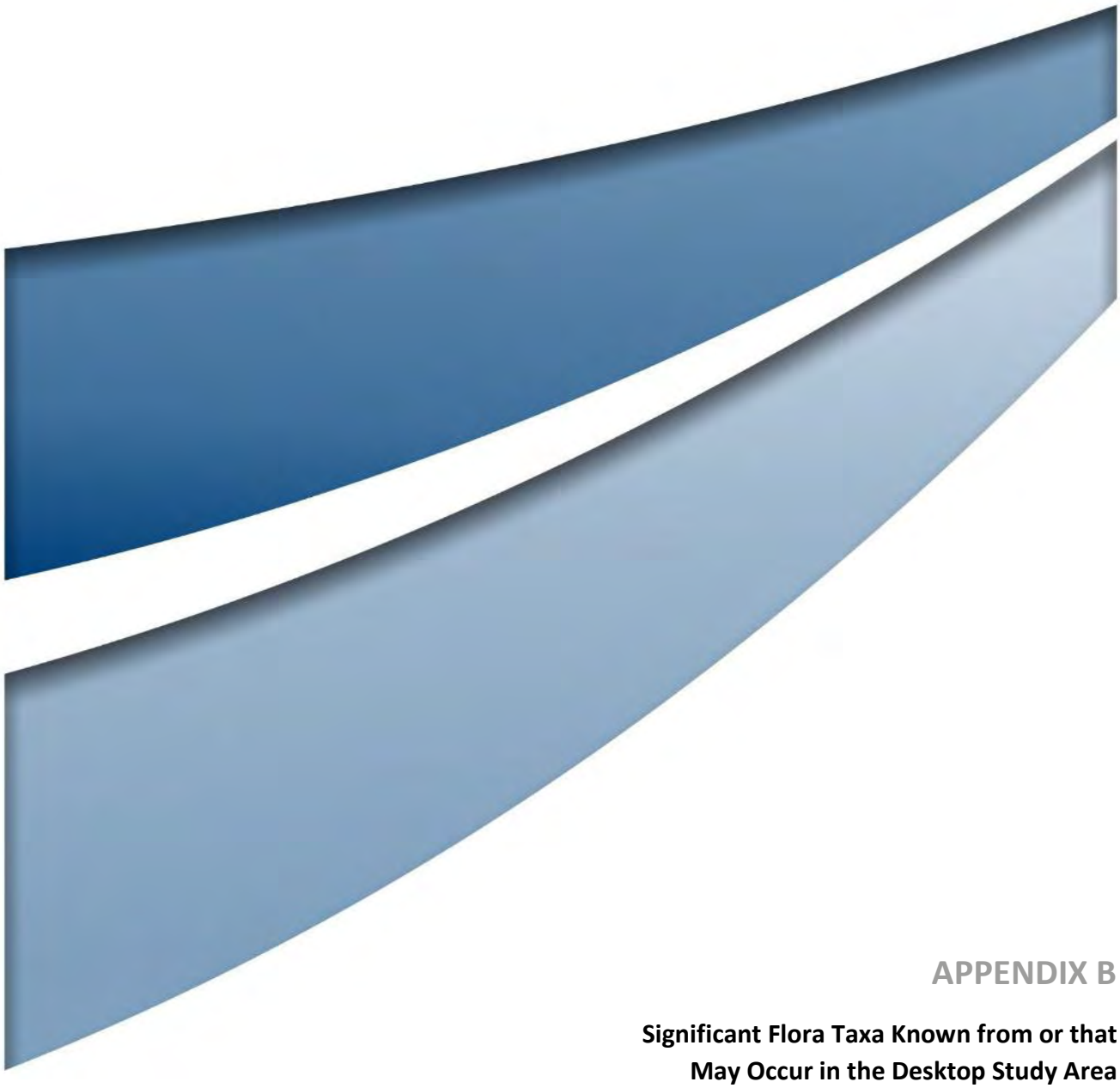
Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111



APPENDIX B

Significant Flora Taxa Known from or that May Occur in the Desktop Study Area

Taxon	WA Status	Flowering	Habitat	Source*
Acacia aprica	T	June–July	Red or gravelly sand, sandy loam. Plains, rocky hills.	DCCEEW
Acacia cochlocarpa* subsp. *cochlocarpa	T	June–August	Clayey, sandy, often gravelly soils.	DCCEEW
Acacia congesta* subsp. *cliftoniana	P1	August–September	Rocky or lateritic loam.	DBCA
Acacia cummingiana	P3	May–June, August	Sandplains, lateritic breakaways with grey or yellow sand and lateritic gravel.	DBCA
Acacia epacantha	P3	July–August	Lateritic gravelly loam or clay.	DBCA, Woodman (2015)
Acacia flabellifolia	P3	August–September	Low hills and ridges with rocky loam, lateritic gravelly soils.	DBCA
Acacia forrestiana	T	November–December	Gullies, hills, breakaways.	DCCEEW
***Acacia lasiocarpa* var. *lasiocarpa* Cockleshell Gully variant (E.A. Griffin 2039)**	P2	August–October	Undulating sandplains, flats and breakaways with grey-yellow sand and laterite.	DBCA
Acacia latipes* subsp. *licina	P3	June–Oct	White/grey sand, lateritic soils, sandy loam. Sandplains, flats, hills.	DBCA
Acacia recurvata	T	July–August	Sandy clay, granitic clay-loam. Creeklines, plains, breakaways, low hills.	DCCEEW
Acacia retrorsa	P2	August–September	Slopes, gullies and flats with grey or brown sand, sandy loam or clay loam over laterite, gravelly and sometimes rocky. Eucalyptus or Corymbia calophylla woodland.	DBCA
Acacia wilsonii	T	November–March	Hilltops, slopes and breakaways with gravelly brown, grey or yellow sand or clay loam over laterite or occasionally sandstone.	DBCA, DCCEEW
Allocasuarina grevilleoides	P3	September–November	Slopes, outcrops and plains with rocky or gravelly brown sand or clay loam over laterite or granite.	DBCA, Woodman (2015)
Allocasuarina ramosissima	P3	May–September	Lateritic soils on hills, slopes and breakaways. Grey or white sand or occasionally loamy soils over laterite.	DBCA, Woodman (2015)
Andersonia gracilis	T	August–November	White/grey sand, sandy clay, gravelly loam. Winter-wet areas, near swamps.	DCCEEW
Arnocrinum gracillimum	P3	October–November	White, grey, yellow or lateritic sand.	DBCA, Woodman (2015)

Taxon	WA Status	Flowering	Habitat	Source*
Austrostipa nunaginensis	P3	Unknown	Flats, mid slopes and some seasonally damp soils. Yellow/brown sand and sandy loam, also recorded on grey light clay soil and in areas of some surface stoniness.	DBCA
Babingtonia peteriana	P2	Aug–Dec	E/NE-facing gentle slopes, red/brown, brown or grey clay/clayey loam over lateritic sandstone, sometimes rocky areas and creekline edges.	DBCA
Banksia catoglypta	T	June–July	Hillslopes and breakaways with grey sand and laterite.	DBCA, DCCEEW
Banksia chamaephyton	P4	October–December	Slopes, breakaways and flats with grey or white sand over laterite.	DBCA, Woodman (2015)
Banksia cypholoba	P3	Jun–Sep	Plains, slopes and hills with sand, often with laterite.	DBCA, Woodman (2015)
Banksia elegans	P4	Oct–Nov	White sand on slopes, low lateritic hills, brown gravelly loam, grey sandy gravel.	DBCA
Banksia fraseri* var. *crebra	P3	July–August	Lateritic hilltops, slopes, plains and valleys with yellow, grey or brown gravelly sand over laterite.	DBCA
Banksia kippistiana var. paenepeccata	P3	October–November	Hills and slopes with white-yellow or grey sand over laterite.	DBCA
Banksia nana	P3	October	Hills with white/grey sand and/or gravel over laterite.	DBCA
Banksia nobilis* subsp. *fragrans	P3	July–September	Hills, slopes and ridges with white/brown sand with laterite.	DBCA
Banksia pteridifolia* subsp. *vernalis	P3	September to October	White/grey sand over laterite, usually on plains or lower slopes.	DBCA
Banksia serratuloides* subsp. *perissa	T	August–September	Hillsides, slopes and breakaways with white/grey sand or brown loam with laterite.	DBCA, DCCEEW
Banksia splendida* subsp. *macrocarpa	P3	July–August	Ridges, slopes and undulating plains with white/grey sand and laterite.	DBCA, Woodman (2015)
Banksia subulata	P3	September	White/grey or yellow sand over laterite, gravelly laterite.	DBCA
Beaufortia bicolor	P3	November–December	Sandplains with white sand over laterite.	DBCA, Woodman (2015)
Beyeria gardneri	P3	Aug–Sep	Sandplains and hillsides on yellow sand.	DBCA, Woodman (2015)
Beyeria similis	P2	August–September	Sandplains, slopes or sandstone ridges with white, yellow or red clayey sand.	DBCA
Boronia scabra* subsp. *condensata	P2	August	Upper slopes and lateritic breakaways with grey/brown sandy clay or loam with laterite.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Caladenia denticulata* subsp. *albicans	P1	Aug–Sep	Wet flats, moist depression. Sandy soils.	DBCA
Caladenia longicauda* subsp. *minima	P2	Aug	Along creek lines. Red loam with ironstone outcrops, yellow sand.	DBCA
Calectasia browneana	P2	June–August	Slopes and plains and creekline edges with white-grey sand over laterite.	DBCA
Calectasia palustris	P2	September to November	Winter-wet flats and swamps with white sand.	DBCA
Calothamnus accedens	P4	September to January	Slopes or rises with brown clay loam.	DBCA
Calothamnus arcuatus	P2	April–August	shallow sandy loam over sandstone or siltstone on slopes near creeks, in kwongan, and in yellow sand over gravel.	DBCA
Calothamnus brevifolius	P4	Jan to Feb or Apr	White/grey or yellow sand.	DBCA
Calytrix chrysantha	P4	Nov–Feb	Plains and flats, on yellow or grey sand.	DBCA, DCCEEW, Woodman (2015), Woodman (2016)
Calytrix ecalycata subsp. ecalycata	P3	Jul or Sep to Oct	Yellow or white sand, sandy gravel, clay loam, granite, sandstone. Uplands, valley flats, ridges, hills, road verges.	DBCA
Calytrix eneabbensis	P4	Jul–Oct	White, grey or yellow sand over laterite. Sandplains.	DBCA
Calytrix purpurea	P2	September–December	Sandplains and sand dunes with white, grey or yellow sand, often over laterite.	DBCA
Calytrix superba	P4	December–February	Sand over laterite. Flats.	DBCA
Catacolea enodis	P2	Unknown	Deep white sand over laterite. Tall heath.	DBCA
Caustis gigas	P2	May	Flats and depressions with white or grey sand.	DBCA
Centrolepis milleri	P3	September–October	Sandplains with grey-white sand or sandy clay.	DBCA
Chordifex reseminans	P2	March–May	Flats and winter-wet depressions with white-grey sand over laterite.	DBCA
Chorizema humile	T	Jul–Sep	Plains. Sandy clay or loam.	DCCEEW
Comesperma griffinii	P2	October–November	Slopes, plains, open depressions and flats with grey or brown sand or light clay, sometimes with laterite.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Comesperma rhadinocarpum	P3	October–November	Undulating plains, valley slopes and flats with grey, brown or yellow sandy loam or sand.	DBCA
Conospermum eatoniae	P3	Aug to Oct	Deep white sand, sandy clay loam.	DBCA
Conospermum scaposum	P3	Sep–Feb	Winter-wet flats and depressions with white, brown or grey sand.	DBCA
Conostephium magnum	P4	July–September	Sand dunes and slopes with white-grey sand.	DBCA, Woodman (2015), Woodman (2016)
Conostylis dielsii **subsp. *teres***	T	Jul–Aug	White, grey or yellow sand, gravel. Low open woodland.	DCCEEW
Conostylis micrantha	T	Jul–Aug	White or grey sand. Sandplains.	DCCEEW
Conostylis **sp. Eneabba (M. Hislop 3864)**	P2		Undulating sandplains, white or grey sand, sometimes over laterite.	DBCA
Cristonia biloba **subsp. *pubescens***	P2	June–July	Hillslopes and ridges with white sand or brown loam and gravel.	DBCA
Cyanothamnus ramosus **subsp. *lesueuranus***	P2	July–August	Midslopes and low hills with white sand or gravel over laterite.	DBCA
Darwinia chapmaniana	T	September to November	shallow red or yellow clay-loam over sandstone or calcrete, around the edges of saline lakes in winter damp flats.	DBCA, DCCEEW
Darwinia **sp. Strawberry (M.G. Corrick 8279)**	P2	Sep Nov	Cream, yellow or grey sand, on sandplains or lateritic gravel.	DBCA
Dasymalla axillaris	T	Sep–Dec	Plains and flats. Yellow sand.	DCCEEW
Daviesia debilior **subsp. *debilior***	P2	May–July	Plains with white-grey sand over laterite.	DBCA
Daviesia dielsii	T	July	Sandy, often gravelly soils.	DCCEEW
Daviesia pteroclada	P3	July–August	Hills and slopes with sandy or clay gravelly soils over laterite.	DBCA
Daviesia speciosa	T	April–December	Breakaways, hilltops, and slopes with gravelly grey, brown or white sand or clay loam over laterite.	DBCA, DCCEEW
Desmocladus biformis	P3	September–October	Hills, slopes and undulating plains with white or brown sand or sandy clay over laterite.	DBCA
Desmocladus elongatus	P4	August–December	Slopes, plains and uplands with white or grey sand over laterite.	DBCA, Woodman (2015)
Diuris eburnea	P1	October–November	Winter wet flats.	DBCA
Diuris recurva	P4	July–August	Winter-wet areas and drainage lined with brown sandy clay or loam.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Drakaea concolor	T	August–December	Slopes and sandplains. Grey or yellow sand over sandstone.	DBCA
Drosera atrata	P3	May–August	Low kwongan heath on the upper slopes of lateritic hills in poorly drained sandy clay with laterite.	DBCA
Drosera pedicellaris	P1	October–November	Heathland with white/grey sand.	DBCA
Eleocharis keigheryi	T	Aug to Nov	Clay, sandy loam. Emergent in freshwater: creeks, claypans.	DBCA, DCCEEW
Eremophila glabra* subsp. *chlorella	T	July–November	Winter-wet depressions, lake edges and flats with grey-white sandy clay or sand.	DBCA, DCCEEW
Eremophila nivea	T	July–November	Winter-wet depressions, lake edges and flats with grey-white sandy clay or sand.	DCCEEW
Eremophila subangustifolia	T	August–September	Lake/creek edges, claypans and winter wet flats with brown, white or grey sand, sandy clay or sandy loam.	DCCEEW
Eucalyptus* × *lateritica	T	August–October	Lateritic breakaways and mesas with white or grey sand with gravel.	DBCA, DBCA, DCCEEW
Eucalyptus* ×*impensa	T	Jun–Jul	Hills, slopes and plains with grey, yellow or white sand over laterite.	DBCA, DBCA, DCCEEW
Eucalyptus abdita	P2	Feb	Laterite, sandy clay with gravel over laterite. Slopes, breakaways.	DBCA
Eucalyptus absita	T	April–July	White lateritic sand. Paddocks.	DCCEEW
Eucalyptus crispata	T	March–June	Lateritic breakaways and slopes with brown-grey sand or loam with lateritic gravel.	DBCA, DCCEEW
Eucalyptus exilis	P4	August–October	Hills, breakaways and slopes with grey or yellow gravelly sand or clay loam.	DBCA
Eucalyptus johnsoniana	T	July–May	Hills, slopes and plains with grey, yellow or white sand over laterite.	DBCA, DCCEEW
Eucalyptus leprophloia	T	July–November	Breakaways and slopes with grey or white sand or sandy clay over laterite.	DBCA, DCCEEW
Eucalyptus loxophleba* x *wandoo	P4	Nov	Grey brown sandy loam, valleys and slopes.	DBCA
Eucalyptus macrocarpa* subsp. *elachantha	P4	August–December	Hillslopes, ridges, sandplains with white or grey sand over laterite.	DBCA, Woodman (2015)
Eucalyptus macrocarpa* x *pyriformis	P3	Aug–Oct	Sand, lateritic sandy soils. Hills, rocky ironstone ridges, sandplains.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Eucalyptus pendens	P4	August–November	Hillsides, breakaways, sandplains with white or grey sand with lateritic gravel.	DBCA
Eucalyptus pruiniramis	T	December–Feb	Skeletal soils over sandstone or laterite. Rocky hillslopes.	DCCEEW
Eucalyptus rhodantha* var. *rhodantha	T	July–January	Hillslopes, breakaways and gentle slopes with grey, yellow or brown sand, sometimes over laterite.	DBCA, DCCEEW
Eucalyptus suberea	T	November–March	Breakaways and slopes with white gravelly sand over laterite.	DBCA, DCCEEW
Eucalyptus x carnabyi	P4	Oct–Nov	Grey sand, sandy loam. Lateritic ridges.	DBCA
Eucalyptus zopherophloia	P4	Oct–Jan	Slopes and dunes with grey/white sand. Often with limestone. Coastal areas.	DBCA
Gastrolobium hamulosum	T	August–October	Flats, slopes, ridges with sandy, often gravelly soils or clay.	DBCA, DCCEEW
Goodenia xanthotricha	P2	November – December, January–February	Hills, slopes and flats with sandy soils and laterite.	DBCA
Grevillea althoferorum* subsp. *althoferorum	T	September–November	Low rises and slopes with yellow-brown or grey sand.	DBCA, DCCEEW
Grevillea amplexans* subsp. *adpressa	P1	September	Slopes with yellow or white sand, sometimes over laterite.	DBCA
Grevillea biformis* subsp. *cymbiformis	P3	October	Flats, slopes and hills with yellow-white sand.	DBCA
Grevillea christineae	T	July–October	Tops of slopes, flats. Red-brown clay loam, sandy clau, yellow sand. Moist soils.	DCCEEW
Grevillea cooljarloo	P1	June–November	Grey or white sand, sandy clay or loamy soils in lo-lying, seasonally wet areas or along creeklines. In heathland, shrubland, sometimes marri or wandoo woodlands.	DBCA
Grevillea curviloba	T	August to October	Grey, white or brown sand or sandy loam. Flats, drainage lines and lower slopes.	DBCA, DCCEEW
Grevillea erinacea	P3	July–December	Plains, hills and slopes with white, grey or yellow sand, often with lateritic gravel.	DBCA, Woodman (2015)
Grevillea granulosa	P3	July–November	Slopes and margins of salt lake. Yellow sand, red-brown saline slay-loam, lateritic or fluviatile gravel.	DBCA
Grevillea humifusa	T	May, September–November	Slopes with brown gravelly loam over laterite.	DCCEEW

Taxon	WA Status	Flowering	Habitat	Source*
Grevillea leptopoda	P3	June–October	Hills and slopes with brown, red or yellow sand or clay loam, sometimes over laterite or occasionally granite.	DBCA
Grevillea makinsonii	P3	Jul or Sep–Oct	White, grey or yellow sand over laterite, loam, gravel, clay. Rocky hills, sandplains.	DBCA
Grevillea metamorpha	P1	September	Undulating plains and creeklines with white sand.	DBCA
Grevillea olivacea	P4	June–September	White of grey sand. Coastal dunes, limestone rocks.	DBCA
Grevillea rudis	P4	April–January	Hills and slopes with white, grey, yellow or red sand, often with gravel and laterite.	DBCA, Woodman (2015)
Grevillea thyrsoides* subsp. *thyrsoides	P3	February, August–September	Hills and plains with grey, white or brown sand or clay loam, often with laterite.	DBCA
Grevillea uniformis	P3	July–November	Hills, slopes and breakaways with grey or brown sand or sandy loam with sandstone or laterite.	DBCA
***Grevillea vestita* x *biternata* (*Grevillea* aff. *stenogyne*)**	Potentially undescribed	Unknown	Winter wet clay flats over ferricrete.	Biota
Guichenotia alba	P3	July–August	Sandy and gravelly soils, Low-lying flats, depressions.	DBCA
Guichenotia quasicalva	P2	September–October	Sandy clay over laterite. Drainage line.	DBCA
Haemodorum loratum	P3	November	Uplands and sandplains with grey, white or yellow sand and gravel.	DBCA, Woodman (2015)
Hakea longiflora	P3	June–July	High in landscape; hills, breakaways and plains with white, grey or yellow gravelly sand or sandy loam over laterite or occasionally sandstone.	DBCA
Hakea megalosperma	T	April–June	High in landscape; hills, breakaways, slopes and flats with white, grey or brown sand or sandy loam over laterite.	DBCA, DCCEEW
Hakea neurophylla	P4	August	Hillsides and ridges with white or brown sandy loam or sand and laterite.	DBCA
Hemiandra gardneri	T	August–November	Plains with yellow or grey sand or clayey sand.	DBCA, DCCEEW
Hemiandra rutilans	T	October to November	Yellow/grey sand.	DBCA, DCCEEW
***Hemiandra* sp. Eneabba (H. Demarz 3687)**	P3	February	Sandplains with white, grey or yellow sand.	DBCA, Woodman (2015)

Taxon	WA Status	Flowering	Habitat	Source*
***Hemiandra* sp. Watheroo (S. Hancocks 4)**	P4	October–November	Sandplains and hillslopes with grey/white sand sometimes over laterite.	DBCA, Woodman (2015)
Hensmania chapmanii	T	December–January	Yellow-grey or lateirtic sand.	DBCA, DCCEEW, Woodman (2015)
Hensmania stoniella	P3	September–November	Flats and slopes with white, grey or lateritic sand, sometimes winter-wet.	DBCA
Hibbertia propinqua	P4	August–September	Slopes and breakaways with grey-brown sand with laterite or sandstone.	DBCA
Hibbertia subglabra	P3	September–October	Slopes of hills with grey or white sand and lateritic gravel.	DBCA
Hibbertia subvillosa	P3	June–October	Sandy creek beds, heavier soils that H. striata, often disturbed sites.	DBCA
Homalocalyx chapmanii	P2	September–October	Undulating plains, slopes and riverbanks with sand or loam.	DBCA
Hypocalymma tenuatum	P2	July–August	Slopes, outcrops and ridges with sandy loam over sandstone or laterite.	DBCA
Hypolaena robusta	P4	October to November	Flats, grey sand. Banksia - Eucalyptus todtiana woodland.	DBCA
Jacksonia anthoclada	P3	November	Slopes with brown, yellow or white sand over laterite.	DBCA, Woodman (2015)
Jacksonia carduacea	P3	July, November to December	Plains and flats with white, grey or yellow sand, sometimes over laterite.	DBCA
Jacksonia pungens	T	November–December	Yellow sand, gravelly lateritic soils. Undulating areas.	DCCEEW
Lasiopetalum decoratum	P2	August to December	Gullies and slopes of breakaways in grey, brown or brown-yellow, loamy sand and lateritic gravel and boulders.	DBCA
Lasiopetalum ogilvieanum	P1	July–October	Undulating plains, lateritic rises.	DBCA
Lasiopetalum rutilans	P2	August – October, December	Slopes and breakaways with brown clayey sand or sand and laterite or sandstone.	DBCA
Lechenaultia juncea	P3	Nov–Dec	White, grey or yellow sand, sandy gravel.	DBCA, Woodman (2015)
Lepidobolus densus	P4	August	Sandplains, lake edges and slopes with brown or yellow sand.	DBCA
Lepidobolus quadratus	P3	August–September	Dry kwongan, hillslopes and rises with grey-white sand and lateritic gravel.	DBCA, Woodman (2015)
Lepyrodia curvescens	P2	September–November	Seasonally inundated swamplands, depressions and flats with white/grey sand or peaty sand.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Liparophyllum congestiflorum	P4	September–November	Flats, swamps and drainage lines with grey sandy clay or sand.	DBCA
Loxocarya gigas	P2	October	Low hills and ridges, sandplains with sandy gravelly lateritic soils.	DBCA
Lyginia excelsa	P2	March–November	Undulating plains, flats and depressions with white/grey sand.	DBCA
Mesomelaena stygia* subsp. *deflexa	P3	Mar–Oct	Plains, flats and slopes with white, grey or lateritic sand, clay, gravel.	DBCA
Micromyrtus uniovulum	P2	November	Ridges, hilltops and slopes with grey or brown sand or clay loam over laterite.	DBCA
Millotia jacksonii	P2	Sep–Oct	Valleys. Orange or grey sandy clay over laterite or sandstone or siltsone.	DBCA
Paracaleana dixonii	T	Late Oct–Nov	Flats, plains and slopes with grey sand, sometimes with laterite gravel.	DBCA, DCCEEW, Woodman (2015)
Patersonia argyrea	P3	September–November	Hills, slopes and plains with grey sand and lateritic gravel.	DBCA
Persoonia filiformis	P3	Nov–Dec	Plains and slopes with yellow or white sand over laterite.	DBCA, Woodman (2015)
Persoonia rudis	P3	Sep–Jan	Flats and slopes with white, grey or yellow sand, often over laterite.	DBCA
Petrophile biternata	P3	August–October	Yellow/grey sand & gravel, laterite, quartzite soils. Lateritic ridges plains.	DBCA
Petrophile clavata	P2	September	Hilltops, slopes and ridges with grey sand and laterite.	DBCA
Petrophile nivea	T	May, July	Uplands with dry bare white sand over gravel over laterite.	DBCA, DCCEEW
Petrophile septemfida	P3	July–September	Hillsides, uplands and plains with grey-white sand, often over laterite.	DBCA
Phlebocarya pilosissima* subsp. *pilosissima	P3	August–October	Slopes with sand over laterite.	DBCA, Woodman (2015)
Pityrodia viscida	P4	Sep–Feb	Upper slopes and mid slopes with white or grey sand, sometimes over laterite.	DBCA, Woodman (2015)
Platysace ramosissima	P3	October–November	Undulating plains and flats with yellow, brown or grey sand.	DBCA
Podotheca uniseta	P3	Sep–Dec	White/grey sand, sandy loam. Samphire flats.	DBCA
Poranthera asybosca	P1	October	Grey/white sandy soil.	DBCA
Ptilotus clivicola	P2	November	Hills and slopes with grey or white gravelly sand over laterite	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Ptilotus falcatus	P1	October–November	Exposed north-east facing slope in low heath or gravelly, grey to light brown, sandy loam soils.	DBCA
Roycea pycnophylloides	T	September to October	Salt lakes and saline habitats.	DCCEEW
Scaevola eneabba	P2	February, November	Swales and flats with grey-white sand.	DBCA
Scaevola globosa	P3	Oct–Dec	Sandy soils on gentle slopes and plains.	DBCA
Scaevola kallophylla	P4	May, Aug–Dec	Coastal plain. Sandy soils over limestone.	DBCA
Schoenus griffinianus	P4	Sep–Oct	Undulating sandplains, lower slopes, flats and depressions with grey sand.	DBCA, Woodman (2015), Woodman (2016)
Schoenus natans	P4	September to December	Ephemeral wetlands. Melaleuca lateritia/Melaleuca viminea shrubland, sometimes with emergent *Eucalyptus rudis*.	DBCA
***Schoenus* sp. Eneabba (F. Obbens & C. Godden I154)**	P2	November–December	Undulating sandplains, mid slopes and tops of rises with grey, yellow or white sand.	DBCA
Scholtzia brevistylis* subsp. *brevistylis	P1	October–December	Sandplain, margins of granite outcrops or associated with damp depressions.	DBCA
Spirogardnera rubescens	T	August–January	Slopes and plains, gravelly sandy loam.	DBCA, DCCEEW
Stawellia dimorphantha	P4	June–November	Undulating plains and slopes with yellow sand.	DBCA, DBCA
Stenanthemum limitatum	P2	October–November	Hillslopes with grey sand or sandy loam, lateritic gravel and occasionally sandstone.	DBCA
***Stenanthemum* sp. Eganu (S. Patrick 4537)**	P2	Unknown	Heath on grey sand on lateritic ridge.	DBCA
Stylidium aeonioides	P4	September–November	Hillsides and breakaways, low heath and open woodland with sandy clay loam over laterite.	DBCA
***Stylidium carnosum* subsp. Narrow leaves (J.A. Wege 490)**	P1	September–October	Hillslopes and plains with white-grey sand and lateritic gravel.	DBCA
Stylidium cornuatum	P2	September	brown or orange brown clay-loam in seasonally moist habitats.	DBCA
Stylidium diplotrichum	P2	September–November	Hillslopes and gullies, Acacia and myrtaceous shrubland and low heath with clayey sand or clay loam over laterite.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Stylidium drummondianum	P3	August–October	Upper hillslopes and breakaways, low health or mallee shrubland on sand or clayey sand over laterite.	DBCA, Woodman (2015)
Stylidium inversiflorum	P4	September–November	Sandplains, hillslopes and gullies, heath, open woodland on white or grey sand over laterite.	DBCA
Stylidium nonscandens	P3	September–November	Sand over laterite. Hillslopes and crests. Banksia woodland, heath, mallee shrubland.	DBCA
Stylidium pseudocaespitosum	P2	Sep–Nov	Breakaways and hillslopes on white, grey or yellow sand over laterite.	DBCA
***Stylidium* sp. Three Springs (J.A. Wege & C. Wilkins JAW 600)**	P2	Sep	Rocky slopes, flats and outcrops with clay-sand or loam.	DBCA, Woodman (2015)
Stylidium striatum	P4	September to December	Brown or yellow sandy clay with laterite. Slopes and flats.	DBCA
Stylidium tinkeri	P2	April, October to November	Winter-wet depressions, flats, wetlands and valleys with brown or grey clay loam.	DBCA
Stylidium torticarpum	P3	September–November	Adjacent to drainage lines, depressions, and beneath breakaways, heath or mallee shrubland on sandy clay or clay loam over laterite.	DBCA
Styphelia carolineae	P2	May–July	White sand over laterite in dense, species-rich heath.	DBCA
Styphelia filamentosa	P3	October–January	Uplands and low rises with white-grey sand over laterite.	DBCA
Styphelia filifolia	P3	February to June	Sand, sometimes winter damp.	DBCA
Styphelia hyalina	P3	June, October–December	Sand or loam soils, on lateritic upalnds and often in association with breakaways.	DBCA
Styphelia longissima	T	June–September	Hillsides with gentle slopes and yellow sand.	DBCA, DCCEEW
Styphelia marginata	T	May–September	Sandplain, hillside. White-grey or brown sand, sandy clay.	DCCEEW
Styphelia obtecta	T	October–November	Plains with white, grey or yellow sand.	DBCA, DCCEEW
Styphelia pallens	P2	October–December	Usually high in the landscape in sand or light loam over laterite.	DBCA
Styphelia williamsiorum	P3	October–Decenber	Lateritic uplands, often close to breakaways, in shallow, sandy soils.	DBCA
Synaphea endothrix	P3	July–October	Ridges and hills with brown, yellow or white gravelly sand over laterite.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Synaphea oulopha	P3	Jul–Oct	Lateritic breakaways and rises on grey sand, gravelly loam, clay.	DBCA
Synaphea sparsiflora	P2	Aug–Sep	Slopes / crests of hills and lateritic ridges with grey / brown sand.	DBCA
Synaphea xela	P2	August	Undulating sites with red-brown gravelly sand, white-pink, grey-brown clayey sand and loam, over laterite.	DBCA
Tetratheca angulata	P3	September–December	Low hill crests, breakaways with massive laterite boulders with sandy to gravelly laterite soils.	DBCA
Tetratheca nephelioides	T	July–January	Slopes and ridges with white or grey gravelly sand over laterite.	DBCA, DCCEEW
Thelymitra apiculata	P4	June–July	Hillslopes with grey sand, lateritic gravel and laterite.	DBCA, DBCA
Thelymitra pulcherrima	P2	July–September	Flats and slopes of lateritic hills with white-grey sand or grey-brown sandy clay.	DBCA
Thelymitra stellata	T	Sep–Nov	Ridges and tops of lateritic hills with grey or brown sand or loam and lateritic gravel.	DBCA, DCCEEW
Thryptomene spicata	P2	September–November	Slopes with grey, yellow or brown lateritic sand, Rocky Springs ferricrete.	DBCA
Thysanotus glaucus	P4	Oct–Mar	White, grey or yellow sand, sandy gravel.	DBCA
Thysanotus vernalis	P3	September – October	Slopes, flats and winter wet depressions with grey, brown or white sand with lateritic gravel over laterite.	DBCA
Verticordia albida	T	November–January	Undulating sandplains with grey, white or yellow sand, sometimes over laterite.	DBCA, DCCEEW, Woodman (2015)
Verticordia amphigia	P3	October–November	Winter-wet depressions with sandy loam, sandy clay , sand over laterite, clay pans, occasionally rocky red loam (on ferricrete).	DBCA
Verticordia argentea	P2	Nov–Apr	White, grey or yellow sand. Sand ridges, undulating plains.	DBCA
Verticordia aurea	P4	September–December	Sandplains with deep white-grey sand.	DBCA, Woodman (2015)
Verticordia densiflora* var. *roseostella	P3	September–December	Sandplains and breakaways with yellow, grey or white sand or sandy loam, often with laterite.	DBCA
Verticordia fragrans	P3	September–November	Sandplains and low-lying areas with white, grey or yellow sand or clay loam.	DBCA

Taxon	WA Status	Flowering	Habitat	Source*
Verticordia insignis* subsp. *eomagis	P3	August–November	Sandplains and rocky rises with sandy soils over laterite.	DBCA
Verticordia luteola* var. *luteola	P3	Nov–Jan	Flats. Grey sand over gravel.	DBCA
Verticordia luteola* var. *rosea	P1	Dec–Jan	White sand. Flats.	DBCA
Verticordia muelleriana* subsp. *muelleriana	P3	September–January	Sandplains and slopes with white-grey or yellow sand.	DBCA, Woodman (2015)
Verticordia penicillaris	P4	September–October	Hills, rocky creeks and outcrops with shallow grey or brown sandy loam or clay loam, often with granite or sometimes laterite or sandstone.	DBCA
Verticordia rutilastra	P3	September–November	Lateritic breakaways and slopes with white or brown gravelly sand or sandy loam.	DBCA
Walteranthus erectus	P2	February	Coastal limestone ridges with sand over limestone.	DBCA
Wurmbea tubulosa	T	Jun–Aug	Riverbanks, seasonally-wet places with clay or loam.	DCCEEW
Xanthosia tomentosa	P4	September–December	Undulating sandplains, tops of hills and ridges with white-grey sand over laterite.	DBCA

**Sources:*

DBCA: DBCA (2024b, 2007-)

DCCEEW: DCCEEW (2024b)

APPENDIX C

Vascular Plant Taxa Recorded within the Reconnaissance Flora and Vegetation Survey Area

Family	Taxon
Aizoaceae	*Carpobrotus* sp.
Anarthriaceae	*Lyginia barbata*
	Lyginia imberbis
Apiaceae	*Actinotus leucocephalus*
	Platysace xerophila
Araliaceae	*Trachymene pilosa*
Asparagaceae	*Acanthocarpus canaliculatus*
	Acanthocarpus sp. Ajana (C.A. Gardner 8596)
	Lomandra hastilis
	Lomandra sericea
	Thysanotus asper
	Thysanotus dichotomus
	Thysanotus rectantherus
	?Thysanotus sp.
Asteraceae	**Hypochaeris glabra*
	Olearia sp. Eremicola (Diels & Pritzel s.n. PERTH 00449628)
	Podotheca gnaphalioides
	Pterochaeta paniculata
	**Ursinia anthemoides*
Boraginaceae	**Echium plantagineum*
	Halgania sp. Wongan Hills (K.F. Kenneally 2393)
Campanulaceae	**Wahlenbergia capensis*
Casuarinaceae	*Allocasuarina acuaria*
	Allocasuarina campestris
	Allocasuarina grevilleoides
	Allocasuarina humilis
	Allocasuarina microstachya
	Allocasuarina ramosissima
	Allocasuarina thuyoides
	Casuarina obesa
Colchicaceae	*Burchardia congesta*
Crassulaceae	*Crassula closiana*
Cupressaceae	*Callitris pyramidalis*
Cyperaceae	*Caustis dioica*
	Caustis gigas
	Chaetospora curvifolia
	Cyathochaeta equitans

Family	Taxon
Cyperaceae Contd.	*Gahnia trifida*
	Lepidosperma ?*pubisquameum*
	Lepidosperma sanguinolentum
	Lepidosperma aff. *scabra*
	Lepidosperma sp. P1 small head (M.D. Tindale 166A)
	Lepidosperma tenue
	Mesomelaena preissii
	Mesomelaena pseudostygia
	Mesomelaena tetragona
	Morelotia microcarpa
	Schoenus ?*brevisetis*
	Schoenus clandestinus
	Schoenus griffinianus
	Schoenus nanus
	Schoenus pedicellatus
	Schoenus subfascicularis
	Schoenus sublateralis
	Schoenus unispiculatus
	Tricostularia neesii
Dasypogonaceae	*Calectasia hispida*
	Dasypogon obliquifolius
Dilleniaceae	*Hibbertia fasciculiflora*
	Hibbertia hypericoides subsp. hypericoides
	Hibbertia hypericoides subsp. *septentrionalis*
	Hibbertia prolata
	Hibbertia pubens
	Hibbertia subvillosa
Droseraceae	*Drosera drummondii*
	Drosera erythrorhiza
	Drosera pallida
	Drosera pedicellaris
	Drosera prophylla
	Drosera sp.
Ecdeiocoleaceae	*Ecdeiocolea monostachya*
Ericaceae	*Andersonia heterophylla*
	Conostephium magnum
	Conostephium pendulum

Family	Taxon
	Conostephium preissii
	Leucopogon simulans
	Styphelia pallens
	Styphelia sp. Eneabba (N. Marchant s.n. PERTH 01291777)
	Styphelia sp. Mid West (J.S. Beard 7388)
	Styphelia tortifolia
	Styphelia xerophylla
Fabaceae	*Acacia acuminata*
	Acacia auronitens
	Acacia barbinervis subsp. *borealis*
	Acacia blakelyi
	Acacia dilatata
	Acacia epacantha
	Acacia lasiocarpa var. *lasiocarpa*
	Acacia latipes subsp. *latipes*
	Acacia pulchella
	Acacia saligna
	Acacia stenoptera
	Acacia ulicina
	Acacia wilsonii
	Bossiaea eriocarpa
	Chorizema aciculare subsp. *laxum*
	Daviesia chapmanii
	Daviesia daphnoides
	Daviesia decurrens subsp. *decurrens*
	Daviesia divaricata subsp. *divaricata*
	Daviesia nudiflora subsp. *hirtella*
	Daviesia nudiflora subsp. *nudiflora*
	Daviesia pedunculata
	Daviesia speciosa
	Gastrolobium plicatum
	Gastrolobium polystachyum
	Gastrolobium spinosum
	Gastrolobium stowardii
	Gastrolobium glutinosum
	Gompholobium pungens
	Jacksonia eremodendron

Family	Taxon
Fabaceae (contd.)	*Jacksonia floribunda*
	Jacksonia hakeoides
	Jacksonia nutans
	Jacksonia sternbergiana
	Labichea lanceolata subsp. *lanceolata*
	**Trifolium arvense* var. *arvense*
Goodeniaceae	*Dampiera spicigera*
	Dampiera teres
	Goodenia caerulea
	Lechenaultia biloba
	Scaevola canescens
Haemodoraceae	*Conostylis aculeata* subsp. *breviflora*
	Conostylis androstemma
	Conostylis aurea
	Conostylis neocymosa
	Conostylis sp.
	Haemodorum loratum
	Phlebocarya filifolia
	Phlebocarya pilosissima subsp. *pilosissima*
Haloragaceae	*Glischrocaryon aureum*
	Gonocarpus pithyoides
Hemerocallidaceae	*Arnocrinum gracillimum*
	Corynotheca micrantha
	Dianella sp.
	Hensmania stoniella
	Tricoryne elatior
Lamiaceae	*Cyanostegia corifolia*
	Hemiandra rubriflora
	Hemiandra sp. Eneabba (H. Demarz 3687)
	Hemiandra sp. Jurien (B.J. Conn & M.E. Tozer BJC 3885)
	Hemiandra sp. Watheroo (S. Hancocks 4)
	Hemigenia barbata
	Lachnostachys eriobotrya
	Physopsis spicata
	Quoya verbascina
Lauraceae	*Cassytha aurea* var. *hirta*
	Cassytha glabella

Family	Taxon
	Cassytha pomiformis
Loranthaceae	*Amyema miquelii*
	Nuytsia floribunda
Malvaceae	*Alyogyne hakeifolia*
	Androcalva pulchella
	Guichenotia micrantha
	Lasiopetalum lineare
	Thomasia grandiflora
	Thomasia macrocalyx
Myrtaceae	*Apectospermum spinescens*
	Babingtonia camphorosmae
	Babingtonia erecta
	Babingtonia grandiflora
	Beaufortia bicolor
	Beaufortia elegans
	Beaufortia kwongkanicola
	Calothamnus accedens
	Calothamnus longissimus
	Calothamnus quadrifidus subsp. *angustifolius*
	Calothamnus sanguineus
	Calothamnus torulosus
	Calytrix aurea
	Calytrix chrysantha
	Calytrix depressa
	Calytrix flavescens
	Calytrix flavescens s. lat.
	Calytrix oldfieldii
	Calytrix sapphirina
	Calytrix strigosa
	Conothamnus trinervis
	Darwinia neildiana
	Darwinia sp. Watheroo (I.R. McGill 20)
	Eremaea asterocarpa
	Eremaea atala
	Eremaea beaufortioides
	Eremaea ectadioclada
	Eremaea pauciflora

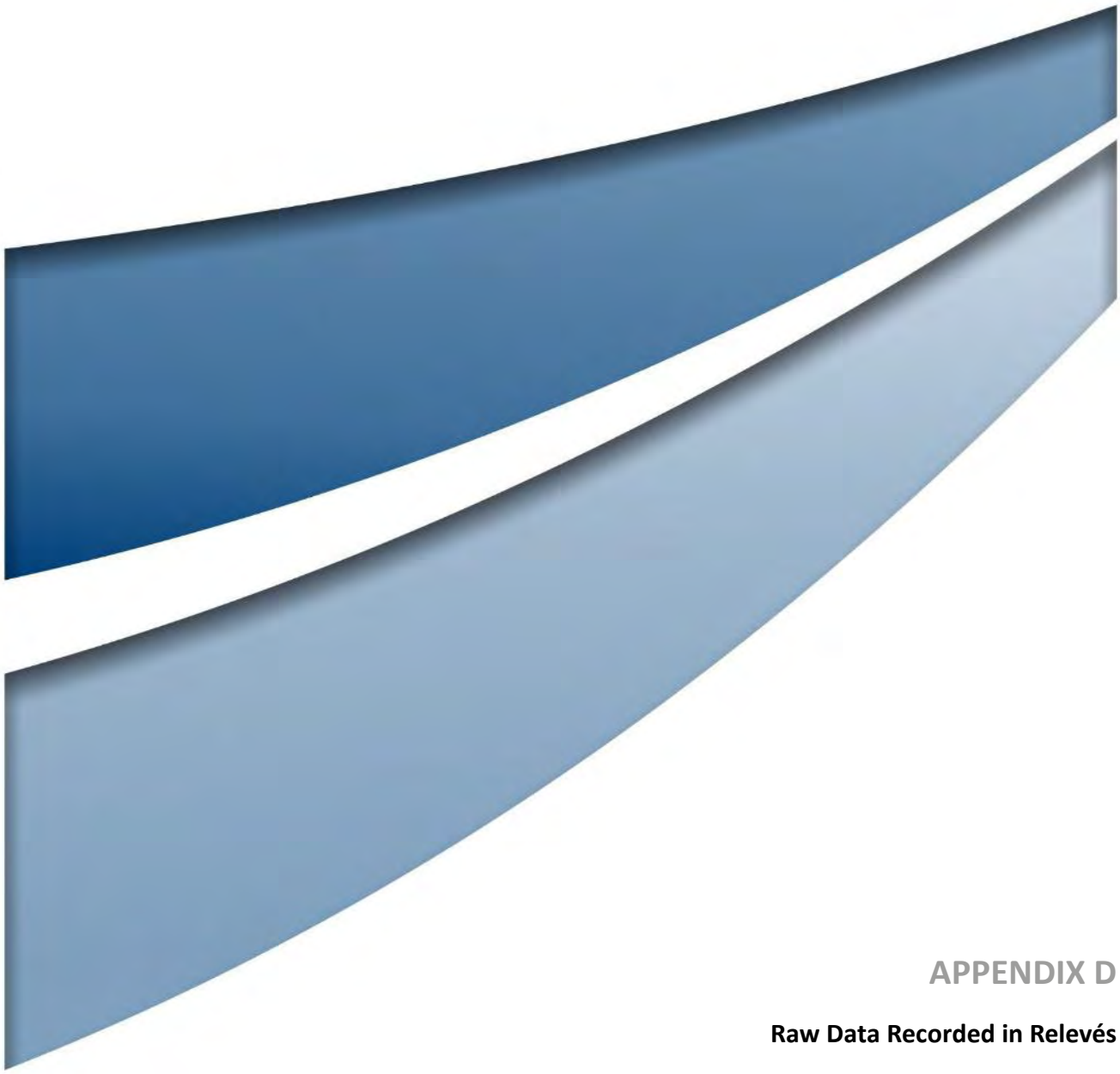
Family	Taxon
Myrtaceae (Contd.)	*Eremaea pauciflora* var. *pauciflora*
	Ericomyrtus tenuior
	Eucalyptus accedens
	Eucalyptus arachnaea subsp. *arachnaea*
	Eucalyptus camaldulensis subsp. *arida*
	Eucalyptus diminuta
	Eucalyptus drummondii
	Eucalyptus ecdysiastes
	Eucalyptus gittinsii subsp. *illucida*
	Eucalyptus opimiflora
	Eucalyptus pleurocarpa
	Eucalyptus pyriformis
	Eucalyptus todtiana
	Hypocalymma balbakiae
	Kunzea micrantha subsp. *petiolata*
	Leptospermopsis oligandra
	Melaleuca acutifolia
	Melaleuca aspalathoides
	Melaleuca brevifolia
	Melaleuca ciliosa
	Melaleuca concreta
	Melaleuca hamulosa
	Melaleuca leuropoma
	Melaleuca marginata
	Melaleuca platycalyx
	Melaleuca preissiana
	Melaleuca rhaphiophylla
	Melaleuca ryeae
	Melaleuca seriata
	Melaleuca tinkeri
	Melaleuca trichophylla
	Melaleuca urceolaris
	Melaleuca viminea subsp. *viminea*
	Melaleuca zonalis
	Micromyrtus flava
	Pileanthus filifolius
	Regelia ciliata

Family	Taxon
	Scholtzia laxiflora
Myrtaceae (Contd.)	*Scholtzia teretifolia*
	Scholtzia ?umbellifera
	Thryptomene mucronulata
	Verticordia densiflora var. *densiflora*
	Verticordia ?eriocephala
	Verticordia grandiflora
	Verticordia grandis
	Verticordia laciniata
	Verticordia pennigera
	Verticordia picta
Orchidaceae	*Caladenia flava*
	Paracaleana dixonii
	Pterostylis vittata
	Thelymitra benthamiana
Phyllanthaceae	*Poranthera asybosca*
Poaceae	*?Amphipogon caricinus* var. *caricinus*
	Amphipogon turbinatus
	Austrostipa elegantissima
	Austrostipa macalpinei
	**Bromus madritensis*
	**Corynephorus fasciculatus*
	Neurachne alopecuroidea
	**Pentameris airoides* subsp. *airoides*
	Poaceae sp.
Polygalaceae	*Comesperma acerosum*
	Comesperma drummondii
	Comesperma griffinii
	Comesperma rhadinocarpum
Polygonaceae	*Muehlenbeckia adpressa*
Proteaceae	*Adenanthos cygnorum* subsp. *cygnorum*
	Banksia armata var. *ignicida*
	Banksia attenuata
	Banksia bipinnatifida
	Banksia bipinnatifida subsp. *multifida*
	Banksia candolleana
	Banksia carlinoides

Family	Taxon
	Banksia chamaephyton
Proteaceae (Contd.)	*Banksia cypholoba*
	Banksia dallanneyi subsp. *media*
	Banksia elegans
	Banksia fraseri var. *crebra*
	Banksia glaucifolia
	Banksia grossa
	Banksia incana var. *incana*
	Banksia kippistiana var. *kippistiana*
	Banksia kippistiana var. *paenepeccata*
	Banksia lanata
	Banksia leptophylla var. *leptophylla*
	Banksia menziesii
	Banksia micrantha
	Banksia nobilis subsp. *fragrans*
	Banksia platycarpa
	Banksia prionotes
	Banksia pteridifolia subsp. *vernalis*
	Banksia sessilis var. *flabellifolia*
	Banksia shuttleworthiana
	Banksia sphaerocarpa var. *pumilio*
	Banksia splendida
	Banksia splendida subsp. *macrocarpa*
	Banksia stenoprion
	Banksia strictifolia
	Banksia subulata
	Banksia tortifolia
	Conospermum nervosum
	Conospermum wycherleyi
	Grevillea biformis subsp. *biformis*
	Grevillea biternata
	Grevillea erinacea
	Grevillea aff. *levis*
	Grevillea rudis
	Grevillea vestita subsp. *vestita*
	Grevillea vestita x *biternata*
	Hakea anadenia

Family	Taxon
	Hakea auriculata
Proteaceae (Contd.)	*Hakea brownii*
	Hakea candolleana
	Hakea conchifolia
	Hakea flabellifolia
	Hakea gilbertii
	Hakea incrassata
	Hakea lissocarpha
	Hakea marginata
	Hakea megalosperma
	Hakea neospathulata
	Hakea prostrata
	Hakea psilorrhyncha
	Hakea smilacifolia
	Hakea stenocarpa
	Hakea trifurcata
	Isopogon adenanthoides
	Isopogon divergens
	Isopogon panduratus subsp. *panduratus*
	Lambertia multiflora var. *multiflora*
	Petrophile aculeata
	Petrophile brevifolia
	Petrophile chrysantha
	Petrophile linearis
	Petrophile macrostachya
	Petrophile megalostegia
	Petrophile scabriuscula
	Petrophile septemfida
	Petrophile serruriae
	Petrophile shuttleworthiana
	Stirlingia latifolia
	Synaphea aephynsa
	Synaphea sparsiflora
	Synaphea spinulosa subsp. spinulosa
	Xylomelum angustifolium
Restionaceae	*Alexgeorgea nitens*
	Catacolea enodis

Family	Taxon
	Chordifex microcodon
	Chordifex sinuosus
	Desmocladus asper
	Desmocladus elongatus
	Desmocladus lateriticus
	Desmocladus nodatus
	Desmocladus parthenicus
	Hypolaena robusta
	Lepidobolus chaetocephalus
	Lepidobolus preissianus
	Lepidobolus sp.
Rhamnaceae	*Cryptandra myriantha*
	Polianthion wichurae
	Stenanthemum humile
	Stenanthemum reissekii
Rubiaceae	*Opercularia vaginata*
Rutaceae	*Cyanothamnus ramosus*
	Cyanothamnus ramosus subsp. *anethifolius*
	Diplolaena velutina
	Geleznowia verrucosa
Santalaceae	*Exocarpos sparteus*
	Santalum acuminatum
Solanaceae	*Anthocercis genistoides*
Stylidiaceae	*Levenhookia murfetii*
	Levenhookia stipitata
	Stylidium flagellum
	Stylidium nonscandens
	Stylidium ponticulus
	Stylidium torticarpum
Violaceae	*Pigea floribunda*
Xanthorrhoeaceae	*Xanthorrhoea drummondii*
	Xanthorrhoea sp.
Zamiaceae	*Macrozamia fraseri*



APPENDIX D

Raw Data Recorded in Relevés

Site Name:	**TCR01**
Site Type:	RELEVE
Survey Date:	10/06/2024
GPS Location:	GDA2020 Zone 50 354247.43E 6703765.69N
Landform Type:	Simple Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	W
Soil Type:	Sand
Soil Colour:	Grey (other)
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	>10 years
Habitat:	Large fallen logs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus todtiana*
Mid Stratum 1:	*Allocasuarina humilis*, *Banksia attenuata*, *Leptospermopsis oligandra*, *Xanthorrhoea drummondii*
Mid Stratum 2:	*Banksia incana* var. *incana*, *Banksia lanata*, *Banksia platycarpa*, *Banksia shuttleworthiana*, *Eremaea pauciflora*, *Melaleuca leuropoma*
Lower Stratum 1:	*Caustis dioica*, *Chaetospora curvifolia*, *Chordifex sinuosus*, *Mesomelaena pseudostygia*, *Schoenus pedicellatus*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina humilis	1.6		2
Banksia attenuata	1.6		2
Banksia cypholoba (P3)	0.15		1
Banksia incana var. *incana*	0.7		10
Banksia lanata	0.6		1
Banksia platycarpa	0.6		2
Banksia shuttleworthiana	0.5		2
Caustis dioica	0.25		1
Chaetospora curvifolia	0.2		1
Chordifex sinuosus	0.4		1
Eremaea asterocarpa	0.4		1
Eremaea pauciflora	0.9		2
Eucalyptus todtiana	5		5
Leptospermopsis oligandra	1.8		4
Melaleuca leuropoma	0.6		2
Mesomelaena pseudostygia	0.3		12
Schoenus pedicellatus	0.4		1
Xanthorrhoea drummondii	1.6		4

PHOTO – TCR01

Site Name:	**TCR02**
Site Type:	RELEVE
Survey Date:	10/06/2024
GPS Location:	GDA2020 Zone 50 353921.69E 6703869.39N
Landform Type:	Closed Depression
Slope Class:	Level (0°)
Soil Type:	Clay Loam
Soil Colour:	Red-Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	drought (other)
Fire:	> 20 years
Habitat:	Wetland. Can hear frogs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Melaleuca concreta*
Mid Stratum 2:	*Acacia lasiocarpa* var. *lasiocarpa*, *Bossiaea eriocarpa*, *Jacksonia hakeoides*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia lasiocarpa var. *lasiocarpa*	0.4		0.1
Bossiaea eriocarpa	0.3		1
Jacksonia hakeoides	0.3		0.1
Melaleuca concreta	3		85

PHOTO – TCR02

Site Name:	**TCR03**
Site Type:	RELEVE
Survey Date:	10/06/2024
GPS Location:	GDA2020 Zone 50 353944.68E 6703937.3N
Landform Type:	Simple Slope
Slope Class:	Gently Inclined (3°)
Aspect:	S
Soil Type:	Sand
Soil Colour:	Grey
Soil Condition:	Moist
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	drought (other)
Fire:	> 10 years
Habitat:	Old trees with hollows, fallen logs. Bees present. Caution.

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus camaldulensis* subsp. *arida*
Mid Stratum 1:	*Banksia attenuata*, *Banksia menziesii*, *Jacksonia sternbergiana*, *Melaleuca concreta*
Mid Stratum 2:	*Corynotheca micrantha*
Lower Stratum 1:	*Lomandra hastilis*, *Schoenus pedicellatus*
Lower Stratum 2:	*Dianella* sp., *Poaceae* sp.

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia attenuata	2		2
Banksia menziesii	2.5		1
Carpobrotus sp.	0.1		0.1
Corynotheca micrantha	0.4		2
Dianella sp.	0.8		
Eucalyptus camaldulensis subsp. *arida*	12		45
Jacksonia sternbergiana	2		1
Lomandra hastilis	1.1		1
Melaleuca concreta	2.5		1
Poaceae sp.	0.05		75
Schoenus pedicellatus	0.5		35

PHOTO – TCR03

Site Name:	**TCR04**
Site Type:	RELEVE
Survey Date:	10/06/2024
GPS Location:	GDA2020 Zone 50 354264.08E 6704000.79N
Landform Type:	Simple Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	W
Soil Type:	Sand
Soil Colour:	White
Soil Condition:	Moist
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	drought (other)
Fire:	> 10 years
Habitat:	Some fallen logs under Euc. todtiana

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus todtiana*
Mid Stratum 1:	*Banksia attenuata*, *Hakea psilorrhyncha*, *Jacksonia floribunda*, *Leptospermopsis oligandra*, *Xylomelum angustifolium*
Lower Stratum 1:	*Alexgeorgea nitens*, *Amphipogon turbinatus*, *Lyginia imberbis*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Alexgeorgea nitens	0.2		0.1
Amphipogon turbinatus	0.25		0.1
Banksia attenuata	1.8		4
Banksia cypholoba (P3)	0.2		0.5
Banksia incana var. *incana*	0.5		2
Banksia platycarpa	0.6		2
Eucalyptus todtiana	5		10
Hakea psilorrhyncha	2.5		2
Jacksonia floribunda	1.9		2
Lachnostachys eriobotrya	1.2		
Leptospermopsis oligandra	1.8		3
Lyginia imberbis	0.4		1
Melaleuca leuropoma	0.6		5
Verticordia grandis	1.8		1
Xylomelum angustifolium	3		1

PHOTO – TCR04

Site Name:	**TCR05**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 354403.97E 6702973.09N
Landform Type:	Upper Slope
Slope Class:	Gently Inclined (3°)
Aspect:	E
Soil Type:	Sand
Soil Colour:	White
Soil Condition:	Moist
Rock Outcrop:	Laterite, <2% bedrock exposed
CF Abundance:	<2%
CF Sizes:	6-20mm, 20-60mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	10-20 Years

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1:	*Allocasuarina humilis*, *Banksia kippistiana* var. *kippistiana*, *Banksia splendida* subsp. *macrocarpa*, *Calothamnus sanguineus*, *Daviesia speciosa*, *Hakea anadenia*, *Hakea gilbertii*, *Hakea prostrata*, *Olearia* sp. Eremicola (Diels & Pritzel s.n. PERTH 00449628)
Mid Stratum 2:	*Banksia carlinoides*, *Banksia glaucifolia*, *Banksia incana* var. *incana*, *Banksia shuttleworthiana*, *Hakea conchifolia*, *Xanthorrhoea drummondii*
Lower Stratum 1:	*Caustis dioica*, *Ecdeiocolea monostachya*, *Lepidosperma tenue*, *Mesomelaena pseudostygia*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina campestris			
Allocasuarina humilis	1.1		1
Banksia carlinoides	0.9		2
Banksia chamaephyton (P4)			
Banksia glaucifolia	0.9		2
Banksia incana var. *incana*	0.7		5
Banksia kippistiana var. *kippistiana*	1.2		2
Banksia shuttleworthiana	0.8		2
Banksia splendida subsp. *macrocarpa* (P3)	1.2	25	4
Calothamnus sanguineus	1.2		2
Caustis dioica	0.3		2
Daviesia speciosa (T)	1.2	12	2
Ecdeiocolea monostachya	0.9		2
Hakea anadenia	1.6		2
Hakea auriculata			
Hakea conchifolia	0.9		2
Hakea gilbertii	1.2		2
Hakea prostrata	1.7		2

Lepidosperma tenue	0.6		2
Mesomelaena pseudostygia	0.7		2
Olearia sp. Eremicola (Diels & Pritzel s.n. PERTH 00449628)	1.5		2
Xanthorrhoea drummondii	0.7		2

PHOTO – TCR05

Site Name:	**TCR06**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 354362.8E 6702951.92N
Landform Type:	Upper Slope
Slope Class:	Gently Inclined (3°)
Aspect:	SE
Soil Type:	Sand
Soil Colour:	White
Rock Outcrop:	Laterite, <2% bedrock exposed
CF Abundance:	<2%
CF Sizes:	6-20mm, 2-6mm, 20-60mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	(other) - Tracks
Fire:	10-20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus drummondii*
Mid Stratum 1:	*Banksia carlinoides*, *Banksia glaucifolia*, *Banksia lanata*, *Daviesia chapmanii*, *Daviesia nudiflora* subsp. *hirtella*, *Gastrolobium plicatum*
Lower Stratum 1:	*Caustis dioica*, *Ecdeiocolea monostachya*, *Lepidosperma sanguinolentum*, *Lepidosperma tenue*, *Mesomelaena pseudostygia*, *Morelotia microcarpa*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia carlinoides	0.6		
Banksia glaucifolia	0.7		2
Banksia kippistiana var. *kippistiana*			
Banksia lanata	0.6		1
Caustis dioica	0.9		1
Daviesia chapmanii	0.8		3
Daviesia nudiflora subsp. *hirtella*	0.5		3
Ecdeiocolea monostachya	0.9		3
Eucalyptus drummondii			
Gastrolobium plicatum	0.4		3
Lepidosperma sanguinolentum	0.9		2
Lepidosperma sp. P1 small head (M.D. Tindale 166A)			
Lepidosperma tenue	0.3		1
Mesomelaena pseudostygia	0.3		2
Morelotia microcarpa	0.4		3
Petrophile linearis	0.4		

PHOTO – TCR06

Site Name:	**TCR07**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 347747.77E 6696286.69N
Landform Type:	Drainage Line
Slope Class:	Very Gently Inclined (1°)
Aspect:	S
Soil Type:	Sandy Clay
Soil Colour:	Grey
Soil Condition:	Moist
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Grazing
Fire:	> 20 Years
Habitat:	Can see mistletoe in the Casuarina. Other annuals germinating. Otherwise no further taxa.

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Casuarina obesa*
Mid Stratum 1:	*Melaleuca rhaphiophylla*
Lower Stratum 1:	*Poaceae* sp.

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Casuarina obesa	9		35
Melaleuca rhaphiophylla	3		45
Poaceae sp.	0.05		75

PHOTOS – TCR07

Site Name:	**TCR08**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 347722.9E 6696560.47N
Landform Type:	Simple Slope
Slope Class:	Gently Inclined (3°)
Aspect:	S
Soil Type:	Sand
Soil Colour:	White
Soil Condition:	Some patches of yellow sand
Rock Outcrop:	No bedrock exposed
CF Abundance:	2-10%
CF Sizes:	2-6mm, 6-20mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Grazing
Fire:	> 20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Callitris pyramidalis*
Mid Stratum 1:	*Calothamnus quadrifidus* subsp. *angustifolius*, *Melaleuca ryeae*, *Scholtzia ?umbellifera*, *Thryptomene mucronulata*
Mid Stratum 2:	*Hakea trifurcata*, *Jacksonia hakeoides*, *Petrophile brevifolia*, *Styphelia* sp. Eneabba (N. Marchant s.n. PERTH 01291777), *Verticordia densiflora* var. *densiflora*
Lower Stratum 1:	*Caustis dioica*, *Dianella* sp., *Ecdeiocolea monostachya*, *Lepidosperma tenue*, *Mesomelaena pseudostygia*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Callitris pyramidalis	4.5		2
Calothamnus quadrifidus subsp. *angustifolius*	2.5		3
Caustis dioica	0.6		8
Dianella sp.	0.9		1
Ecdeiocolea monostachya	0.9		1
Hakea trifurcata	0.9		1
Jacksonia hakeoides	0.9		1
Lepidosperma tenue	0.3		1
Melaleuca ryeae	2.5		15
Mesomelaena pseudostygia	0.4		1
Petrophile brevifolia	0.9		1
Scholtzia ?umbellifera	2.5		6
Styphelia sp. Eneabba (N. Marchant s.n. PERTH 01291777)	0.4		1
Thryptomene mucronulata	2.7		7
Verticordia densiflora var. *densiflora*	1.3		3

PHOTOS - TCR08

Site Name:	**TCR09**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 347702.2E 6697711.23N
Landform Type:	Simple Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	E
Soil Type:	Sandy Loam
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Disturbance:	(other) - Track nearby, rabbit warrens
Fire:	> 20 Years
Habitat:	Tall closed shrubland

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia leptophylla var. *leptophylla*	2.5		5
Banksia sessilis var. *flabellifolia*	3.5		1
Calothamnus quadrifidus subsp. *angustifolius*	3.5		55
Cassytha aurea var. *hirta*			5
Caustis dioica	0.5		
Dianella sp.	0.9		
Ecdeiocolea monostachya	0.9		
Eucalyptus drummondii	8		
Grevillea vestita subsp. *vestita*	1.2		
Jacksonia hakeoides	0.9		
Muehlenbeckia adpressa			3
Scholtzia ?umbellifera	3		40

PHOTOS – TCR09

Site Name:	**TCR10**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 348974.22E 6697732.66N
Landform Type:	Simple Slope
Slope Class:	Gently Inclined (3°)
Aspect:	N
Soil Type:	Sand
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Clearing, Grazing, Weeds
Fire:	10-20 Years
Habitat:	Very species poor, no other taxa (maybe annuals)

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus accedens*
Mid Stratum 1:	*Acacia latipes* subsp. *latipes*, *Banksia fraseri* var. *crebra*, *Hakea anadenia*, *Hakea lissocarpha*
Lower Stratum 1:	*Ecdeiocolea monostachya*
Lower Stratum 2:	*Poaceae* sp.

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia latipes subsp. *latipes*	0.5		1
Banksia fraseri var. *crebra* (P3)	0.7		1
Ecdeiocolea monostachya	0.6		15
Eucalyptus accedens	10		45
Hakea anadenia	0.4		1
Hakea lissocarpha	0.8		2
Poaceae sp.	0.05		60

PHOTOS – TCR10

Site Name:	**TCR11**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 351197.59E 6694151.3N
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1°)
Aspect:	N
Soil Type:	Sand
Soil Colour:	Grey
Soil Condition:	Moist
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	10-20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus todtiana*
Mid Stratum 1:	*Allocasuarina humilis*, *Banksia leptophylla* var. *leptophylla*, *Hakea psilorrhyncha*, *Isopogon panduratus* subsp. *panduratus*, *Leptospermopsis oligandra*
Mid Stratum 2:	*Conostephium preissii*, *Eremaea beaufortioides*, *Melaleuca leuropoma*
Lower Stratum 1:	*Banksia incana* var. *incana*, *Beaufortia elegans*, *Calytrix chrysantha*, *Conospermum wycherleyi*, *Eremaea ectadioclada*, *Stirlingia latifolia*, *Synaphea spinulosa* subsp. *spinulosa*
Lower Stratum 2:	*Caustis dioica*, *Lomandra hastilis*, *Mesomelaena pseudostygia*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina humilis	1.9		2
Amyema miquelii			
Banksia incana var. *incana*	0.5		2
Banksia leptophylla var. *leptophylla*	2.1		10
Banksia platycarpa	0.5		1
Beaufortia elegans	0.5		1
Calytrix chrysantha (P4)	0.8		1
Caustis dioica	0.5		2
Conospermum wycherleyi	0.8		1
Conostephium magnum (P4)	1.1		1
Conostephium preissii	1.1		1
Eremaea beaufortioides	1.2		2
Eremaea ectadioclada	0.5		1
Eucalyptus todtiana	6		5
Hakea psilorrhyncha	2.1		2
Isopogon panduratus subsp. *panduratus*	2.2		2
Lambertia multiflora var. *multiflora*	1.1		
Leptospermopsis oligandra	2.1		5
Lomandra hastilis			1

Melaleuca leuropoma	0.6		1
Mesomelaena pseudostygia	0.4		2
Petrophile macrostachya	0.5		1
Stirlingia latifolia	0.5		1
Synaphea spinulosa subsp. *spinulosa*	0.5		1

Site Name:	**TCR12**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 351125E 6694671.01N
Landform Type:	Upper Slope
Slope Class:	Gently Inclined (3°)
Aspect:	S
Soil Type:	Sand
Soil Colour:	Grey
Soil Condition:	Close by more lateritic. Also dom calcrete outcrops
Rock Outcrop:	No bedrock exposed
CF Abundance:	<2%
CF Sizes:	20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	10-20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus accedens*, *Eucalyptus drummondii*, *Eucalyptus todtiana*
Mid Stratum 1:	*Calothamnus quadrifidus* subsp. *angustifolius*, *Calothamnus sanguineus*, *Leptospermopsis oligandra*, *Styphelia* sp. Mid West (J.S. Beard 7388)
Mid Stratum 2:	*Allocasuarina microstachya*, *Banksia carlinoides*, *Banksia shuttleworthiana*, *Beaufortia elegans*, *Hakea lissocarpha*, *Hibbertia hypericoides* subsp. *septentrionalis*, *Melaleuca leuropoma*
Lower Stratum 1:	*Caustis dioica*, *Desmocladus parthenicus*, *Lepidobolus preissianus*, *Mesomelaena pseudostygia*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia stenoptera	0.4		
Allocasuarina campestris	1.2		
Allocasuarina humilis	1.2		
Allocasuarina microstachya	0.5		1
Banksia candolleana	1.8		
Banksia carlinoides	0.8		1
Banksia glaucifolia	0.7		
Banksia leptophylla var. *leptophylla*	1.2		
Banksia shuttleworthiana	0.6		12
Beaufortia elegans	0.5		1
Calothamnus longissimus	0.6	10	1
Calothamnus quadrifidus subsp. *angustifolius*	1.5		1
Calothamnus sanguineus	1.8		1
Caustis dioica	0.5		1
Conostylis aculeata subsp. *breviflora*	0.2	2	
Desmocladus parthenicus	0.3		1
Drosera erythrorhiza	0.01		0.1
Eremaea pauciflora	0.4		

Eucalyptus accedens	7		2
Eucalyptus drummondii	4		3
Eucalyptus todtiana	3		2
Hakea anadenia	0.9		
Hakea auriculata	0.9		
Hakea flabellifolia	0.4		
Hakea lissocarpha	0.5		1
Hakea prostrata	1.1		
Hakea smilacifolia	1.8		
Hibbertia hypericoides subsp. *septentrionalis*	0.4		1
Lepidobolus preissianus	0.4		1
Leptospermopsis oligandra	1.8		
Leucopogon simulans	0.5		
Melaleuca leuropoma	0.5		3
Mesomelaena pseudostygia	0.5		2
Styphelia sp. Mid West (J.S. Beard 7388)	1.5		1

PHOTOS - TCR12

Site Name:	**TCR13**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 351238.02E 6694848.99N
Landform Type:	Ridge
Slope Class:	Moderately Inclined (10°)
Aspect:	NNE
Soil Type:	Clay Loam
Soil Colour:	Orange
Soil Condition:	Moist
Rock Outcrop:	Laterite, 20-50% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	60-200mm, 20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite, Calcrete
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	> 20 Years

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1:	*Allocasuarina campestris*, *Calothamnus sanguineus*, *Melaleuca concreta*, *Petrophile shuttleworthiana*, *Styphelia* sp. Mid West (J.S. Beard 7388)
Mid Stratum 2:	*Calothamnus longissimus*, *Gompholobium glutinosum*, *Melaleuca aspalathoides*
Lower Stratum 1:	*Lepidosperma sanguinolentum*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina campestris	1.6		1
Banksia fraseri var. *crebra* (P3)	0.3		
Calothamnus longissimus	0.5		6
Calothamnus quadrifidus subsp. *angustifolius*	0.8		
Calothamnus sanguineus	1.5		2
Dodonaea ericoides	0.5		
Gastrolobium polystachyum	0.9		1
Gompholobium glutinosum	0.3		10
Hakea lissocarpha	0.5		2
Lepidosperma sanguinolentum	0.7		3
Melaleuca aspalathoides	0.5		8
Melaleuca concreta	1.8		5
Petrophile chrysantha	0.5		
Petrophile shuttleworthiana	1.2		12
Styphelia sp. Eneabba (N. Marchant s.n. PERTH 01291777)	0.3		
Styphelia sp. Mid West (J.S. Beard 7388)	1.4		1

PHOTOS – TCR13

Site Name:	**TCR14**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 352230.55E 6694402.52N
Landform Type:	Plain
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Clay Loam
Soil Colour:	Red-Brown
Soil Condition:	Moist
Rock Outcrop:	No bedrock exposed
CF Abundance:	20-50%
CF Sizes:	2-6mm, 6-20mm
CF Types:	Laterite, Ironstone, Colluvium
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Disturbance:	drought (other)
Fire:	> 20 years
Habitat:	Thick melaleuca shrubbery, wet, can hear frogs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Melaleuca acutifolia*, *Melaleuca concreta*
Mid Stratum 1:	*Babingtonia erecta*, *Grevillea vestita* subsp. *vestita*, *Hakea marginata*, *Melaleuca platycalyx*, *Melaleuca ryeae*, *Styphelia* sp. Mid West (J.S. Beard 7388)
Mid Stratum 2:	*Acacia dilatata*
Lower Stratum 1:	*Lepidosperma sanguinolentum*, *Lepidosperma tenue*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia dilatata	0.8		1
Babingtonia erecta	2		2
Grevillea vestita subsp. *vestita*	1.1		0.5
Hakea marginata	1.2		2
Lepidosperma sanguinolentum	0.8		2
Lepidosperma tenue	0.5		5
Melaleuca acutifolia	3		15
Melaleuca concreta	3		25
Melaleuca platycalyx	1.2		5
Melaleuca ryeae	1.2		2
Styphelia sp. Mid West (J.S. Beard 7388)	1.2		5

PHOTOS – TCR14

Site Name:	**TCR15**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 352978.37E 6694462.66N
Landform Type:	Undulating Plain
Slope Class:	Very Gently Inclined (1°)
Aspect:	None
Soil Type:	Clay Loam
Soil Colour:	Red-Brown
Soil Depth:	Shallow
Soil Condition:	Shallow soil with large OM layer on ironstone bedrock
Rock Outcrop:	Ironstone, >50% bedrock exposed
CF Abundance:	10-20%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm
CF Types:	Ironstone
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Grazing, Clearing - proximity to cleared farmland
Fire:	> 20 years
Habitat:	Coarse woody debris, tall woodland, potential for hollows, long unburnt, exposed rocks

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus accedens*, *Eucalyptus drummondii*
Mid Stratum 1:	*Banksia sessilis* var. *flabellifolia*, *Calothamnus quadrifidus* subsp. *angustifolius*, *Labichea lanceolata* subsp. *lanceolata*, *Macrozamia fraseri*, *Melaleuca concreta*
Mid Stratum 2:	*Diplolaena velutina*, *Grevillea vestita* subsp. *vestita*, *Petrophile macrostachya*, *Styphelia* sp. Mid West (J.S. Beard 7388), *Thomasia macrocalyx*
Lower Stratum 1:	*Lepidosperma sanguinolentum*, *Lepidosperma tenue*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia sessilis var. *flabellifolia*	3		11
Banksia strictifolia	1.8		
Bossiaea eriocarpa	0.5		
Calothamnus quadrifidus subsp. *angustifolius*	2.5		2
Cassytha aurea var. *hirta*			
Diplolaena velutina	0.7		1
Eucalyptus accedens	8		65
Eucalyptus drummondii	7		20
Gompholobium pungens	0.3		
Grevillea vestita subsp. *vestita*	0.9		2
Labichea lanceolata subsp. *lanceolata*	2.3		6
Lepidosperma sanguinolentum	0.7		2
Lepidosperma tenue	0.3		5
Macrozamia fraseri	1.8		2

Melaleuca concreta	3		2
Petrophile macrostachya	0.5		1
Polianthion wichurae	0.5		
Pterostylis vittata	0.15		
Styphelia sp. Mid West (J.S. Beard 7388)	0.9		1
Thomasia macrocalyx	0.7		1

PHOTOS - TCR15

Site Name:	**TCR16**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 350019.14E 6689844.08N
Landform Type:	Upper Slope
Slope Class:	Steep (23°)
Aspect:	W
Soil Type:	Sandy Clay
Soil Colour:	White
Soil Condition:	Soil white clay with pink clay where breakaway fresh
Rock Outcrop:	Laterite, 20-50% bedrock exposed
CF Abundance:	50-90%
CF Sizes:	60-200mm, 20-60mm, 6-20mm, 2-6mm, 200-600mm, 600-2000mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	> 20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus accedens*, *Eucalyptus arachnaea* subsp. *arachnaea*
Mid Stratum 1:	*Melaleuca concreta*, *Melaleuca marginata*
Lower Stratum 1:	*Lepidosperma sanguinolentum*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Eucalyptus accedens	7		30
Eucalyptus arachnaea subsp. *arachnaea*	6		25
Lepidosperma sanguinolentum			5
Melaleuca concreta	2		15
Melaleuca marginata	1.2		55
Melaleuca tinkeri			

PHOTOS – TCR16

Site Name:	**TCR17**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 351114.17E 6689994.16N
Landform Type:	Simple Slope
Slope Class:	Gently Inclined (3°)
Aspect:	E
Soil Type:	Sandy Loam
Soil Colour:	Grey
Soil Condition:	Moist
Rock Outcrop:	Laterite, 20-50% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	> 20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Eucalyptus drummondii*, *Eucalyptus gittinsii* subsp. *illucida*
Mid Stratum 1:	*Banksia armata* var. *ignicida*, *Xanthorrhoea drummondii*
Mid Stratum 2:	*Banksia incana* var. *incana*, *Banksia kippistiana* var. *kippistiana*, *Calothamnus sanguineus*, *Petrophile shuttleworthiana*
Lower Stratum 1:	*Calothamnus torulosus*, *Caustis dioica*, *Conothamnus trinervis*, *Hibbertia fasciculiflora*, *Melaleuca aspalathoides*, *Styphelia tortifolia*
Lower Stratum 2:	*Mesomelaena pseudostygia*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia armata var. *ignicida*	2.1		25
Banksia incana var. *incana*	0.9		3
Banksia kippistiana var. *kippistiana*			1
Calothamnus quadrifidus subsp. *angustifolius*	1.2		2
Calothamnus sanguineus	1.2		2
Calothamnus torulosus	0.3		3
Caustis dioica	0.3		2
Conothamnus trinervis	0.3		1
Eucalyptus drummondii	3		40
Eucalyptus gittinsii subsp. *illucida*	6		5
Gastrolobium polystachyum	0.9		1
Hakea anadenia	0.9		
Hakea auriculata	1.1		1
Hibbertia fasciculiflora	0.3		2
Melaleuca aspalathoides	0.3		5
Melaleuca leuropoma	0.4		1
Mesomelaena pseudostygia	0.4		3
Petrophile linearis	0.4		
Petrophile shuttleworthiana	0.9		4

Polianthion wichurae	0.5		0.5
Styphelia tortifolia	0.3		2
Verticordia ?eriocephala	1.1		1
Xanthorrhoea drummondii			

PHOTOS - TCR17

Site Name:	**TCR18**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 348083.34E 6694958.79N
Landform Type:	Drainage Line
Slope Class:	Very Gently Inclined (1°)
Soil Type:	Sandy Loam
Soil Colour:	Brown
Soil Condition:	Moist
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Grazing, Weeds, Animal
Fire:	> 20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Melaleuca viminea* subsp. *viminea*
Mid Stratum 1:	*Calytrix flavescens*, *Melaleuca concreta*, *Thryptomene mucronulata*
Lower Stratum 1:	*Schoenus subfascicularis*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Calytrix flavescens	1.3		2
Melaleuca concreta	2.5		35
Melaleuca viminea subsp. *viminea*	5		55
Schoenus subfascicularis	0.9		3
Thryptomene mucronulata	1.8		5

PHOTOS – TCR18

Site Name:	**TCR19**
Site Type:	RELEVE
Survey Date:	14/06/2024
GPS Location:	GDA2020 Zone 50 350587.31E 6701898.31N
Landform Type:	Lower Slope
Slope Class:	Gently Inclined (3°)
Aspect:	NW
Soil Type:	Sand
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	> 20 Years

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	*Allocasuarina campestris*
Mid Stratum 1:	*Allocasuarina microstachya*, *Banksia bipinnatifida* subsp. *multifida*, *Banksia fraseri* var. *crebra*, *Hakea incrassata*, *Melaleuca aspalathoides*
Lower Stratum 1:	*Caustis dioica*, *Ecdeiocolea monostachya*, *Lepidobolus* sp., *Mesomelaena pseudostygia*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia stenoptera	0.3		1
Allocasuarina campestris	1.8		1
Allocasuarina humilis	0.5		
Allocasuarina microstachya	0.3		6
Allocasuarina ramosissima (P3)	0.5		1
Banksia bipinnatifida subsp. *multifida*	0.3		2
Banksia fraseri var. *crebra* (P3)	0.4		2
Caustis dioica	0.3		1
Dodonaea ericoides	0.3		
Drosera erythrorhiza			
Drosera pallida	0.3		
Ecdeiocolea monostachya	0.8		40
Eremaea beaufortioides	0.3		
Hakea incrassata	0.5		5
Hakea lissocarpha	0.5		
Lepidobolus sp.	0.3		1
Melaleuca aspalathoides	0.4		15
Mesomelaena pseudostygia	0.4		2

PHOTOS - TCR19

Site Name: **TCR50**
Site Type: RELEVE
Dimensions: 10m x 10m
Survey Date: 08/10/2024
GPS Location: GDA2020 Zone 50 356385.38E 6709471.74N

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: *Lambertia multiflora* var. *multiflora*, *Xanthorrhoea drummondii*
Mid Stratum 2: *Banksia glaucifolia*, *Banksia kippistiana* var. *paenepeccata*, *Banksia micrantha*
Lower Stratum 1: *Austrostipa elegantissima*, *Austrostipa macalpinei*, *Neurachne alopecuroidea*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina humilis	1.5		2
Allocasuarina microstachya	0.4		0.5
Austrostipa elegantissima	0.8		2
Austrostipa macalpinei	0.3		1
Banksia bipinnatifida	0.3		0.5
Banksia candolleana	1.5		2
Banksia cypholoba (P3)	0.2	5	2
Banksia glaucifolia	0.8		5
Banksia kippistiana var. *paenepeccata* (P3)	0.5	20	6
Banksia micrantha	0.7		5
Banksia sphaerocarpa var. *pumilio*	1.1		2
Caustis dioica	0.3		4
Eucalyptus todtiana			
Hakea conchifolia	0.8		2
Hibbertia hypericoides subsp. *septentrionalis*	0.5		1
Lambertia multiflora var. *multiflora*	2.2		1
Neurachne alopecuroidea	0.25		1
Nuytsia floribunda	2		1
Schoenus pedicellatus	0.3		0.1
Xanthorrhoea drummondii	2.1		1

Site Name: **TCR51**
Site Type: RELEVE
Dimensions: 10m x 10m
Survey Date: 08/10/2024
GPS Location: GDA2020 Zone 50 356395.77E 6708633.92N

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: *Banksia glaucifolia*, *Hakea auriculata*, *Hakea gilbertii*, *Petrophile shuttleworthiana*
Mid Stratum 2: *Banksia fraseri* var. *crebra*, *Banksia kippistiana* var. *kippistiana*, *Banksia splendida*
Lower Stratum 1: *Lepidosperma* sp. P1 small head (M.D. Tindale 166A), *Schoenus clandestinus*

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Babingtonia grandiflora	0.8		0.5
Banksia fraseri var. *crebra* (P3)	0.4	10	1
Banksia glaucifolia	1.5		5
Banksia kippistiana var. *kippistiana*	0.8		15
Banksia splendida	0.7	200	20
Comesperma drummondii	0.4		0.1
Hakea auriculata	1.3		2
Hakea gilbertii	1.3		1
Hibbertia hypericoides subsp. *septentrionalis*	0.5		2
Isopogon adenanthoides	0.6		1
Lepidosperma sp. P1 small head (M.D. Tindale 166A)	0.2		0.1
Melaleuca aspalathoides	0.4		1
Melaleuca trichophylla	0.4		1
Petrophile shuttleworthiana	1.3		1
Schoenus clandestinus	0.05		0.5
Stylidium ponticulus	0.2		0.1
Verticordia laciniata	0.6		0.5

Site Name:	**TDR01**
Site Type:	RELEVE
Survey Date:	10/06/2024
GPS Location:	GDA2020 Zone 50 351173E 6703726N
Landform Type:	Crest
Slope Class:	Very Gently Inclined (1°)
Soil Type:	Sandy Loam
Soil Colour:	Brown (other)
Rock Outcrop:	Laterite, <2% bedrock exposed
CF Abundance:	2-10%
CF Sizes:	2-6mm, 6-20mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Clearing - adjacent farmland, Weeds
Fire:	> 10 years
Habitat:	Laterite shrubland

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina campestris	1.8		1
Allocasuarina grevilleoides (P3)	0.3		0.1
Allocasuarina humilis	1		3
Allocasuarina microstachya	0.4		3
Allocasuarina ramosissima (P3)	1.2		0.2
Banksia carlinoides	0.3		3
Banksia cypholoba (P3)	0.3		0.2
Banksia fraseri var. *crebra* (P3)	0.3		2
Banksia glaucifolia	1.2		1
Banksia kippistiana var. *kippistiana*	0.3		2
Banksia shuttleworthiana	0.3		3
Beaufortia kwongkanicola	0.3		0.1
Caustis dioica	0.4		0.2
Ecdeiocolea monostachya	0.4		3
Hakea anadenia	1.5		3
Hakea auriculata	0.8		2
Hakea conchifolia	0.4		0.1
Hibbertia hypericoides subsp. *septentrionalis*	0.3		0.5
Melaleuca aspalathoides	0.3		2
Melaleuca zonalis	0.3		0.5
Mesomelaena pseudostygia	0.4		0.5
Morelotia microcarpa	0.4		0.2
Petrophile shuttleworthiana	1.2		2
Xanthorrhoea drummondii	0.5		0.3

PHOTOS - TDR01

Site Name:	**TDR02**
Site Type:	RELEVE
Survey Date:	10/06/2024
GPS Location:	GDA2020 Zone 50 351211E 6704294N
Landform Type:	Crest
Slope Class:	Very Gently Inclined (1°)
Soil Type:	Sandy Loam
Soil Colour:	Brown (other)
Rock Outcrop:	Laterite, 2-10% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	> 10 years
Habitat:	Laterite mallee shrubland

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina humilis	1		0.5
Allocasuarina thuyoides	0.8		0.2
Banksia carlinoides	0.4		1
Banksia fraseri var. *crebra* (P3)	0.3		0.2
Banksia glaucifolia	1		1
Banksia kippistiana var. *kippistiana*	0.5		2
Banksia kippistiana var. *paenepeccata* (P3)	1		0.5
Banksia lanata	0.6		0.2
Banksia sphaerocarpa var. *pumilio*	0.5		2
Calothamnus sanguineus	1.5		2
Caustis dioica	0.4		0.5
Ecdeiocolea monostachya	0.4		0.5
Eremaea beaufortioides	1		1
Eucalyptus drummondii	4		15
Hakea gilbertii	1		1
Hibbertia hypericoides subsp. *septentrionalis*	0.4		0.5
Melaleuca aspalathoides	0.3		5
Melaleuca zonalis	0.3		0.5
Mesomelaena pseudostygia	0.3		0.5
Petrophile shuttleworthiana	2		2

PHOTOS - TDR02

Site Name:	**TDR03**
Site Type:	RELEVE
Survey Date:	10/06/2024
GPS Location:	GDA2020 Zone 50 351877E 6704608N
Landform Type:	Upper Slope
Slope Class:	Gently Inclined (3°)
Soil Type:	Sand
Soil Colour:	Grey
Rock Outcrop:	Laterite, <2% bedrock exposed
CF Abundance:	<2%
CF Sizes:	2-6mm, 6-20mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	> 10 years
Habitat:	Eucalypt woodland on grey sand, bordering laterite crest

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina humilis	1.5		5
Banksia cypholoba (P3)	0.3		0.1
Banksia sessilis var. *flabellifolia*	2		3
Banksia shuttleworthiana	0.5		1
Banksia sphaerocarpa var. *pumilio*	0.5		2
Calothamnus sanguineus	1.5		5
Conostylis aurea	0.3		0.1
Conothamnus trinervis	0.5		0.5
Daviesia pedunculata	0.4		0.5
Desmocladus elongatus (P4)	0.3		0.1
Desmocladus lateriticus	0.3		0.1
Eucalyptus todtiana	2.5		1
Hakea megalosperma (T)	1	10	0.5
Hibbertia hypericoides subsp. *septentrionalis*	0.4		1
Lambertia multiflora var. *multiflora*	1.2		5
Lomandra hastilis	0.5		0.2
Lyginia imberbis	0.3		0.5
Melaleuca leuropoma	0.5		1
Mesomelaena pseudostygia	0.3		1
Xanthorrhoea drummondii	0.5		1

PHOTOS - TDR03

Site Name:	**TDR04**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 349612.64E 6704787.57N
Landform Type:	Other, Breakaway (other)
Slope Class:	Gently Inclined (3°)
Aspect:	None
Soil Type:	Sandy Clay Loam
Soil Colour:	Grey
Rock Outcrop:	Laterite, <2% bedrock exposed
CF Abundance:	2-10%
CF Sizes:	60-200mm, 20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Disturbance:	None
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina thuyoides	0.8		0.2
Banksia fraseri var. *crebra* (P3)	0.4		0.2
Banksia glaucifolia	1		0.2
Calothamnus longissimus	0.8		0.2
Dodonaea ericoides	0.4		0.2
Eucalyptus drummondii	5		3
Gastrolobium plicatum	1		0.4
Hakea anadenia	1		0.3
Hakea auriculata	0.6		0.2
Hakea lissocarpha	0.4		0.5
Lepidosperma ?pubisquameum	0.3		0.1
Melaleuca marginata	1		0.2
Melaleuca tinkeri	0.4		30
Melaleuca trichophylla	0.3		0.5
Petrophile chrysantha	0.6		0.2
Stenanthemum reissekii	0.3		0.1
Thomasia grandiflora	0.3		0.1

PHOTOS - TDR04

Site Name:	**TDR05**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 349654.16E 6702877.72N
Landform Type:	Lower Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	W
Soil Type:	Sand
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Grazing
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Alexgeorgea nitens	0.3		1
Allocasuarina humilis	1.5		0.2
Amphipogon turbinatus	0.3		0.2
Andersonia heterophylla	0.3		0.3
Apectospermum spinescens	0.1		0.2
Banksia attenuata	1.5		2
Banksia candolleana	1.5		10
Banksia dallanneyi subsp. *media*	0.4		0.3
Calothamnus sanguineus	1.5		0.2
Caustis dioica	0.4		0.5
Chordifex sinuosus	0.3		0.5
Conothamnus trinervis	0.4		0.3
Daviesia nudiflora subsp. *hirtella*	0.8		0.1
Eremaea beaufortioides	1.5		0.3
Eucalyptus todtiana	5		5
Hibbertia pubens	0.4		0.3
Leptospermopsis oligandra	1.5		1
Lyginia imberbis	0.4		0.5
Mesomelaena pseudostygia	0.6		0.1
Nuytsia floribunda	5		0.2
Petrophile macrostachya	1		0.5
Verticordia grandis	1		0.5
Xanthorrhoea sp.	0.4		1

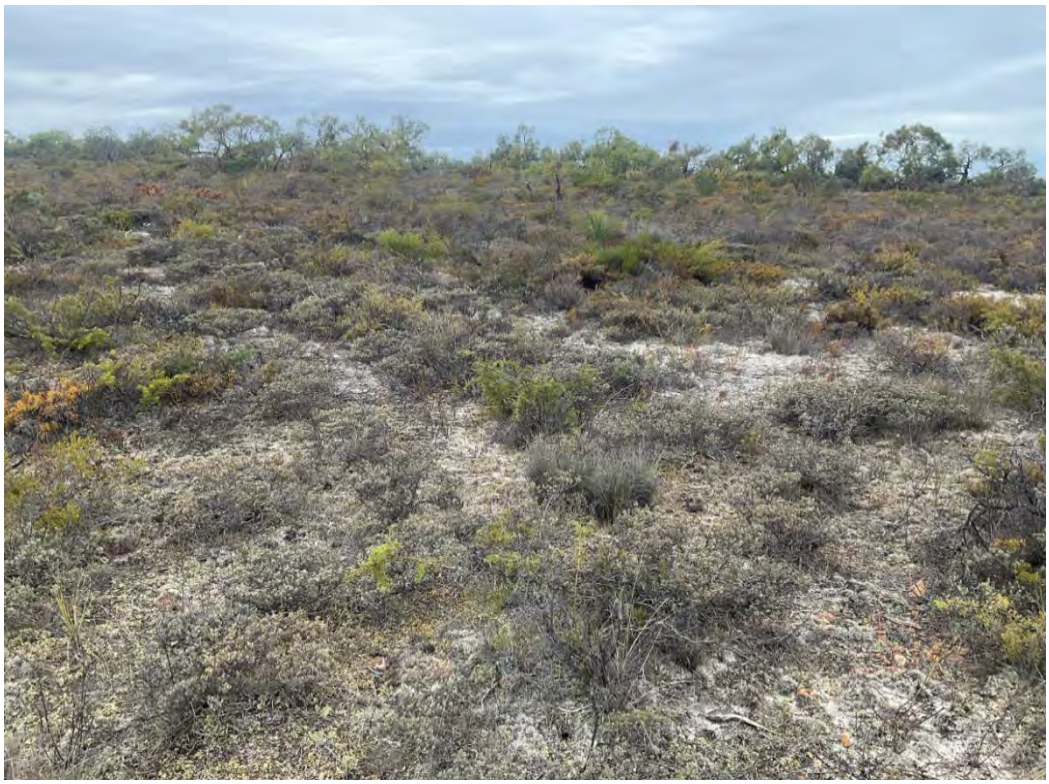
PHOTOS - TDR05

Site Name:	**TDR06**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 349654.83E 6702040.94N
Landform Type:	Lower Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	W
Soil Type:	Sandy Clay Loam
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	2-10%
CF Sizes:	20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina campestris	2		0.5
Babingtonia camphorosmae	0.4		1
Calothamnus sanguineus	1		0.5
Caustis dioica	0.3		0.1
Desmocladus lateriticus	0.3		0.1
Eucalyptus drummondii	6		1
Gastrolobium stowardii	0.3		0.5
Glischrocaryon aureum	0.4		1
Hakea lissocarpha	0.4		3
Hakea neospathulata	0.3		0.5
Hibbertia hypericoides subsp. *septentrionalis*	0.3		0.5
Lepidosperma tenue	0.4		2
Melaleuca aspalathoides	0.3		15
Melaleuca zonalis	0.3		0.5
Mesomelaena tetragona	0.5		0.2
Neurachne alopecuroidea	0.1		0.5
Opercularia vaginata	0.2		0.5
Schoenus clandestinus	0.1		2

PHOTOS – TDR06



Site Name:	**TDR07**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 351817.53E 6700366.6N
Landform Type:	Plain
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Sand
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Quite open, potentially grazed. (other)
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Adenanthos cygnorum subsp. *cygnorum*	2		1
Alexgeorgea nitens	0.2		0.5
Amphipogon turbinatus	0.2		0.2
Andersonia heterophylla	0.3		0.2
Banksia attenuata	2.5		10
Banksia leptophylla var. *leptophylla*	1.5		1
Banksia menziesii	4		8
Caladenia flava	0.3		0.5
Chordifex sinuosus	0.3		0.2
Conostephium magnum (P4)	1.5		0.2
Conostephium pendulum	0.5		0.2
Eremaea beaufortioides	3.5		10
Eucalyptus todtiana	6		1
Hibbertia pubens	0.8		0.5
Lomandra hastilis	1.2		0.3
Melaleuca leuropoma	1.2		2
Petrophile linearis	0.3		0.2
Pileanthus filifolius	1		0.5
Stirlingia latifolia	0.8		1
Styphelia xerophylla	0.5		0.2
Tricostularia neesii	0.4		0.5
Xylomelum angustifolium	5		0.1

PHOTOS – TDR07

Site Name:	**TDR08**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 350423.97E 6699132.86N
Landform Type:	Flat
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Light Clay
Soil Colour:	Red
Rock Outcrop:	Ironstone, <2% bedrock exposed
CF Abundance:	2-10%
CF Sizes:	20-60mm, 6-20mm, 2-6mm, 60-200mm
CF Types:	Ironstone
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia ulicina	0.4		0.1
Babingtonia erecta	1.5		0.5
Bossiaea eriocarpa	0.4		0.2
Eucalyptus diminuta	6		30
Melaleuca acutifolia	3		10
Melaleuca concreta	3		10

PHOTOS - TDR08

Site Name:	**TDR09**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 350624.21E 6699096.04N
Landform Type:	Lower Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	W
Soil Type:	Light Clay
Soil Colour:	Red
Rock Outcrop:	Ironstone, 2-10% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	60-200mm, 20-60mm, 6-20mm, 2-6mm
CF Types:	Ironstone
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Weeds - less than 1%
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia blakelyi	3		0.2
Allocasuarina campestris	4		5
Banksia strictifolia	2		4
Bossiaea eriocarpa	1		0.5
Eucalyptus drummondii	5		10
Grevillea vestita subsp. *vestita*	1.5		1
Hakea gilbertii	1.8		1
Hemigenia barbata	1		0.2
Isopogon divergens	1.8		3
Melaleuca concreta	4		3
Melaleuca ryeae	1.8		1
Petrophile shuttleworthiana	1.8		1

PHOTOS – TDR09

Site Name:	**TDR10**
Site Type:	RELEVE
Survey Date:	11/06/2024
GPS Location:	GDA2020 Zone 50 352223.19E 6696210.77N
Landform Type:	Wetland
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Clay (other)
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Weeds - less than 1%
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Kunzea micrantha subsp. *petiolata*	2		2
Melaleuca concreta	4		40
Melaleuca rhaphiophylla	4		1
Melaleuca viminea subsp. *viminea*	2.5		13
Schoenus subfascicularis	0.6		6

PHOTOS - TDR10

Site Name:	**TDR11**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 354668.82E 6698899.96N
Landform Type:	Mid Slope
Slope Class:	Gently Inclined (3°)
Aspect:	W
Soil Type:	Sandy Loam
Soil Colour:	Grey
Rock Outcrop:	Laterite, 2-10% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Weeds
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Eucalyptus accedens	9		30
Hakea lissocarpha	0.5		0.4
Petrophile shuttleworthiana	2		0.2

PHOTOS - TDR11

Site Name:	**TDR12**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 354775.36E 6698942.23N
Landform Type:	Upper Slope
Slope Class:	Gently Inclined (3°)
Aspect:	W
Soil Type:	Sandy Loam
Soil Colour:	Grey
Rock Outcrop:	Laterite, 10-20% bedrock exposed
CF Abundance:	50-90%
CF Sizes:	20-60mm, 2-6mm, 6-20mm, 60-200mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Weeds, Grazing - Potentially, vegetation very open.
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acanthocarpus sp. Ajana (C.A. Gardner 8596)	0.3		0.2
Banksia fraseri var. *crebra* (P3)	0.3		0.5
Banksia glaucifolia	1.2		0.5
Banksia kippistiana var. *kippistiana*	6.8		2
Conostylis androstemma	0.2		0.1
Dodonaea ericoides			
Eucalyptus accedens	6		10
Eucalyptus gittinsii subsp. *illucida*	6		10
Hakea auriculata	0.8		4
Hakea lissocarpha	0.3		0.1
Mesomelaena preissii	0.4		0.5
Petrophile shuttleworthiana	1.5		2
Schoenus clandestinus	0.1		1

PHOTOS – TDR12

Site Name:	**TDR13**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 352715.13E 6692244.48N
Landform Type:	Upper Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	None
Soil Type:	Sandy Clay Loam
Soil Colour:	Grey
Rock Outcrop:	Laterite, 10-20% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	60-200mm, 20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Northern Vegetation Condition - G - Good
Disturbance:	Grazing
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia armata var. *ignicida*	2.5		20
Ecdeiocolea monostachya	0.5		0.5
Eucalyptus gittinsii subsp. *illucida*	5		10
Eucalyptus opimiflora	10		0.1
Gastrolobium spinosum	1.5		0.2
Petrophile shuttleworthiana	2		1
Pigea floribunda	0.3		0.1
Schoenus clandestinus	0.1		0.2

PHOTOS – TDR13

Site Name:	**TDR14**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 354347.37E 6691682.87N
Landform Type:	Flat
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Light Clay
Soil Colour:	Red
Rock Outcrop:	No bedrock exposed
CF Abundance:	2-10%
CF Sizes:	20-60mm, 6-20mm, 2-6mm
CF Types:	Siltstone
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Grazing - Potentially, vegetation very open.
Fire:	10-20 Years
Comments:	

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia armata var. *ignicida*	2		3
Eucalyptus accedens	10		40
Gastrolobium spinosum	0.8		0.1
Macrozamia fraseri	0.5		0.1

PHOTOS - TDR14

Site Name:	**TDR15**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 354484.37E 6690766.04N
Landform Type:	Other, Dune crest (other)
Slope Class:	Very Gently Inclined (1°)
Aspect:	ENE
Soil Type:	Sand
Soil Colour:	Yellow
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Animal - Sheep access
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia attenuata	2		5
Banksia prionotes	6		10
Beaufortia elegans	1		0.2
Eremaea beaufortioides	2.5		1
Eucalyptus todtiana	5		3
Grevillea erinacea (P3)	2		0.1
Jacksonia nutans	1		0.3
Lomandra hastilis	1		1
Mesomelaena pseudostygia	0.5		0.2
Scholtzia laxiflora	4		10
Verticordia densiflora var. *densiflora*	1.2		0.2
Xylomelum angustifolium	6		10

PHOTOS – TDR15

Site Name:	**TDR16**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 356278.89E 6691834.89N
Landform Type:	Lower Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	None
Soil Type:	Sandy Loam
Soil Colour:	Brown
Rock Outcrop:	Laterite, 2-10% bedrock exposed
CF Abundance:	10-20%
CF Sizes:	20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina humilis	1.5		0.3
Babingtonia erecta	1.2		0.5
Banksia platycarpa	1.2		0.5
Banksia strictifolia	2		20
Eucalyptus drummondii	5		5
Eucalyptus todtiana	4		1
Hakea gilbertii	1.5		0.5
Isopogon panduratus subsp. *panduratus*	1.5		0.3
Jacksonia hakeoides	0.8		0.2
Melaleuca ciliosa	1.5		0.2

PHOTOS – TDR16

Site Name:	**TDR17**
Site Type:	RELEVE
Survey Date:	12/06/2024
GPS Location:	GDA2020 Zone 50 355767.45E 6692165.52N
Landform Type:	Upper Slope
Slope Class:	Gently Inclined (3°)
Aspect:	E
Soil Type:	Sandy Loam
Soil Colour:	Brown
Rock Outcrop:	Laterite, <2% bedrock exposed
CF Abundance:	50-90%
CF Sizes:	20-60mm, 6-20mm, 2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Grazing
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia armata var. *ignicida*	2		20
Banksia fraseri var. *crebra* (P3)	0.3		0.2
Banksia kippistiana var. *kippistiana*	1		0.5
Banksia nobilis subsp. *fragrans* (P3)	2	1	0.1
Banksia sphaerocarpa var. *pumilio*	0.4		0.1
Calothamnus longissimus	0.8		0.2
Caustis dioica	0.4		0.1
Conostylis androstemma	0.2		0.2
Eucalyptus drummondii	5		10
Eucalyptus gittinsii subsp. *illucida*	5		10
Hakea auriculata	0.5		0.2
Hakea gilbertii	0.8		0.2
Patersonia occidentalis	0.3		0.2
Petrophile megalostegia	0.8		0.1
Petrophile shuttleworthiana	2		5
Styphelia tortifolia	0.3		0.1

PHOTOS – TDR17

Site Name:	**TDR18**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 349090.02E 6704545.89N
Landform Type:	Lower Slope
Slope Class:	Gently Inclined (3°)
Aspect:	S
Soil Type:	Sand
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	<2%
CF Sizes:	6-20mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Weeds - Slightly weedy
Fire:	10-20 Years\

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia dilatata	0.4		0.2
Acacia lasiocarpa var. *lasiocarpa*	0.6		0.2
Banksia fraseri var. *crebra* (P3)	0.3		0.1
Bossiaea eriocarpa	0.6		0.5
Conostylis aculeata subsp. *breviflora*	0.2		1
Desmocladus asper	0.2		1
Eucalyptus accedens	6		20
Hakea lissocarpha	0.6		1
Lepidobolus preissianus	0.3		0.2
Macrozamia fraseri	1.5		0.5
Melaleuca concreta	2.5		3
Melaleuca tinkeri	0.4		0.1
Xanthorrhoea drummondii	1.5		1

PHOTOS – TDR18

Site Name:	**TDR19**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 346888.72E 6707091.16N
Landform Type:	Lower Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	W
Soil Type:	Sand
Soil Colour:	Yellow
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Fire:	5-10 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia blakelyi	2		10
Banksia leptophylla var. *leptophylla*	0.5		0.1
Eucalyptus todtiana	4		3
Grevillea biternata	0.8		0.1
Grevillea vestita subsp. *vestita*	1		5
Jacksonia hakeoides	1		10

PHOTOS - TDR19

Site Name:	**TDR20**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 346712.87E 6707087.39N
Landform Type:	Flat
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Sandy Clay Loam
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Weeds, Clearing - historic
Fire:	5-10 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina campestris	2		1
Grevillea biternata	0.6		2
Melaleuca concreta	2		10
Thryptomene mucronulata	0.3		8

PHOTOS - TDR20

Site Name:	**TDR21**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 346085.18E 6704742.21N
Landform Type:	Crest
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Sandy Clay Loam
Soil Colour:	Brown
Rock Outcrop:	Sandstone, 2-10% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	200-600mm, 2-6mm, 6-20mm, 20-60mm, 60-200mm
CF Types:	Sandstone
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Disturbance:	Grazing, Weeds
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acanthocarpus canaliculatus	0.2		0.1
Anthocercis genistoides	0.8		0.1
Desmocladus asper	0.2		15
Eucalyptus accedens	8		5
Grevillea aff. *levis* (Potentially undescribed)	0.5		0.3
Hakea lissocarpha	1		0.3
Lepidosperma tenue	0.3		2
Olearia sp. Eremicola (Diels & Pritzel s.n. PERTH 00449628)	1.2		0.2
Santalum acuminatum	5		2
Xanthorrhoea drummondii	2		2

PHOTOS – TDR21

Site Name:	**TDR22**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 346642.22E 6702494.63N
Landform Type:	Other, Breakway (other)
Slope Class:	Moderately Inclined (10°)
Aspect:	W
Soil Type:	Light Clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	50-90%
CF Sizes:	200-600mm, 2-6mm, 60-200mm, 6-20mm, 20-60mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Disturbance:	Weeds, Animal - kangaroo traffic
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Babingtonia erecta	1.3		0.5
Calothamnus accedens (P4)	1.5		3
Ecdeiocolea monostachya	0.4		0.2
Eucalyptus gittinsii subsp. *illucida*	5		5
Gastrolobium plicatum	0.8		0.1
Lepidosperma ?pubisquameum	0.3		0.2
Lepidosperma tenue	0.4		0.3
Melaleuca concreta	3		5
Melaleuca marginata	1.2		3
Melaleuca tinkeri	0.4		10
Petrophile chrysantha	0.6		0.5
Schoenus clandestinus	0.1		0.5
Xanthorrhoea drummondii	1.5		0.2

PHOTOS

Site Name:	**TDR23**
Site Type:	RELEVE
Survey Date:	13/06/2024
GPS Location:	GDA2020 Zone 50 348477.77E 6700673.83N
Landform Type:	Drainage Line
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Sandy Clay Loam
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia saligna	2.5		1
Banksia leptophylla var. *leptophylla*	1.5		1
Gahnia trifida	1.2		0.5
Hypocalymma balbakiae	2.5		15
Melaleuca brevifolia	3		3
Melaleuca concreta	2		4
Melaleuca ryeae	2.5		5

PHOTOS - TDR23

Site Name:	**TDR24**
Site Type:	RELEVE
Survey Date:	14/06/2024
GPS Location:	GDA2020 Zone 50 332604.2E 6700539.36N
Landform Type:	Plain
Slope Class:	Level (0°)
Aspect:	NNW
Soil Type:	Sand
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina microstachya	0.3		0.5
Banksia dallanneyi subsp. *media*	0.3		0.2
Banksia shuttleworthiana	0.5		0.2
Calothamnus sanguineus	1		0.3
Calytrix strigosa	0.3		0.1
Chordifex sinuosus	0.3		0.2
Conospermum wycherleyi	0.5		0.3
Daviesia nudiflora subsp. *hirtella*	0.3		0.2
Ecdeiocolea monostachya	0.6		10
Eucalyptus pleurocarpa	2		0.2
Hakea candolleana	0.3		0.1
Hibbertia hypericoides subsp. *septentrionalis*	0.3		0.2
Lepidobolus preissianus	0.3		1
Leptospermopsis oligandra	2		1
Melaleuca leuropoma	0.5		3
Mesomelaena pseudostygia	0.4		1
Petrophile macrostachya	0.5		5
Pileanthus filifolius	0.4		0.3
Scholtzia laxiflora	1		15
Xanthorrhoea drummondii	2		2

PHOTOS – TDR24

Site Name:	**TDR25**
Site Type:	RELEVE
Survey Date:	14/06/2024
GPS Location:	GDA2020 Zone 50 357698.05E 6691672.86N
Landform Type:	Mid Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	NNW
Soil Type:	Sand
Soil Colour:	Yellow
Soil Condition:	Yellow at depth, brown on surface.
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia attenuata	1.5		2
Banksia candolleana	1.5		1
Banksia leptophylla var. *leptophylla*	1.5		2
Banksia prionotes	5		5
Banksia shuttleworthiana	0.4		0.2
Caustis dioica	0.4		0.5
Conostylis neocymosa	0.3		0.2
Daviesia nudiflora subsp. *hirtella*	0.8		1
Ecdeiocolea monostachya	0.5		8
Eucalyptus todtiana	5		5
Geleznowia verrucosa	0.2		0.1
Grevillea erinacea (P3)	1		0.1
Jacksonia floribunda	2		1
Jacksonia nutans	1		1
Lepidobolus preissianus	0.3		0.3
Leptospermopsis oligandra	2		0.5
Melaleuca leuropoma	0.5		3
Pileanthus filifolius	1		0.2
Schoenus clandestinus	0.1		0.5
Verticordia grandis	1		0.3
Xylomelum angustifolium	5		5

PHOTOS – TDR25

Site Name:	**TDR26**
Site Type:	RELEVE
Survey Date:	14/06/2024
GPS Location:	GDA2020 Zone 50 357316.13E 6702402.42N
Landform Type:	Mid Slope
Slope Class:	Gently Inclined (3°)
Aspect:	N
Soil Type:	Sand
Soil Colour:	Yellow
Soil Condition:	Brown on the top, yellow at depth.
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 3 - Very Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia candolleana	1.5		5
Banksia shuttleworthiana	0.5		1
Beaufortia elegans	0.4		0.5
Caustis dioica	0.4		0.5
Daviesia divaricata subsp. *divaricata*	0.5		1
Eucalyptus todtiana	4		3
Geleznowia verrucosa	0.3		0.3
Grevillea biformis subsp. *biformis*	2.5		2
Hibbertia hypericoides subsp. *septentrionalis*	0.4		1
Leptospermopsis oligandra	1.5		2
Melaleuca leuropoma	0.6		8
Mesomelaena pseudostygia	0.4		3
Schoenus clandestinus	0.3		0.5
Verticordia grandis	1.5		0.3
Xylomelum angustifolium	3.5		2

PHOTOS – TDR26

Site Name:	**TDR27**
Site Type:	RELEVE
Survey Date:	14/06/2024
GPS Location:	GDA2020 Zone 50 353516.82E 6702157.69N
Landform Type:	Flat
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Sandy Clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 5 - Degraded
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Banksia leptophylla var. *leptophylla*	1.8		0.2
Calothamnus quadrifidus subsp. *angustifolius*	1.5		2
Calytrix chrysantha (P4)	1.2		0.2
Dampiera teres	0.4		0.5
Desmocladus nodatus (P3)	0.3	1	0.2
Eremaea beaufortioides	2.5		2
Jacksonia hakeoides	0.8		1
Lyginia imberbis	0.6		1
Melaleuca concreta	2.5		15
Melaleuca ryeae	2.5		5
Petrophile brevifolia	0.4		0.2

PHOTOS – TDR27

Site Name:	**TDR28**
Site Type:	RELEVE
Survey Date:	14/06/2024
GPS Location:	GDA2020 Zone 50 347501.38E 6674079.47N
Landform Type:	Flat
Slope Class:	Level (0°)
Aspect:	None
Soil Type:	Sandy Loam
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	<2%
CF Sizes:	2-6mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina campestris	2		0.3
Allocasuarina humilis	0.5		1
Allocasuarina microstachya	0.4		0.2
Banksia kippistiana var. *kippistiana*	1		1
Banksia shuttleworthiana	0.4		2
Calothamnus sanguineus	0.5		1
Caustis dioica	0.5		1
Chorizema aciculare subsp. *laxum*	0.3		0.5
Ecdeiocolea monostachya	0.6		5
Gastrolobium plicatum	0.3		0.5
Hakea auriculata	0.5		1
Hakea incrassata	0.3		1
Hibbertia hypericoides subsp. *septentrionalis*	0.3		2
Melaleuca leuropoma	0.4		2
Melaleuca trichophylla	0.3		2
Mesomelaena pseudostygia	0.4		3
Petrophile brevifolia			
Petrophile shuttleworthiana	1.2		5

PHOTOS – TDR28

Site Name:	**TDR29**
Site Type:	RELEVE
Survey Date:	14/06/2024
GPS Location:	GDA2020 Zone 50 338951.61E 6673912.43N
Landform Type:	Mid Slope
Slope Class:	Very Gently Inclined (1°)
Aspect:	E
Soil Type:	Sandy Loam
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 4 - Good
Fire:	10-20 Years

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Allocasuarina microstachya	0.6		2
Banksia attenuata	1.2		0.2
Banksia candolleana	1.5		5
Banksia grossa	1.5		8
Banksia incana var. *incana*	0.5		1
Beaufortia bicolor (P3)	0.5		1
Dasypogon obliquifolius	0.5		5
Daviesia nudiflora subsp. *hirtella*	0.5		2
Daviesia pedunculata	0.5		0.5
Eucalyptus todtiana	3		1
Hakea conchifolia	0.6		0.3
Hakea psilorrhyncha	3		0.2
Jacksonia floribunda	0.8		1
Lambertia multiflora var. *multiflora*	1.5		3
Melaleuca trichophylla	0.4		1
Pileanthus filifolius	0.6		2
Verticordia grandis	1.2		0.2

PHOTOS – TDR29

Site Name:	**TMQ01**
Site Type:	QUADRAT
Dimensions:	10m x 10m
Survey Date:	07/11/2024
GPS Location:	GDA2020 Zone 50 350643E 6692032.93N
Orientation:	90, 180
Landform Type:	Undulating Plain
Slope Class:	Gently Inclined (3°)
Aspect:	NW
Soil Type:	Sandy Loam
Soil Colour:	Brown (other)
Rock Outcrop:	Laterite, <2% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	2-6mm, 6-20mm, 20-60mm
CF Types:	Laterite
Vegetation Condition:	Southern Vegetation Condition - 2 - Excellent
Disturbance:	Weeds, (other) - Near track and farmland
Fire:	>10 years

SITE POINTS

Label	Easting	Northing	Comments
Corner 1	350643	6692033	
Corner 2	350643	6692022	
Corner 3	350651	6692025	
Corner 4	350653	6692034	

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia auronitens	0.4		0.2
Acacia barbinervis subsp. *borealis*	0.2		0.1
Allocasuarina humilis	0.4		0.3
Austrostipa elegantissima	0.4		0.1
Babingtonia grandiflora	0.3		0.1
Banksia glaucifolia	1		0.7
Banksia kippistiana var. *kippistiana*	0.6		4
Banksia sphaerocarpa var. *pumilio*	0.4		5
Beaufortia kwongkanicola	0.4		0.2
Burchardia congesta	0.3		0.1
Calothamnus sanguineus	0.7		3.5
Calothamnus torulosus	0.2		0.2
Calytrix flavescens	0.3		0.1
Cassytha glabella			0.1
Cassytha pomiformis			0.1
Caustis dioica	0.3		0.1
Chordifex sinuosus	0.2		0.2
Conostylis androstemma	0.1		0.1
**Corynephorus fasciculatus*	0.4		0.2

Cryptandra myriantha	0.3		0.1
Dampiera spicigera	0.1		0.1
Daviesia daphnoides	0.6		2
Daviesia decurrens subsp. *decurrens*	0.3		0.1
Daviesia pedunculata	0.3		0.1
Desmocladus lateriticus	0.2		0.2
Drosera erythrorhiza	0.1		
Eremaea pauciflora var. *pauciflora*	0.3		0.2
Gastrolobium polystachyum	0.4		0.5
Goodenia caerulea	0.2		0.1
Haemodorum sp.	0.1		0.1
Hakea auriculata	0.4		0.1
Hakea incrassata	0.4		2.5
Hakea stenocarpa	0.4		1.5
Hibbertia fasciculiflora	0.2		0.1
Hibbertia hypericoides subsp. *hypericoides*	0.4		2.5
**Hypochaeris glabra*	0.2		0.1
Isopogon adenanthoides	0.5		0.5
Lechenaultia biloba	0.1		0.1
Levenhookia murfetii	0.1		0.1
Lomandra sericea	0.3		0.1
Melaleuca aspalathoides	0.3		2.5
Melaleuca trichophylla	0.2		0.4
Mesomelaena tetragona	0.2		0.1
Neurachne alopecuroidea	0.1		0.1
Patersonia occidentalis var. *latifolia*	0.3		0.2
**Pentameris airoides* subsp. *airoides*	0.1		0.1
Petrophile shuttleworthiana	0.6		2.5
Pterochaeta paniculata	0.1		0.1
Schoenus ?brevisetis	0.2		0.1
Schoenus clandestinus	0.1		0.1
Schoenus nanus	0.1		0.1
Thysanotus dichotomus	0.1		0.1
Trachymene pilosa	0.1		0.1
Tricoryne elatior	0.4		0.1
**Wahlenbergia capensis*	0.2		0.1
Xanthorrhoea sp.	0.4		0.1

PHOTOS – TMQ01

Site Name:	**TMQ02**
Site Type:	QUADRAT
Dimensions:	10m x 10m
Survey Date:	08/11/2024
GPS Location:	GDA2020 Zone 50 351460.47E 6689907.55N
Orientation:	90, 180
Landform Type:	Undulating Plain
Slope Class:	Very Gently Inclined (1°)
Soil Type:	Sand
Soil Colour:	Yellow (other)
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Southern Vegetation Condition - 2 - Excellent
Disturbance:	Weeds, (other) - Adjacent farmland
Fire:	>10 years

SITE POINTS

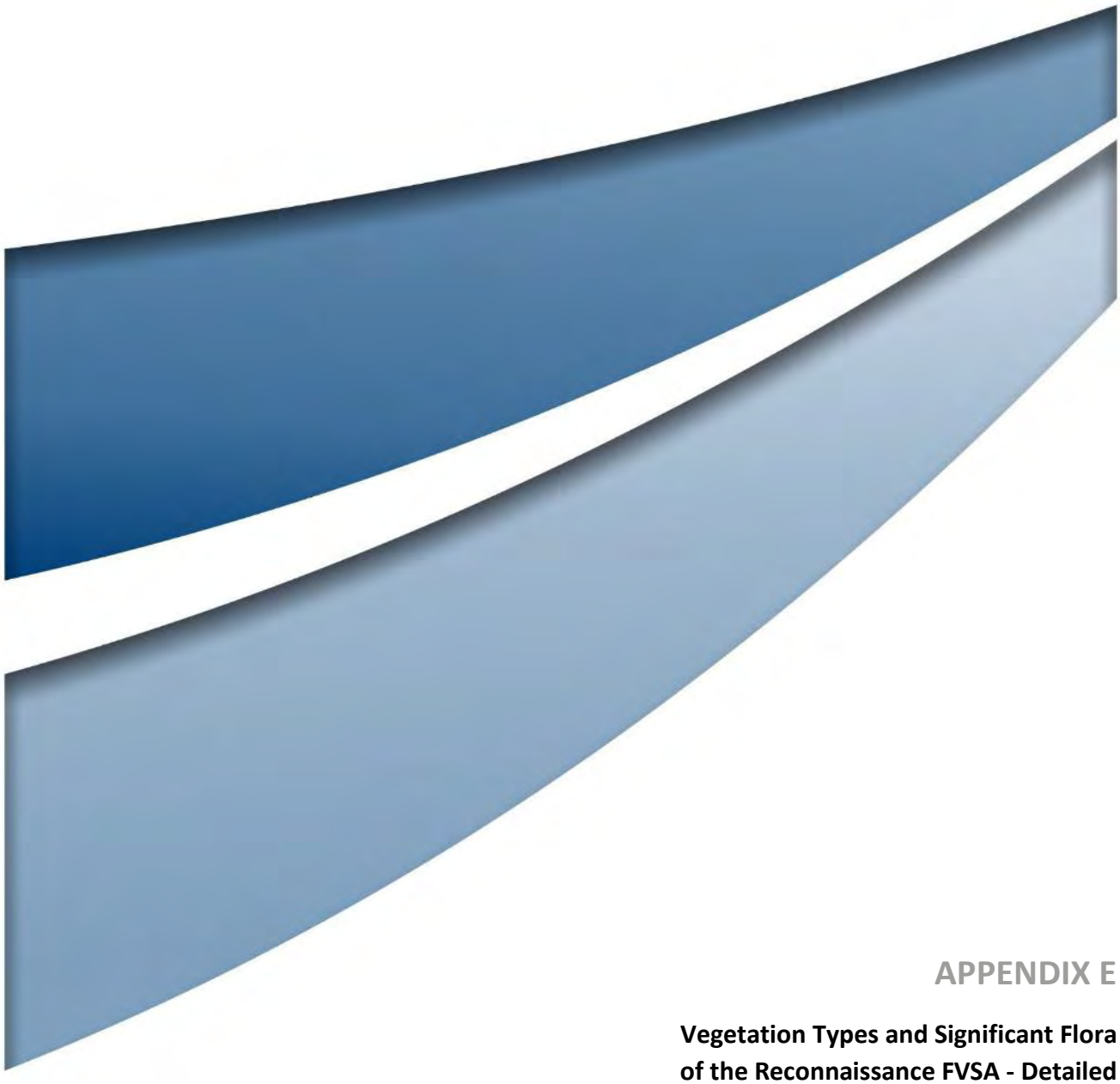
Label	Easting	Northing	Comments
Corner 1	351460	6689908	
Corner 2	351460	6689898	
Corner 3	351469	6689896	
Corner 4	351470	6689906	

SPECIES LIST

Taxon Name	Avg. Height	Count Alive	Cover Alive
Acacia pulchella	0.1		0.1
Adenanthos cygnorum subsp. *cygnorum*	0.1		0.1
Allocasuarina humilis	1.3		0.1
?*Amphipogon caricinus* var. *caricinus*	0.1		0.1
Apectospermum spinescens	0.7		0.4
Austrostipa macalpinei	0.3		0.1
Babingtonia grandiflora	0.4		0.1
Banksia candolleana	1		1.5
Banksia leptophylla var. *leptophylla*			
Banksia platycarpa			
Banksia sphaerocarpa var. *pumilio*	0.3		1
Banksia tortifolia	0.2		2.5
Beaufortia elegans	0.3		0.3
**Bromus madritensis*	0.3		0.1
Burchardia congesta	0.2		0.1
Cassytha glabella			0.2
Comesperma rhadinocarpum (P3)	0.1		0.1
Conospermum wycherleyi	0.6		0.2
Conostylis sp.	0.1		0.1
**Corynephorus fasciculatus*	0.2		0.1
Crassula closiana	0.1		0.1
Cyanothamnus ramosus	0.1		0.1

Dampiera spicigera	0.1		0.1
Daviesia nudiflora subsp. *nudiflora*	0.3		0.1
Drosera drummondii			0.1
Drosera erythrorhiza	0.1		0.1
Drosera sp.	0.1		0.1
Eremaea atala	0.3		0.1
Grevillea erinacea (P3)	0.3		0.1
Hakea smilacifolia			
Hemiandra sp.	0.1		0.1
**Hypochaeris glabra*	0.2		0.1
Jacksonia floribunda	1.2		1
Lepidobolus chaetocephalus	0.2		0.7
Lepidosperma aff. *scabra*	0.3		0.1
Leptospermopsis oligandra	1.5		0.2
Levenhookia murfetii	0.1		0.2
Levenhookia stipitata	0.1		0.1
Melaleuca leuropoma	0.4		0.7
Mesomelaena pseudostygia	0.4		2.5
Neurachne alopecuroidea	0.1		0.1
Petrophile scabriuscula	0.5		0.1
Pileanthus filifolius	0.3		1.5
Podotheca gnaphalioides	0.1		0.1
Poranthera asybosca (P1)	0.1		0.1
Schoenus clandestinus	0.1		0.1
Stirlingia latifolia	0.4		0.1
Synaphea spinulosa subsp. *spinulosa*	0.3		0.1
Thysanotus asper	0.2		0.1
?*Thysanotus* sp.	0.1		0.1
Trachymene pilosa	0.2		0.1
**Trifolium arvense* var. *arvense*	0.1		0.1
**Ursinia anthemoides*	0.1		0.1
Verticordia grandiflora	0.7		0.2
Xylomelum angustifolium	2.5		4

PHOTOS - TMQ02

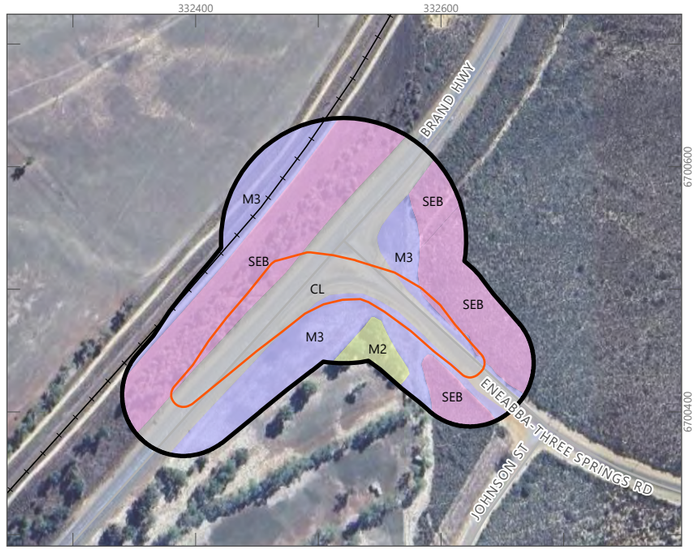


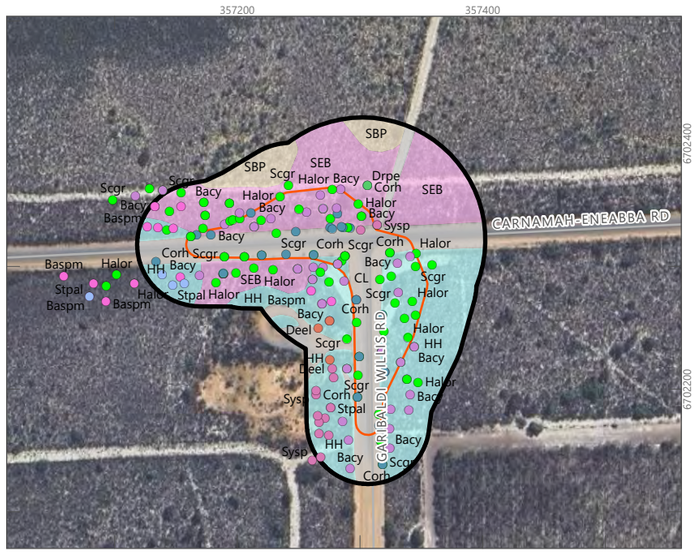
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA - Detailed

APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheets 31 to 37





Priority Flora (Umwelt)

- Argr *Arnocrinum gracillimum* (P3)
- Bach *Banksia chamaephyton* (P4)
- Bacy *Banksia cypholoba* (P3)
- Baptv *Banksia pteridifolia* subsp. *vernalis* (P3)
- Baspm *Banksia splendida* subsp. *macrocarpa* (P3)
- Basu *Banksia subulata* (P3)
- Bebi *Beaufortia bicolor* (P3)
- Cach *Calytrix chrysantha* (P4)
- Caen *Catacolea enodis* (P2)
- Cagi *Caustis gigas* (P2)
- Corh *Comesperma rhadinocarpum* (P3)
- Deel *Desmocladus elongatus* (P4)
- Drpe *Drosera pedicellaris* (P1)
- Halor *Haemodorum loratum* (P3)
- Hest *Hensmania stoniella* (P3)
- Hyro *Hypolaena robusta* (P4)
- Pese *Petrophile septemfida* (P3)
- Phpip *Phlebocarya pilosissima* subsp. *pilosissima* (P3)
- Poas *Poranthera asybosca* (P1)
- Scgr *Schoenus griffinianus* (P4)
- Stno *Stylidium nonscandens* (P3)
- Stto *Stylidium torticarpum* (P3)
- Stpal *Styphelia pallens* (P2)
- Sysp *Synaphea sparsiflora* (P2)

Legend

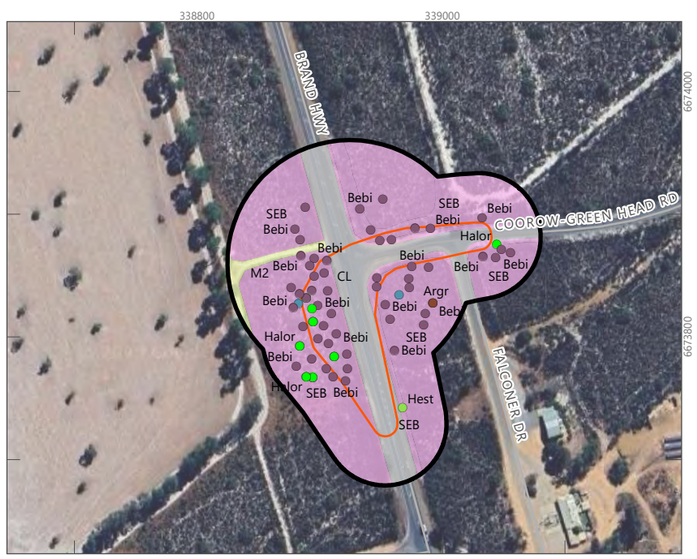
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse

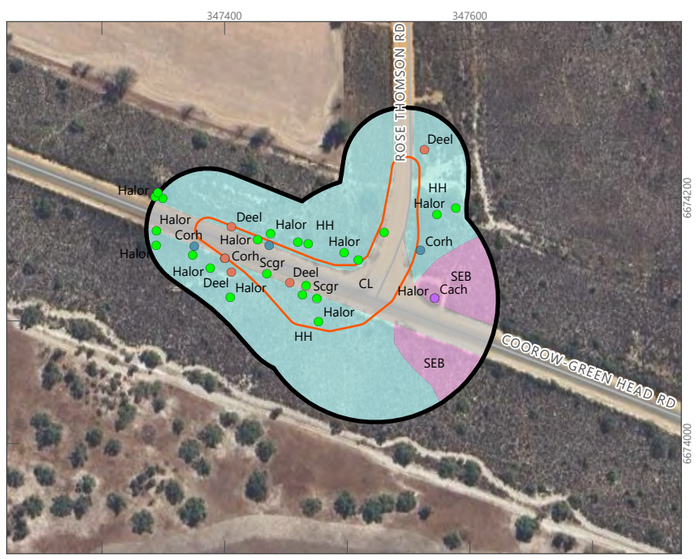
Vegetation Type

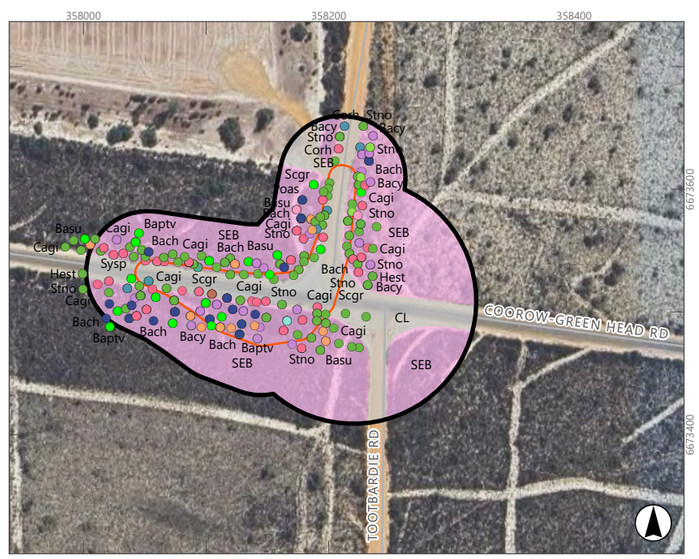
- AS
- CAM
- CS
- HH
- HM
- PFE
- PM
- RC
- SAC
- SBP
- SEB
- WM

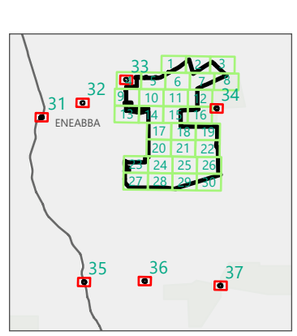
Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL









0 100 200 m

Scale: 1:5,000 at A3
GDA2020 MGA Zone 50

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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 1

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

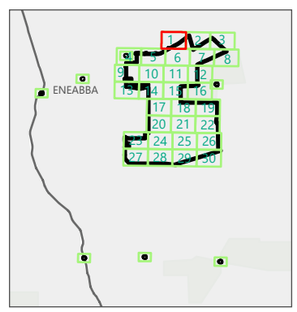
- Bacy
- Bafrc
- Bakip
- Halor
- Scgr

Vegetation Type

- HH
- HM
- SAC
- SEB

Highly Modified Areas

- M1
- CL



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Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 2

353200 353600 354000 354400 354800 355200 355600 356000

6710400 6710000 6709600 6709200 6708800 6708400 6708000

ENEABBA-TIREE SPRINGS RD

RESERVE RD

HH HM SAC SBP SEB M1 M2 M3 CL

Legend

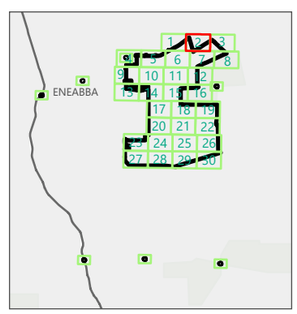
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Type

- HH
- HM
- SAC
- SBP
- SEB

Highly Modified Areas

- M1
- M2
- M3
- CL



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Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 3

356400 356800 357200 357600 358000 358400 358800 359200 359600

6710400 6710000 6709600 6709200 6708800 6708400 6708000

Bakip
Bacy
HH
HM
M1
M3
SAC
SBP
HH
Bafrc
HH
HM
SBP
HH
SEB
CS

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Priority Flora (Umwelt)

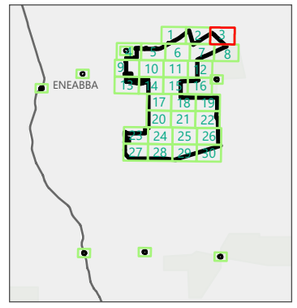
- Bacy
- Bafrc
- Bakip

Vegetation Type

- CS
- HH
- HM
- SAC
- SBP
- SEB

Highly Modified Areas

- M1
- M3



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GDA2020 MGA Zone 50

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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 4

343200 343600 344000 344400 344800 345200 345600 346000 346400

6707600 6707200 6706800 6706400 6706000 6705600

ENEABBA-THREE SPRINGS RD

BRIMSON RD

FIRSTR NORTH RD

M3 M2 SEB Bacy Bacy Cach CL CS Stto

M3 M2 Sysp Bacy Bacy Bacy SEB CL Bacy

M3 M2 Deel Bacy SEB Bacy CL Deel Grru Bacy Halor Bacy SEB SEB Bacy Bacy M1 M2 DAM

M2 CL M3 M3 HM M1 M2 M1

HH SAC DAM M3 CL SAC HM DAM

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

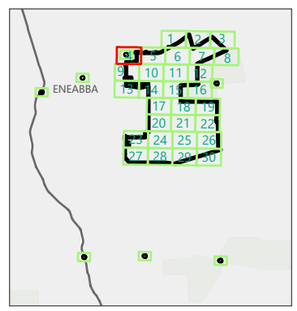
- Bacy
- Cach
- Deel
- Grru
- Halor
- Stto
- Sysp

Vegetation Type

- CS
- HH
- HM
- SAC
- SEB

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL



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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 5

346800 347200 347600 348000 348400 348800 349200 349600

6707600 6707200 6706800 6706400 6706000 6705600

ENEABBA-THREE SPRINGS RD

WARRADARGE CREEK

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

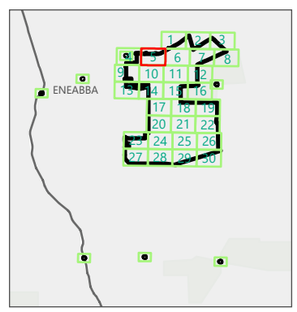
- Bacy
- Bafrc
- Cafll
- Corh
- Deel
- Grru
- Grveb
- Halor
- Poas
- Scgr
- Stto
- Sysp

Vegetation Type

- CS
- HH
- HM
- SBP
- SEB
- WM

Highly Modified Areas

- M1
- M2
- M3
- CL



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Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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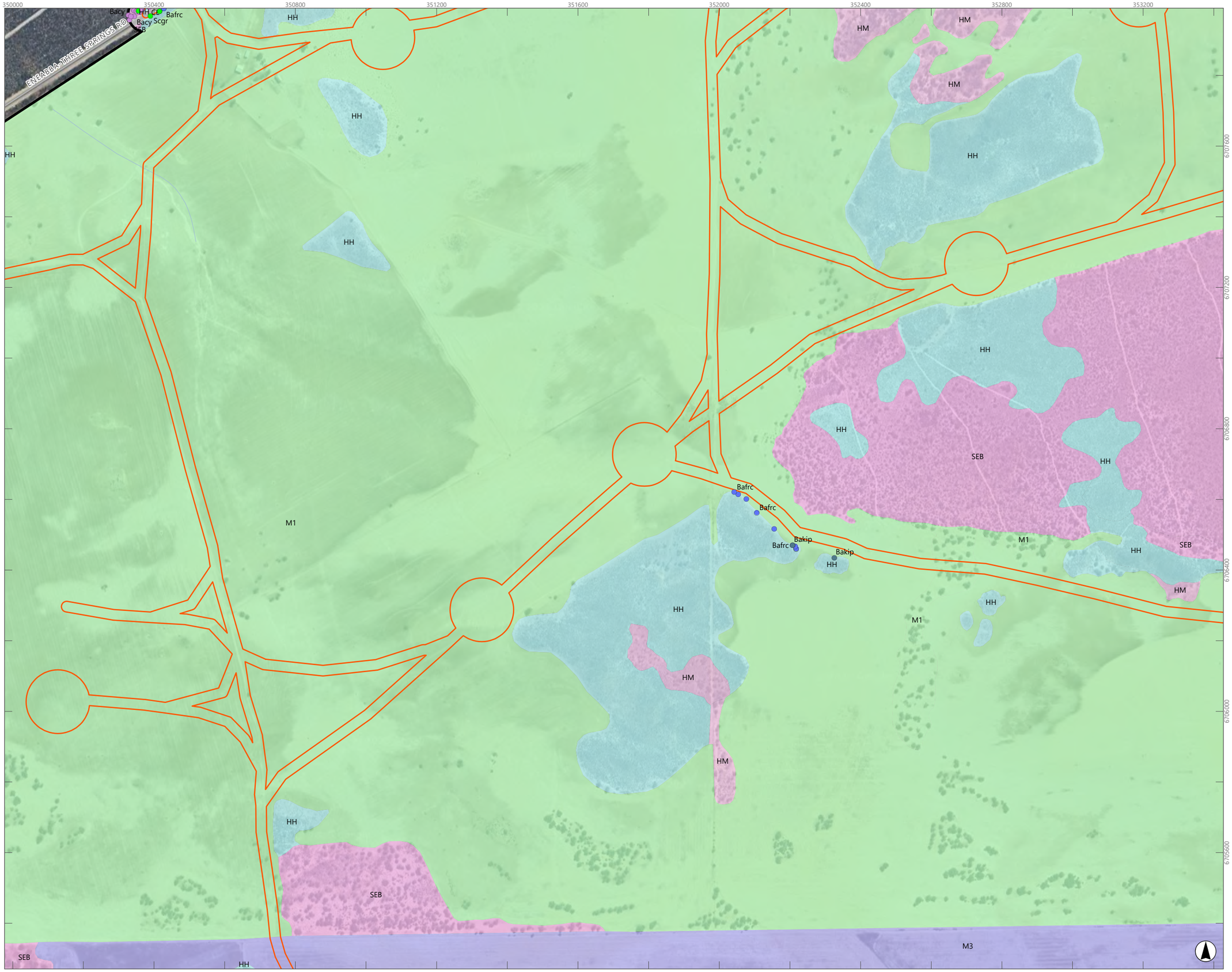
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 6



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

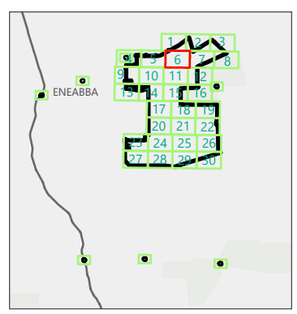
- Bacy
- Bafrc
- Bakip
- Halor
- Scgr

Vegetation Type

- HH
- HM
- SEB

Highly Modified Areas

- M1
- M3
- CL



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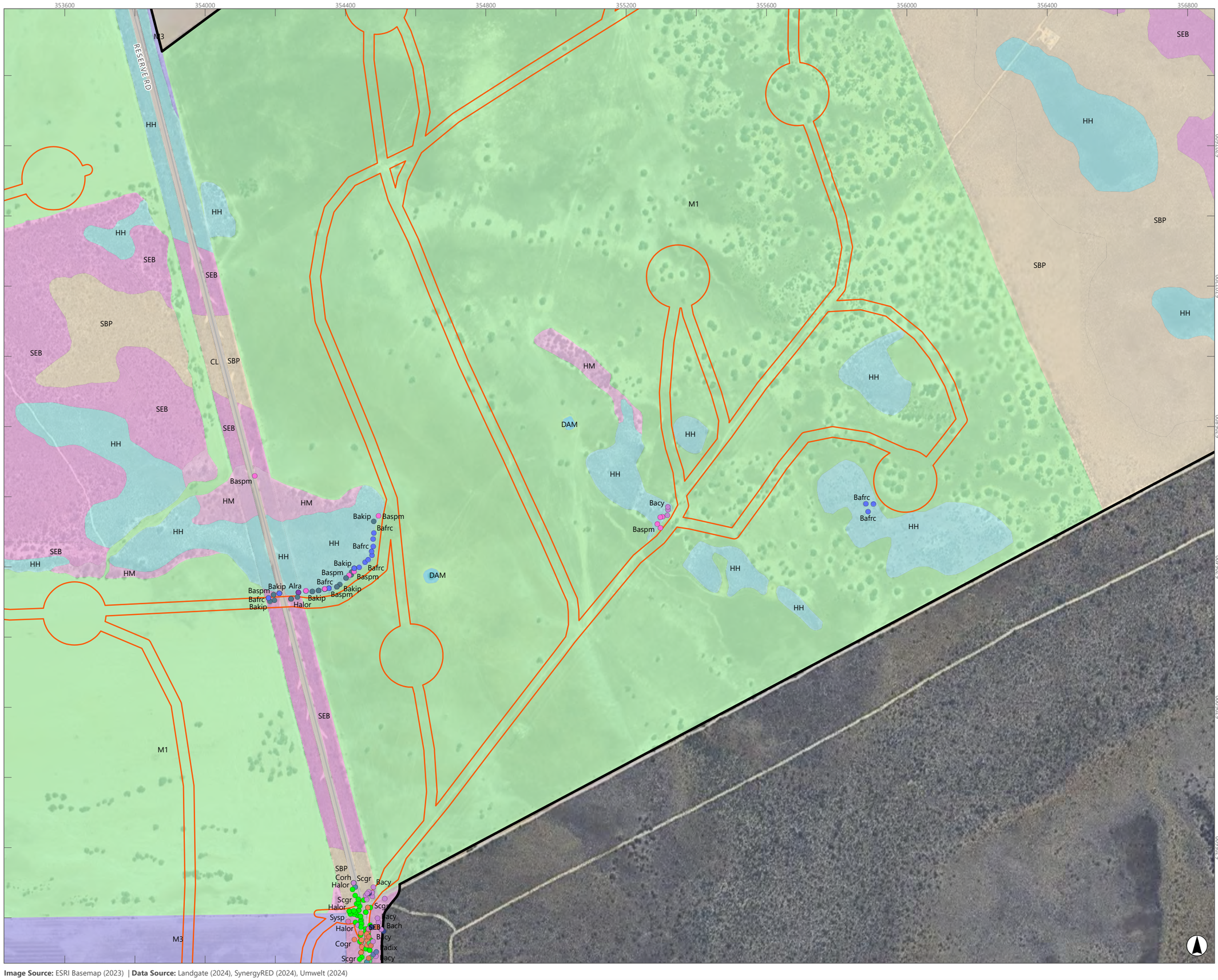
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 7



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Threatened Flora (Umwelt)

- Padix

Priority Flora (Umwelt)

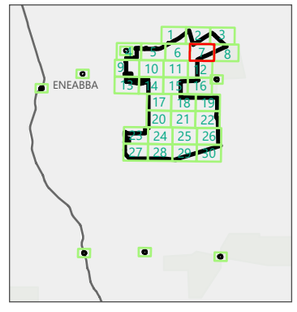
- Alra
- Bach
- Bacy
- Bafrc
- Bakip
- Baspm
- Cogr
- Corh
- Deel
- Drpe
- Halor
- Scgr
- Sysp

Vegetation Type

- HH
- HM
- SBP
- SEB

Highly Modified Areas

- DAM
- M1
- M3
- CL



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Scale: 1:10,000 at A3
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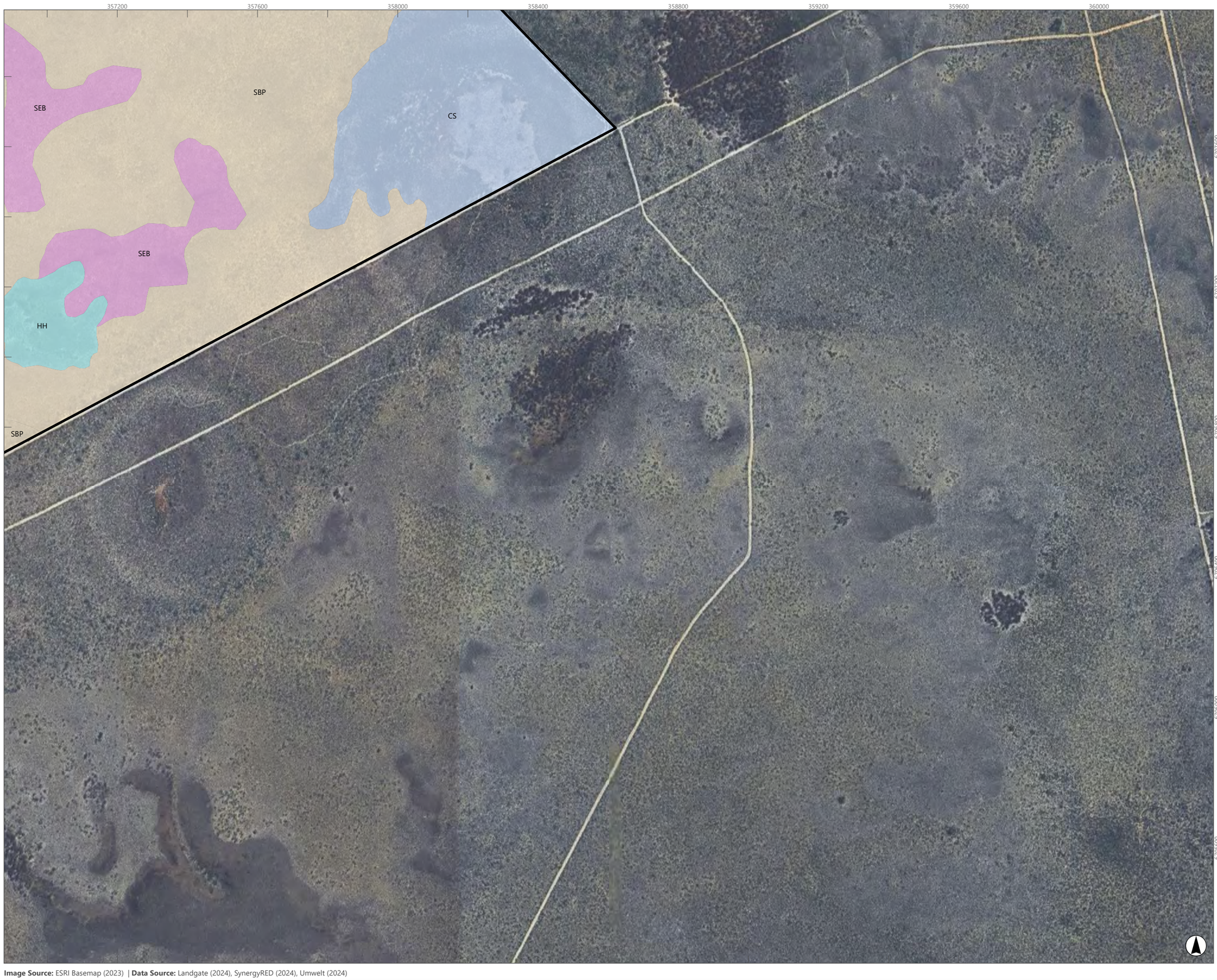
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 8

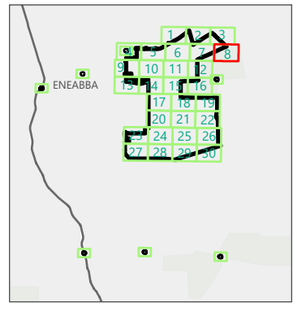


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)

Vegetation Type

- CS
- HH
- SBP
- SEB



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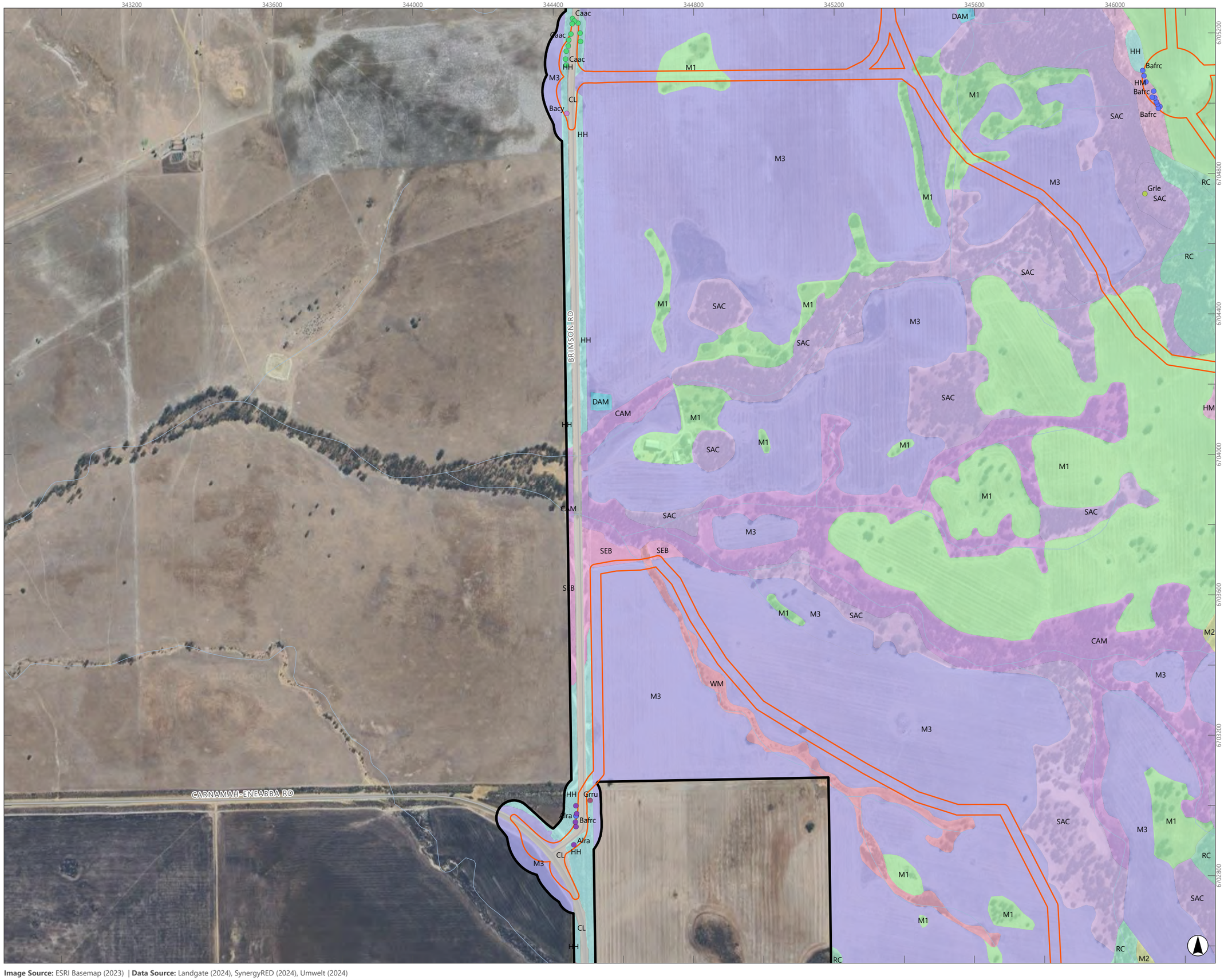
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 9



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

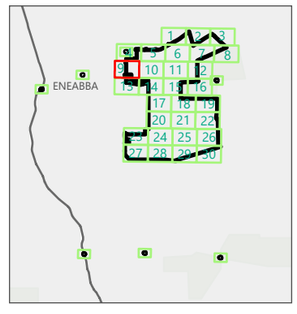
- Alra
- Bacy
- Bafrc
- Caac
- Grle
- Grru

Vegetation Type

- CAM
- HH
- HM
- RC
- SAC
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL



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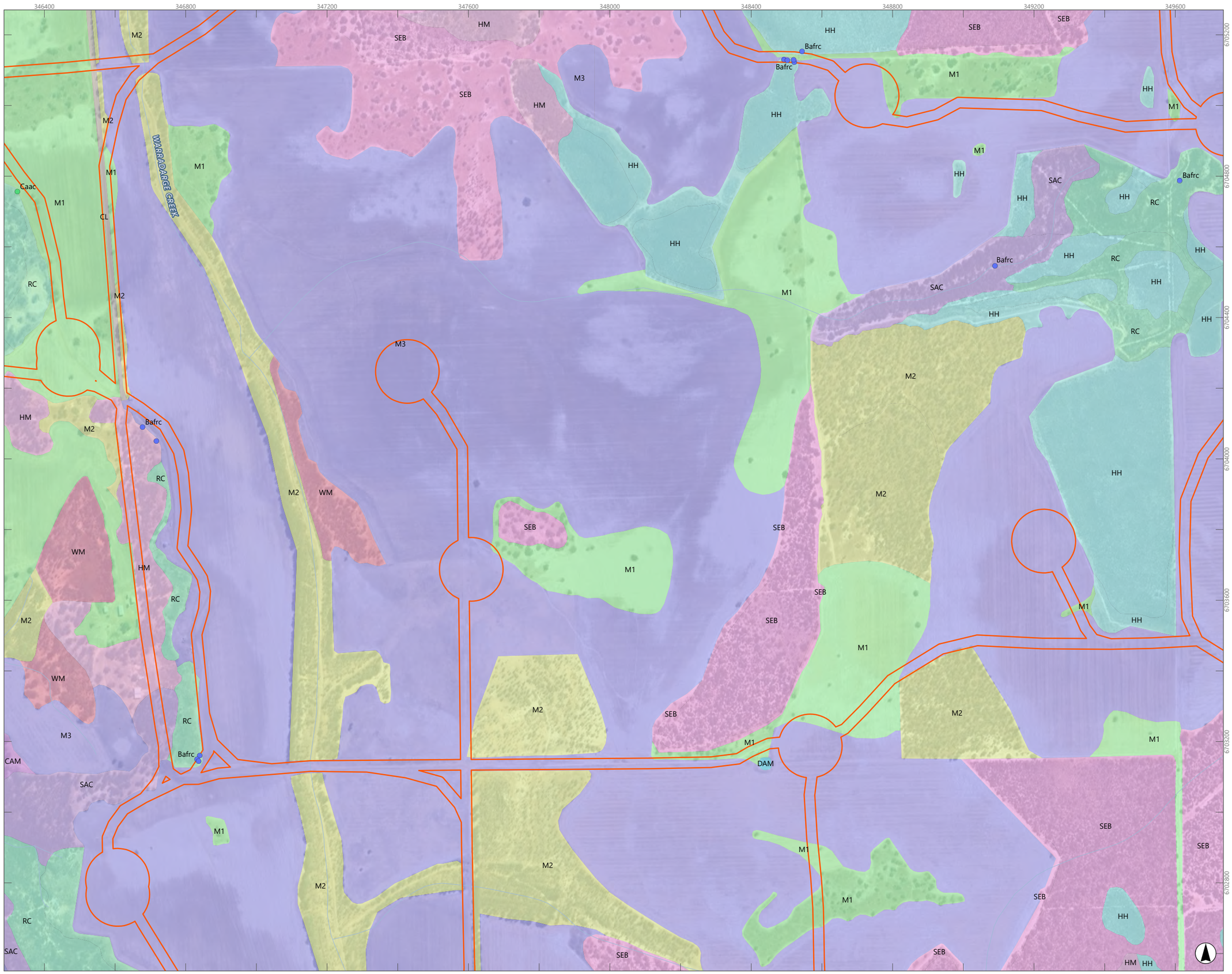
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 10



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Priority Flora (Umwelt)

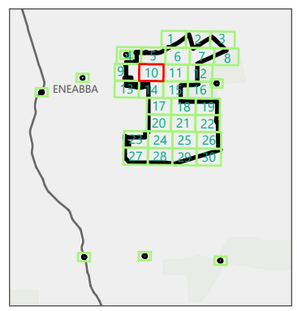
- Bafrc
- Caac

Vegetation Type

- CAM
- HH
- HM
- RC
- SAC
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL



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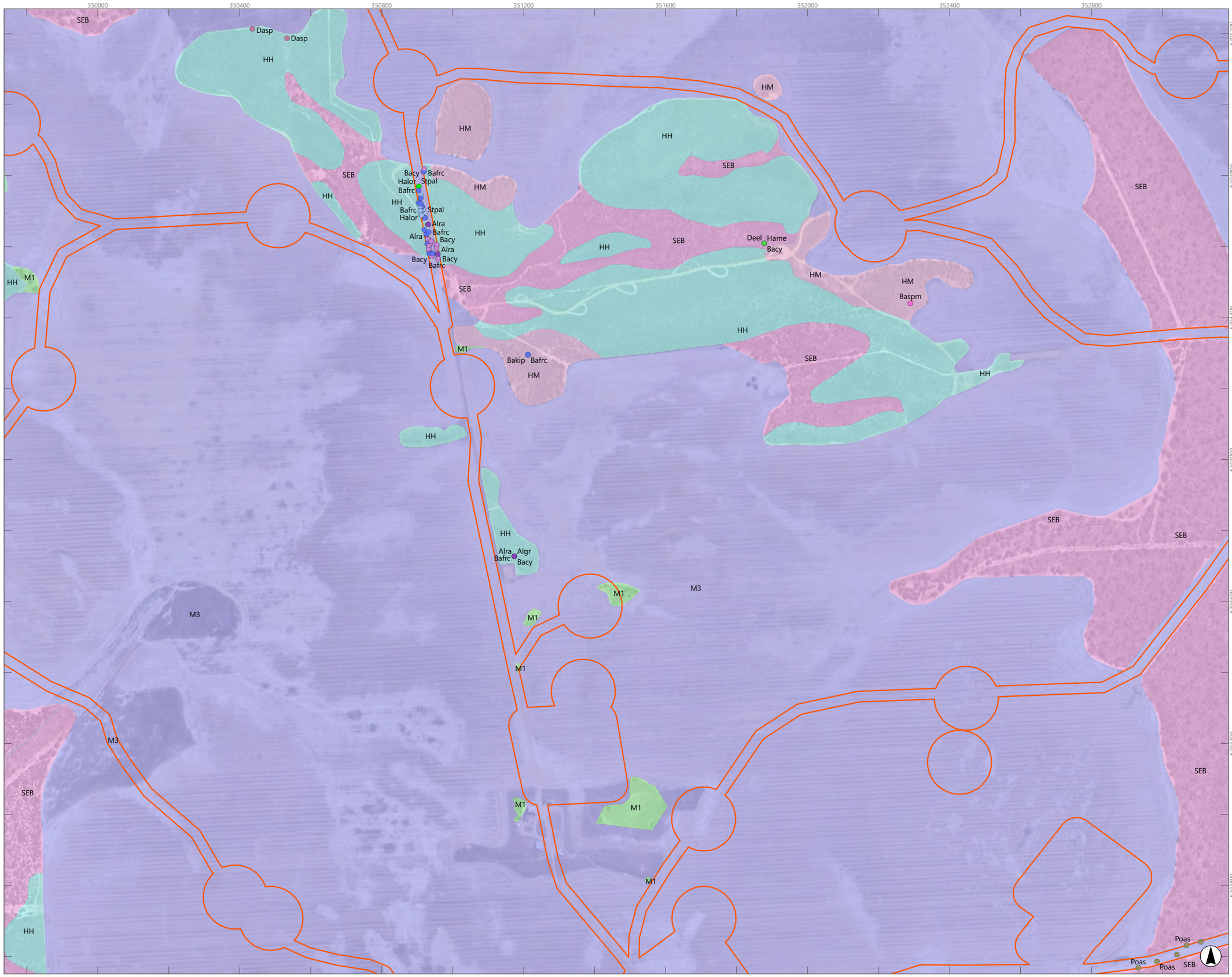
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 11



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Threatened Flora (Umwelt)

- Dasp
- Hame

Priority Flora (Umwelt)

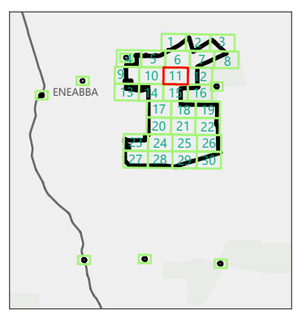
- Algr
- Alra
- Bacy
- Bafrc
- Bakip
- Baspm
- Deel
- Halor
- Poas
- Stpal

Vegetation Type

- HH
- HM
- RC
- SEB

Highly Modified Areas

- M1
- M3



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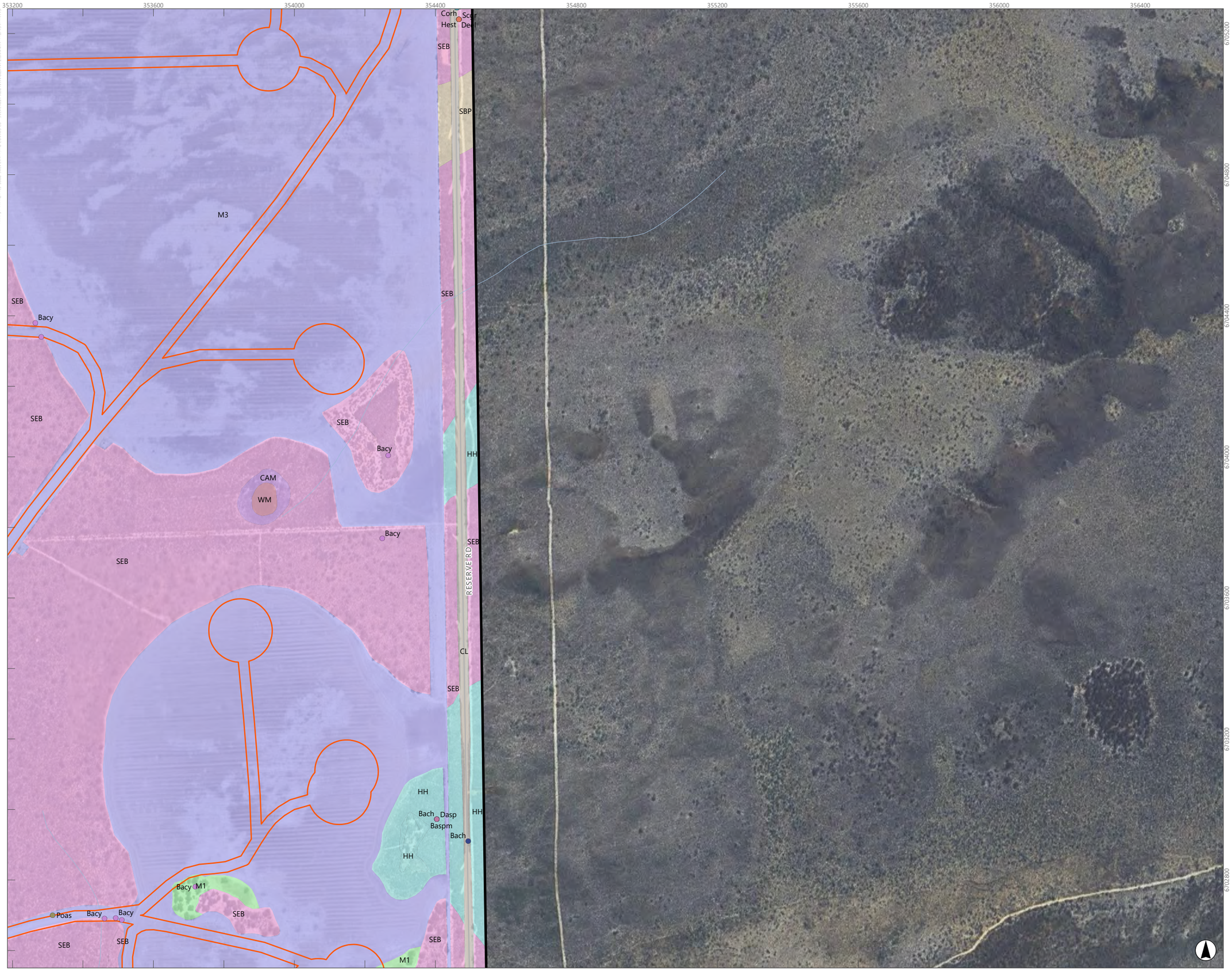
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 12



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Threatened Flora (Umwelt)

- Dasp

Priority Flora (Umwelt)

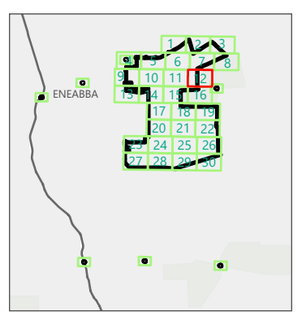
- Bach
- Bacy
- Baspm
- Corh
- Deel
- Drpe
- Hest
- Poas
- Scgr

Vegetation Type

- CAM
- HH
- SBP
- SEB
- WM

Highly Modified Areas

- M1
- M3
- CL



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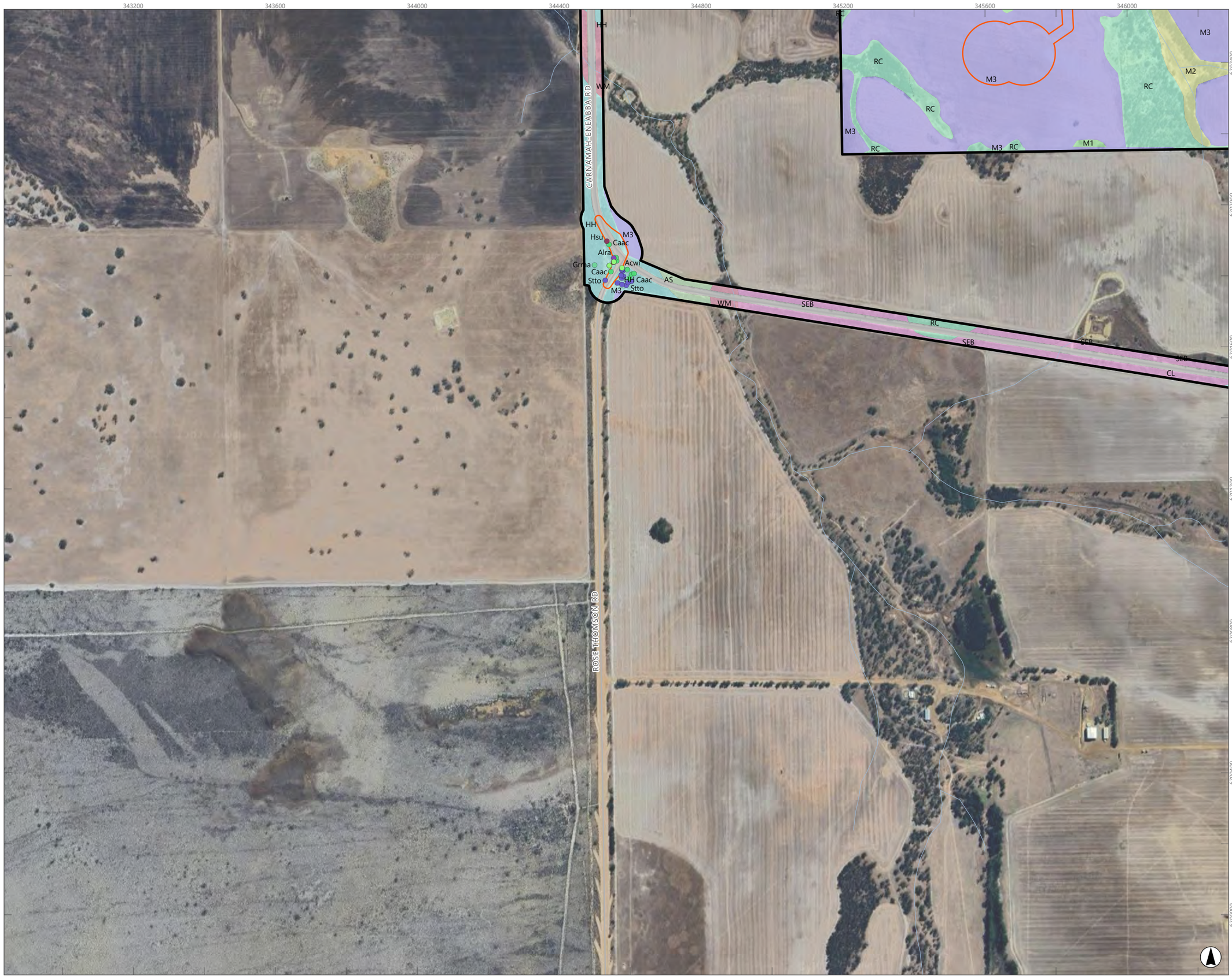
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 13



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Threatened Flora (Umwelt)

- Acwi

Priority Flora (Umwelt)

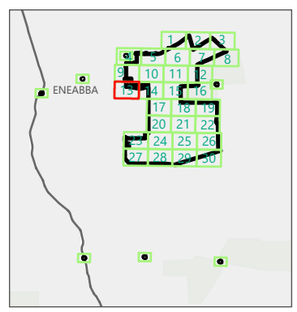
- Alra
- Caac
- Grma
- Hsu
- Stto

Vegetation Type

- AS
- HH
- RC
- SEB
- WM

Highly Modified Areas

- M1
- M2
- M3
- CL



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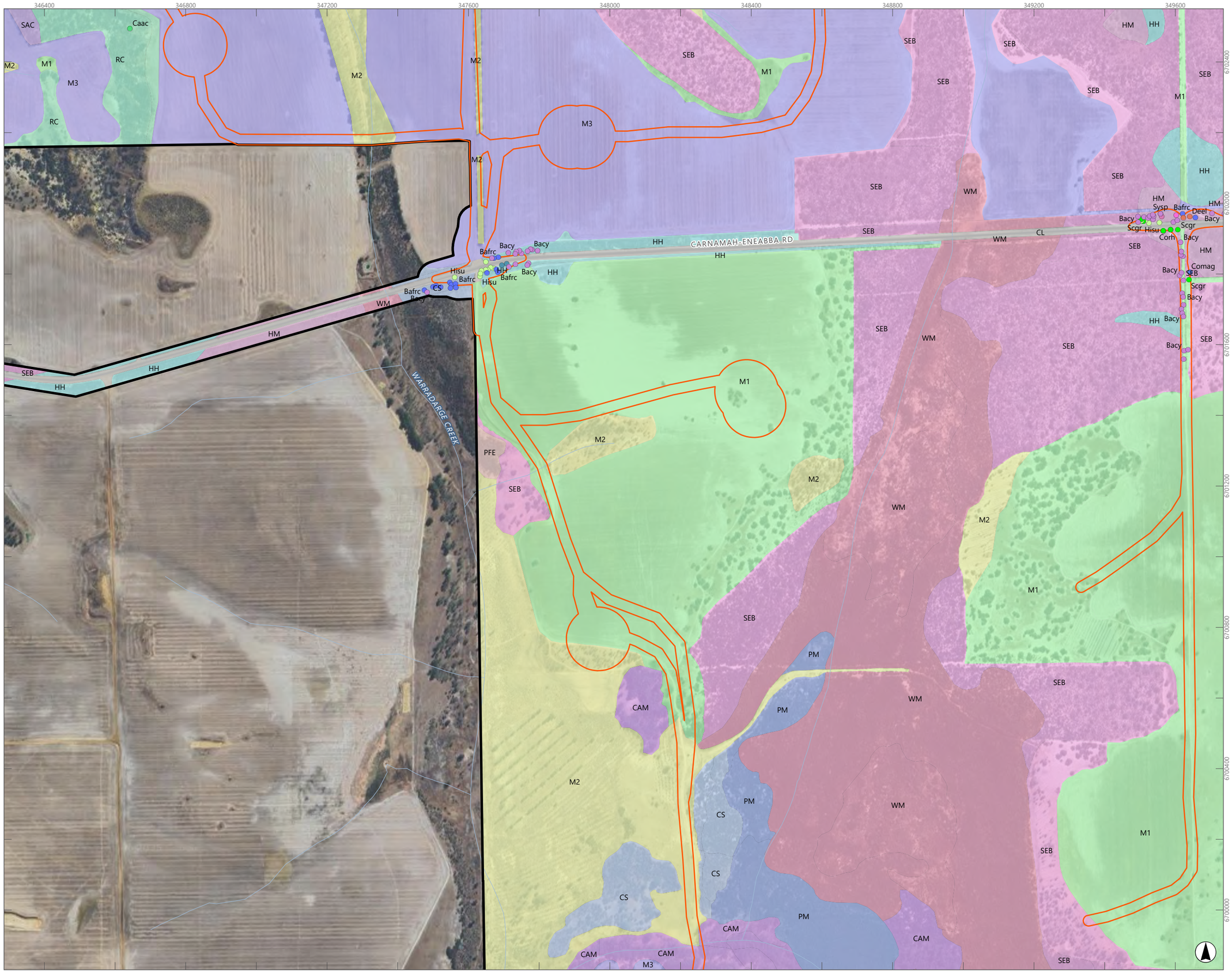
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 14



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

- Bacy
- Bafrc
- Baspm
- Caac
- Corh
- Comag
- Deel
- Hisu
- Scgr
- Sysp

Vegetation Type

- CAM
- CS
- HH
- HM
- PFE
- PM
- RC
- SAC
- SEB
- WM

Highly Modified Areas

- M1
- M2
- M3
- CL

0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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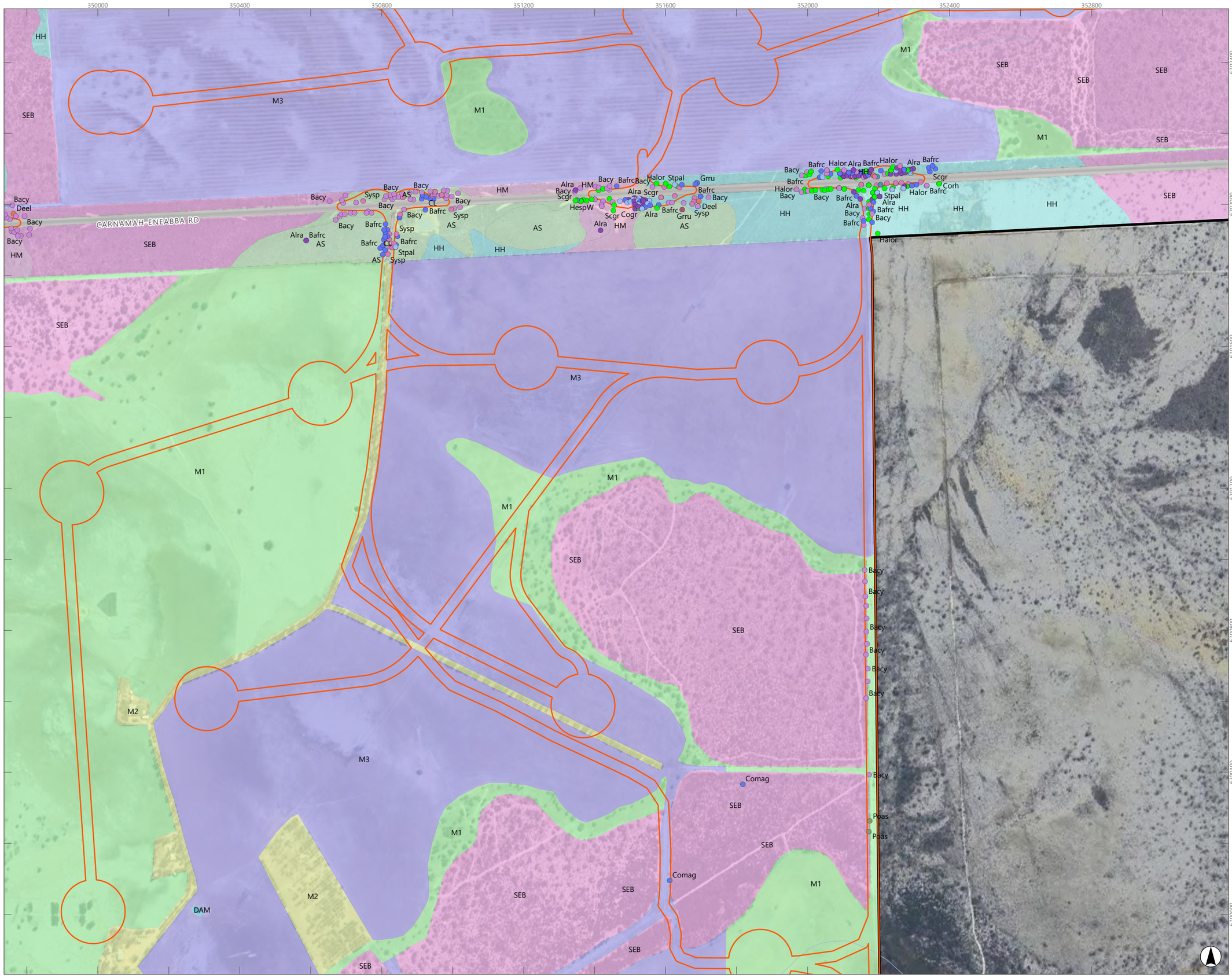
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 15



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

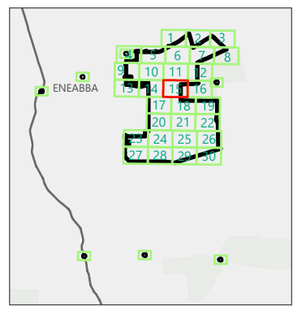
- Alra
- Bacy
- Bafrc
- Cogr
- Corh
- Comag
- Deel
- Grru
- Halor
- HespW
- Poas
- Scgr
- Stpal
- Sysp

Vegetation Type

- AS
- HH
- HM
- SEB

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL



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GDA2020 MGA Zone 50

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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 16

353200 353600 354000 354400 354800 355200 355600 356000 356400

6702400 6702000 6701600 6701200 6700800 6700400 6700000

RESERVE RD

CARNAMAH-ENEABBA RD

SEB M1 M3 CL HH

Bacy Bafrc Baspm Cach Deno Halor HespW Scgr Stpal

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

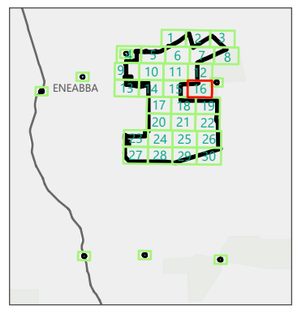
- Bacy
- Bafrc
- Baspm
- Cach
- Corh
- Deno
- Halor
- HespW
- Scgr
- Stpal

Vegetation Type

- CS
- HH
- SEB

Highly Modified Areas

- M1
- M3
- CL



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GDA2020 MGA Zone 50

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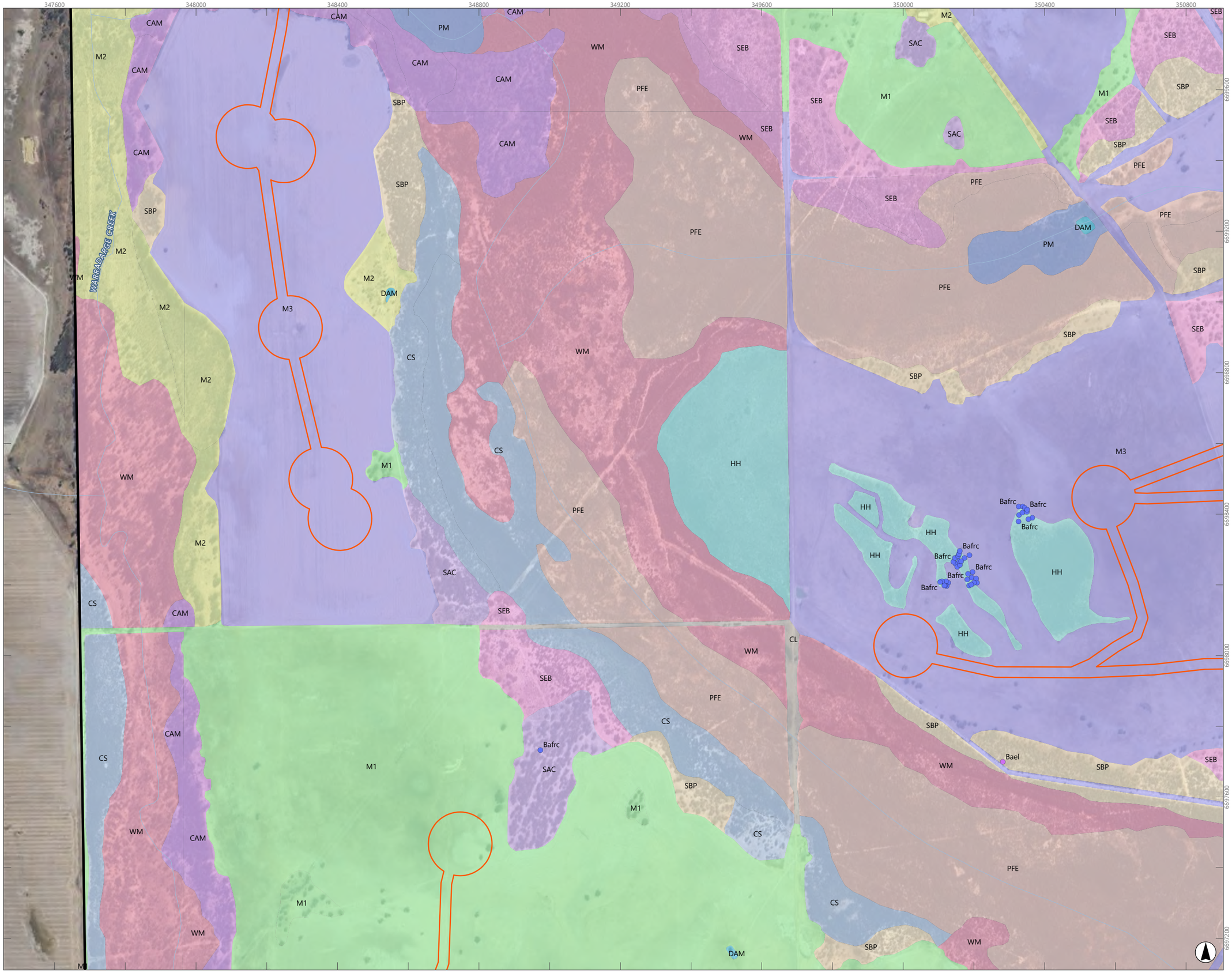
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 17



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Priority Flora (Umwelt)

- Bael
- Bafrc

Vegetation Type

- CAM
- CS
- HH
- PFE
- PM
- SAC
- SBP
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL

0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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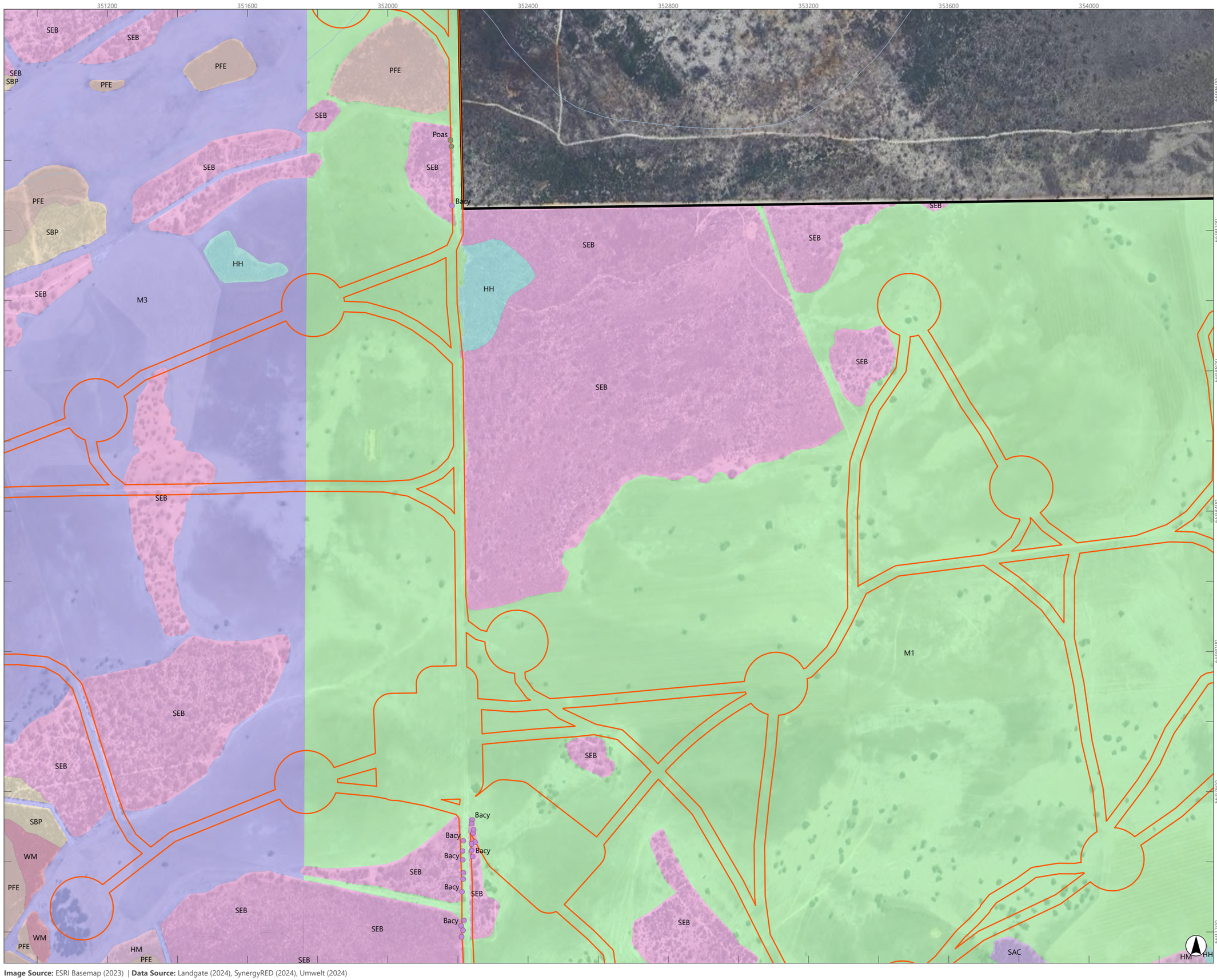
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 18



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Priority Flora (Umwelt)

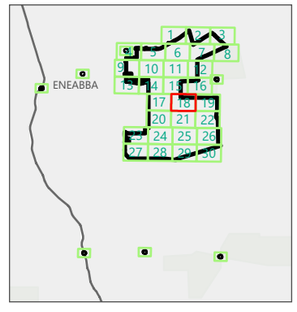
- Bacy
- Poas

Vegetation Type

- HH
- HM
- PFE
- SAC
- SBP
- SEB
- WM

Highly Modified Areas

- M1
- M3



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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 19

354400 354800 355200 355600 356000 356400 356800 357200 357600

6699600 6699200 6698800 6698400 6698000 6697600 6697200

GARIBALDI WILLIS RD

M2 HM Bafrc Bafrc SAC HM DAM SEB M1 M1 HH SEB SEB CL SEB

Bacy Hame Bacy Hame Bacy Scgr Hyro Scgr Bacy Bacy Hyro Scgr Hyro Bacy SEB Argr Bacy Deel Bacy Deel Scgr SEB

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Threatened Flora (Umwelt)

- Hame

Priority Flora (Umwelt)

- Argr
- Bacy
- Bafrc
- Corh
- Deel
- Drpe
- Hyro
- Scgr

Vegetation Type

- HH
- HM
- SAC
- SEB

Highly Modified Areas

- DAM
- M1
- M2
- CL

ENEABBA

0 200 400 m

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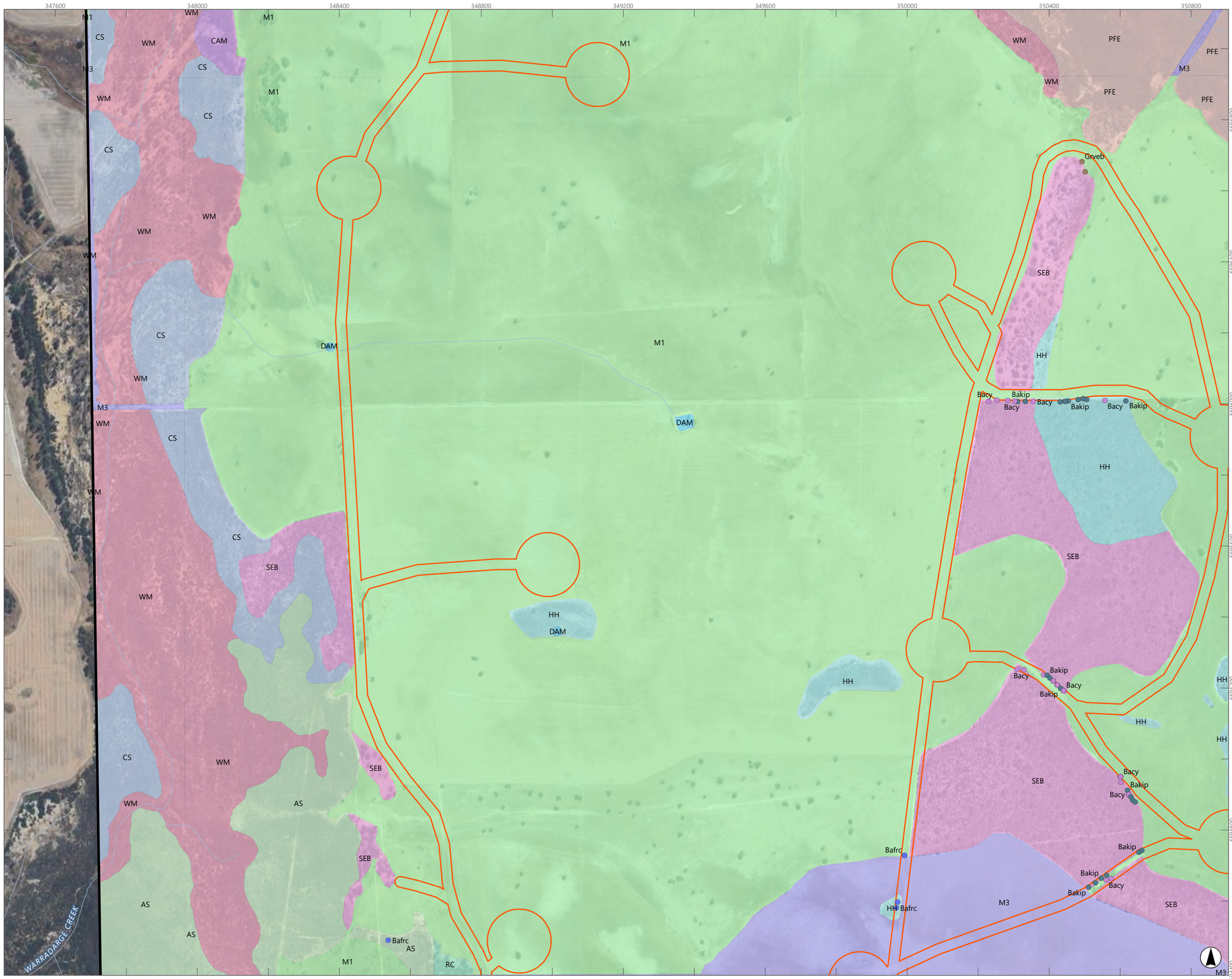
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 20



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Priority Flora (Umwelt)

- Bacy
- Bafrc
- Bakip
- Grveb

Vegetation Type

- AS
- CAM
- CS
- HH
- PFE
- RC
- SBP
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M3

0 200 400 m

Scale: 1:10,000 at A3
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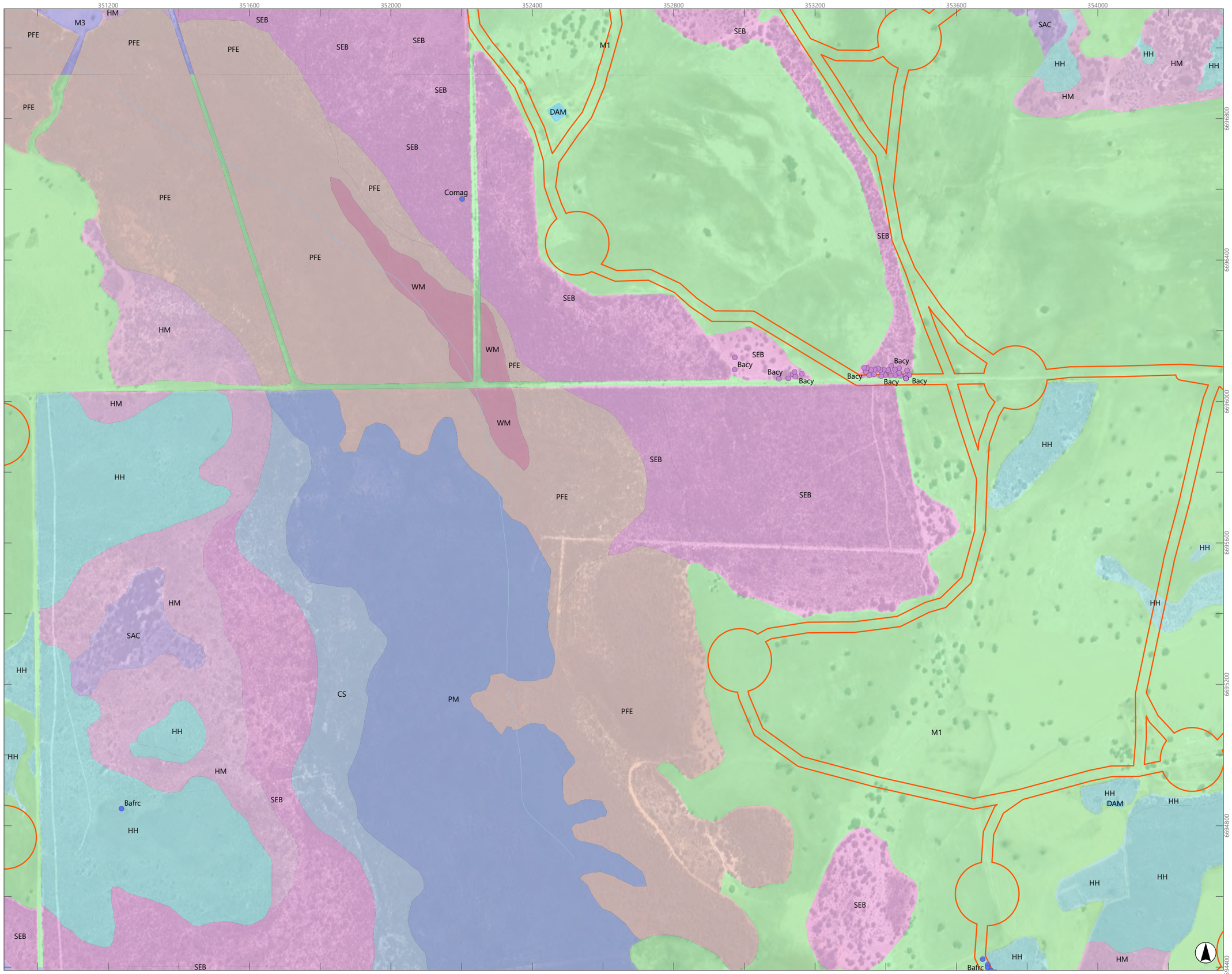
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 21



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Priority Flora (Umwelt)

- Bacy
- Bafrc
- Comag

Vegetation Type

- CS
- HH
- HM
- PFE
- PM
- SAC
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M3

0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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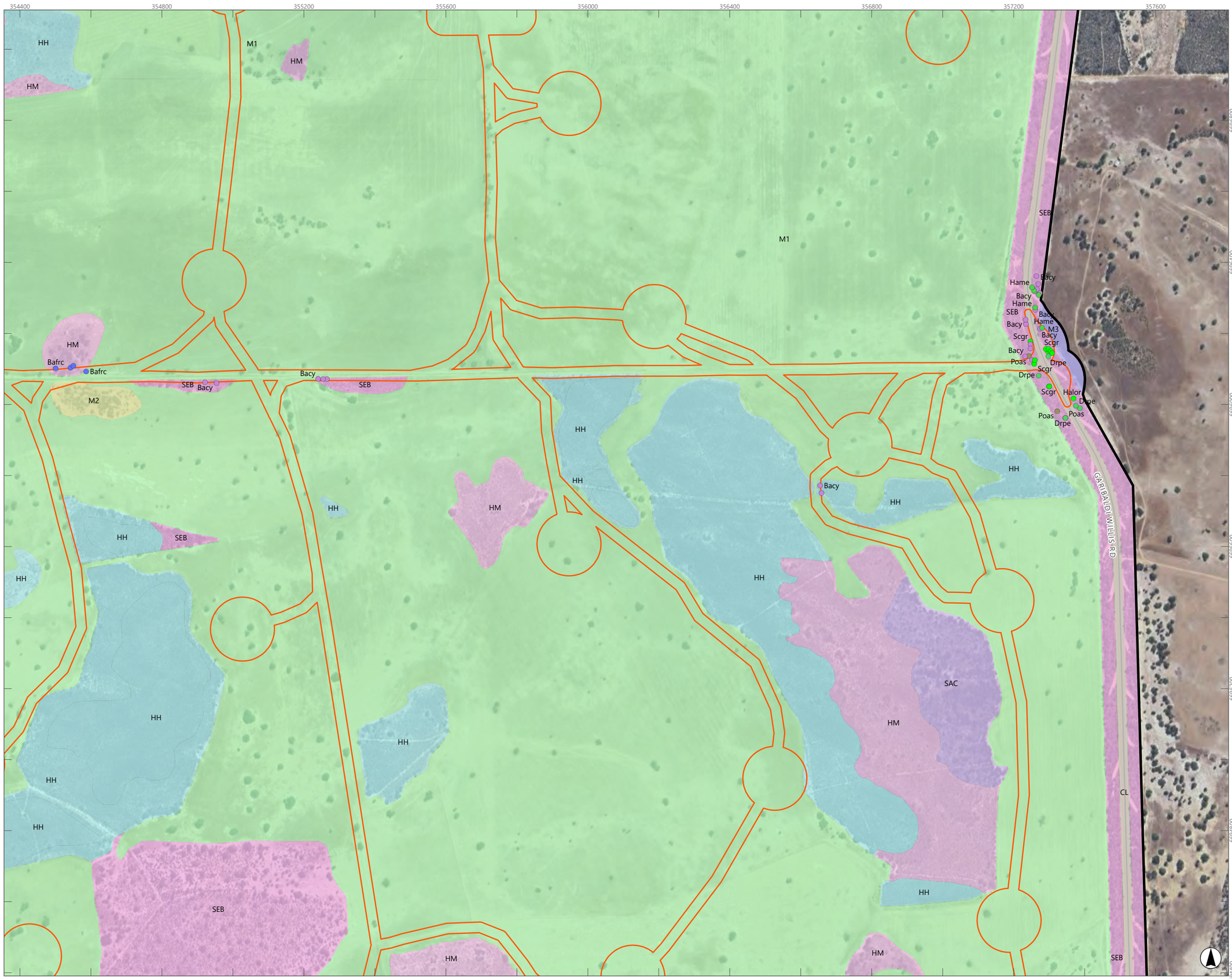
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 22



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Threatened Flora (Umwelt)

- Hame

Priority Flora (Umwelt)

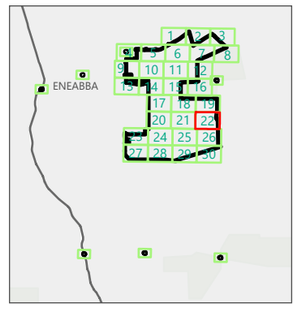
- Bacy
- Bafrc
- Drpe
- Halor
- Poas
- Scgr

Vegetation Type

- HH
- HM
- SAC
- SEB

Highly Modified Areas

- M1
- M2
- M3
- CL



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APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 23

344400 344800 345200 345600 346000 346400 346800 347200 347600

6694000 6693600 6693200 6692800 6692400 6692000

WARRADARGE CREEK

ROSE THOMSON RD

ENEABBA

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

- Bacy
- Bakip
- Corh
- HespE
- Poas
- Scgr

Vegetation Type

- HH
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL

0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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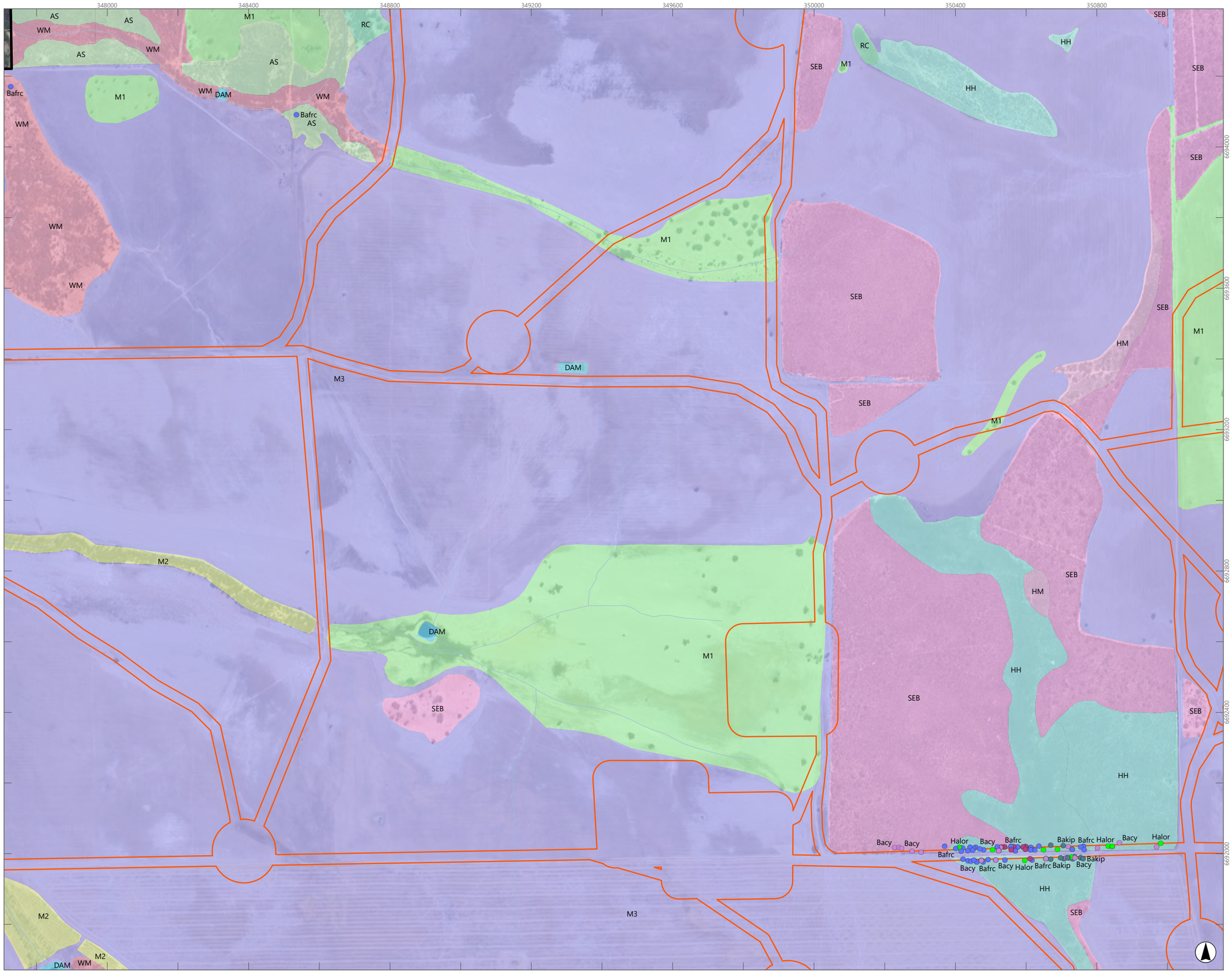
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 24



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Priority Flora (Umwelt)

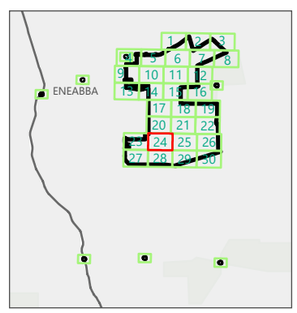
- Algr
- Bacy
- Bafrc
- Bakip
- Halor

Vegetation Type

- AS
- HH
- HM
- RC
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3



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Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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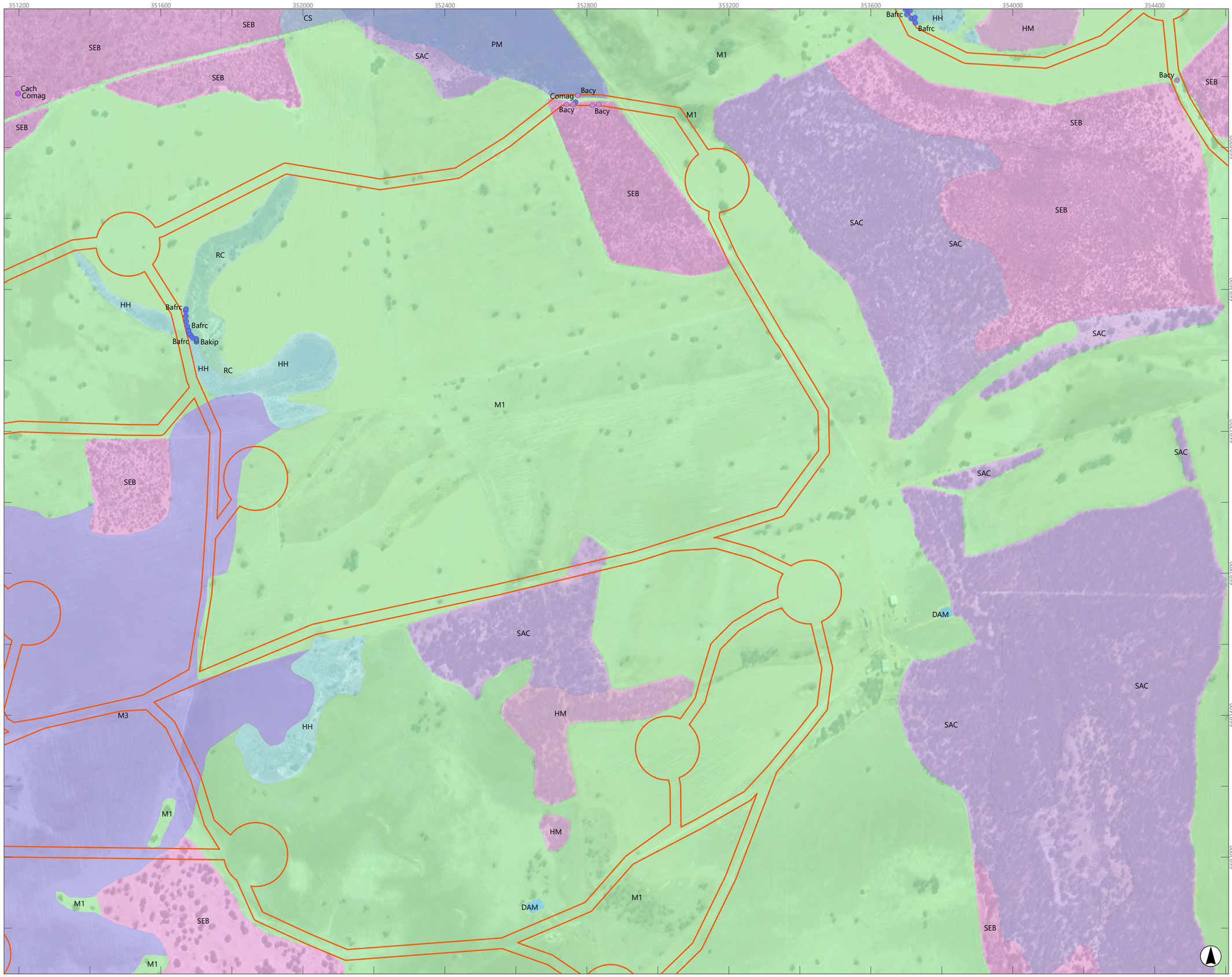
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 25



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)

Priority Flora (Umwelt)

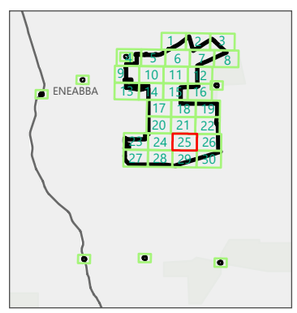
- Bacy
- Bafrc
- Bakip
- Cach
- Comag

Vegetation Type

- CS
- HH
- HM
- PFE
- PM
- RC
- SAC
- SEB

Highly Modified Areas

- DAM
- M1
- M3



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Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
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354800 355200 355600 356000 356400 356800 357200 357600 358000

6694000 6693600 6693200 6692800 6692400 6692000

HM SEB Baspm Bakip HH M1 Bacy SEB Bach Baspm Halor Grer HH SEB HM Comag Grer SAC Banof Bafrc M2 M3 CL SBP GARIBALDI WILLIS RD

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Priority Flora (Umwelt)

- Bach
- Bacy
- Bafrc
- Bakip
- Banof
- Baspm
- Comag
- Grer
- Halor
- Poas

Vegetation Type

- HH
- HM
- SAC
- SBP
- SEB

Highly Modified Areas

- M1
- M2
- M3
- CL

ENEABBA

0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 27

344400 344800 345200 345600 346000 346400 346800 347200 347600

6691600 6691200 6690800 6690400 6690000 6689600 6689200

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Priority Flora (Umwelt)

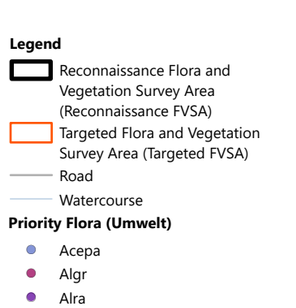
- Acepa
- Algr
- Alra
- Bafrc
- Halor
- Stpal

Vegetation Type

- AS
- CS
- HH
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3
- CL



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Scale: 1:10,000 at A3
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Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 28

348000 348400 348800 349200 349600 350000 350400 350800

6691600 6691200 6690800 6690400 6690000 6689600 6689200

DAM WM M2 DAM M2 SEB HH Bafrc M3 SAC SEB SEB HM HH HM SEB SEB SEB SEB HH HH SEB SEB HH SEB SEB M3 SAC SAC M1 RC HM Bafrc HH Bafrc RC HM Bafrc HM SAC SAC HH SAC RC HM SEB SEB Acwi RC HH RC RC SEB SEB SEB SEB SEB SAC M3 M2

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Threatened Flora (Umwelt)

- Acwi

Priority Flora (Umwelt)

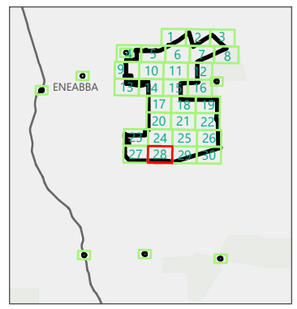
- Bafrc

Vegetation Type

- HH
- HM
- RC
- SAC
- SEB
- WM

Highly Modified Areas

- DAM
- M1
- M2
- M3



0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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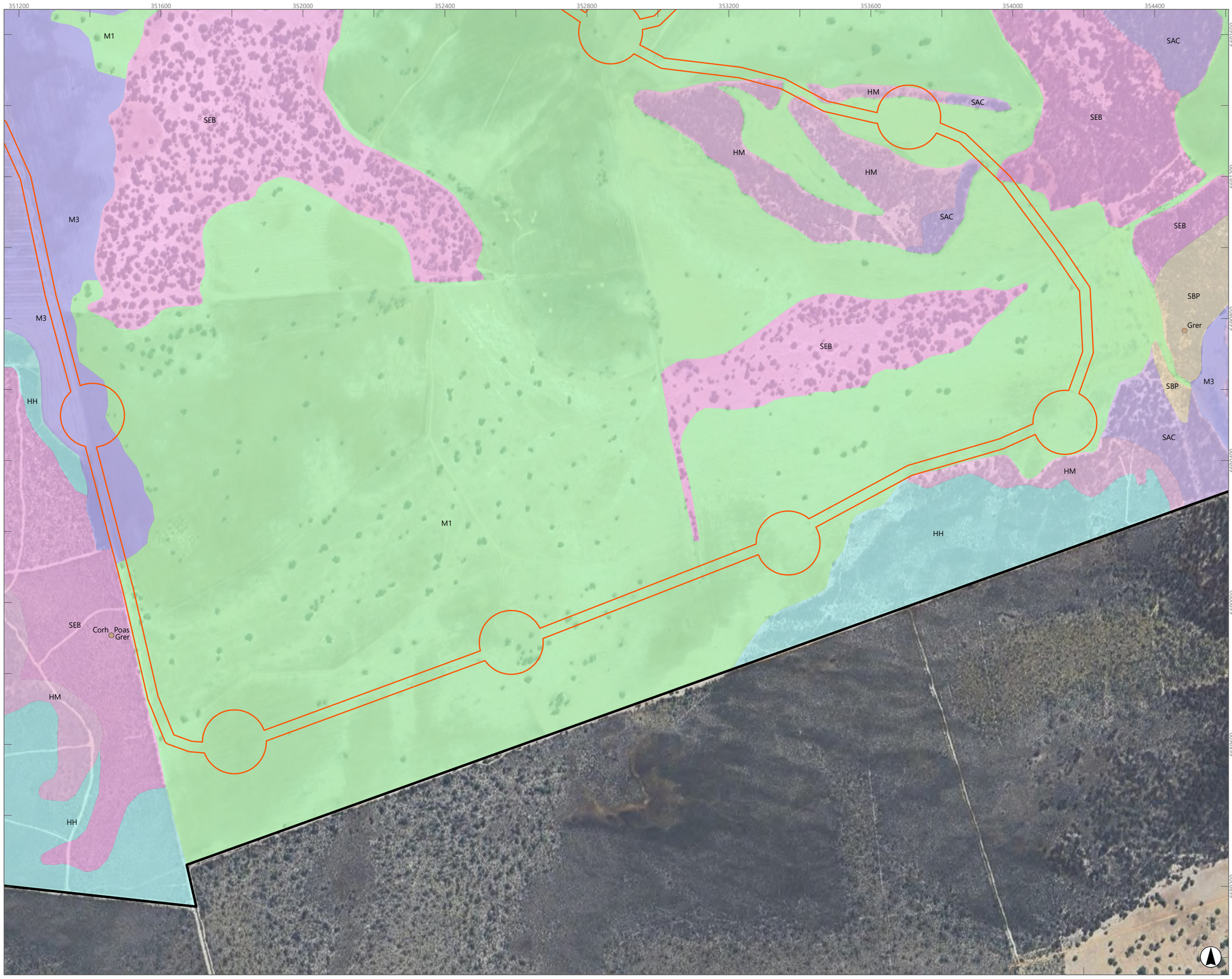
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 29



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)

Priority Flora (Umwelt)

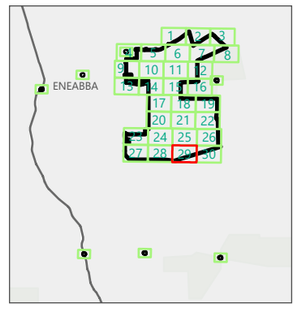
- Corh
- Grer
- Poas

Vegetation Type

- HH
- HM
- SAC
- SBP
- SEB

Highly Modified Areas

- M1
- M3



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Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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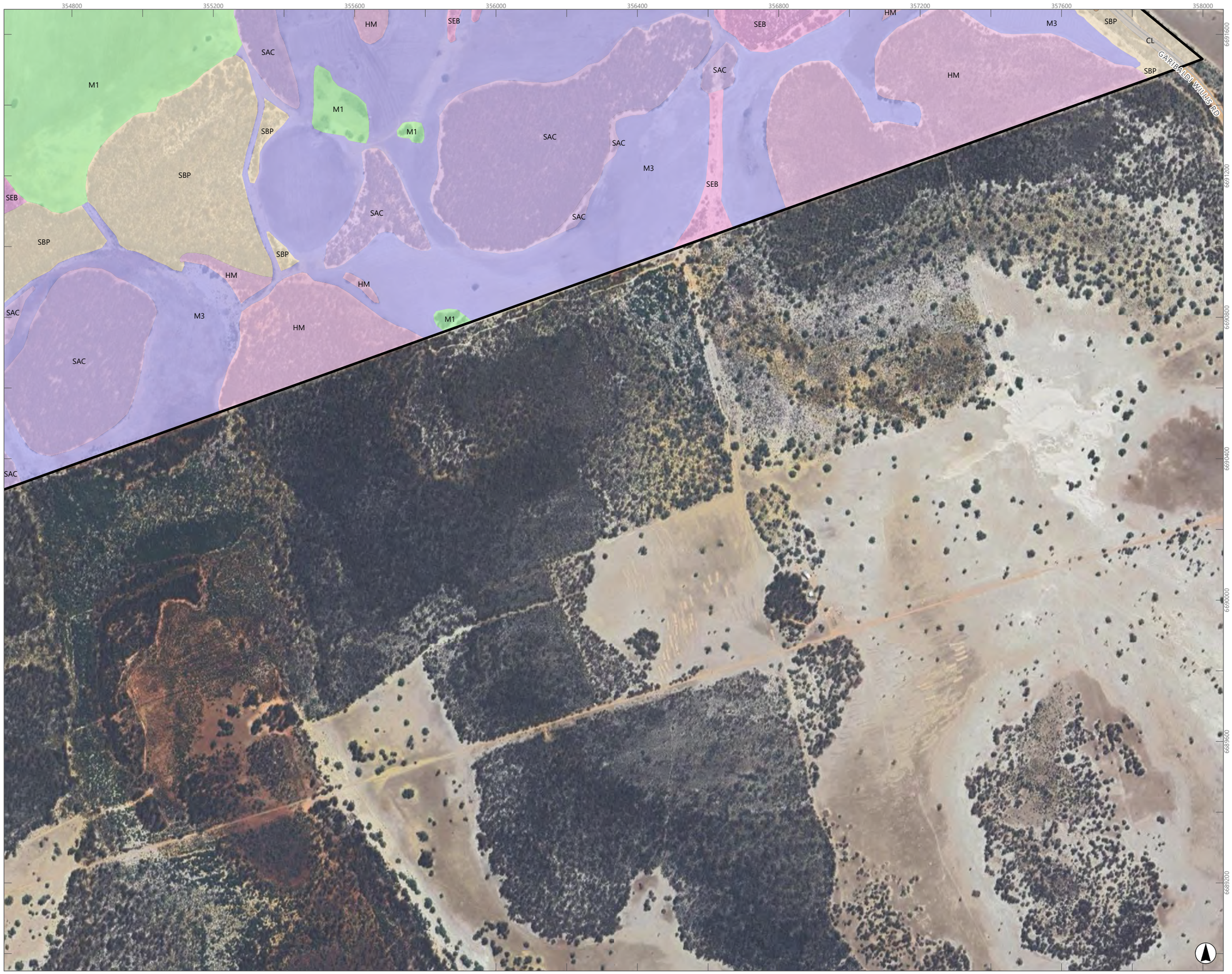
APPENDIX E

Vegetation Types and Significant Flora of the Reconnaissance FVSA – Detailed
Sheet 30



Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Road

Priority Flora (Umwelt)

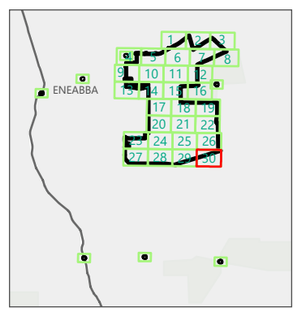
- Grer

Vegetation Type

- HM
- SAC
- SBP
- SEB

Highly Modified Areas

- M1
- M3
- CL



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Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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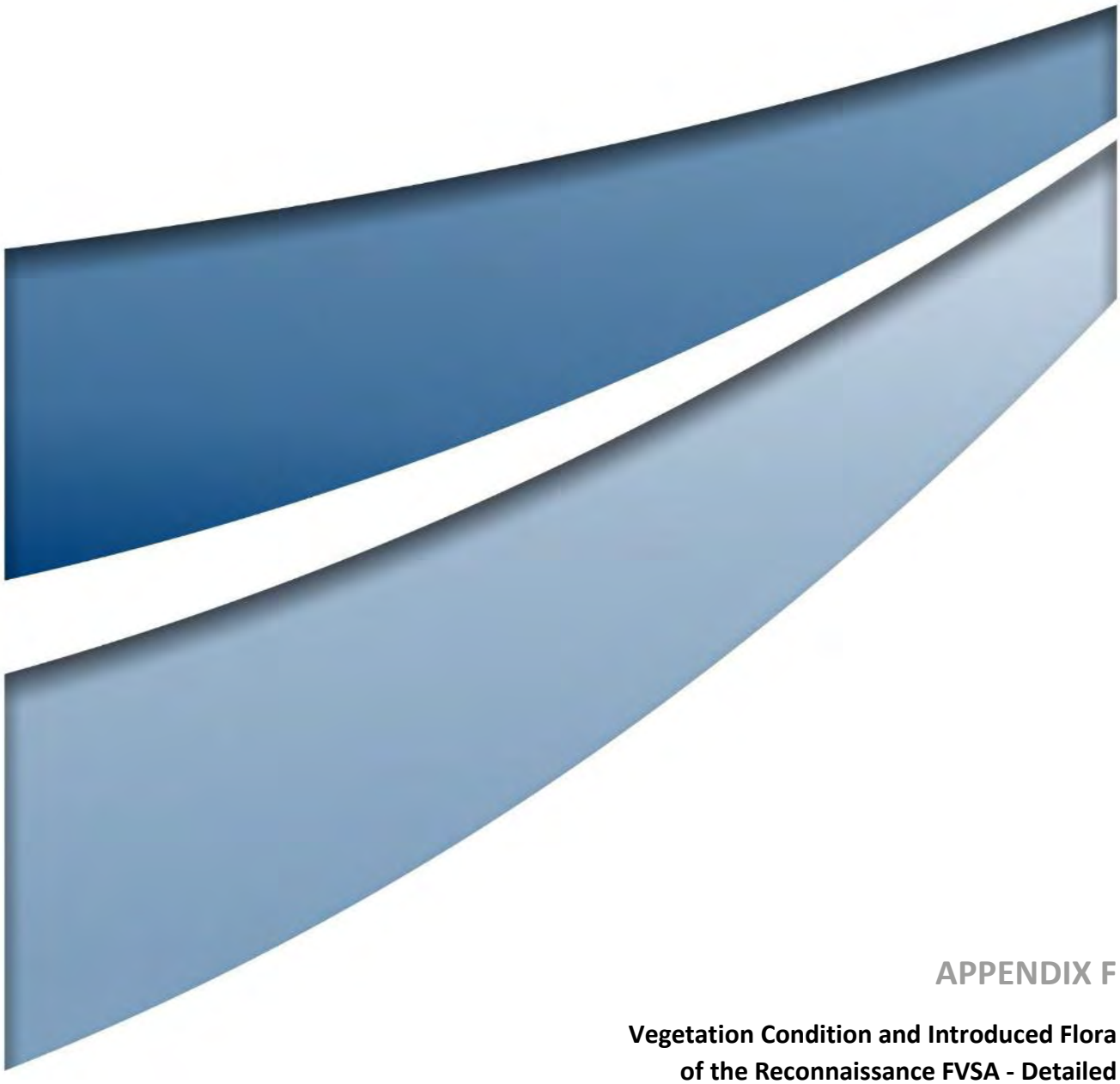
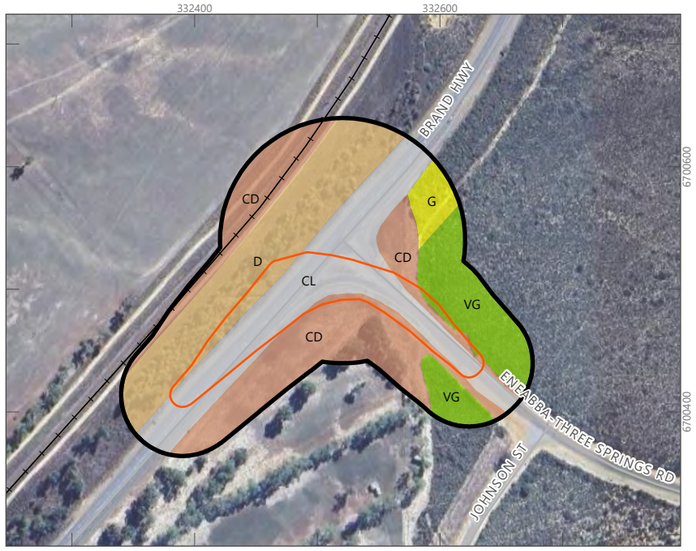


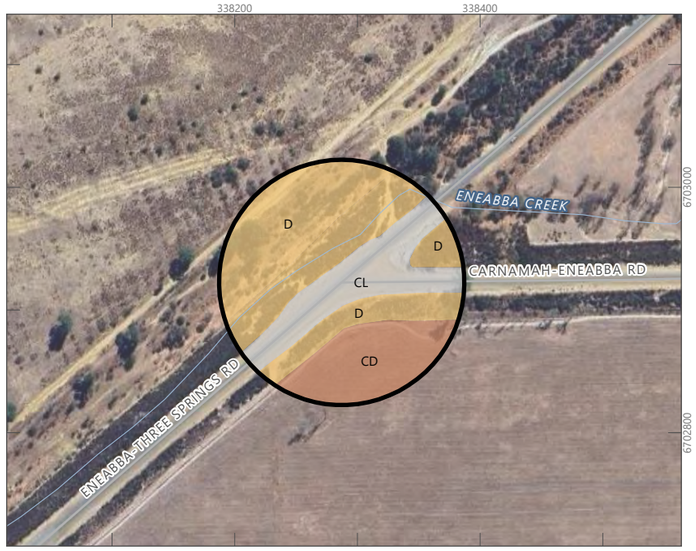
APPENDIX F

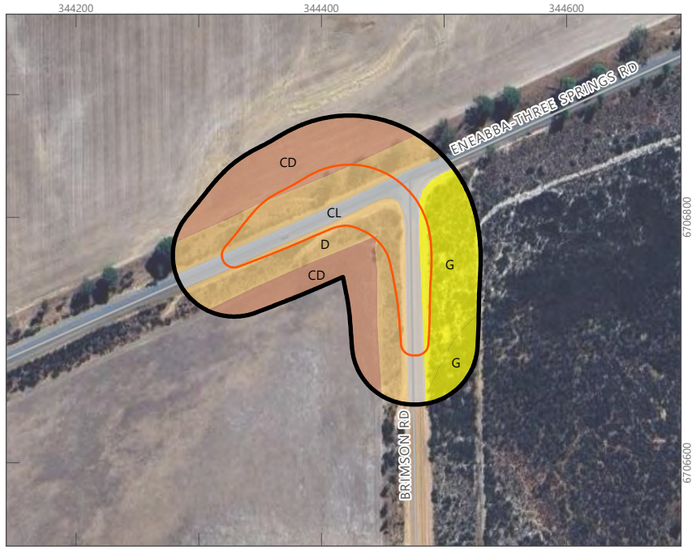
Vegetation Condition and Introduced Flora of the Reconnaissance FVSA - Detailed

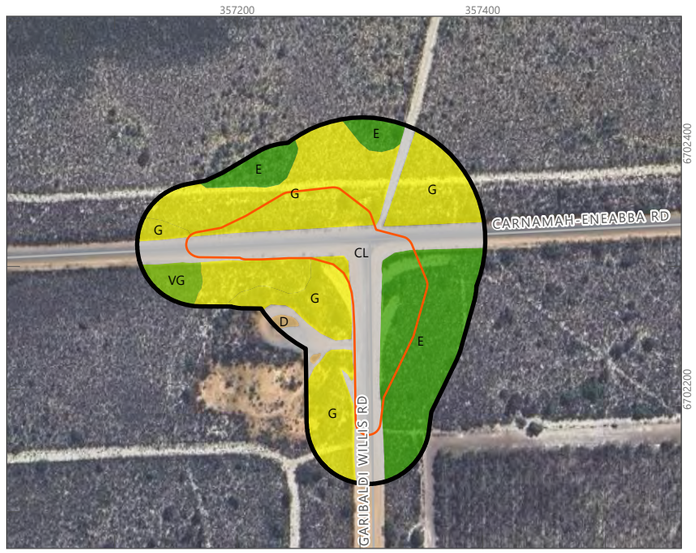
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheets 31 to 37









Introduced Flora (Umwelt)

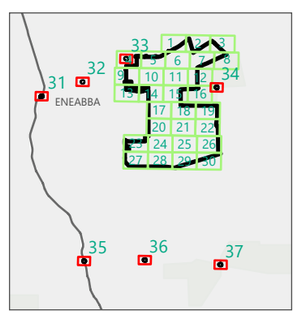
- Brm **Bromus madritensis*
- Cof **Corynephorus fasciculatus*
- Ecp **Echium plantagineum*
- Hyg **Hypochaeris glabra*
- Peaa **Pentameris airoides* subsp. *airoides*
- Traa **Trifolium arvense* var. *arvense*
- Ura **Ursinia anthemoides*
- Wac **Wahlenbergia capensis*

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Railway
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



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Scale: 1:5,000 at A3
GDA2020 MGA Zone 50

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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 1

Legend

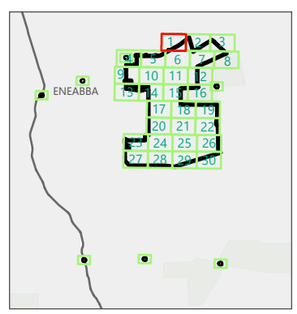
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Introduced Flora (Umwelt)

- Ecp

Vegetation Condition

- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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Scale: 1:10,000 at A3
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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 2

353200 353600 354000 354400 354800 355200 355600 356000

6710400 6710000 6709600 6709200 6708800 6708400 6708000

ENEABBA-THREE SPRINGS RD

RESERVE RD

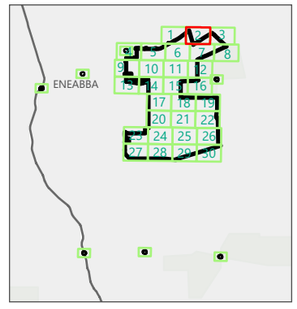
CD G VG D CL E

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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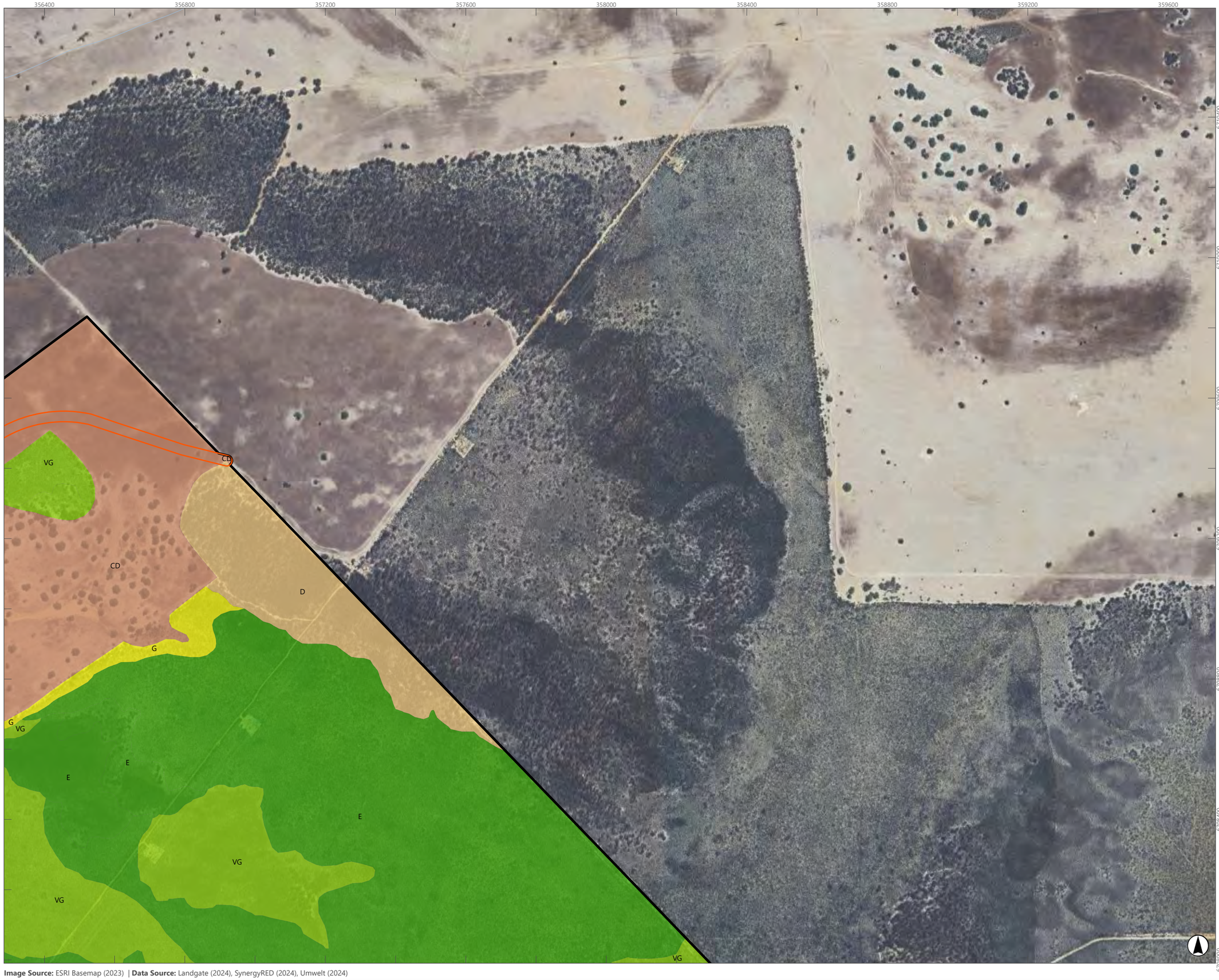
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 3

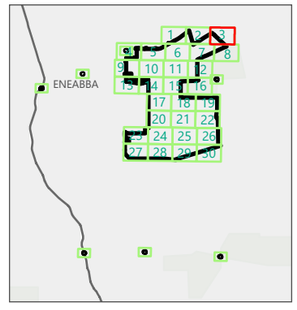


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded



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Scale: 1:10,000 at A3
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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 4

343200 343600 344000 344400 344800 345200 345600 346000 346400

6707600 6707200 6706800 6706400 6706000 6705600

ENEABBA-THREE SPRINGS RD

FIRST NORTH RD

BRIMSON RD

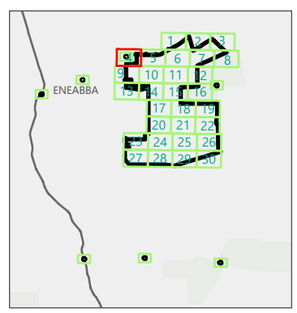
CD CL G D VG DAM

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 5

346800 347200 347600 348000 348400 348800 349200 349600

6707600 6707200 6706800 6706400 6706000 6705600

WARRADARGE CREEK

ENEABBA-THREE SPRINGS RD

VG CL Ecp G D CD

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Introduced Flora (Umwelt)

- Ecp

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared

ENEABBA

0 200 400 m

Scale: 1:10,000 at A3
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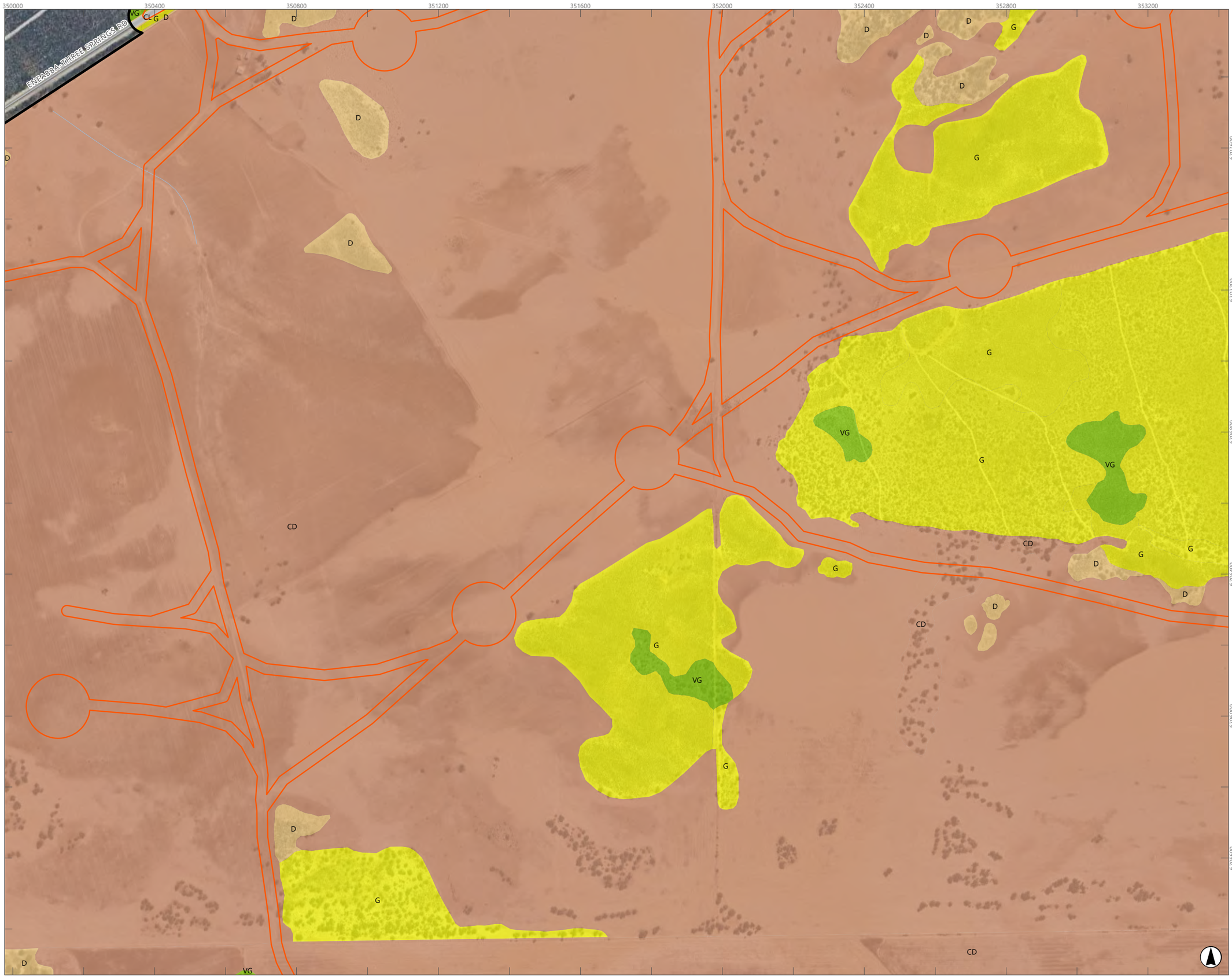
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 6

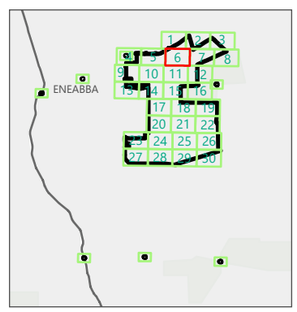


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 7

353600 354000 354400 354800 355200 355600 356000 356400 356800

6707600 6707200 6706800 6706400 6706000 6705600

RESERVE RD

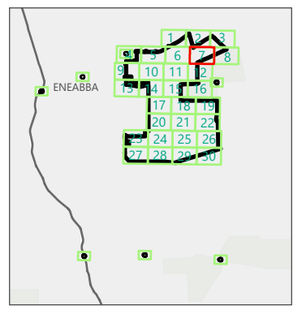
CD VG G E D DAM CL

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



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APPENDIX F

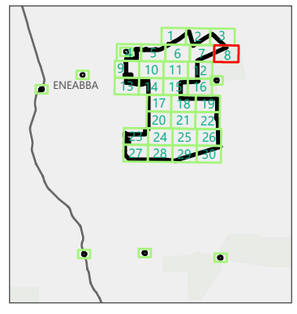
Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 8

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)

Vegetation Condition

- Excellent
- Very Good



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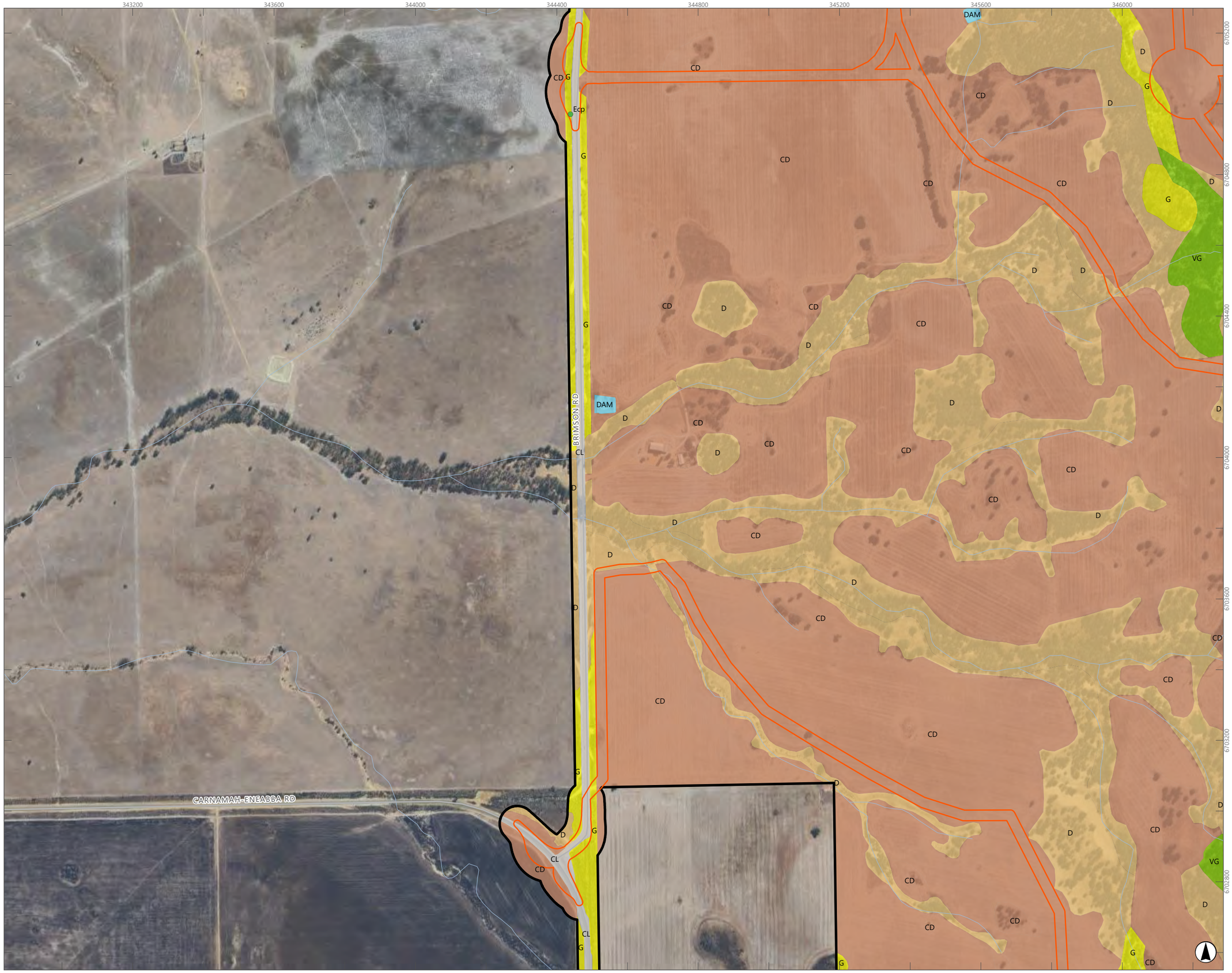
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 9



Legend

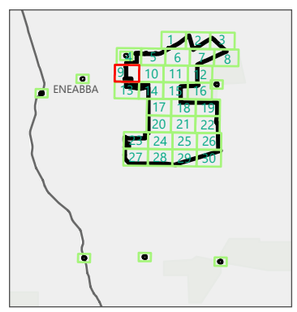
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Introduced Flora (Umwelt)

- Ecp

Vegetation Condition

- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



0 200 400 m

Scale: 1:10,000 at A3
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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 10

346400 346800 347200 347600 348000 348400 348800 349200 349600

6705200 6704800 6704400 6704000 6703600 6703200 6702800

WARRADARGE CREEK

DAM

ENEABBA

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared

0 200 400 m

Scale: 1:10,000 at A3
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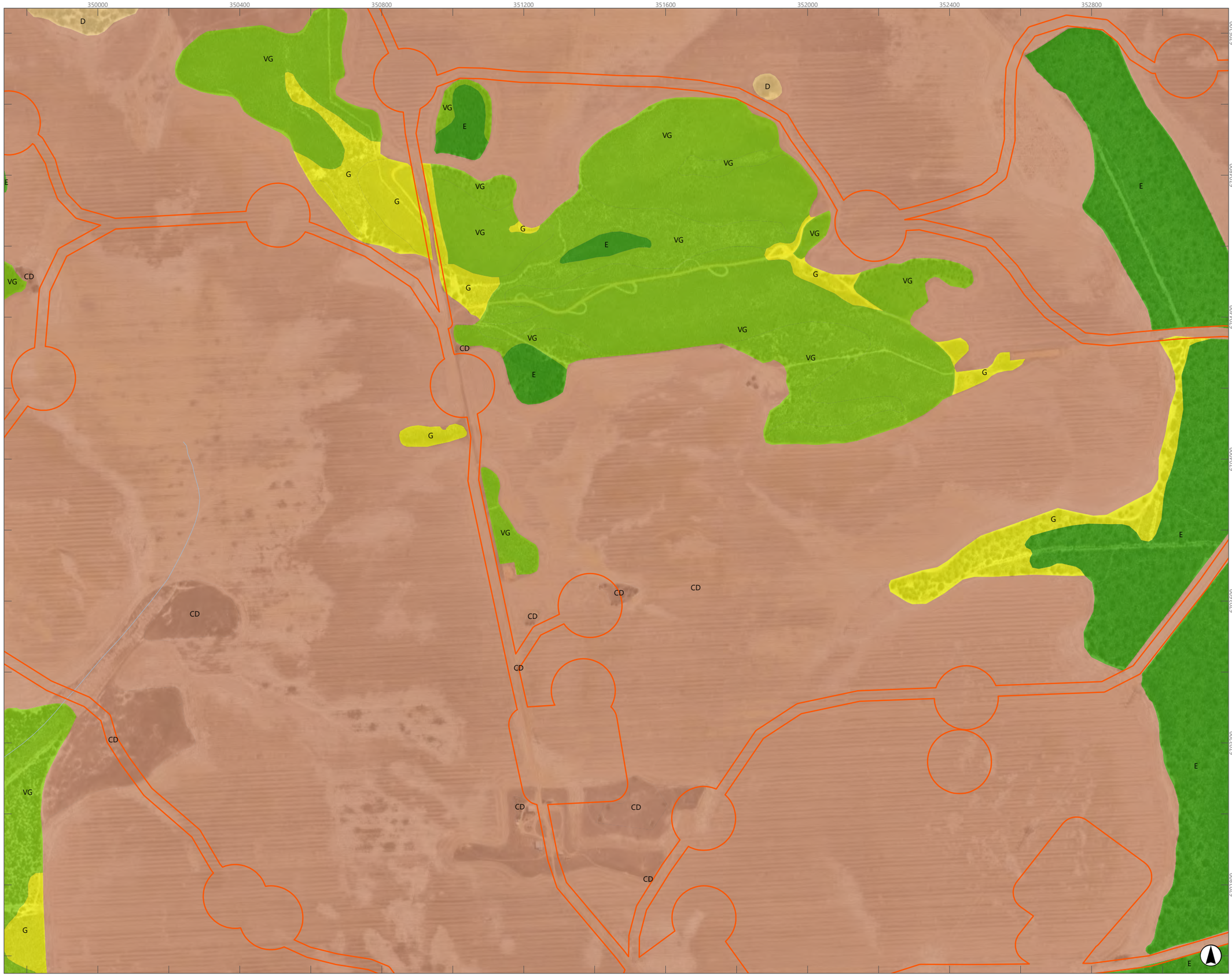
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 11

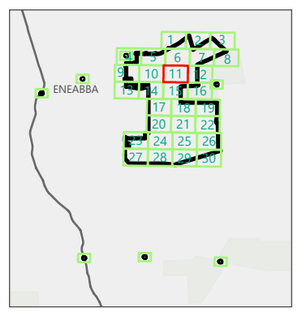


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded



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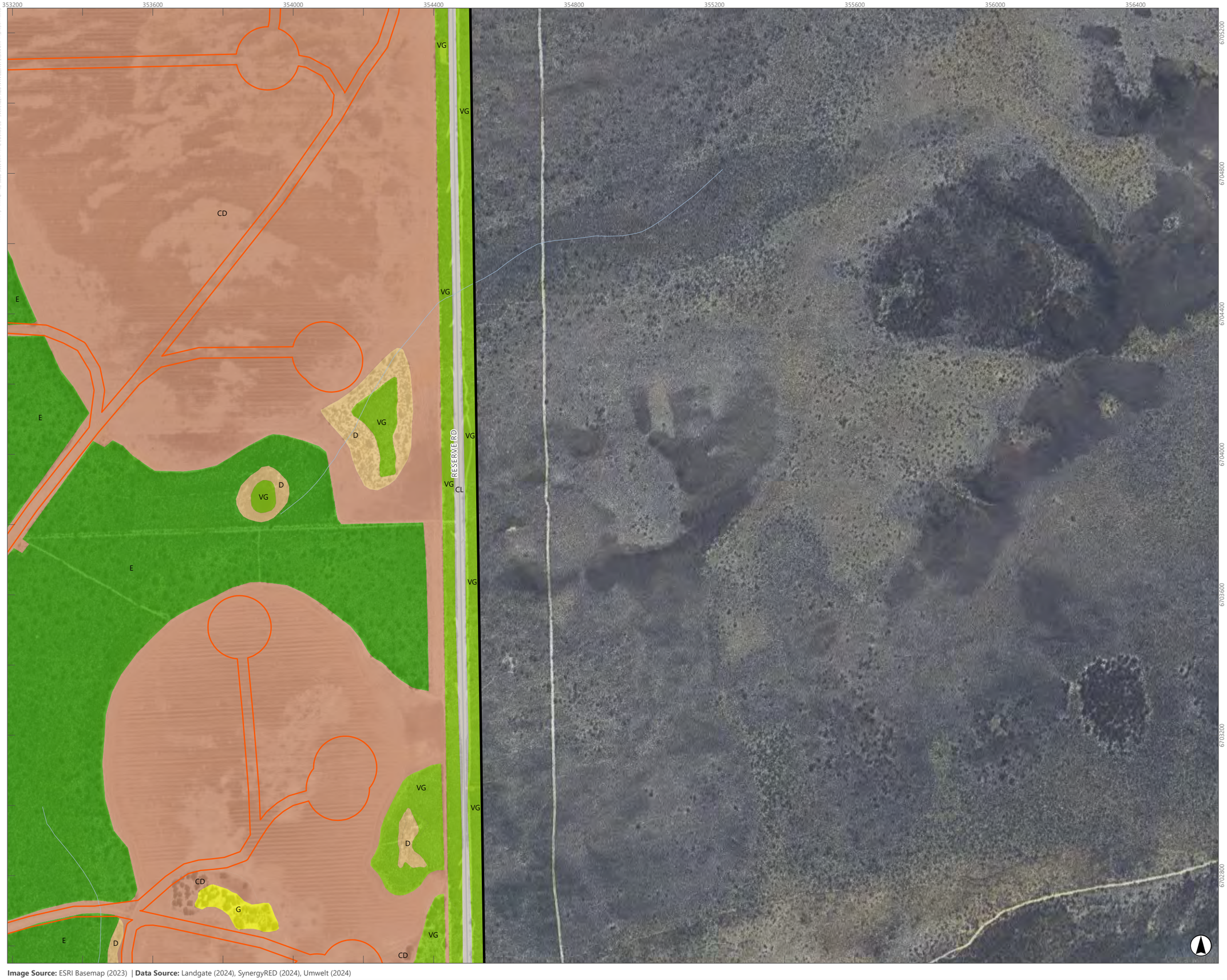
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 12

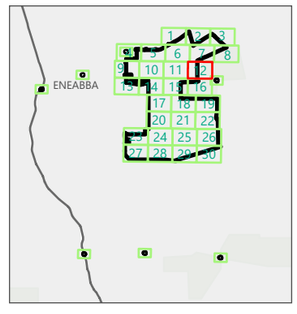


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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GDA2020 MGA Zone 50

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C:\Users\JoeMorys\UMWELT (AUSTRALIA) PTY. LTD\4316 - 03 SWX\2.Projects\4316_8005_Feature.Acc_v2.aprx

343200 343600 344000 344400 344800 345200 345600 346000

6702400 6702000 6701600 6701200 6700800 6700400 6700000

CARNAMAH-ENEABBA RD

ROSE THOMSON RD

APPENDIX F

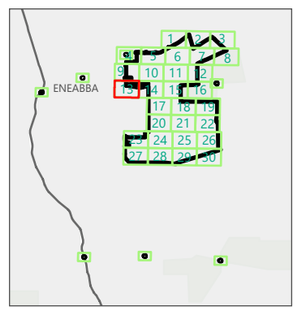
Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 13

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Good
- Degraded
- Completely Degraded
- Cleared



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 14

346400 346800 347200 347600 348000 348400 348800 349200 349600

6702400 6702000 6701600 6701200 6700800 6700400 6700000

CARNAMAH-ENEABBA RD

WARRADARGE CREEK

Ecp

Legend

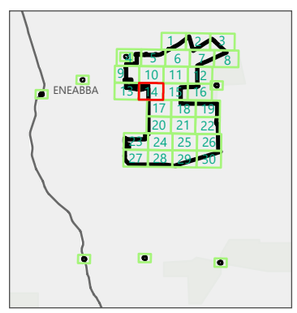
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Introduced Flora (Umwelt)

- Ecp

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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APPENDIX F

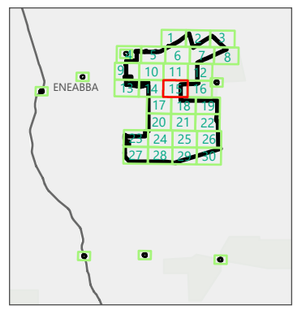
Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 15

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



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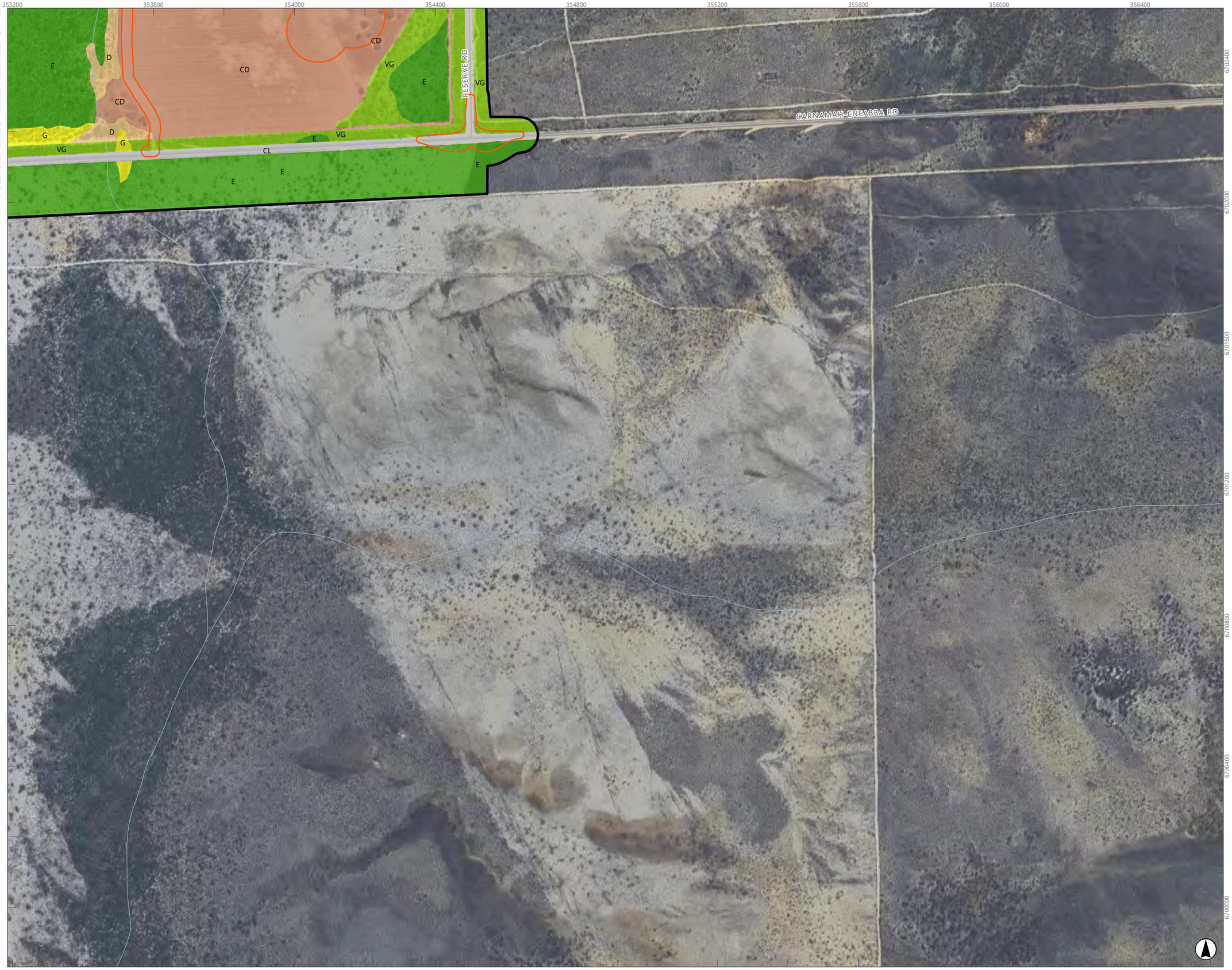
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 16

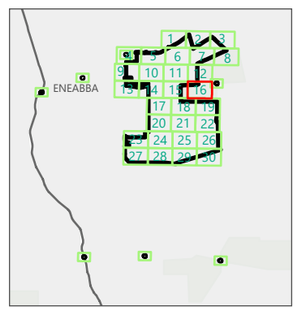


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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APPENDIX F

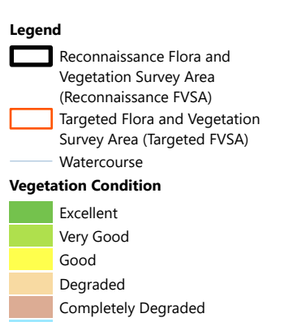
Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 17

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



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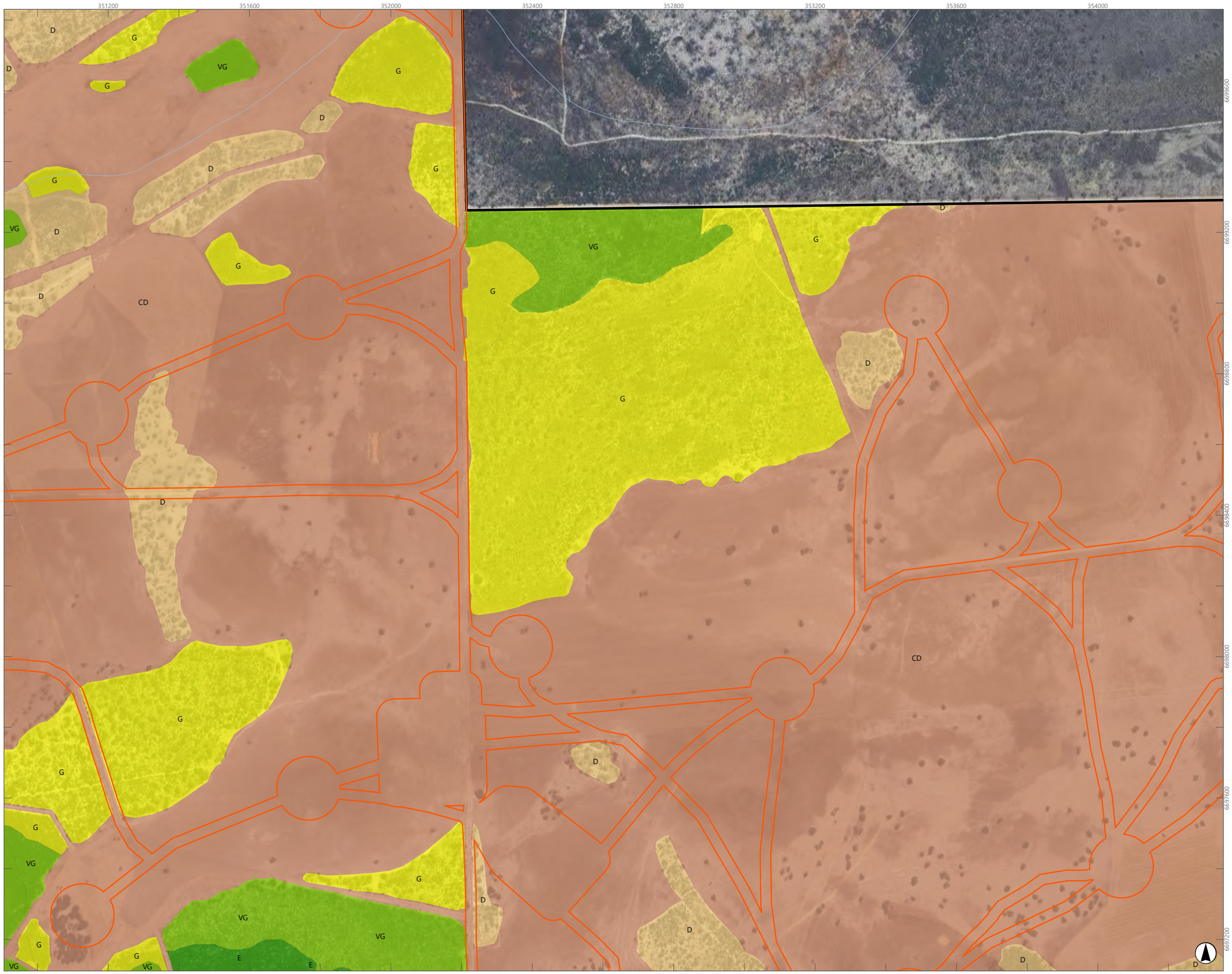
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 18

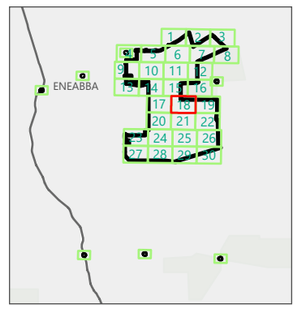


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 19

354400 354800 355200 355600 356000 356400 356800 357200 357600

6699600 6699200 6698800 6698400 6698000 6697600 6697200

GARIBALDI WILLIS RD

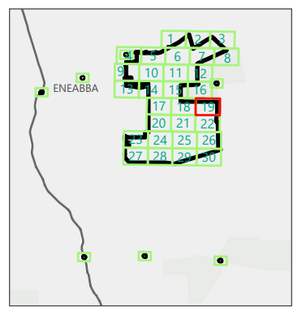
CD G G G DAM D CD CD VG CL VG G VG D

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Vegetation Condition

- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



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APPENDIX F

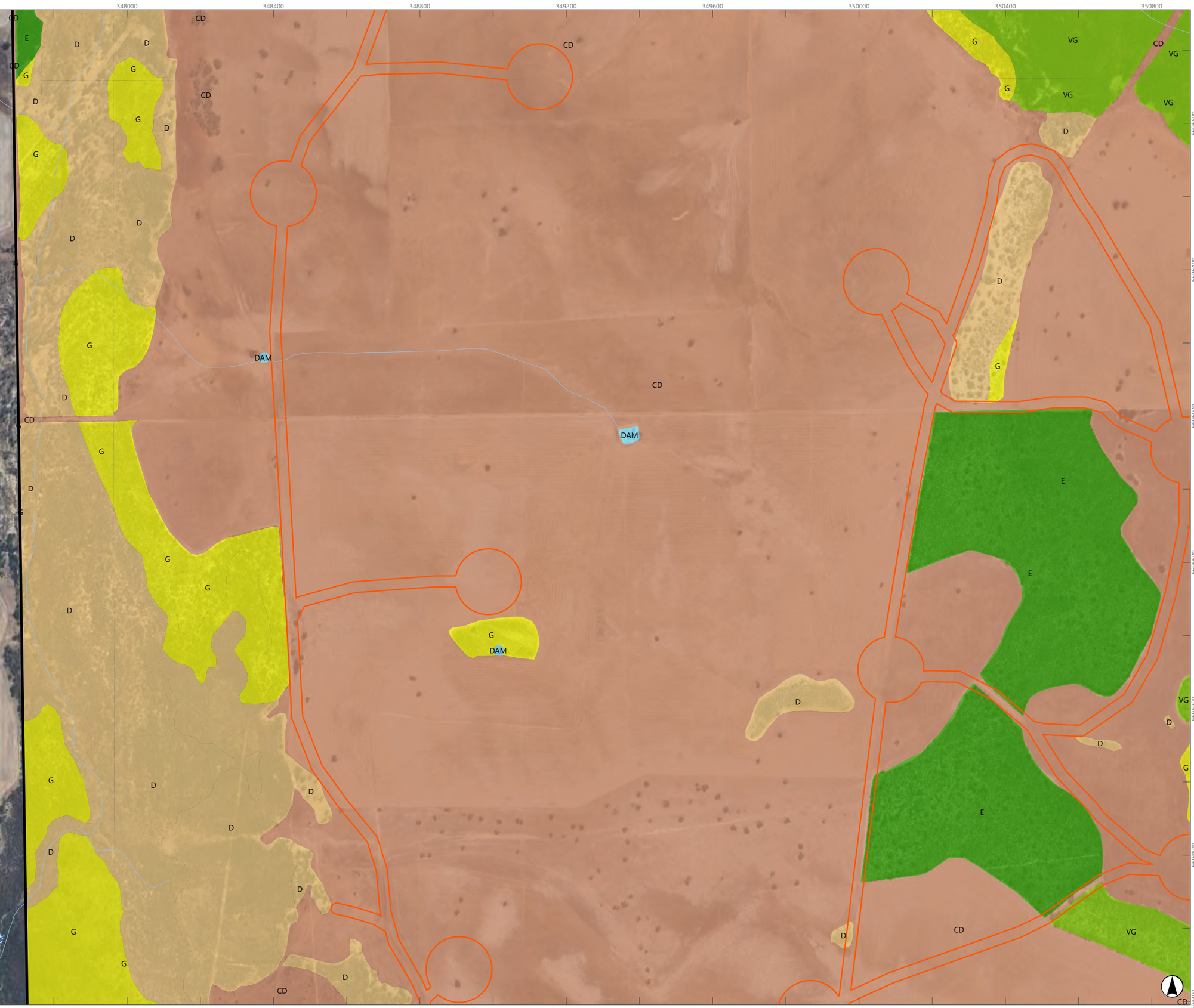
Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 20

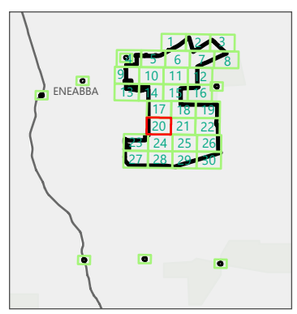
Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam





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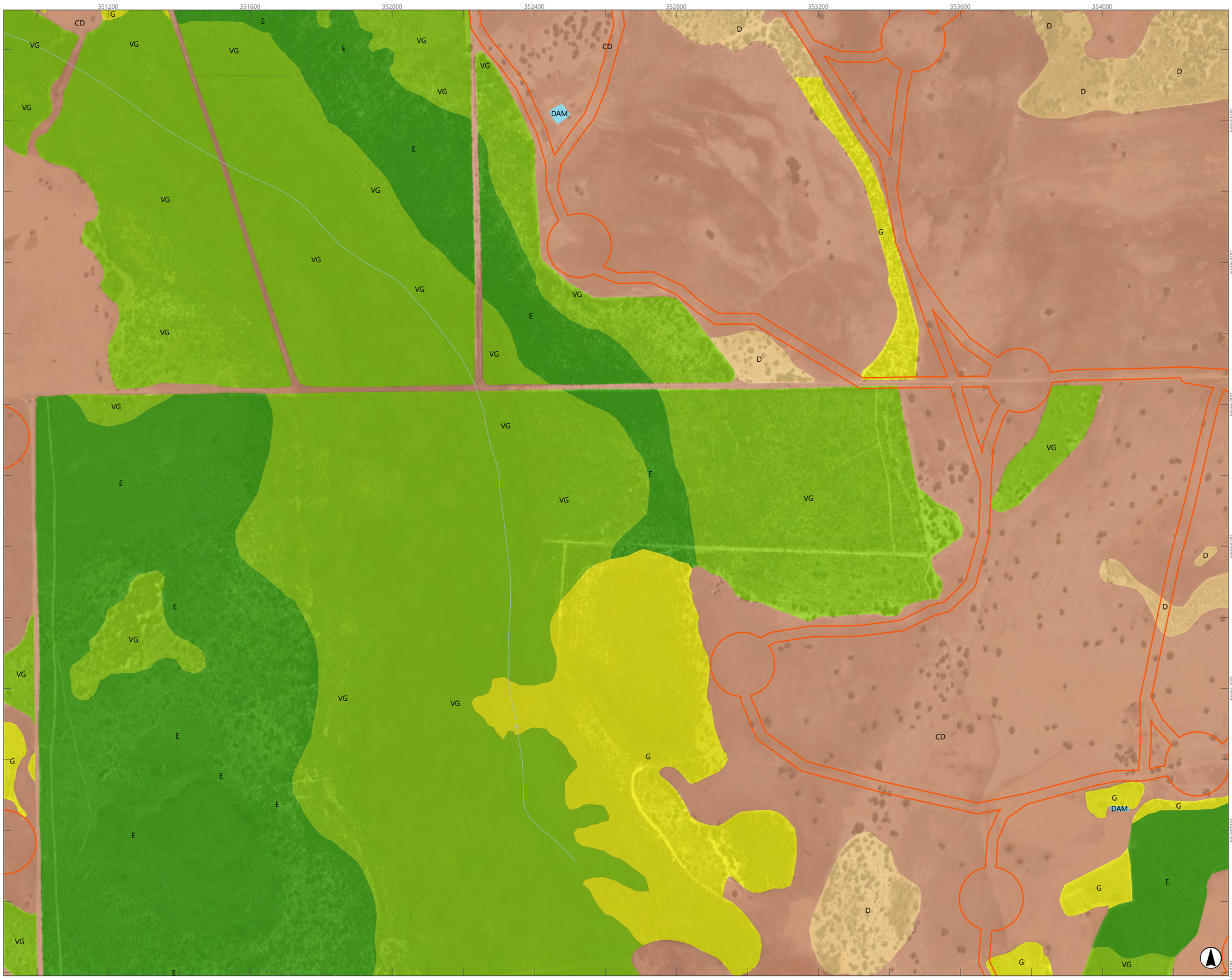
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 21

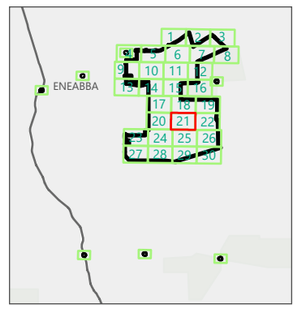


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam



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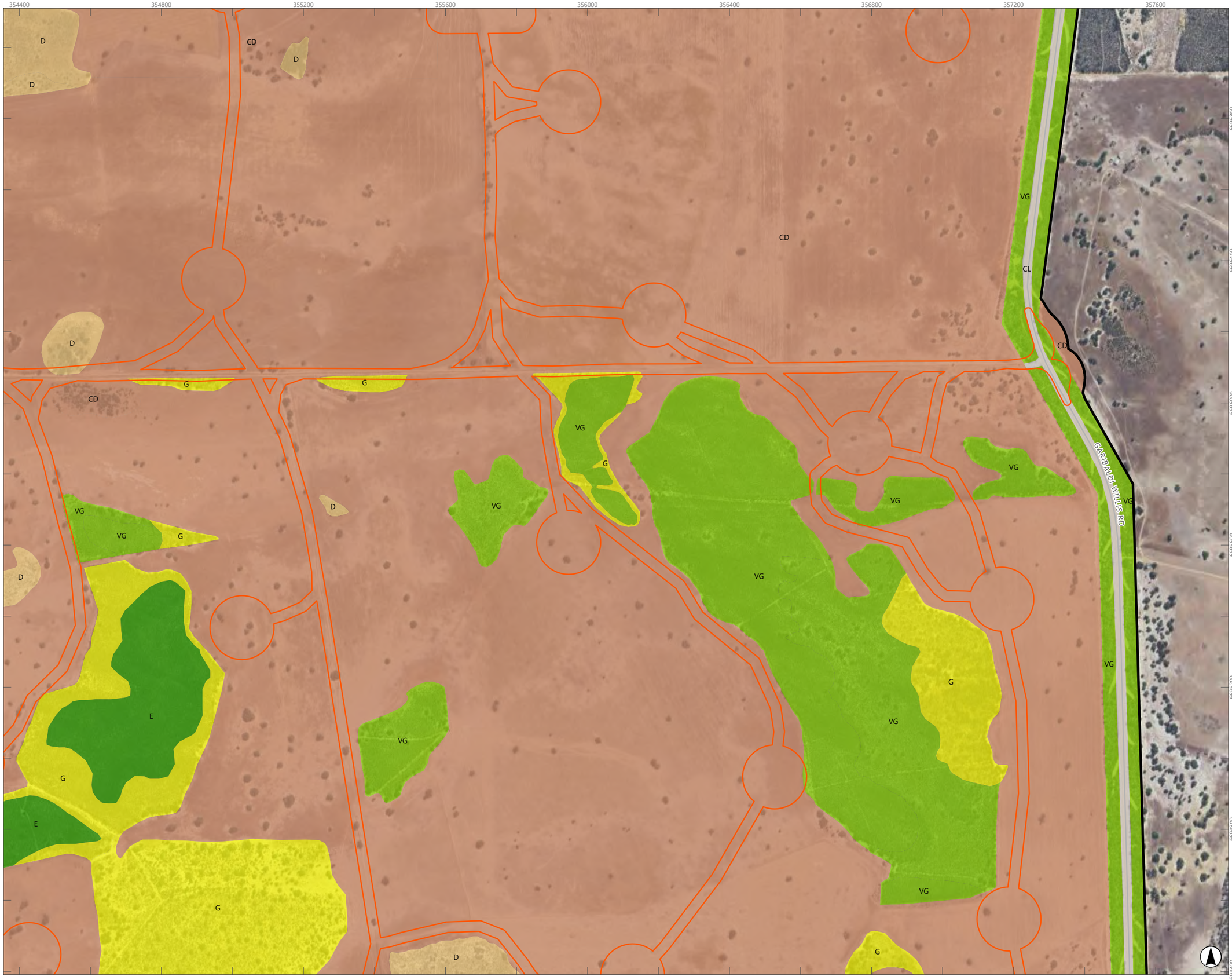
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 22

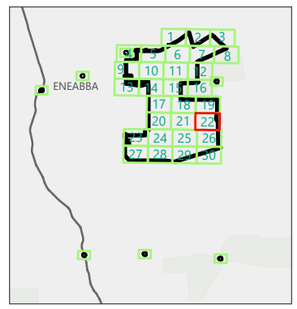


Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 23

344400 344800 345200 345600 346000 346400 346800 347200 347600

6694000 6693600 6693200 6692800 6692400 6692000

WARRADARGE CREEK

ROSE THOMSON RD

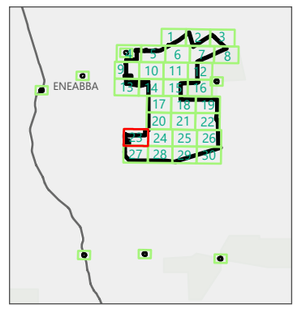
D CD G CL DAM L

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Good
- Degraded
- Completely Degraded
- Dam
- Cleared



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 24

348000 348400 348800 349200 349600 350000 350400 350800

6694000 6693600 6693200 6692800 6692400 6692000

Legend

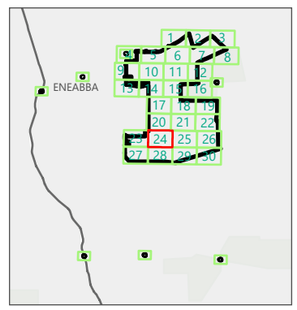
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Introduced Flora (Umwelt)

- Cof
- Hyg
- Peaa
- Wac

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 25

351200 351600 352000 352400 352800 353200 353600 354000 354400

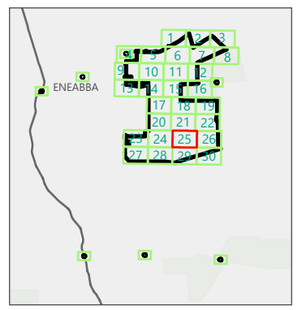
6694000 6693600 6693200 6692800 6692400 6692000

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam



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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 26

354800 355200 355600 356000 356400 356800 357200 357600 358000

6694000 6693600 6693200 6692800 6692400 6692000

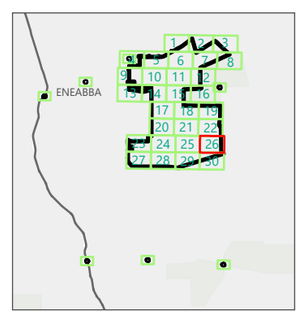
GARIBALDI WILLIS RD

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



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Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 27

344400 344800 345200 345600 346000 346400 346800 347200 347600

6691600 6691200 6690800 6690400 6690000 6689600 6689200

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Road
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam
- Cleared

ENEABBA

0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 28

348000 348400 348800 349200 349600 350000 350400 350800

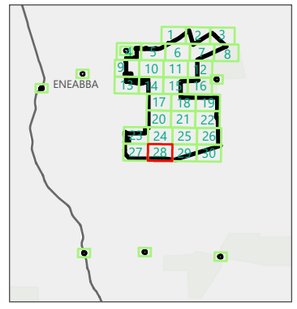
6691600 6691200 6690800 6690400 6690000 6689600 6689200

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)
- Watercourse

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded
- Dam



0 200 400 m

Scale: 1:10,000 at A3
GDA2020 MGA Zone 50

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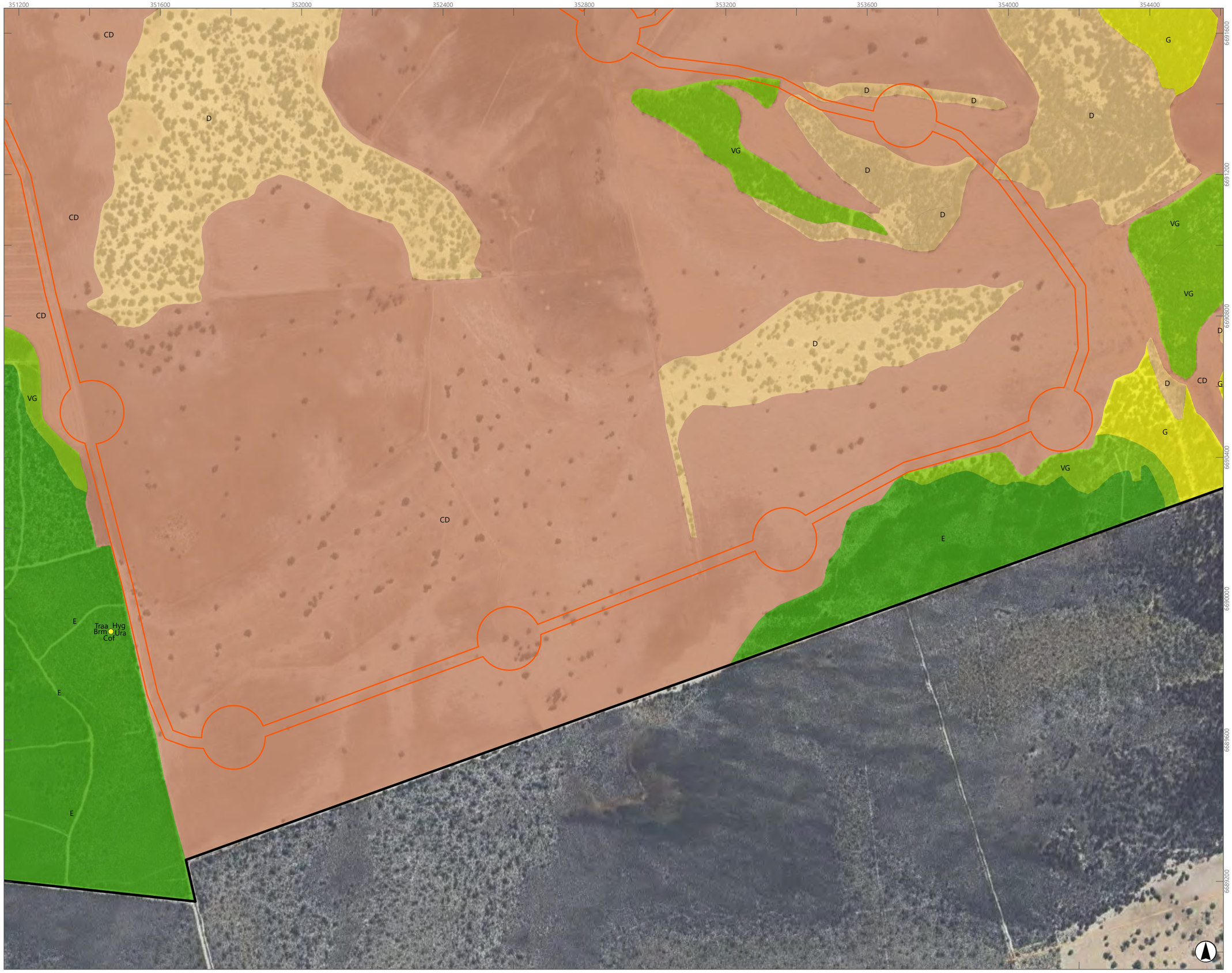
APPENDIX F

Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed
Sheet 29



Legend

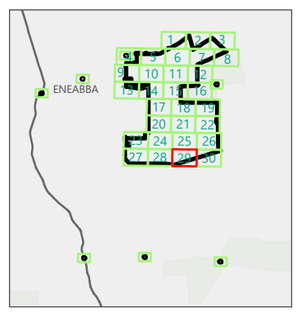
- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Targeted Flora and Vegetation Survey Area (Targeted FVSA)

Introduced Flora (Umwelt)

- Brm
- Cof
- Hyg
- Traa
- Ura

Vegetation Condition

- Excellent
- Very Good
- Good
- Degraded
- Completely Degraded



0 200 400 m

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APPENDIX F

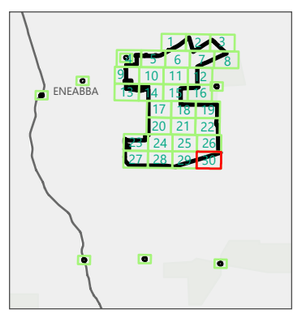
Vegetation Condition and Weeds of the Reconnaissance FVSA – Detailed Sheet 30

Legend

- Reconnaissance Flora and Vegetation Survey Area (Reconnaissance FVSA)
- Road

Vegetation Condition

- Very Good
- Good
- Degraded
- Completely Degraded
- Cleared



0 200 400 m

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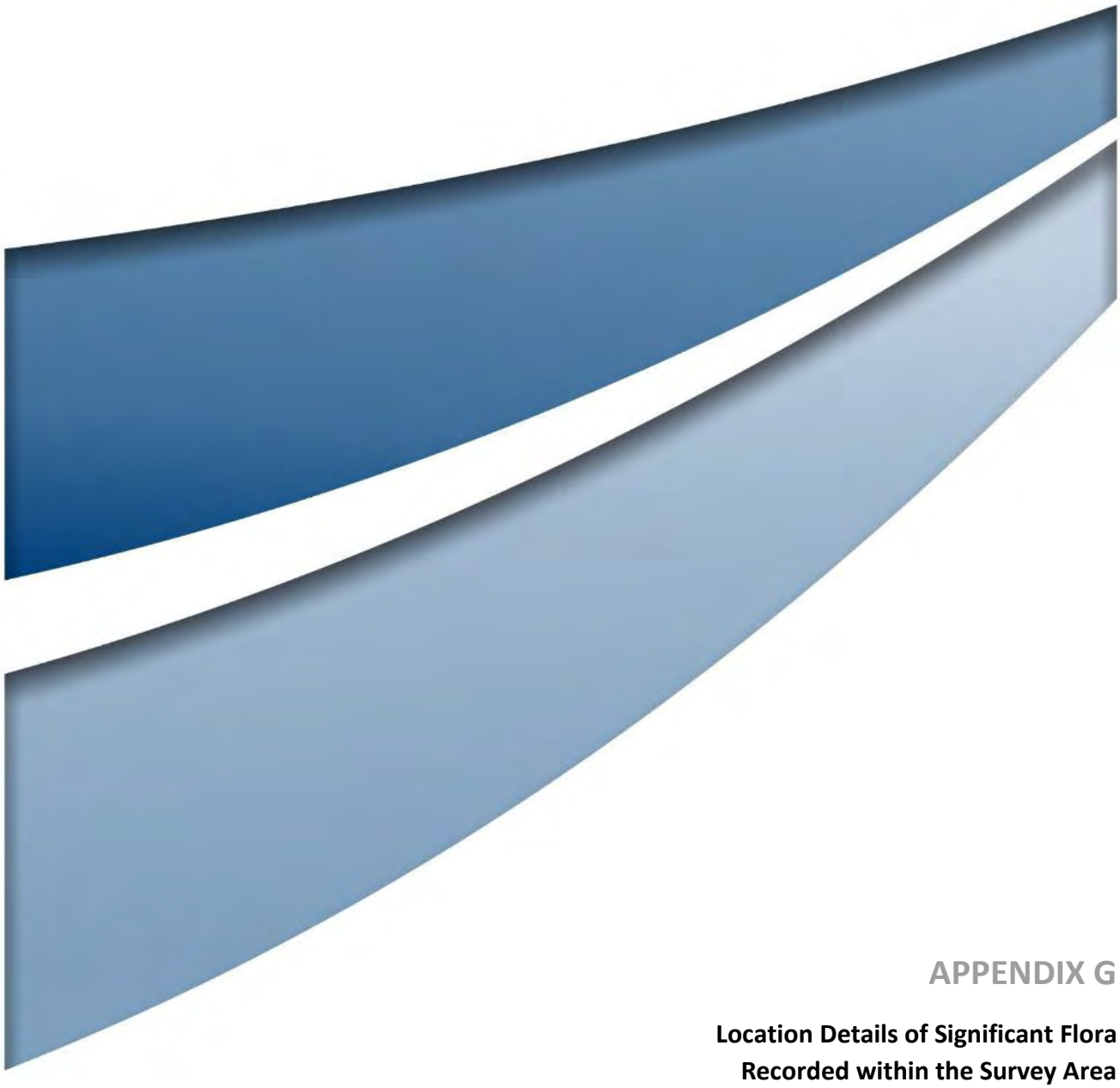


APPENDIX G

Location Details of Significant Flora Recorded within the Survey Area

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Acacia epacantha	P3	344510.6	6690666		12
Acacia epacantha	P3	344501.7	6690729		6
Acacia epacantha	P3	344500.1	6690769		8
Acacia epacantha	P3	344473.5	6690772		7
Acacia epacantha	P3	344472.2	6690736		4
Acacia epacantha	P3	344476.3	6690641		10
Acacia epacantha	P3	344476.7	6690573		9
Acacia epacantha	P3	344505.8	6690588		4
Acacia epacantha	P3	344504.5	6690534		4
Acacia epacantha	P3	344474.7	6690551		4
Acacia epacantha	P3	344513.9	6690617		5
Acacia epacantha	P3	344501.5	6690595		4
Acacia epacantha	P3	344456.1	6690588		3
Acacia epacantha	P3	344486.4	6690511		3
Acacia epacantha	P3	344461.7	6690618		10
Acacia epacantha	P3	344465.1	6690625		6
Acacia wilsonii	T	[redacted]			
Acacia wilsonii	T				
Acacia wilsonii	T				
Acacia wilsonii	T	344553.4	6701838		1
Allocasuarina grevilleoides	P3	344459.5	6690725		5
Allocasuarina grevilleoides	P3	344462.6	6690713		7
Allocasuarina grevilleoides	P3	344467.2	6690696		5
Allocasuarina grevilleoides	P3	344467.2	6690696		9
Allocasuarina grevilleoides	P3	344463.8	6690683		10
Allocasuarina grevilleoides	P3	344475.6	6690630		2
Allocasuarina grevilleoides	P3	344473.5	6690772		2
Allocasuarina grevilleoides	P3	344470.8	6690766		1
Allocasuarina grevilleoides	P3	344472.2	6690736		12
Allocasuarina grevilleoides	P3	344468.2	6690747		9
Allocasuarina grevilleoides	P3	351173	6703726	TDR01	
Allocasuarina grevilleoides	P3	344467	6690635		3
Allocasuarina grevilleoides	P3	344467.4	6690650		1
Allocasuarina grevilleoides	P3	344468.2	6690642		1
Allocasuarina grevilleoides	P3	344506.1	6690608		2
Allocasuarina grevilleoides	P3	344501.6	6690598		1
Allocasuarina grevilleoides	P3	344502.7	6690522		1
Allocasuarina grevilleoides	P3	344505.9	6690543		2
Allocasuarina grevilleoides	P3	344504.5	6690534		3
Allocasuarina grevilleoides	P3	344507.9	6690555		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Allocasuarina grevilleoides	P3	344506.8	6690548		2
Allocasuarina grevilleoides	P3	344505.8	6690588		1
Allocasuarina grevilleoides	P3	350612.5	6692015		8
Allocasuarina grevilleoides	P3	350598	6692018		5
Allocasuarina grevilleoides	P3	350538.5	6692017		10
Allocasuarina grevilleoides	P3	350529.6	6692017		6
Allocasuarina grevilleoides	P3	350563.9	6692018		10
Allocasuarina grevilleoides	P3	350556.4	6692019		10
Allocasuarina grevilleoides	P3	350590.9	6692018		8
Allocasuarina grevilleoides	P3	350574.8	6692017		6
Allocasuarina grevilleoides	P3	350611.8	6692010		5
Allocasuarina grevilleoides	P3	350596.8	6692010		12
Allocasuarina grevilleoides	P3	350568.3	6692007		7
Allocasuarina grevilleoides	P3	350556.8	6692010		9
Allocasuarina grevilleoides	P3	350521.5	6692006		2
Allocasuarina grevilleoides	P3	350610.4	6691984		1
Allocasuarina ramosissima	P3	344540.5	6701828		1
Allocasuarina ramosissima	P3	351415.8	6701925		1
Allocasuarina ramosissima	P3	352129.1	6702033		2
Allocasuarina ramosissima	P3	352147.9	6702013		2
Allocasuarina ramosissima	P3	352097.5	6702080		6
Allocasuarina ramosissima	P3	352100.8	6702078		2
Allocasuarina ramosissima	P3	352111.3	6702079		4
Allocasuarina ramosissima	P3	352121.1	6702076		3
Allocasuarina ramosissima	P3	352127.8	6702077		7
Allocasuarina ramosissima	P3	352132.8	6702077		5
Allocasuarina ramosissima	P3	352143	6702079		14
Allocasuarina ramosissima	P3	352155.3	6702078		9
Allocasuarina ramosissima	P3	352157.5	6702090		6
Allocasuarina ramosissima	P3	352152.1	6702089		6
Allocasuarina ramosissima	P3	352145.1	6702088		10
Allocasuarina ramosissima	P3	352136.9	6702089		13
Allocasuarina ramosissima	P3	352124.3	6702087		2
Allocasuarina ramosissima	P3	352098.8	6702086		7
Allocasuarina ramosissima	P3	352090.1	6702085		1
Allocasuarina ramosissima	P3	352115	6702088		9
Allocasuarina ramosissima	P3	352128.5	6702095		3
Allocasuarina ramosissima	P3	351345.4	6702038		1
Allocasuarina ramosissima	P3	351528.9	6702014		6
Allocasuarina ramosissima	P3	351511.4	6702017		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Allocasuarina ramosissima	P3	351506.3	6702012		3
Allocasuarina ramosissima	P3	351494	6702011		4
Allocasuarina ramosissima	P3	351500.1	6702006		9
Allocasuarina ramosissima	P3	351510.5	6702008		6
Allocasuarina ramosissima	P3	351521.8	6702008		6
Allocasuarina ramosissima	P3	351526.4	6702004		8
Allocasuarina ramosissima	P3	351535.4	6702010		13
Allocasuarina ramosissima	P3	351531.9	6701999		14
Allocasuarina ramosissima	P3	351522	6701998		8
Allocasuarina ramosissima	P3	351513.2	6701997		3
Allocasuarina ramosissima	P3	351513.3	6701986		8
Allocasuarina ramosissima	P3	351522.2	6701992		10
Allocasuarina ramosissima	P3	351173	6703726	TDR01	
Allocasuarina ramosissima	P3	350587.3	6701898	TCR19	
Allocasuarina ramosissima	P3	350929.6	6704661		2
Allocasuarina ramosissima	P3	350957.1	6704578		1
Allocasuarina ramosissima	P3	344464.5	6702938		1
Allocasuarina ramosissima	P3	344462.5	6702951		1
Allocasuarina ramosissima	P3	344464.1	6702968		3
Allocasuarina ramosissima	P3	344458	6702886		2
Allocasuarina ramosissima	P3	344466.2	6702975		1
Allocasuarina ramosissima	P3	344463.9	6702998		1
Allocasuarina ramosissima	P3	344468.2	6690747		1
Allocasuarina ramosissima	P3	344472.2	6690736		4
Allocasuarina ramosissima	P3	344472.1	6690755		5
Allocasuarina ramosissima	P3	344501.7	6690729		3
Allocasuarina ramosissima	P3	344501.7	6690742		3
Allocasuarina ramosissima	P3	344507.6	6690742		9
Allocasuarina ramosissima	P3	344507.2	6690728		10
Allocasuarina ramosissima	P3	344500.9	6690754		5
Allocasuarina ramosissima	P3	344472.6	6690777		1
Allocasuarina ramosissima	P3	344477.8	6690586		4
Allocasuarina ramosissima	P3	344476.7	6690573		9
Allocasuarina ramosissima	P3	344474.9	6690621		1
Allocasuarina ramosissima	P3	344471.4	6690603		2
Allocasuarina ramosissima	P3	344476.5	6690594		4
Allocasuarina ramosissima	P3	344467.2	6690696		2
Allocasuarina ramosissima	P3	344463.8	6690683		1
Allocasuarina ramosissima	P3	344462.6	6690713		3
Allocasuarina ramosissima	P3	344459.5	6690725		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Allocasuarina ramosissima	P3	350920.7	6704679		3
Allocasuarina ramosissima	P3	350911.4	6704687		1
Allocasuarina ramosissima	P3	350924.9	6704634		1
Allocasuarina ramosissima	P3	350928.8	6704620		1
Allocasuarina ramosissima	P3	352161.4	6702082		8
Allocasuarina ramosissima	P3	352162.9	6702077		1
Allocasuarina ramosissima	P3	352169.6	6702081		4
Allocasuarina ramosissima	P3	352232.7	6702084		12
Allocasuarina ramosissima	P3	352249.3	6702084		12
Allocasuarina ramosissima	P3	352263.4	6702086		9
Allocasuarina ramosissima	P3	352274.2	6702088		3
Allocasuarina ramosissima	P3	352289.5	6702087		4
Allocasuarina ramosissima	P3	352296.4	6702099		8
Allocasuarina ramosissima	P3	352288.5	6702097		7
Allocasuarina ramosissima	P3	352280.4	6702094		13
Allocasuarina ramosissima	P3	352288.4	6702091		4
Allocasuarina ramosissima	P3	352258	6702094		19
Allocasuarina ramosissima	P3	352248.1	6702093		15
Allocasuarina ramosissima	P3	352271.1	6702095		5
Allocasuarina ramosissima	P3	352234.7	6702094		24
Allocasuarina ramosissima	P3	352172.4	6702089		3
Allocasuarina ramosissima	P3	352163.8	6702092		2
Allocasuarina ramosissima	P3	352178.1	6702096		1
Allocasuarina ramosissima	P3	352250.9	6702101		7
Allocasuarina ramosissima	P3	352271.7	6702048		15
Allocasuarina ramosissima	P3	352269.1	6702043		27
Allocasuarina ramosissima	P3	352237.9	6702040		2
Allocasuarina ramosissima	P3	352183	6702031		2
Allocasuarina ramosissima	P3	352181.8	6702012		1
Allocasuarina ramosissima	P3	352187.8	6702019		5
Allocasuarina ramosissima	P3	352195.3	6702031		2
Allocasuarina ramosissima	P3	352202	6702020		2
Allocasuarina ramosissima	P3	351541.5	6702010		2
Allocasuarina ramosissima	P3	351537.2	6702008		2
Allocasuarina ramosissima	P3	351548.2	6702000		8
Allocasuarina ramosissima	P3	351532.4	6701986		10
Allocasuarina ramosissima	P3	344553.4	6701838		2
Allocasuarina ramosissima	P3	354264.9	6706326		1
Allocasuarina ramosissima	P3	344504.7	6690583		1
Allocasuarina ramosissima	P3	344506.8	6690548		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Allocasuarina ramosissima	P3	344507.9	6690555		2
Allocasuarina ramosissima	P3	344504.5	6690534		1
Allocasuarina ramosissima	P3	344503.6	6690530		1
Allocasuarina ramosissima	P3	344504.6	6690521		2
Allocasuarina ramosissima	P3	344476.5	6690532		1
Allocasuarina ramosissima	P3	344473	6690539		1
Allocasuarina ramosissima	P3	344470	6690558		1
Allocasuarina ramosissima	P3	344464.7	6690572		1
Allocasuarina ramosissima	P3	344470.9	6690561		3
Allocasuarina ramosissima	P3	344464.9	6690559		1
Allocasuarina ramosissima	P3	344501.6	6690598		1
Allocasuarina ramosissima	P3	344467	6690635		3
Allocasuarina ramosissima	P3	344553	6701849		3
Allocasuarina ramosissima	P3	344468	6690584		2
Arnocrinum gracillimum	P3	338991.3	6673826		1
Arnocrinum gracillimum	P3	357338.7	6697334		1
Banksia chamaephyton	P4	354466.7	6705468		2
Banksia chamaephyton	P4	358000.1	6673558		1
Banksia chamaephyton	P4	358041.7	6673556		2
Banksia chamaephyton	P4	354492.3	6702908		1
Banksia chamaephyton	P4	358052.2	6673548		1
Banksia chamaephyton	P4	358118.8	6673542		3
Banksia chamaephyton	P4	358114.4	6673539		1
Banksia chamaephyton	P4	358122.5	6673538		4
Banksia chamaephyton	P4	358140.1	6673538		1
Banksia chamaephyton	P4	358159.3	6673538		1
Banksia chamaephyton	P4	358162.8	6673535		3
Banksia chamaephyton	P4	358168.2	6673541		2
Banksia chamaephyton	P4	358173.1	6673565		2
Banksia chamaephyton	P4	358176.6	6673575		2
Banksia chamaephyton	P4	358172.8	6673582		1
Banksia chamaephyton	P4	358177.4	6673590		1
Banksia chamaephyton	P4	358184.4	6673574		1
Banksia chamaephyton	P4	358208	6673642		2
Banksia chamaephyton	P4	358223.2	6673603		1
Banksia chamaephyton	P4	358218.9	6673541		1
Banksia chamaephyton	P4	358225.1	6673570		2
Banksia chamaephyton	P4	358231.9	6673622		2
Banksia chamaephyton	P4	354489.1	6705373		5
Banksia chamaephyton	P4	354501.5	6705366		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia chamaephyton	P4	354508.1	6705361		2
Banksia chamaephyton	P4	354473.7	6705372		1
Banksia chamaephyton	P4	358116.2	6673510		2
Banksia chamaephyton	P4	358103.8	6673513		1
Banksia chamaephyton	P4	358034.8	6673518		1
Banksia chamaephyton	P4	358020.3	6673505		4
Banksia chamaephyton	P4	358026.8	6673499		4
Banksia chamaephyton	P4	358045.5	6673512		1
Banksia chamaephyton	P4	358058	6673510		3
Banksia chamaephyton	P4	358072.9	6673508		3
Banksia chamaephyton	P4	358107.8	6673504		5
Banksia chamaephyton	P4	358120.7	6673501		1
Banksia chamaephyton	P4	358129.3	6673499		3
Banksia chamaephyton	P4	358139	6673497		3
Banksia chamaephyton	P4	356290.7	6693803		3
Banksia chamaephyton	P4	358128.2	6673489		3
Banksia chamaephyton	P4	358102	6673493		1
Banksia chamaephyton	P4	358094.3	6673499		1
Banksia chamaephyton	P4	358086.3	6673495		2
Banksia chamaephyton	P4	358073.5	6673499		3
Banksia chamaephyton	P4	358050.5	6673501		3
Banksia chamaephyton	P4	358038.3	6673504		1
Banksia chamaephyton	P4	358017.7	6673493		1
Banksia chamaephyton	P4	358036.4	6673493		3
Banksia chamaephyton	P4	358056.1	6673491		6
Banksia chamaephyton	P4	358071.8	6673489		4
Banksia chamaephyton	P4	358126.2	6673480		1
Banksia chamaephyton	P4	354404	6702973	TCR05	
Banksia chamaephyton	P4	355970.5	6693859		1
Banksia cypholoba	P3	358129.3	6673499		2
Banksia cypholoba	P3	358107.8	6673504		4
Banksia cypholoba	P3	358120.7	6673501		1
Banksia cypholoba	P3	358098.7	6673506		2
Banksia cypholoba	P3	358072.9	6673508		3
Banksia cypholoba	P3	358033.4	6673501		2
Banksia cypholoba	P3	358041	6673510		2
Banksia cypholoba	P3	358045.5	6673512		2
Banksia cypholoba	P3	358189.6	6673497		1
Banksia cypholoba	P3	358173.2	6673501		3
Banksia cypholoba	P3	358160.9	6673505		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	354477.7	6705331		1
Banksia cypholoba	P3	358116.2	6673510		1
Banksia cypholoba	P3	354490.4	6705397		2
Banksia cypholoba	P3	354510.9	6705454		1
Banksia cypholoba	P3	354478.9	6705486		1
Banksia cypholoba	P3	354465.7	6705473		1
Banksia cypholoba	P3	354461.4	6705468		2
Banksia cypholoba	P3	354501.5	6705366		2
Banksia cypholoba	P3	354485.9	6705289		1
Banksia cypholoba	P3	354493.2	6705386		3
Banksia cypholoba	P3	354473.7	6705372		2
Banksia cypholoba	P3	358233	6673605		1
Banksia cypholoba	P3	358232	6673628		2
Banksia cypholoba	P3	358235.2	6673642		2
Banksia cypholoba	P3	358224	6673555		2
Banksia cypholoba	P3	358232.9	6673537		1
Banksia cypholoba	P3	358225.8	6673543		3
Banksia cypholoba	P3	358230.7	6673521		1
Banksia cypholoba	P3	358234.7	6673528		3
Banksia cypholoba	P3	358222.7	6673538		1
Banksia cypholoba	P3	358226.1	6673627		1
Banksia cypholoba	P3	358225.9	6673613		5
Banksia cypholoba	P3	358208	6673642		2
Banksia cypholoba	P3	358183.7	6673562		3
Banksia cypholoba	P3	358173.1	6673565		1
Banksia cypholoba	P3	358157.1	6673545		3
Banksia cypholoba	P3	358133.6	6673540		1
Banksia cypholoba	P3	358140.1	6673538		3
Banksia cypholoba	P3	358146.2	6673534		2
Banksia cypholoba	P3	358159.3	6673538		4
Banksia cypholoba	P3	358122.5	6673538		1
Banksia cypholoba	P3	358118.8	6673542		3
Banksia cypholoba	P3	358101.6	6673540		2
Banksia cypholoba	P3	358071.8	6673545		1
Banksia cypholoba	P3	350980.9	6702015		1
Banksia cypholoba	P3	350888.3	6702012		1
Banksia cypholoba	P3	350879.8	6702012		1
Banksia cypholoba	P3	350836.5	6702018		9
Banksia cypholoba	P3	350847.2	6702019		10
Banksia cypholoba	P3	350858.8	6702018		12

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	350862.6	6701984		1
Banksia cypholoba	P3	350942.1	6702023		3
Banksia cypholoba	P3	350943.6	6702027		1
Banksia cypholoba	P3	350949.5	6702027		3
Banksia cypholoba	P3	350959.6	6702022		2
Banksia cypholoba	P3	350968.4	6702025		4
Banksia cypholoba	P3	350982.1	6702024		4
Banksia cypholoba	P3	350996.6	6702020		1
Banksia cypholoba	P3	351014	6702030		5
Banksia cypholoba	P3	350983.9	6702037		2
Banksia cypholoba	P3	350973.5	6702037		5
Banksia cypholoba	P3	350949.4	6702034		4
Banksia cypholoba	P3	350936.3	6702035		7
Banksia cypholoba	P3	350912.3	6702032		2
Banksia cypholoba	P3	350894.5	6702034		10
Banksia cypholoba	P3	350877.6	6702031		8
Banksia cypholoba	P3	350856.9	6702029		9
Banksia cypholoba	P3	350834.4	6702028		5
Banksia cypholoba	P3	351019.9	6701990		6
Banksia cypholoba	P3	351003.5	6701986		3
Banksia cypholoba	P3	349756	6701923		8
Banksia cypholoba	P3	349764.1	6701920		5
Banksia cypholoba	P3	349772.3	6701925		3
Banksia cypholoba	P3	349808	6701929		7
Banksia cypholoba	P3	349755.7	6701931		1
Banksia cypholoba	P3	349792.9	6701965		1
Banksia cypholoba	P3	349751.7	6701956		1
Banksia cypholoba	P3	349742.1	6701961		6
Banksia cypholoba	P3	349768.2	6701965		2
Banksia cypholoba	P3	349758.5	6701995		4
Banksia cypholoba	P3	349805.7	6701913		2
Banksia cypholoba	P3	349782.6	6701910		5
Banksia cypholoba	P3	349773.5	6701909		4
Banksia cypholoba	P3	344465.7	6706770		2
Banksia cypholoba	P3	344459	6706777		4
Banksia cypholoba	P3	349703.1	6701970		1
Banksia cypholoba	P3	349738	6701969		2
Banksia cypholoba	P3	344493.4	6706739		1
Banksia cypholoba	P3	344492.5	6706751		3
Banksia cypholoba	P3	350410.5	6708003		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	350385.4	6707991		1
Banksia cypholoba	P3	350358.4	6707977		3
Banksia cypholoba	P3	350343.3	6707965		1
Banksia cypholoba	P3	350329.8	6707955		1
Banksia cypholoba	P3	350326.6	6707969		2
Banksia cypholoba	P3	350333.7	6707965		1
Banksia cypholoba	P3	350349.5	6707980		2
Banksia cypholoba	P3	350365.1	6707984		1
Banksia cypholoba	P3	350387.5	6707998		2
Banksia cypholoba	P3	350391.1	6708005		1
Banksia cypholoba	P3	350400.1	6708004		2
Banksia cypholoba	P3	350402.1	6708014		1
Banksia cypholoba	P3	350399.7	6708016		1
Banksia cypholoba	P3	350410.5	6708020		1
Banksia cypholoba	P3	350463.9	6708050		1
Banksia cypholoba	P3	350418.4	6708030		1
Banksia cypholoba	P3	356176.9	6693395		1
Banksia cypholoba	P3	350735.7	6691989		1
Banksia cypholoba	P3	357250.4	6696125		1
Banksia cypholoba	P3	356385.4	6709472	TCR50	5
Banksia cypholoba	P3	357233.5	6696225		1
Banksia cypholoba	P3	357246.5	6696168		1
Banksia cypholoba	P3	357246.5	6696156		2
Banksia cypholoba	P3	357231.5	6696134		1
Banksia cypholoba	P3	357259.6	6696265		1
Banksia cypholoba	P3	357273.2	6696212		1
Banksia cypholoba	P3	357258.2	6696317		3
Banksia cypholoba	P3	357233	6696237		1
Banksia cypholoba	P3	357387.5	6697545		1
Banksia cypholoba	P3	357383.4	6697537		1
Banksia cypholoba	P3	357384	6697513		1
Banksia cypholoba	P3	357396.1	6697469		1
Banksia cypholoba	P3	357395.7	6697488		1
Banksia cypholoba	P3	357405.9	6697506		1
Banksia cypholoba	P3	357401.5	6697492		1
Banksia cypholoba	P3	357405.4	6697469		1
Banksia cypholoba	P3	357397.9	6697519		2
Banksia cypholoba	P3	357395.8	6697533		1
Banksia cypholoba	P3	357394.1	6697547		1
Banksia cypholoba	P3	357350.9	6697544		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	357344.6	6697479		2
Banksia cypholoba	P3	357339.3	6697414		1
Banksia cypholoba	P3	357354.6	6697433		2
Banksia cypholoba	P3	357188.8	6702333		1
Banksia cypholoba	P3	357212.8	6702331		1
Banksia cypholoba	P3	357226.4	6702337		1
Banksia cypholoba	P3	357255.7	6702343		2
Banksia cypholoba	P3	357280.1	6702346		1
Banksia cypholoba	P3	357300.4	6702339		1
Banksia cypholoba	P3	357269	6702346		1
Banksia cypholoba	P3	357200.9	6702342		1
Banksia cypholoba	P3	357192.7	6702350		1
Banksia cypholoba	P3	357172.9	6702340		1
Banksia cypholoba	P3	357131.9	6702347		1
Banksia cypholoba	P3	357138.3	6702360		2
Banksia cypholoba	P3	357116	6702356		1
Banksia cypholoba	P3	357171.8	6702351		1
Banksia cypholoba	P3	357266.7	6702357		1
Banksia cypholoba	P3	357283.3	6702361		2
Banksia cypholoba	P3	352053.6	6702085		1
Banksia cypholoba	P3	351982.5	6702080		1
Banksia cypholoba	P3	351997	6702090		3
Banksia cypholoba	P3	352008.3	6702091		1
Banksia cypholoba	P3	352136.9	6702089		1
Banksia cypholoba	P3	352136.8	6702021		1
Banksia cypholoba	P3	352157.6	6701940		1
Banksia cypholoba	P3	352154.1	6701960		1
Banksia cypholoba	P3	352159.8	6701986		1
Banksia cypholoba	P3	352172.6	6701988		1
Banksia cypholoba	P3	352000.1	6702036		1
Banksia cypholoba	P3	352011.5	6702037		1
Banksia cypholoba	P3	354603.9	6702145		1
Banksia cypholoba	P3	352087.8	6702044		1
Banksia cypholoba	P3	354484.6	6702330		2
Banksia cypholoba	P3	354319.5	6702190		1
Banksia cypholoba	P3	354458.7	6702202		1
Banksia cypholoba	P3	354420.1	6702158		2
Banksia cypholoba	P3	354420.1	6702158		1
Banksia cypholoba	P3	354341	6702150		3
Banksia cypholoba	P3	354347.5	6702156		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	354367.5	6702152		8
Banksia cypholoba	P3	354385.1	6702154		2
Banksia cypholoba	P3	354416.2	6702156		2
Banksia cypholoba	P3	354484	6702158		2
Banksia cypholoba	P3	354488.4	6702151		3
Banksia cypholoba	P3	354463.8	6702152		1
Banksia cypholoba	P3	354448.2	6702149		3
Banksia cypholoba	P3	354435.5	6702145		3
Banksia cypholoba	P3	354419	6702145		3
Banksia cypholoba	P3	354386.2	6702144		1
Banksia cypholoba	P3	354378.7	6702141		4
Banksia cypholoba	P3	354367	6702138		2
Banksia cypholoba	P3	354338.3	6702139		4
Banksia cypholoba	P3	354368.2	6702137		2
Banksia cypholoba	P3	354386.2	6702133		3
Banksia cypholoba	P3	354414	6702137		1
Banksia cypholoba	P3	354418.8	6702129		3
Banksia cypholoba	P3	354598.8	6702141		2
Banksia cypholoba	P3	347482.3	6701747		1
Banksia cypholoba	P3	352052.4	6702043		1
Banksia cypholoba	P3	351991.5	6702041		4
Banksia cypholoba	P3	351967.8	6702040		1
Banksia cypholoba	P3	351982.2	6702032		1
Banksia cypholoba	P3	358041.7	6673556		1
Banksia cypholoba	P3	358026.1	6673557		1
Banksia cypholoba	P3	358037.1	6673551		2
Banksia cypholoba	P3	358008.5	6673558		1
Banksia cypholoba	P3	354422.6	6705498		1
Banksia cypholoba	P3	354456.7	6705462		2
Banksia cypholoba	P3	354460.1	6705451		2
Banksia cypholoba	P3	354476	6705459		1
Banksia cypholoba	P3	354475.2	6705470		1
Banksia cypholoba	P3	358194.2	6673590		1
Banksia cypholoba	P3	350342.4	6707983		1
Banksia cypholoba	P3	350354.3	6707989		1
Banksia cypholoba	P3	350364.7	6707995		3
Banksia cypholoba	P3	350391.4	6708028		3
Banksia cypholoba	P3	350402.6	6708024		2
Banksia cypholoba	P3	350419.4	6708039		1
Banksia cypholoba	P3	350479.9	6708077		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	354434.8	6705377		2
Banksia cypholoba	P3	349585.9	6701924		1
Banksia cypholoba	P3	349593.7	6701945		2
Banksia cypholoba	P3	349604.9	6701950		1
Banksia cypholoba	P3	349536.2	6701953		1
Banksia cypholoba	P3	349557.3	6701969		2
Banksia cypholoba	P3	349535.5	6701966		1
Banksia cypholoba	P3	349494	6701945		1
Banksia cypholoba	P3	349493.7	6701961		2
Banksia cypholoba	P3	349510.6	6701960		3
Banksia cypholoba	P3	349521.7	6701957		2
Banksia cypholoba	P3	349526.6	6701962		1
Banksia cypholoba	P3	349537.8	6701962		2
Banksia cypholoba	P3	350760.6	6701979		4
Banksia cypholoba	P3	350669.8	6701954		4
Banksia cypholoba	P3	350680.7	6701964		3
Banksia cypholoba	P3	350685.8	6701970		1
Banksia cypholoba	P3	350695.3	6701970		4
Banksia cypholoba	P3	350711.4	6701974		6
Banksia cypholoba	P3	350722.5	6701975		4
Banksia cypholoba	P3	350756.3	6701974		5
Banksia cypholoba	P3	350770.7	6701974		2
Banksia cypholoba	P3	350727.2	6702003		1
Banksia cypholoba	P3	350690.3	6702002		1
Banksia cypholoba	P3	350652.4	6702007		1
Banksia cypholoba	P3	350686.7	6702010		1
Banksia cypholoba	P3	350807.7	6702013		1
Banksia cypholoba	P3	350825.6	6702016		2
Banksia cypholoba	P3	350829.4	6702012		4
Banksia cypholoba	P3	350823.8	6702025		2
Banksia cypholoba	P3	350811.3	6702021		2
Banksia cypholoba	P3	350697	6702024		1
Banksia cypholoba	P3	349620.5	6701848		1
Banksia cypholoba	P3	349622.1	6701781		1
Banksia cypholoba	P3	349618.4	6701744		3
Banksia cypholoba	P3	349621.2	6701734		3
Banksia cypholoba	P3	349622.6	6701711		2
Banksia cypholoba	P3	349616.9	6701699		10
Banksia cypholoba	P3	349618.7	6701688		3
Banksia cypholoba	P3	349622.1	6701678		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	349624.4	6701582		1
Banksia cypholoba	P3	349623.1	6701558		1
Banksia cypholoba	P3	349635.1	6701584		2
Banksia cypholoba	P3	349612.1	6701795		1
Banksia cypholoba	P3	349616.7	6701803		2
Banksia cypholoba	P3	349614.8	6701853		1
Banksia cypholoba	P3	349616.5	6701862		2
Banksia cypholoba	P3	349614	6701889		1
Banksia cypholoba	P3	351418.4	6701997		2
Banksia cypholoba	P3	351419.2	6701993		1
Banksia cypholoba	P3	351422.3	6702008		1
Banksia cypholoba	P3	351449.6	6702005		1
Banksia cypholoba	P3	351360.1	6702007		1
Banksia cypholoba	P3	351399.3	6702013		1
Banksia cypholoba	P3	351358.7	6702044		2
Banksia cypholoba	P3	351401.4	6702048		3
Banksia cypholoba	P3	351410.6	6702045		5
Banksia cypholoba	P3	352101.7	6702095		1
Banksia cypholoba	P3	351342.9	6702034		1
Banksia cypholoba	P3	351434.1	6702042		1
Banksia cypholoba	P3	351441.5	6702049		1
Banksia cypholoba	P3	352157.3	6702075		2
Banksia cypholoba	P3	351440.7	6702040		1
Banksia cypholoba	P3	352053.3	6702094		1
Banksia cypholoba	P3	354264.1	6704001	TCR04	
Banksia cypholoba	P3	355316.8	6706545		1
Banksia cypholoba	P3	355318.4	6706561		4
Banksia cypholoba	P3	355318.2	6706570		8
Banksia cypholoba	P3	351173	6703726	TDR01	
Banksia cypholoba	P3	351877	6704608	TDR03	
Banksia cypholoba	P3	354247.4	6703766	TCR01	
Banksia cypholoba	P3	348529.3	6707207		2
Banksia cypholoba	P3	348468.9	6707162		1
Banksia cypholoba	P3	346358.1	6707085		1
Banksia cypholoba	P3	346365.5	6707063		5
Banksia cypholoba	P3	346334.3	6707078		8
Banksia cypholoba	P3	346369.6	6707056		1
Banksia cypholoba	P3	346361.6	6707042		1
Banksia cypholoba	P3	346340.8	6707048		3
Banksia cypholoba	P3	346359.5	6707025		5

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	346363.7	6707000		9
Banksia cypholoba	P3	346409.5	6707010		11
Banksia cypholoba	P3	346395.4	6707007		8
Banksia cypholoba	P3	346393.5	6707037		6
Banksia cypholoba	P3	346417.1	6707045		10
Banksia cypholoba	P3	346393.6	6707068		5
Banksia cypholoba	P3	346393.9	6707086		3
Banksia cypholoba	P3	346423.1	6707076		8
Banksia cypholoba	P3	346405.9	6707075		5
Banksia cypholoba	P3	346413.7	6707096		3
Banksia cypholoba	P3	348640.8	6707193		2
Banksia cypholoba	P3	348656.2	6707177		7
Banksia cypholoba	P3	348671.7	6707190		6
Banksia cypholoba	P3	348686.3	6707177		8
Banksia cypholoba	P3	348683.8	6707204		3
Banksia cypholoba	P3	348660.6	6707207		5
Banksia cypholoba	P3	348497.3	6707168		8
Banksia cypholoba	P3	348504	6707190		4
Banksia cypholoba	P3	348598.7	6707172		5
Banksia cypholoba	P3	348613.8	6707188		9
Banksia cypholoba	P3	348627.3	6707213		8
Banksia cypholoba	P3	348576.1	6707209		16
Banksia cypholoba	P3	353437.3	6696092		2
Banksia cypholoba	P3	353425.3	6696089		1
Banksia cypholoba	P3	353414.7	6696099		1
Banksia cypholoba	P3	353406	6696088		3
Banksia cypholoba	P3	353393.4	6696089		2
Banksia cypholoba	P3	353383.8	6696087		2
Banksia cypholoba	P3	353377.5	6696092		3
Banksia cypholoba	P3	353368.1	6696089		1
Banksia cypholoba	P3	353357.8	6696087		4
Banksia cypholoba	P3	353345.7	6696093		3
Banksia cypholoba	P3	353338.1	6696094		1
Banksia cypholoba	P3	353456.6	6696064		1
Banksia cypholoba	P3	353456.6	6696064		3
Banksia cypholoba	P3	353456.6	6696064		1
Banksia cypholoba	P3	353456.6	6696064		1
Banksia cypholoba	P3	353456.6	6696064		1
Banksia cypholoba	P3	353456.6	6696064		1
Banksia cypholoba	P3	349160.9	6705669		8

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	349172.7	6705645		23
Banksia cypholoba	P3	349165.2	6705652		25
Banksia cypholoba	P3	349191.9	6705647		2
Banksia cypholoba	P3	349183.4	6705622		4
Banksia cypholoba	P3	350957.1	6704578		10
Banksia cypholoba	P3	353717.9	6702780		1
Banksia cypholoba	P3	350958.5	6704565		5
Banksia cypholoba	P3	353553.4	6702240		1
Banksia cypholoba	P3	353562.1	6702221		12
Banksia cypholoba	P3	353509.3	6702685		2
Banksia cypholoba	P3	353492	6702691		3
Banksia cypholoba	P3	353460.3	6702689		1
Banksia cypholoba	P3	350949.1	6704605		1
Banksia cypholoba	P3	350955.2	6704603		1
Banksia cypholoba	P3	350953.6	6704594		7
Banksia cypholoba	P3	350931.7	6704600		8
Banksia cypholoba	P3	350939.2	6704614		1
Banksia cypholoba	P3	350931.7	6704590		9
Banksia cypholoba	P3	350933.4	6704580		3
Banksia cypholoba	P3	350940	6704571		5
Banksia cypholoba	P3	350942.2	6704579		3
Banksia cypholoba	P3	349094.5	6705722		8
Banksia cypholoba	P3	349085.7	6705749		7
Banksia cypholoba	P3	349069.9	6705780		3
Banksia cypholoba	P3	349083.7	6705789		5
Banksia cypholoba	P3	349084.2	6705766		3
Banksia cypholoba	P3	349183.6	6705700		12
Banksia cypholoba	P3	349165.3	6705715		6
Banksia cypholoba	P3	349176.8	6705677		10
Banksia cypholoba	P3	349181	6705661		5
Banksia cypholoba	P3	348875.4	6705889		5
Banksia cypholoba	P3	348941.6	6705869		2
Banksia cypholoba	P3	348927.5	6705871		1
Banksia cypholoba	P3	348426.8	6706170		1
Banksia cypholoba	P3	349153.8	6705694		6
Banksia cypholoba	P3	349146.5	6705714		10
Banksia cypholoba	P3	349120.6	6705710		3
Banksia cypholoba	P3	348409.6	6706154		3
Banksia cypholoba	P3	348386.4	6706145		1
Banksia cypholoba	P3	348296.9	6706117		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	348254	6706103		1
Banksia cypholoba	P3	348217.9	6706061		1
Banksia cypholoba	P3	348227.5	6706067		2
Banksia cypholoba	P3	348256.9	6706078		1
Banksia cypholoba	P3	348264.8	6706083		1
Banksia cypholoba	P3	348281.9	6706085		1
Banksia cypholoba	P3	348318.7	6706102		1
Banksia cypholoba	P3	348347.1	6706111		1
Banksia cypholoba	P3	348376.9	6706119		1
Banksia cypholoba	P3	348357.4	6706113		1
Banksia cypholoba	P3	348428.5	6706135		1
Banksia cypholoba	P3	348446.4	6706138		2
Banksia cypholoba	P3	348547.6	6706946		1
Banksia cypholoba	P3	348712.8	6707125		1
Banksia cypholoba	P3	348687.1	6707125		3
Banksia cypholoba	P3	348663.7	6707129		8
Banksia cypholoba	P3	348630.3	6707133		5
Banksia cypholoba	P3	348614.5	6707129		6
Banksia cypholoba	P3	348591.7	6707130		2
Banksia cypholoba	P3	348575.2	6707134		3
Banksia cypholoba	P3	348571.3	6707122		2
Banksia cypholoba	P3	348552.2	6707138		2
Banksia cypholoba	P3	348527.9	6707127		3
Banksia cypholoba	P3	348519.3	6707137		1
Banksia cypholoba	P3	348503.3	6707135		1
Banksia cypholoba	P3	348479.4	6707136		2
Banksia cypholoba	P3	348471.3	6707184		8
Banksia cypholoba	P3	348524.1	6707177		5
Banksia cypholoba	P3	348523.1	6707169		2
Banksia cypholoba	P3	348530.6	6707193		3
Banksia cypholoba	P3	348539.7	6707173		8
Banksia cypholoba	P3	348550.7	6707197		3
Banksia cypholoba	P3	348566	6707173		8
Banksia cypholoba	P3	348582.8	6707190		12
Banksia cypholoba	P3	358140.7	6673477		1
Banksia cypholoba	P3	358169.2	6673472		1
Banksia cypholoba	P3	358177.1	6673469		2
Banksia cypholoba	P3	344476.1	6693063		1
Banksia cypholoba	P3	358192.3	6673467		6
Banksia cypholoba	P3	344413.7	6693158		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	344413	6693081		1
Banksia cypholoba	P3	358042.3	6673495		1
Banksia cypholoba	P3	358087.1	6673488		2
Banksia cypholoba	P3	358110.6	6673486		1
Banksia cypholoba	P3	358038.3	6673504		3
Banksia cypholoba	P3	358102	6673493		1
Banksia cypholoba	P3	358094.3	6673499		5
Banksia cypholoba	P3	358086.3	6673495		4
Banksia cypholoba	P3	358162.3	6673483		2
Banksia cypholoba	P3	358142.9	6673486		1
Banksia cypholoba	P3	358165	6673491		3
Banksia cypholoba	P3	358196.7	6673475		3
Banksia cypholoba	P3	356378	6693827		2
Banksia cypholoba	P3	345965.4	6707122		3
Banksia cypholoba	P3	345881.6	6707089		3
Banksia cypholoba	P3	345794.9	6707112		1
Banksia cypholoba	P3	345766.9	6707110		1
Banksia cypholoba	P3	345748.1	6707111		2
Banksia cypholoba	P3	345715.4	6707115		2
Banksia cypholoba	P3	345763.5	6707120		3
Banksia cypholoba	P3	345812.7	6707118		3
Banksia cypholoba	P3	350928.8	6704620		1
Banksia cypholoba	P3	350928.8	6704620		1
Banksia cypholoba	P3	350927.9	6704607		5
Banksia cypholoba	P3	350918.6	6704818		1
Banksia cypholoba	P3	346281.5	6707180		2
Banksia cypholoba	P3	346388.4	6707109		1
Banksia cypholoba	P3	346302.8	6707194		2
Banksia cypholoba	P3	346407.3	6707103		1
Banksia cypholoba	P3	346408.1	6707090		1
Banksia cypholoba	P3	346398.5	6707110		2
Banksia cypholoba	P3	347200.5	6707188		1
Banksia cypholoba	P3	347187.8	6707176		1
Banksia cypholoba	P3	347266.7	6707178		1
Banksia cypholoba	P3	353281.2	6704339		1
Banksia cypholoba	P3	353264.1	6704378		2
Banksia cypholoba	P3	350916.2	6704810		2
Banksia cypholoba	P3	357339.9	6697345		1
Banksia cypholoba	P3	357330.5	6697409		1
Banksia cypholoba	P3	357337.4	6697413		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	357317.3	6697535		1
Banksia cypholoba	P3	357338.1	6697582		1
Banksia cypholoba	P3	357333.6	6697544		3
Banksia cypholoba	P3	357330.8	6697432		2
Banksia cypholoba	P3	357316.8	6702229		2
Banksia cypholoba	P3	357319.2	6702212		2
Banksia cypholoba	P3	357272.7	6696313		2
Banksia cypholoba	P3	357264.5	6696323		3
Banksia cypholoba	P3	357268.3	6696337		1
Banksia cypholoba	P3	357263.3	6696359		3
Banksia cypholoba	P3	357383.7	6697346		1
Banksia cypholoba	P3	357398.8	6697344		1
Banksia cypholoba	P3	357392.6	6697330		1
Banksia cypholoba	P3	357407	6697364		1
Banksia cypholoba	P3	357394.9	6697396		2
Banksia cypholoba	P3	357383.4	6697395		1
Banksia cypholoba	P3	357346.4	6697338		1
Banksia cypholoba	P3	357336	6697240		1
Banksia cypholoba	P3	357327.5	6697239		1
Banksia cypholoba	P3	357323.4	6702150		6
Banksia cypholoba	P3	357323.3	6702166		1
Banksia cypholoba	P3	357324.1	6702182		5
Banksia cypholoba	P3	357330.3	6702277		10
Banksia cypholoba	P3	357329.7	6702301		2
Banksia cypholoba	P3	357339.9	6702307		1
Banksia cypholoba	P3	357332.2	6702220		1
Banksia cypholoba	P3	357337.4	6702207		2
Banksia cypholoba	P3	357339.9	6702194		1
Banksia cypholoba	P3	357338.8	6702181		2
Banksia cypholoba	P3	357343.2	6702233		1
Banksia cypholoba	P3	357296.1	6702271		2
Banksia cypholoba	P3	357291	6702134		1
Banksia cypholoba	P3	357289.7	6702157		1
Banksia cypholoba	P3	357284.9	6702172		1
Banksia cypholoba	P3	357288.5	6702215		1
Banksia cypholoba	P3	357286.1	6702286		1
Banksia cypholoba	P3	357168.3	6702291		1
Banksia cypholoba	P3	357187.6	6702293		1
Banksia cypholoba	P3	357248.2	6702296		5
Banksia cypholoba	P3	357261	6702298		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	357268.9	6702298		4
Banksia cypholoba	P3	357280.9	6702300		1
Banksia cypholoba	P3	357274.4	6702254		1
Banksia cypholoba	P3	357268.1	6702268		1
Banksia cypholoba	P3	357260.3	6702288		1
Banksia cypholoba	P3	352216.3	6702084		1
Banksia cypholoba	P3	347713.8	6701819		1
Banksia cypholoba	P3	347732.2	6701826		1
Banksia cypholoba	P3	347769.1	6701829		1
Banksia cypholoba	P3	347765.5	6701823		3
Banksia cypholoba	P3	354525.1	6702263		4
Banksia cypholoba	P3	354524.7	6702338		1
Banksia cypholoba	P3	354536.2	6702280		1
Banksia cypholoba	P3	354534.5	6702232		2
Banksia cypholoba	P3	354540.8	6702257		1
Banksia cypholoba	P3	354532.3	6702214		1
Banksia cypholoba	P3	354576	6702207		1
Banksia cypholoba	P3	354630.5	6702206		1
Banksia cypholoba	P3	354543.2	6702169		1
Banksia cypholoba	P3	354598.1	6702162		1
Banksia cypholoba	P3	354570.6	6702163		1
Banksia cypholoba	P3	354550.7	6702163		5
Banksia cypholoba	P3	354537.5	6702162		1
Banksia cypholoba	P3	354505.3	6702148		2
Banksia cypholoba	P3	354576.6	6702149		3
Banksia cypholoba	P3	354588	6702147		5
Banksia cypholoba	P3	354599.4	6702151		2
Banksia cypholoba	P3	347794.7	6701865		3
Banksia cypholoba	P3	347779.3	6701867		2
Banksia cypholoba	P3	347775.1	6701869		1
Banksia cypholoba	P3	347766.5	6701863		3
Banksia cypholoba	P3	347749.1	6701857		1
Banksia cypholoba	P3	347743.2	6701864		2
Banksia cypholoba	P3	347734.6	6701862		1
Banksia cypholoba	P3	347731.7	6701855		2
Banksia cypholoba	P3	347712	6701859		1
Banksia cypholoba	P3	347665.5	6701843		1
Banksia cypholoba	P3	354546.9	6702148		1
Banksia cypholoba	P3	351607.6	6702004		1
Banksia cypholoba	P3	351617.1	6702003		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	351649.9	6702003		3
Banksia cypholoba	P3	351690.2	6701993		1
Banksia cypholoba	P3	351719.5	6702018		2
Banksia cypholoba	P3	351562.2	6702048		2
Banksia cypholoba	P3	352180.2	6701972		1
Banksia cypholoba	P3	352334.8	6702051		2
Banksia cypholoba	P3	352774.1	6694145		1
Banksia cypholoba	P3	350713	6691987		1
Banksia cypholoba	P3	350722.8	6691986		3
Banksia cypholoba	P3	350753.5	6691987		3
Banksia cypholoba	P3	355974	6693848		1
Banksia cypholoba	P3	356054.3	6693808		1
Banksia cypholoba	P3	344439.8	6691838		1
Banksia cypholoba	P3	344511.4	6691893		1
Banksia cypholoba	P3	344485.2	6691856		1
Banksia cypholoba	P3	344485.5	6691835		2
Banksia cypholoba	P3	344485.5	6691831		1
Banksia cypholoba	P3	344485.1	6691808		1
Banksia cypholoba	P3	344485.7	6691762		1
Banksia cypholoba	P3	344461.6	6691796		1
Banksia cypholoba	P3	350526.5	6692016		1
Banksia cypholoba	P3	350517.5	6692017		1
Banksia cypholoba	P3	350238.3	6692016		1
Banksia cypholoba	P3	350226.8	6692016		1
Banksia cypholoba	P3	350459.6	6691975		1
Banksia cypholoba	P3	350513.2	6691980		1
Banksia cypholoba	P3	350655.1	6691985		1
Banksia cypholoba	P3	350706.4	6691985		1
Banksia cypholoba	P3	350718	6692018		3
Banksia cypholoba	P3	350556	6696008		6
Banksia cypholoba	P3	344415.4	6693316		1
Banksia cypholoba	P3	344415.4	6693316		2
Banksia cypholoba	P3	350863	6692029		1
Banksia cypholoba	P3	352186.1	6708889		1
Banksia cypholoba	P3	350574.3	6694662		1
Banksia cypholoba	P3	350559.5	6694658		1
Banksia cypholoba	P3	350600.7	6694948		1
Banksia cypholoba	P3	350600.7	6694948		3
Banksia cypholoba	P3	350600.7	6694948		2
Banksia cypholoba	P3	350309.7	6695252		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	350328.6	6695250		2
Banksia cypholoba	P3	352182.7	6699269		4
Banksia cypholoba	P3	352214.2	6697459		6
Banksia cypholoba	P3	352212.7	6697429		9
Banksia cypholoba	P3	352213	6697404		13
Banksia cypholoba	P3	352215.1	6697368		4
Banksia cypholoba	P3	352214.4	6697349		5
Banksia cypholoba	P3	352210.8	6697313		5
Banksia cypholoba	P3	353466	6696073		2
Banksia cypholoba	P3	353459.6	6696086		1
Banksia cypholoba	P3	353455.2	6696072		3
Banksia cypholoba	P3	353441.3	6696071		4
Banksia cypholoba	P3	353437	6696079		1
Banksia cypholoba	P3	353425.4	6696073		6
Banksia cypholoba	P3	353413.3	6696072		2
Banksia cypholoba	P3	353408.4	6696083		2
Banksia cypholoba	P3	353398.4	6696073		1
Banksia cypholoba	P3	353386.4	6696070		5
Banksia cypholoba	P3	353388.5	6696081		4
Banksia cypholoba	P3	353366.3	6696075		4
Banksia cypholoba	P3	353353	6696073		2
Banksia cypholoba	P3	353342.6	6696083		4
Banksia cypholoba	P3	353096.9	6696063		2
Banksia cypholoba	P3	353123.5	6696064		1
Banksia cypholoba	P3	353135.3	6696075		2
Banksia cypholoba	P3	353143.4	6696069		2
Banksia cypholoba	P3	353162.1	6696076		2
Banksia cypholoba	P3	353141.3	6696082		4
Banksia cypholoba	P3	352971.8	6696089		1
Banksia cypholoba	P3	352972.3	6696123		5
Banksia cypholoba	P3	352216.7	6697232		3
Banksia cypholoba	P3	352208.2	6697217		1
Banksia cypholoba	P3	352209.8	6697185		2
Banksia cypholoba	P3	352213.8	6697203		2
Banksia cypholoba	P3	352247.8	6697454		10
Banksia cypholoba	P3	352242.8	6697480		2
Banksia cypholoba	P3	352243.9	6697490		1
Banksia cypholoba	P3	352240	6697518		3
Banksia cypholoba	P3	352238.8	6697508		1
Banksia cypholoba	P3	352237.7	6697449		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	352238.1	6697431		12
Banksia cypholoba	P3	352241.4	6697414		5
Banksia cypholoba	P3	344449.2	6691873		1
Banksia cypholoba	P3	346310.2	6707180		2
Banksia cypholoba	P3	346305.3	6707173		2
Banksia cypholoba	P3	346296.7	6707177		1
Banksia cypholoba	P3	346355.6	6707127		2
Banksia cypholoba	P3	344437.8	6704969		1
Banksia cypholoba	P3	352159.6	6700969		15
Banksia cypholoba	P3	352161.1	6700936		10
Banksia cypholoba	P3	352161.9	6700894		5
Banksia cypholoba	P3	352164.7	6700867		6
Banksia cypholoba	P3	352165.3	6700832		3
Banksia cypholoba	P3	352165	6700795		5
Banksia cypholoba	P3	352166.6	6700760		6
Banksia cypholoba	P3	352163.4	6700730		8
Banksia cypholoba	P3	352169.1	6700690		18
Banksia cypholoba	P3	352168.4	6700654		7
Banksia cypholoba	P3	352164	6700607		3
Banksia cypholoba	P3	352172.5	6700391		4
Banksia cypholoba	P3	356209.3	6693779		1
Banksia cypholoba	P3	356182.1	6693787		1
Banksia cypholoba	P3	356172.7	6693785		2
Banksia cypholoba	P3	356361.7	6693839		2
Banksia cypholoba	P3	355264	6696070		3
Banksia cypholoba	P3	355253.2	6696070		2
Banksia cypholoba	P3	355239.2	6696071		1
Banksia cypholoba	P3	356657.8	6695749		2
Banksia cypholoba	P3	356653.6	6695769		1
Banksia cypholoba	P3	356388	6693843		5
Banksia cypholoba	P3	356371.6	6693845		2
Banksia cypholoba	P3	350521.5	6692006		2
Banksia cypholoba	P3	350801.3	6692014		1
Banksia cypholoba	P3	350383.8	6695235		4
Banksia cypholoba	P3	350411	6695219		1
Banksia cypholoba	P3	350422.6	6695207		4
Banksia cypholoba	P3	350439.5	6695191		1
Banksia cypholoba	P3	344411.4	6693415		4
Banksia cypholoba	P3	344427.8	6693462		3
Banksia cypholoba	P3	344434.6	6693405		13

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia cypholoba	P3	350968.3	6692017		3
Banksia cypholoba	P3	350842.5	6692019		1
Banksia cypholoba	P3	352159.4	6708880		1
Banksia cypholoba	P3	350444	6696006		2
Banksia cypholoba	P3	350302.3	6696006		6
Banksia cypholoba	P3	350282.7	6696008		4
Banksia cypholoba	P3	350251.8	6696010		8
Banksia cypholoba	P3	350228.5	6696006		14
Banksia cypholoba	P3	350354.3	6696005		3
Banksia cypholoba	P3	350601.3	6694933		3
Banksia cypholoba	P3	350623.7	6694898		1
Banksia cypholoba	P3	350716.7	6691987		4
Banksia cypholoba	P3	350736.6	6691987		4
Banksia cypholoba	P3	354461.9	6694188		1
Banksia cypholoba	P3	356407.9	6693856		3
Banksia cypholoba	P3	356404.6	6693861		2
Banksia cypholoba	P3	356397.9	6693862		3
Banksia cypholoba	P3	356387.1	6693854		2
Banksia cypholoba	P3	356384.8	6693854		4
Banksia cypholoba	P3	354920.7	6696061		1
Banksia cypholoba	P3	354952.9	6696058		1
Banksia cypholoba	P3	356181.7	6693749		1
Banksia cypholoba	P3	350302	6692003		1
Banksia cypholoba	P3	350276.5	6692005		1
Banksia cypholoba	P3	350246.8	6692014		1
Banksia cypholoba	P3	350472.6	6691979		1
Banksia cypholoba	P3	352832.6	6694120		3
Banksia cypholoba	P3	352814.5	6694118		1
Banksia cypholoba	P3	352760.5	6694120		1
Banksia cypholoba	P3	352742.3	6694120		4
Banksia cypholoba	P3	355827	6694030		1
Banksia cypholoba	P3	344489.1	6691928		3
Banksia cypholoba	P3	344451.8	6691948		2
Banksia cypholoba	P3	344440.5	6691880		3
Banksia cypholoba	P3	344444.6	6691870		1
Banksia elegans	P4	350281	6697698		1
Banksia fraseri var. crebra	P3	356395.8	6708634	TCR51	10
Banksia fraseri var. crebra	P3	347726.4	6694169		1
Banksia fraseri var. crebra	P3	348534.9	6694090		1
Banksia fraseri var. crebra	P3	348537.1	6694488		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	347499.1	6701762		2
Banksia fraseri var. crebra	P3	347507.6	6701766		7
Banksia fraseri var. crebra	P3	347520.4	6701761		2
Banksia fraseri var. crebra	P3	347546.5	6701774		2
Banksia fraseri var. crebra	P3	347551	6701768		1
Banksia fraseri var. crebra	P3	347562.6	6701771		1
Banksia fraseri var. crebra	P3	347548.1	6701759		1
Banksia fraseri var. crebra	P3	347563.5	6701760		1
Banksia fraseri var. crebra	P3	354616.5	6702140		1
Banksia fraseri var. crebra	P3	352087.8	6702044		1
Banksia fraseri var. crebra	P3	352033.4	6702075		1
Banksia fraseri var. crebra	P3	352136.8	6702021		1
Banksia fraseri var. crebra	P3	352156.8	6701952		1
Banksia fraseri var. crebra	P3	352124.3	6702087		1
Banksia fraseri var. crebra	P3	352090.1	6702085		2
Banksia fraseri var. crebra	P3	352063.6	6702084		3
Banksia fraseri var. crebra	P3	351993	6702080		2
Banksia fraseri var. crebra	P3	352115	6702088		1
Banksia fraseri var. crebra	P3	352098.8	6702086		1
Banksia fraseri var. crebra	P3	352145.1	6702088		1
Banksia fraseri var. crebra	P3	347474.7	6701753		1
Banksia fraseri var. crebra	P3	352152.1	6702089		3
Banksia fraseri var. crebra	P3	352100.8	6702078		1
Banksia fraseri var. crebra	P3	352037.5	6702092		3
Banksia fraseri var. crebra	P3	352053.3	6702094		1
Banksia fraseri var. crebra	P3	351461	6702050		1
Banksia fraseri var. crebra	P3	351485.3	6702011		1
Banksia fraseri var. crebra	P3	351535.4	6702010		1
Banksia fraseri var. crebra	P3	351526.4	6702004		1
Banksia fraseri var. crebra	P3	350814.7	6701927		1
Banksia fraseri var. crebra	P3	350809.4	6701917		1
Banksia fraseri var. crebra	P3	350815.2	6701908		1
Banksia fraseri var. crebra	P3	350808.5	6701870		2
Banksia fraseri var. crebra	P3	350801.8	6701856		2
Banksia fraseri var. crebra	P3	350794.8	6701875		4
Banksia fraseri var. crebra	P3	350803	6701883		2
Banksia fraseri var. crebra	P3	350805.2	6701899		1
Banksia fraseri var. crebra	P3	350808.5	6701906		1
Banksia fraseri var. crebra	P3	350805.7	6701926		1
Banksia fraseri var. crebra	P3	350809.9	6701942		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	349619.8	6701969		1
Banksia fraseri var. crebra	P3	350499.6	6708020		1
Banksia fraseri var. crebra	P3	350484	6708021		1
Banksia fraseri var. crebra	P3	350478.9	6708005		1
Banksia fraseri var. crebra	P3	350462.9	6708011		2
Banksia fraseri var. crebra	P3	350454.4	6708004		2
Banksia fraseri var. crebra	P3	350500	6708082		1
Banksia fraseri var. crebra	P3	350435.8	6708047		2
Banksia fraseri var. crebra	P3	350428.3	6708056		2
Banksia fraseri var. crebra	P3	350455.4	6708066		2
Banksia fraseri var. crebra	P3	350468.1	6708069		2
Banksia fraseri var. crebra	P3	350474.3	6708072		3
Banksia fraseri var. crebra	P3	350446	6707995		2
Banksia fraseri var. crebra	P3	350426.6	6707988		1
Banksia fraseri var. crebra	P3	350414.5	6707980		2
Banksia fraseri var. crebra	P3	350435.6	6708031		3
Banksia fraseri var. crebra	P3	350444.8	6708042		3
Banksia fraseri var. crebra	P3	350455.3	6708046		1
Banksia fraseri var. crebra	P3	350463.9	6708050		2
Banksia fraseri var. crebra	P3	350474.5	6708057		2
Banksia fraseri var. crebra	P3	350467.4	6708060		1
Banksia fraseri var. crebra	P3	350474.7	6708061		4
Banksia fraseri var. crebra	P3	350481.4	6708059		3
Banksia fraseri var. crebra	P3	350495.5	6708066		2
Banksia fraseri var. crebra	P3	350494.9	6708075		2
Banksia fraseri var. crebra	P3	350502.1	6708078		1
Banksia fraseri var. crebra	P3	350505.6	6708084		3
Banksia fraseri var. crebra	P3	350522.9	6708085		1
Banksia fraseri var. crebra	P3	350543.2	6708058		1
Banksia fraseri var. crebra	P3	350534.7	6708052		1
Banksia fraseri var. crebra	P3	350410.5	6708020		1
Banksia fraseri var. crebra	P3	350418.4	6708030		1
Banksia fraseri var. crebra	P3	350402.1	6708014		1
Banksia fraseri var. crebra	P3	349655.8	6701959		2
Banksia fraseri var. crebra	P3	350922.2	6701983		1
Banksia fraseri var. crebra	P3	350915	6702023		1
Banksia fraseri var. crebra	P3	350924.9	6702019		1
Banksia fraseri var. crebra	P3	350945.5	6702014		2
Banksia fraseri var. crebra	P3	350935	6702016		2
Banksia fraseri var. crebra	P3	350911.7	6702014		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	350843.2	6701908		1
Banksia fraseri var. crebra	P3	350849.2	6701961		1
Banksia fraseri var. crebra	P3	352305.6	6702053		2
Banksia fraseri var. crebra	P3	352292.8	6702051		1
Banksia fraseri var. crebra	P3	352278.8	6702049		1
Banksia fraseri var. crebra	P3	352184.2	6701979		2
Banksia fraseri var. crebra	P3	352180.6	6701947		1
Banksia fraseri var. crebra	P3	352184.6	6702004		1
Banksia fraseri var. crebra	P3	352187.8	6702019		1
Banksia fraseri var. crebra	P3	352176.6	6701988		1
Banksia fraseri var. crebra	P3	352202	6702020		2
Banksia fraseri var. crebra	P3	351697.5	6702021		2
Banksia fraseri var. crebra	P3	352181.8	6702012		1
Banksia fraseri var. crebra	P3	351687.5	6702059		1
Banksia fraseri var. crebra	P3	351682.8	6702054		1
Banksia fraseri var. crebra	P3	351644.8	6702053		1
Banksia fraseri var. crebra	P3	351553.4	6702008		2
Banksia fraseri var. crebra	P3	351555.5	6701996		1
Banksia fraseri var. crebra	P3	351579.2	6701996		2
Banksia fraseri var. crebra	P3	350839.7	6701885		1
Banksia fraseri var. crebra	P3	351541.5	6702010		1
Banksia fraseri var. crebra	P3	351540.4	6701990		1
Banksia fraseri var. crebra	P3	354424.3	6706394		3
Banksia fraseri var. crebra	P3	354438.5	6706397		2
Banksia fraseri var. crebra	P3	354454.9	6706412		2
Banksia fraseri var. crebra	P3	354464	6706419		1
Banksia fraseri var. crebra	P3	354474.8	6706431		5
Banksia fraseri var. crebra	P3	354473.6	6706443		1
Banksia fraseri var. crebra	P3	354478.6	6706457		3
Banksia fraseri var. crebra	P3	354477.8	6706478		2
Banksia fraseri var. crebra	P3	354480.3	6706495		2
Banksia fraseri var. crebra	P3	355888.5	6706555		1
Banksia fraseri var. crebra	P3	355882.3	6706579		2
Banksia fraseri var. crebra	P3	354415.3	6706376		1
Banksia fraseri var. crebra	P3	347651.6	6701802		1
Banksia fraseri var. crebra	P3	347678	6701812		1
Banksia fraseri var. crebra	P3	354650.7	6702158		1
Banksia fraseri var. crebra	P3	347683.6	6701846		1
Banksia fraseri var. crebra	P3	347671.3	6701843		1
Banksia fraseri var. crebra	P3	347682.3	6701804		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	352169.6	6702081		1
Banksia fraseri var. crebra	P3	352184.6	6702080		1
Banksia fraseri var. crebra	P3	352351.5	6702107		1
Banksia fraseri var. crebra	P3	352178.1	6702096		1
Banksia fraseri var. crebra	P3	352334.8	6702051		1
Banksia fraseri var. crebra	P3	352205.4	6702093		1
Banksia fraseri var. crebra	P3	352172.4	6702089		1
Banksia fraseri var. crebra	P3	352271.1	6702095		1
Banksia fraseri var. crebra	P3	352343.6	6702090		1
Banksia fraseri var. crebra	P3	352358.9	6702099		1
Banksia fraseri var. crebra	P3	352340.4	6702101		1
Banksia fraseri var. crebra	P3	350918.2	6704810		1
Banksia fraseri var. crebra	P3	347249	6707179		2
Banksia fraseri var. crebra	P3	347237	6707183		2
Banksia fraseri var. crebra	P3	347200.5	6707188		1
Banksia fraseri var. crebra	P3	347227.3	6707175		1
Banksia fraseri var. crebra	P3	347119.3	6707164		3
Banksia fraseri var. crebra	P3	350912.5	6704711		1
Banksia fraseri var. crebra	P3	350907.7	6704711		1
Banksia fraseri var. crebra	P3	350908.2	6704700		2
Banksia fraseri var. crebra	P3	350902.9	6704722		2
Banksia fraseri var. crebra	P3	347175.1	6707178		1
Banksia fraseri var. crebra	P3	350903.4	6704758		1
Banksia fraseri var. crebra	P3	350908.5	6704736		1
Banksia fraseri var. crebra	P3	350909.7	6704719		1
Banksia fraseri var. crebra	P3	350927.9	6704607		1
Banksia fraseri var. crebra	P3	350931.7	6704600		2
Banksia fraseri var. crebra	P3	350919.4	6704647		3
Banksia fraseri var. crebra	P3	350928.8	6704620		5
Banksia fraseri var. crebra	P3	350924.9	6704634		1
Banksia fraseri var. crebra	P3	350928.8	6704620		1
Banksia fraseri var. crebra	P3	350920.7	6704679		2
Banksia fraseri var. crebra	P3	344462.6	6690713		5
Banksia fraseri var. crebra	P3	344467.2	6690696		8
Banksia fraseri var. crebra	P3	344463.8	6690683		8
Banksia fraseri var. crebra	P3	344476.5	6690594		1
Banksia fraseri var. crebra	P3	344476.7	6690573		1
Banksia fraseri var. crebra	P3	344475.6	6690630		2
Banksia fraseri var. crebra	P3	344474.9	6690621		2
Banksia fraseri var. crebra	P3	344472.1	6690755		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	344468.2	6690747		3
Banksia fraseri var. crebra	P3	344469.1	6690768		1
Banksia fraseri var. crebra	P3	344470.8	6690766		2
Banksia fraseri var. crebra	P3	344523.4	6690668		1
Banksia fraseri var. crebra	P3	344501.7	6690729		1
Banksia fraseri var. crebra	P3	344472.2	6690736		4
Banksia fraseri var. crebra	P3	344459.5	6690725		6
Banksia fraseri var. crebra	P3	348558.6	6706920		1
Banksia fraseri var. crebra	P3	348440.3	6706131		3
Banksia fraseri var. crebra	P3	348446.4	6706138		3
Banksia fraseri var. crebra	P3	348365.9	6706111		4
Banksia fraseri var. crebra	P3	348376.9	6706119		1
Banksia fraseri var. crebra	P3	348394.2	6706124		1
Banksia fraseri var. crebra	P3	348408.4	6706130		2
Banksia fraseri var. crebra	P3	348428.5	6706135		2
Banksia fraseri var. crebra	P3	348357.4	6706113		2
Banksia fraseri var. crebra	P3	348328.7	6706103		2
Banksia fraseri var. crebra	P3	348297.3	6706096		2
Banksia fraseri var. crebra	P3	348311.5	6706099		1
Banksia fraseri var. crebra	P3	348281.9	6706085		1
Banksia fraseri var. crebra	P3	348245.2	6706074		1
Banksia fraseri var. crebra	P3	348256.9	6706078		1
Banksia fraseri var. crebra	P3	348365.1	6706136		3
Banksia fraseri var. crebra	P3	348349	6706134		1
Banksia fraseri var. crebra	P3	348296.9	6706117		1
Banksia fraseri var. crebra	P3	349120.6	6705710		2
Banksia fraseri var. crebra	P3	348426.8	6706170		1
Banksia fraseri var. crebra	P3	348409.6	6706154		2
Banksia fraseri var. crebra	P3	350942.2	6704579		6
Banksia fraseri var. crebra	P3	350939.2	6704614		4
Banksia fraseri var. crebra	P3	350933.4	6704580		4
Banksia fraseri var. crebra	P3	350940	6704571		7
Banksia fraseri var. crebra	P3	350931.8	6704640		3
Banksia fraseri var. crebra	P3	350929.6	6704661		2
Banksia fraseri var. crebra	P3	350931.7	6704590		3
Banksia fraseri var. crebra	P3	350957.1	6704578		2
Banksia fraseri var. crebra	P3	350958.5	6704565		2
Banksia fraseri var. crebra	P3	344464.1	6702968		1
Banksia fraseri var. crebra	P3	349183.4	6705622		3
Banksia fraseri var. crebra	P3	349172.7	6705645		7

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	346677	6704088		5
Banksia fraseri var. crebra	P3	346716.4	6704048		1
Banksia fraseri var. crebra	P3	346838.6	6703159		1
Banksia fraseri var. crebra	P3	346831.3	6703148		1
Banksia fraseri var. crebra	P3	346835.8	6703143		1
Banksia fraseri var. crebra	P3	349165.2	6705652		10
Banksia fraseri var. crebra	P3	349160.9	6705669		3
Banksia fraseri var. crebra	P3	349153.8	6705694		3
Banksia fraseri var. crebra	P3	346126.9	6704989		2
Banksia fraseri var. crebra	P3	346122.6	6704983		3
Banksia fraseri var. crebra	P3	346120.2	6704996		1
Banksia fraseri var. crebra	P3	346116.9	6705003		3
Banksia fraseri var. crebra	P3	346112.4	6705013		2
Banksia fraseri var. crebra	P3	346104.9	6705015		1
Banksia fraseri var. crebra	P3	346109.7	6705032		7
Banksia fraseri var. crebra	P3	346087.3	6705060		10
Banksia fraseri var. crebra	P3	346081.6	6705076		13
Banksia fraseri var. crebra	P3	346078.1	6705091		5
Banksia fraseri var. crebra	P3	348521	6705121		2
Banksia fraseri var. crebra	P3	348519.3	6705128		6
Banksia fraseri var. crebra	P3	348492.1	6705128		3
Banksia fraseri var. crebra	P3	348501.6	6705126		3
Banksia fraseri var. crebra	P3	348542.9	6705151		1
Banksia fraseri var. crebra	P3	349191.9	6705647		2
Banksia fraseri var. crebra	P3	347334.1	6706819		7
Banksia fraseri var. crebra	P3	347329	6706815		3
Banksia fraseri var. crebra	P3	347329.8	6706807		4
Banksia fraseri var. crebra	P3	350185.7	6698197		1
Banksia fraseri var. crebra	P3	350199.5	6698204		1
Banksia fraseri var. crebra	P3	350191.9	6698199		3
Banksia fraseri var. crebra	P3	350122.3	6698195		1
Banksia fraseri var. crebra	P3	350117.4	6698196		4
Banksia fraseri var. crebra	P3	350115.4	6698196		5
Banksia fraseri var. crebra	P3	350103.7	6698206		9
Banksia fraseri var. crebra	P3	350140.9	6698264		3
Banksia fraseri var. crebra	P3	350145.5	6698274		4
Banksia fraseri var. crebra	P3	350154.5	6698280		2
Banksia fraseri var. crebra	P3	350157.1	6698286		2
Banksia fraseri var. crebra	P3	350159.4	6698294		3
Banksia fraseri var. crebra	P3	350326.1	6698419		4

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	350337.2	6698420		4
Banksia fraseri var. crebra	P3	350343.1	6698416		3
Banksia fraseri var. crebra	P3	350349.5	6698411		3
Banksia fraseri var. crebra	P3	354775.4	6698942	TDR12	
Banksia fraseri var. crebra	P3	355767.5	6692166	TDR17	
Banksia fraseri var. crebra	P3	349090	6704546	TDR18	
Banksia fraseri var. crebra	P3	349612.6	6704788	TDR04	
Banksia fraseri var. crebra	P3	351211	6704294	TDR02	
Banksia fraseri var. crebra	P3	348347.1	6706111		2
Banksia fraseri var. crebra	P3	355904.1	6706578		1
Banksia fraseri var. crebra	P3	351173	6703726	TDR01	
Banksia fraseri var. crebra	P3	354351.9	6706338		2
Banksia fraseri var. crebra	P3	354340	6706336		1
Banksia fraseri var. crebra	P3	348974.2	6697733	TCR10	
Banksia fraseri var. crebra	P3	351238	6694849	TCR13	
Banksia fraseri var. crebra	P3	350587.3	6701898	TCR19	
Banksia fraseri var. crebra	P3	347327.4	6706801		4
Banksia fraseri var. crebra	P3	347323.4	6706793		3
Banksia fraseri var. crebra	P3	347332.6	6706785		1
Banksia fraseri var. crebra	P3	347324.5	6706790		2
Banksia fraseri var. crebra	P3	347326.2	6706782		2
Banksia fraseri var. crebra	P3	347334.1	6706772		3
Banksia fraseri var. crebra	P3	347335.6	6706757		1
Banksia fraseri var. crebra	P3	347340.7	6706757		1
Banksia fraseri var. crebra	P3	347345.5	6706753		3
Banksia fraseri var. crebra	P3	347391.1	6706742		6
Banksia fraseri var. crebra	P3	347389.7	6706755		3
Banksia fraseri var. crebra	P3	347388.6	6706759		3
Banksia fraseri var. crebra	P3	347383.3	6706769		1
Banksia fraseri var. crebra	P3	347379.4	6706770		1
Banksia fraseri var. crebra	P3	347380.6	6706779		3
Banksia fraseri var. crebra	P3	347376	6706788		2
Banksia fraseri var. crebra	P3	347372.2	6706795		2
Banksia fraseri var. crebra	P3	347500.2	6706789		3
Banksia fraseri var. crebra	P3	347505	6706786		3
Banksia fraseri var. crebra	P3	347507	6706788		1
Banksia fraseri var. crebra	P3	347501.6	6706791		4
Banksia fraseri var. crebra	P3	347504.9	6706798		3
Banksia fraseri var. crebra	P3	347498.9	6706806		4
Banksia fraseri var. crebra	P3	347504.5	6706813		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	350491.6	6691982		1
Banksia fraseri var. crebra	P3	350472.6	6691979		1
Banksia fraseri var. crebra	P3	350472.6	6691979		3
Banksia fraseri var. crebra	P3	350420.6	6691983		2
Banksia fraseri var. crebra	P3	350451.3	6691980		4
Banksia fraseri var. crebra	P3	350801.7	6691545		3
Banksia fraseri var. crebra	P3	353709.8	6694384		3
Banksia fraseri var. crebra	P3	353723.6	6694364		2
Banksia fraseri var. crebra	P3	350623.5	6692009		2
Banksia fraseri var. crebra	P3	352172.6	6708890		1
Banksia fraseri var. crebra	P3	352159.4	6708880		4
Banksia fraseri var. crebra	P3	354210.6	6706323		2
Banksia fraseri var. crebra	P3	352075.9	6706600		6
Banksia fraseri var. crebra	P3	352053.1	6706613		5
Banksia fraseri var. crebra	P3	352041.4	6706619		3
Banksia fraseri var. crebra	P3	352105.3	6706560		1
Banksia fraseri var. crebra	P3	352154.7	6706515		2
Banksia fraseri var. crebra	P3	352206.7	6706468		2
Banksia fraseri var. crebra	P3	349972.2	6694595		3
Banksia fraseri var. crebra	P3	349968.6	6694580		7
Banksia fraseri var. crebra	P3	350763.2	6692010		2
Banksia fraseri var. crebra	P3	350729.5	6692011		1
Banksia fraseri var. crebra	P3	350568.3	6692007		2
Banksia fraseri var. crebra	P3	350611.8	6692010		1
Banksia fraseri var. crebra	P3	350521.5	6692006		2
Banksia fraseri var. crebra	P3	350478.9	6692010		1
Banksia fraseri var. crebra	P3	350468.3	6692012		2
Banksia fraseri var. crebra	P3	350448.1	6692008		4
Banksia fraseri var. crebra	P3	350433.7	6692007		3
Banksia fraseri var. crebra	P3	350415.2	6692005		4
Banksia fraseri var. crebra	P3	347353.5	6706785		2
Banksia fraseri var. crebra	P3	347346.8	6706767		4
Banksia fraseri var. crebra	P3	347349	6706755		3
Banksia fraseri var. crebra	P3	347369.3	6706748		3
Banksia fraseri var. crebra	P3	347365.4	6706766		2
Banksia fraseri var. crebra	P3	347378.1	6706773		6
Banksia fraseri var. crebra	P3	347362.5	6706781		3
Banksia fraseri var. crebra	P3	347364.4	6706789		4
Banksia fraseri var. crebra	P3	347354.1	6706799		4
Banksia fraseri var. crebra	P3	347358	6706807		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	347554.3	6706773		2
Banksia fraseri var. crebra	P3	347552.2	6706784		2
Banksia fraseri var. crebra	P3	347555.8	6706794		5
Banksia fraseri var. crebra	P3	347557	6706782		3
Banksia fraseri var. crebra	P3	347565	6706792		2
Banksia fraseri var. crebra	P3	347569.1	6706803		5
Banksia fraseri var. crebra	P3	347560.4	6706803		3
Banksia fraseri var. crebra	P3	354890.1	6699015		1
Banksia fraseri var. crebra	P3	354889.7	6699006		1
Banksia fraseri var. crebra	P3	354322.6	6706331		4
Banksia fraseri var. crebra	P3	354286.4	6706330		2
Banksia fraseri var. crebra	P3	347128.3	6707125		1
Banksia fraseri var. crebra	P3	347215.1	6707124		1
Banksia fraseri var. crebra	P3	347211	6707124		2
Banksia fraseri var. crebra	P3	347205.5	6707121		2
Banksia fraseri var. crebra	P3	347195.8	6707129		1
Banksia fraseri var. crebra	P3	344512.7	6690612		1
Banksia fraseri var. crebra	P3	344501.5	6690595		1
Banksia fraseri var. crebra	P3	344467	6690635		2
Banksia fraseri var. crebra	P3	344468.2	6690642		1
Banksia fraseri var. crebra	P3	344450.1	6690588		1
Banksia fraseri var. crebra	P3	344448.2	6690600		1
Banksia fraseri var. crebra	P3	344452.8	6690624		1
Banksia fraseri var. crebra	P3	344457.1	6690630		1
Banksia fraseri var. crebra	P3	344465.1	6690625		1
Banksia fraseri var. crebra	P3	344459.9	6690605		1
Banksia fraseri var. crebra	P3	347347.3	6706815		2
Banksia fraseri var. crebra	P3	347342.7	6706806		6
Banksia fraseri var. crebra	P3	347338.2	6706798		7
Banksia fraseri var. crebra	P3	347246.3	6707175		4
Banksia fraseri var. crebra	P3	350195.5	6698235		2
Banksia fraseri var. crebra	P3	350192.9	6698219		2
Banksia fraseri var. crebra	P3	350180.2	6698213		8
Banksia fraseri var. crebra	P3	350182.5	6698230		3
Banksia fraseri var. crebra	P3	350205.4	6698216		1
Banksia fraseri var. crebra	P3	350207.7	6698205		2
Banksia fraseri var. crebra	P3	350117	6698199		4
Banksia fraseri var. crebra	P3	350126.4	6698205		2
Banksia fraseri var. crebra	P3	350119.8	6698208		2
Banksia fraseri var. crebra	P3	350108.7	6698209		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	350146.8	6698259		4
Banksia fraseri var. crebra	P3	350152	6698250		3
Banksia fraseri var. crebra	P3	350159.8	6698255		3
Banksia fraseri var. crebra	P3	350157.8	6698265		10
Banksia fraseri var. crebra	P3	350172.4	6698274		4
Banksia fraseri var. crebra	P3	350163.4	6698265		5
Banksia fraseri var. crebra	P3	350186.4	6698283		2
Banksia fraseri var. crebra	P3	350326.8	6698396		6
Banksia fraseri var. crebra	P3	350336.5	6698402		6
Banksia fraseri var. crebra	P3	350348.6	6698405		6
Banksia fraseri var. crebra	P3	350364.1	6698388		8
Banksia fraseri var. crebra	P3	350353.3	6698384		4
Banksia fraseri var. crebra	P3	350325.5	6698378		1
Banksia fraseri var. crebra	P3	354500	6696100		1
Banksia fraseri var. crebra	P3	354541.5	6696102		3
Banksia fraseri var. crebra	P3	354549.6	6696107		2
Banksia fraseri var. crebra	P3	354585.7	6696091		2
Banksia fraseri var. crebra	P3	349991.4	6694727		4
Banksia fraseri var. crebra	P3	349991.4	6694727		3
Banksia fraseri var. crebra	P3	354180.1	6706310		1
Banksia fraseri var. crebra	P3	352216.8	6706459		3
Banksia fraseri var. crebra	P3	352214.4	6706465		1
Banksia fraseri var. crebra	P3	349937	6707267		1
Banksia fraseri var. crebra	P3	349902.5	6707263		3
Banksia fraseri var. crebra	P3	350761.3	6692019		2
Banksia fraseri var. crebra	P3	350753.4	6692017		2
Banksia fraseri var. crebra	P3	350635.3	6692020		1
Banksia fraseri var. crebra	P3	350590.9	6692018		1
Banksia fraseri var. crebra	P3	350612.5	6692015		1
Banksia fraseri var. crebra	P3	350539.2	6691980		2
Banksia fraseri var. crebra	P3	350616	6691981		1
Banksia fraseri var. crebra	P3	350655.1	6691985		2
Banksia fraseri var. crebra	P3	350459.6	6691975		1
Banksia fraseri var. crebra	P3	350477.4	6691975		2
Banksia fraseri var. crebra	P3	350513.2	6691980		1
Banksia fraseri var. crebra	P3	350434.9	6691978		2
Banksia fraseri var. crebra	P3	350443	6691977		1
Banksia fraseri var. crebra	P3	350517.5	6692017		1
Banksia fraseri var. crebra	P3	350456.2	6692017		1
Banksia fraseri var. crebra	P3	350450.8	6692014		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia fraseri var. crebra	P3	350440.4	6692017		4
Banksia fraseri var. crebra	P3	350419.6	6692015		1
Banksia fraseri var. crebra	P3	350410.2	6692016		4
Banksia fraseri var. crebra	P3	350574.8	6692017		1
Banksia fraseri var. crebra	P3	350399.8	6692014		1
Banksia fraseri var. crebra	P3	350368.5	6692019		1
Banksia fraseri var. crebra	P3	350556.4	6692019		2
Banksia fraseri var. crebra	P3	350538.5	6692017		1
Banksia fraseri var. crebra	P3	344464.7	6690572		1
Banksia fraseri var. crebra	P3	349798.8	6689828		1
Banksia fraseri var. crebra	P3	349686.4	6689907		3
Banksia fraseri var. crebra	P3	349642.1	6689931		2
Banksia fraseri var. crebra	P3	350790.9	6691553		1
Banksia fraseri var. crebra	P3	350810.9	6691532		1
Banksia fraseri var. crebra	P3	344470	6690558		1
Banksia fraseri var. crebra	P3	344470.9	6690561		1
Banksia fraseri var. crebra	P3	344473	6690539		1
Banksia fraseri var. crebra	P3	344476.6	6690546		2
Banksia fraseri var. crebra	P3	344506.8	6690548		2
Banksia fraseri var. crebra	P3	353673.5	6694422		2
Banksia fraseri var. crebra	P3	353688.1	6694405		1
Banksia fraseri var. crebra	P3	353687.6	6694397		1
Banksia fraseri var. crebra	P3	353697.1	6694389		1
Banksia fraseri var. crebra	P3	353700.8	6694373		1
Banksia fraseri var. crebra	P3	353713.8	6694361		1
Banksia fraseri var. crebra	P3	353724.5	6694350		4
Banksia fraseri var. crebra	P3	344502.4	6690576		1
Banksia fraseri var. crebra	P3	344500.6	6690573		1
Banksia fraseri var. crebra	P3	344505.8	6690588		1
Banksia fraseri var. crebra	P3	351698.5	6693458		2
Banksia fraseri var. crebra	P3	351688.3	6693462		1
Banksia fraseri var. crebra	P3	351683	6693469		3
Banksia fraseri var. crebra	P3	351678.6	6693474		4
Banksia fraseri var. crebra	P3	351676.8	6693483		5
Banksia fraseri var. crebra	P3	351673.7	6693494		4
Banksia fraseri var. crebra	P3	351670.3	6693509		5
Banksia fraseri var. crebra	P3	351669.5	6693523		2
Banksia fraseri var. crebra	P3	351668.8	6693537		3
Banksia fraseri var. crebra	P3	351669.7	6693543		3
Banksia kippistiana var. paenepeccata	P3	350735.7	6691989		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia kippistiana var. paenepeccata	P3	356385.4	6709472	TCR50	20
Banksia kippistiana var. paenepeccata	P3	354340	6706336		2
Banksia kippistiana var. paenepeccata	P3	354401	6706367		1
Banksia kippistiana var. paenepeccata	P3	354383.4	6706348		4
Banksia kippistiana var. paenepeccata	P3	354374.9	6706342		3
Banksia kippistiana var. paenepeccata	P3	354351.9	6706338		1
Banksia kippistiana var. paenepeccata	P3	351211	6704294	TDR02	
Banksia kippistiana var. paenepeccata	P3	354415.3	6706376		1
Banksia kippistiana var. paenepeccata	P3	354416.7	6706384		1
Banksia kippistiana var. paenepeccata	P3	354196.6	6706303		8
Banksia kippistiana var. paenepeccata	P3	354184	6706300		2
Banksia kippistiana var. paenepeccata	P3	354424.3	6706394		1
Banksia kippistiana var. paenepeccata	P3	354479.7	6706528		2
Banksia kippistiana var. paenepeccata	P3	350753.5	6691987		1
Banksia kippistiana var. paenepeccata	P3	350731.7	6691984		3
Banksia kippistiana var. paenepeccata	P3	351699.4	6693450		5
Banksia kippistiana var. paenepeccata	P3	351698.5	6693458		2
Banksia kippistiana var. paenepeccata	P3	355681.6	6694208		2
Banksia kippistiana var. paenepeccata	P3	356054.3	6693808		1
Banksia kippistiana var. paenepeccata	P3	350655.1	6691985		1
Banksia kippistiana var. paenepeccata	P3	350706.4	6691985		2
Banksia kippistiana var. paenepeccata	P3	350668.9	6691983		3
Banksia kippistiana var. paenepeccata	P3	354180.1	6706310		4
Banksia kippistiana var. paenepeccata	P3	350704	6692021		2
Banksia kippistiana var. paenepeccata	P3	350668.7	6692023		1
Banksia kippistiana var. paenepeccata	P3	350615.2	6696007		3
Banksia kippistiana var. paenepeccata	P3	350481.2	6696010		3
Banksia kippistiana var. paenepeccata	P3	350495.1	6696013		4
Banksia kippistiana var. paenepeccata	P3	350504.8	6696010		6
Banksia kippistiana var. paenepeccata	P3	352158.9	6708894		4
Banksia kippistiana var. paenepeccata	P3	352151.3	6708887		3
Banksia kippistiana var. paenepeccata	P3	352324.9	6706433		4
Banksia kippistiana var. paenepeccata	P3	352216.8	6706459		4
Banksia kippistiana var. paenepeccata	P3	355974	6693848		2
Banksia kippistiana var. paenepeccata	P3	354322.6	6706331		3
Banksia kippistiana var. paenepeccata	P3	354304.6	6706329		3
Banksia kippistiana var. paenepeccata	P3	354264.9	6706326		6
Banksia kippistiana var. paenepeccata	P3	354244.5	6706307		10
Banksia kippistiana var. paenepeccata	P3	354262.5	6706312		16
Banksia kippistiana var. paenepeccata	P3	354210.6	6706323		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia kippistiana var. paenepeccata	P3	344411.4	6693415		2
Banksia kippistiana var. paenepeccata	P3	350431.5	6695197		1
Banksia kippistiana var. paenepeccata	P3	350439.5	6695191		2
Banksia kippistiana var. paenepeccata	P3	350422.6	6695207		6
Banksia kippistiana var. paenepeccata	P3	350393.6	6695234		1
Banksia kippistiana var. paenepeccata	P3	350401.6	6695226		6
Banksia kippistiana var. paenepeccata	P3	350411	6695219		1
Banksia kippistiana var. paenepeccata	P3	352206.7	6706468		2
Banksia kippistiana var. paenepeccata	P3	350452.8	6696006		4
Banksia kippistiana var. paenepeccata	P3	354194.3	6706319		4
Banksia kippistiana var. paenepeccata	P3	352159.4	6708880		2
Banksia kippistiana var. paenepeccata	P3	350444	6696006		3
Banksia kippistiana var. paenepeccata	P3	350430.2	6696004		3
Banksia kippistiana var. paenepeccata	P3	350629.9	6694892		4
Banksia kippistiana var. paenepeccata	P3	350634.7	6694883		4
Banksia kippistiana var. paenepeccata	P3	350641.4	6694878		3
Banksia kippistiana var. paenepeccata	P3	350619.9	6694911		3
Banksia kippistiana var. paenepeccata	P3	350623.7	6694898		3
Banksia kippistiana var. paenepeccata	P3	350332.1	6696005		2
Banksia kippistiana var. paenepeccata	P3	350310.5	6696005		1
Banksia kippistiana var. paenepeccata	P3	350660.6	6694742		1
Banksia kippistiana var. paenepeccata	P3	350652.2	6694736		1
Banksia kippistiana var. paenepeccata	P3	350561.3	6694672		3
Banksia kippistiana var. paenepeccata	P3	350546.2	6694663		4
Banksia kippistiana var. paenepeccata	P3	350529.7	6694650		3
Banksia kippistiana var. paenepeccata	P3	350510.5	6694637		2
Banksia kippistiana var. paenepeccata	P3	350760	6691985		2
Banksia kippistiana var. paenepeccata	P3	350760	6691985		2
Banksia kippistiana var. paenepeccata	P3	350716.7	6691987		1
Banksia kippistiana var. paenepeccata	P3	350696.8	6691987		1
Banksia nobilis subsp. fragrans	P3	355767.5	6692166	TDR17	1
Banksia pteridifolia subsp. vernalis	P3	358044.3	6673563		1
Banksia pteridifolia subsp. vernalis	P3	358046.8	6673549		2
Banksia pteridifolia subsp. vernalis	P3	358085	6673539		1
Banksia pteridifolia subsp. vernalis	P3	358041.7	6673556		3
Banksia pteridifolia subsp. vernalis	P3	358101.6	6673540		1
Banksia pteridifolia subsp. vernalis	P3	358133.6	6673540		1
Banksia pteridifolia subsp. vernalis	P3	358157.1	6673545		2
Banksia pteridifolia subsp. vernalis	P3	358116.2	6673510		6
Banksia pteridifolia subsp. vernalis	P3	358045.5	6673512		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia pteridifolia subsp. vernalis	P3	358026.8	6673499		2
Banksia pteridifolia subsp. vernalis	P3	358058	6673510		2
Banksia pteridifolia subsp. vernalis	P3	358072.9	6673508		3
Banksia pteridifolia subsp. vernalis	P3	358098.7	6673506		1
Banksia pteridifolia subsp. vernalis	P3	358128.2	6673489		3
Banksia pteridifolia subsp. vernalis	P3	358111.7	6673494		1
Banksia pteridifolia subsp. vernalis	P3	358102	6673493		1
Banksia pteridifolia subsp. vernalis	P3	358050.5	6673501		5
Banksia pteridifolia subsp. vernalis	P3	358020.6	6673486		1
Banksia pteridifolia subsp. vernalis	P3	358036.4	6673493		2
Banksia pteridifolia subsp. vernalis	P3	358103.4	6673488		1
Banksia pteridifolia subsp. vernalis	P3	358110.6	6673486		1
Banksia pteridifolia subsp. vernalis	P3	358071.8	6673489		1
Banksia pteridifolia subsp. vernalis	P3	358087.1	6673488		1
Banksia pteridifolia subsp. vernalis	P3	358042.3	6673495		4
Banksia pteridifolia subsp. vernalis	P3	358126.2	6673480		2
Banksia pteridifolia subsp. vernalis	P3	358140.7	6673477		1
Banksia splendida subsp. macrocarpa	P3	349601.6	6701965		1
Banksia splendida subsp. macrocarpa	P3	352288.8	6704439		1
Banksia splendida subsp. macrocarpa	P3	352288.8	6704439		1
Banksia splendida subsp. macrocarpa	P3	354140.7	6706658		1
Banksia splendida subsp. macrocarpa	P3	355370.4	6693328		50
Banksia splendida subsp. macrocarpa	P3	355574.5	6692371		5
Banksia splendida subsp. macrocarpa	P3	355617.8	6693301		50
Banksia splendida subsp. macrocarpa	P3	355639.5	6692747		50
Banksia splendida subsp. macrocarpa	P3	357131.9	6702347		1
Banksia splendida subsp. macrocarpa	P3	357153.2	6702347		2
Banksia splendida subsp. macrocarpa	P3	357125.7	6702331		3
Banksia splendida subsp. macrocarpa	P3	357134.2	6702330		5
Banksia splendida subsp. macrocarpa	P3	357147	6702329		1
Banksia splendida subsp. macrocarpa	P3	354603.9	6702145		1
Banksia splendida subsp. macrocarpa	P3	354565.1	6702135		6
Banksia splendida subsp. macrocarpa	P3	354577.4	6702138		1
Banksia splendida subsp. macrocarpa	P3	354519	6702142		3
Banksia splendida subsp. macrocarpa	P3	354524.2	6702136		5
Banksia splendida subsp. macrocarpa	P3	354534.3	6702140		3
Banksia splendida subsp. macrocarpa	P3	354544.6	6702140		4
Banksia splendida subsp. macrocarpa	P3	356332.2	6693814		1
Banksia splendida subsp. macrocarpa	P3	356269.8	6693792		1
Banksia splendida subsp. macrocarpa	P3	356221.1	6693773		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia splendida subsp. macrocarpa	P3	354351.9	6706338		3
Banksia splendida subsp. macrocarpa	P3	354374.9	6706342		3
Banksia splendida subsp. macrocarpa	P3	354409.5	6706375		1
Banksia splendida subsp. macrocarpa	P3	354401	6706367		3
Banksia splendida subsp. macrocarpa	P3	354340	6706336		3
Banksia splendida subsp. macrocarpa	P3	354404	6702973	TCR05	25
Banksia splendida subsp. macrocarpa	P3	355302.5	6706541		4
Banksia splendida subsp. macrocarpa	P3	355296.5	6706540		3
Banksia splendida subsp. macrocarpa	P3	355287.9	6706521		2
Banksia splendida subsp. macrocarpa	P3	355296.6	6706509		1
Banksia splendida subsp. macrocarpa	P3	354493.3	6706543		1
Banksia splendida subsp. macrocarpa	P3	354423.8	6706385		1
Banksia splendida subsp. macrocarpa	P3	354424.3	6706394		2
Banksia splendida subsp. macrocarpa	P3	354620.6	6702151		1
Banksia splendida subsp. macrocarpa	P3	354524.2	6702149		4
Banksia splendida subsp. macrocarpa	P3	354546.9	6702148		4
Banksia splendida subsp. macrocarpa	P3	354665.2	6702158		2
Banksia splendida subsp. macrocarpa	P3	354559.7	6702151		2
Banksia splendida subsp. macrocarpa	P3	354576.6	6702149		1
Banksia splendida subsp. macrocarpa	P3	354557.9	6702157		2
Banksia splendida subsp. macrocarpa	P3	357275.7	6702270		4
Banksia splendida subsp. macrocarpa	P3	357268.1	6702268		1
Banksia splendida subsp. macrocarpa	P3	357259.4	6702278		7
Banksia splendida subsp. macrocarpa	P3	357152.7	6702290		1
Banksia splendida subsp. macrocarpa	P3	357115.1	6702285		16
Banksia splendida subsp. macrocarpa	P3	357057.6	6702291		3
Banksia splendida subsp. macrocarpa	P3	357081.9	6702284		10
Banksia splendida subsp. macrocarpa	P3	357078.5	6702274		15
Banksia splendida subsp. macrocarpa	P3	357091.9	6702270		20
Banksia splendida subsp. macrocarpa	P3	357092.3	6702282		12
Banksia splendida subsp. macrocarpa	P3	357100.6	6702292		11
Banksia splendida subsp. macrocarpa	P3	356200.8	6693801		4
Banksia splendida subsp. macrocarpa	P3	356184.4	6693800		3
Banksia splendida subsp. macrocarpa	P3	356265.9	6693823		15
Banksia splendida subsp. macrocarpa	P3	356248.3	6693813		13
Banksia splendida subsp. macrocarpa	P3	356234.6	6693809		9
Banksia splendida subsp. macrocarpa	P3	356221.7	6693803		10
Banksia splendida subsp. macrocarpa	P3	356222.6	6693760		1
Banksia splendida subsp. macrocarpa	P3	356323.1	6693836		4
Banksia splendida subsp. macrocarpa	P3	356313.2	6693834		5

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia splendida subsp. macrocarpa	P3	356300.7	6693831		9
Banksia splendida subsp. macrocarpa	P3	356285.4	6693827		8
Banksia splendida subsp. macrocarpa	P3	355823.7	6694040		2
Banksia splendida subsp. macrocarpa	P3	355895.4	6693948		3
Banksia splendida subsp. macrocarpa	P3	355816.3	6694059		2
Banksia splendida subsp. macrocarpa	P3	355783.7	6694115		1
Banksia splendida subsp. macrocarpa	P3	355764.3	6694130		4
Banksia splendida subsp. macrocarpa	P3	355752.6	6694150		3
Banksia splendida subsp. macrocarpa	P3	354244.5	6706307		1
Banksia splendida subsp. macrocarpa	P3	354194.3	6706319		4
Banksia splendida subsp. macrocarpa	P3	354210.6	6706323		5
Banksia splendida subsp. macrocarpa	P3	354304.6	6706329		8
Banksia splendida subsp. macrocarpa	P3	354286.4	6706330		3
Banksia splendida subsp. macrocarpa	P3	354264.9	6706326		2
Banksia splendida subsp. macrocarpa	P3	356224.1	6693790		7
Banksia splendida subsp. macrocarpa	P3	356209.3	6693779		2
Banksia splendida subsp. macrocarpa	P3	354322.6	6706331		5
Banksia splendida subsp. macrocarpa	P3	356277.9	6693791		3
Banksia splendida subsp. macrocarpa	P3	356270.4	6693813		10
Banksia splendida subsp. macrocarpa	P3	356261.9	6693803		7
Banksia splendida subsp. macrocarpa	P3	356249.3	6693795		6
Banksia splendida subsp. macrocarpa	P3	356238.4	6693796		10
Banksia splendida subsp. macrocarpa	P3	355685.5	6694209		1
Banksia splendida subsp. macrocarpa	P3	355679.4	6694231		4
Banksia splendida subsp. macrocarpa	P3	355971	6693851		2
Banksia subulata	P3	358041.7	6673556		3
Banksia subulata	P3	358000.1	6673558		2
Banksia subulata	P3	358004.5	6673553		1
Banksia subulata	P3	358107.8	6673504		2
Banksia subulata	P3	358159.3	6673538		1
Banksia subulata	P3	358122.5	6673538		1
Banksia subulata	P3	358064.6	6673543		1
Banksia subulata	P3	358173.1	6673565		5
Banksia subulata	P3	358172.8	6673582		3
Banksia subulata	P3	358157.1	6673545		1
Banksia subulata	P3	358185.7	6673565		4
Banksia subulata	P3	358192.1	6673576		1
Banksia subulata	P3	358184.4	6673574		1
Banksia subulata	P3	358188	6673572		2
Banksia subulata	P3	358110.6	6673486		4

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Banksia subulata	P3	358126.2	6673480		4
Banksia subulata	P3	358177.1	6673469		8
Banksia subulata	P3	358192.3	6673467		5
Banksia subulata	P3	358095.1	6673486		1
Banksia subulata	P3	358086.3	6673495		1
Banksia subulata	P3	358073.5	6673499		1
Banksia subulata	P3	358119.4	6673485		4
Banksia subulata	P3	358111.7	6673494		2
Banksia subulata	P3	358138.7	6673488		3
Banksia subulata	P3	358196.7	6673475		4
Banksia subulata	P3	358194.4	6673483		1
Banksia subulata	P3	358148	6673494		1
Beaufortia bicolor	P3	339054.6	6673867		1
Beaufortia bicolor	P3	339047.1	6673870		3
Beaufortia bicolor	P3	339042.5	6673863		3
Beaufortia bicolor	P3	339032.1	6673864		3
Beaufortia bicolor	P3	338987.8	6673855		1
Beaufortia bicolor	P3	338974.1	6673856		2
Beaufortia bicolor	P3	338920.1	6673763		4
Beaufortia bicolor	P3	338921.6	6673772		1
Beaufortia bicolor	P3	338921.1	6673785		4
Beaufortia bicolor	P3	338912.6	6673801		6
Beaufortia bicolor	P3	338908.6	6673818		15
Beaufortia bicolor	P3	338905.5	6673836		3
Beaufortia bicolor	P3	338902.7	6673850		6
Beaufortia bicolor	P3	338905	6673861		3
Beaufortia bicolor	P3	338894.4	6673863		2
Beaufortia bicolor	P3	338887.3	6673904		4
Beaufortia bicolor	P3	338878.8	6673886		5
Beaufortia bicolor	P3	338883	6673878		3
Beaufortia bicolor	P3	338883.8	6673865		3
Beaufortia bicolor	P3	338891	6673856		5
Beaufortia bicolor	P3	338894.5	6673848		1
Beaufortia bicolor	P3	338892.6	6673836		3
Beaufortia bicolor	P3	338897.5	6673824		2
Beaufortia bicolor	P3	338902.3	6673807		2
Beaufortia bicolor	P3	338906.1	6673793		4
Beaufortia bicolor	P3	338910.8	6673782		5
Beaufortia bicolor	P3	338904.5	6673772		4
Beaufortia bicolor	P3	338909.9	6673766		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Beaufortia bicolor	P3	338893.4	6673766		4
Beaufortia bicolor	P3	338892.5	6673780		7
Beaufortia bicolor	P3	338897.6	6673797		1
Beaufortia bicolor	P3	338893.6	6673811		1
Beaufortia bicolor	P3	338888.2	6673830		4
Beaufortia bicolor	P3	338875.8	6673839		2
Beaufortia bicolor	P3	338882.7	6673834		4
Beaufortia bicolor	P3	338879.9	6673774		1
Beaufortia bicolor	P3	338888	6673766		4
Beaufortia bicolor	P3	338877.7	6673822		2
Beaufortia bicolor	P3	338885.5	6673807		2
Beaufortia bicolor	P3	338882.9	6673791		2
Beaufortia bicolor	P3	338951.6	6673912	TDR29	
Beaufortia bicolor	P3	338971.6	6673846		4
Beaufortia bicolor	P3	338945.7	6673847		1
Beaufortia bicolor	P3	338945.5	6673839		2
Beaufortia bicolor	P3	338972.1	6673839		1
Beaufortia bicolor	P3	338952.5	6673825		2
Beaufortia bicolor	P3	338957.7	6673878		1
Beaufortia bicolor	P3	338948.2	6673877		5
Beaufortia bicolor	P3	338931.7	6673903		1
Beaufortia bicolor	P3	338959.9	6673787		3
Beaufortia bicolor	P3	338956.6	6673813		1
Beaufortia bicolor	P3	338989.3	6673887		3
Beaufortia bicolor	P3	339031.5	6673896		1
Beaufortia bicolor	P3	338976.8	6673887		3
Beaufortia bicolor	P3	338940.7	6673885		1
Beaufortia bicolor	P3	338983.8	6673808		1
Beaufortia bicolor	P3	338985.1	6673818		7
Beaufortia bicolor	P3	338991.3	6673826		5
Calothamnus accedens	P4	346642.2	6702495	TDR22	
Calothamnus accedens	P4	346322.9	6704754		15
Calothamnus accedens	P4	344597.4	6701792		5
Calothamnus accedens	P4	344603.3	6701803		7
Calothamnus accedens	P4	344610.1	6701804		4
Calothamnus accedens	P4	344591.5	6701816		15
Calothamnus accedens	P4	344477.3	6705174		17
Calothamnus accedens	P4	344475.6	6705198		6
Calothamnus accedens	P4	344454.2	6705240		8
Calothamnus accedens	P4	344469.9	6705226		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Calothamnus accedens	P4	344459.9	6705232		1
Calothamnus accedens	P4	344453.5	6705224		4
Calothamnus accedens	P4	344449.6	6705196		2
Calothamnus accedens	P4	344443.6	6705178		7
Calothamnus accedens	P4	344442.1	6705162		8
Calothamnus accedens	P4	344436.3	6705146		11
Calothamnus accedens	P4	344434.2	6705124		20
Calothamnus accedens	P4	344436.7	6705106		17
Calothamnus accedens	P4	344545.1	6701810		3
Calothamnus accedens	P4	344561.3	6701840		2
Calothamnus accedens	P4	344559.8	6701850		8
Calothamnus accedens	P4	344539.9	6701887		1
Calytrix chrysantha	P4	344507.4	6706760		2
Calytrix chrysantha	P4	344501.2	6706735		6
Calytrix chrysantha	P4	347570.5	6674117		7
Calytrix chrysantha	P4	353516.8	6702158	TDR27	
Calytrix chrysantha	P4	351197.6	6694151	TCR11	
Calytrix chrysantha	P4	354642.5	6702165		2
Calytrix flavescens s. lat.	Potentially undescribed	347406.6	6706205		
Catacolea enodis	P2	358092.4	6673535		1
Caustis gigas	P2	358088.8	6673538		3
Caustis gigas	P2	358118.8	6673529		6
Caustis gigas	P2	358107.6	6673535		10
Caustis gigas	P2	358092.4	6673535		2
Caustis gigas	P2	358085	6673539		2
Caustis gigas	P2	358076.3	6673539		4
Caustis gigas	P2	358059	6673540		10
Caustis gigas	P2	358193.6	6673570		4
Caustis gigas	P2	358194.5	6673559		6
Caustis gigas	P2	358195.5	6673577		5
Caustis gigas	P2	358187.1	6673543		1
Caustis gigas	P2	358174.6	6673533		6
Caustis gigas	P2	358170.4	6673528		3
Caustis gigas	P2	358154.2	6673525		1
Caustis gigas	P2	358178.9	6673544		8
Caustis gigas	P2	358141.2	6673530		5
Caustis gigas	P2	358129.8	6673529		4
Caustis gigas	P2	357997	6673549		3
Caustis gigas	P2	357984.3	6673552		6
Caustis gigas	P2	357991	6673557		9

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Caustis gigas	P2	358013.1	6673548		8
Caustis gigas	P2	358040.1	6673543		4
Caustis gigas	P2	358031.4	6673546		6
Caustis gigas	P2	358049.6	6673544		4
Caustis gigas	P2	358026.1	6673557		4
Caustis gigas	P2	358000.1	6673558		3
Caustis gigas	P2	358008.5	6673558		5
Caustis gigas	P2	358015.6	6673551		7
Caustis gigas	P2	358037.1	6673551		6
Caustis gigas	P2	358046.8	6673549		5
Caustis gigas	P2	358052.2	6673548		2
Caustis gigas	P2	358199.8	6673604		3
Caustis gigas	P2	358198.6	6673599		3
Caustis gigas	P2	358198.1	6673593		8
Caustis gigas	P2	358238.1	6673568		20
Caustis gigas	P2	358231.9	6673622		4
Caustis gigas	P2	358188	6673572		6
Caustis gigas	P2	358192.1	6673576		4
Caustis gigas	P2	358194.7	6673597		6
Caustis gigas	P2	358186.7	6673602		5
Caustis gigas	P2	358208	6673642		4
Caustis gigas	P2	358211.9	6673650		2
Caustis gigas	P2	358203.9	6673621		3
Caustis gigas	P2	358176.6	6673575		12
Caustis gigas	P2	358173.1	6673565		9
Caustis gigas	P2	358064.6	6673543		3
Caustis gigas	P2	358044.3	6673563		2
Caustis gigas	P2	358071.8	6673545		3
Caustis gigas	P2	358081.6	6673543		3
Caustis gigas	P2	358095.3	6673544		6
Caustis gigas	P2	358101.6	6673540		8
Caustis gigas	P2	358114.4	6673539		2
Caustis gigas	P2	358118.8	6673542		1
Caustis gigas	P2	358159.3	6673538		3
Caustis gigas	P2	358178.7	6673540		3
Caustis gigas	P2	358178.5	6673558		14
Caustis gigas	P2	358168.2	6673541		7
Caustis gigas	P2	358222.7	6673609		5
Caustis gigas	P2	358227.3	6673650		3
Caustis gigas	P2	358224.6	6673633		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Caustis gigas	P2	358226.1	6673627		7
Caustis gigas	P2	358223.2	6673603		5
Caustis gigas	P2	358218.2	6673586		9
Caustis gigas	P2	358214.7	6673573		13
Caustis gigas	P2	358222.7	6673538		10
Caustis gigas	P2	358223.4	6673531		8
Caustis gigas	P2	358215.8	6673561		4
Caustis gigas	P2	358213.8	6673552		14
Caustis gigas	P2	358216.1	6673546		10
Caustis gigas	P2	358234.7	6673528		6
Caustis gigas	P2	358232.9	6673537		3
Caustis gigas	P2	358218.9	6673541		6
Caustis gigas	P2	358230.7	6673521		
Caustis gigas	P2	358235	6673550		10
Caustis gigas	P2	358224	6673555		14
Caustis gigas	P2	358225.8	6673543		10
Caustis gigas	P2	358223.8	6673564		6
Caustis gigas	P2	358225.1	6673570		10
Caustis gigas	P2	358226.4	6673585		12
Caustis gigas	P2	357998.7	6673517		19
Caustis gigas	P2	358072.9	6673508		14
Caustis gigas	P2	358098.7	6673506		9
Caustis gigas	P2	358019.7	6673515		24
Caustis gigas	P2	357998.4	6673530		4
Caustis gigas	P2	358019.8	6673524		10
Caustis gigas	P2	358033.4	6673501		2
Caustis gigas	P2	358045.5	6673512		3
Caustis gigas	P2	358127	6673508		3
Caustis gigas	P2	358116.2	6673510		7
Caustis gigas	P2	358103.8	6673513		99
Caustis gigas	P2	358160.9	6673505		7
Caustis gigas	P2	358147.7	6673507		8
Caustis gigas	P2	358189.6	6673497		5
Caustis gigas	P2	358173.2	6673501		12
Caustis gigas	P2	358093.3	6673515		9
Caustis gigas	P2	358066.7	6673518		10
Caustis gigas	P2	358044.6	6673520		5
Caustis gigas	P2	358038.1	6673526		2
Caustis gigas	P2	358196.3	6673496		6
Caustis gigas	P2	358189.8	6673502		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Caustis gigas	P2	358192.3	6673467		7
Caustis gigas	P2	358148	6673494		6
Caustis gigas	P2	358165	6673491		15
Caustis gigas	P2	358177.6	6673492		12
Caustis gigas	P2	358203.1	6673485		15
Caustis gigas	P2	358212.8	6673497		1
Caustis gigas	P2	358229.4	6673494		1
Caustis gigas	P2	358223.8	6673470		14
Caustis gigas	P2	358217.8	6673470		20
Caustis gigas	P2	358207.2	6673473		12
Caustis gigas	P2	358189.3	6673491		12
Caustis gigas	P2	358196.7	6673489		15
Caustis gigas	P2	358185	6673477		10
Caustis gigas	P2	358173.8	6673480		2
Caustis gigas	P2	358162.3	6673483		6
Caustis gigas	P2	358073.5	6673499		1
Caustis gigas	P2	358110.6	6673486		1
Comesperma griffinii	P2	354460.7	6705320		1
Comesperma griffinii	P2	354461.1	6705334		1
Comesperma griffinii	P2	354460	6705345		6
Comesperma griffinii	P2	354459.7	6705353		4
Comesperma griffinii	P2	354463	6705428		2
Comesperma griffinii	P2	354443.2	6705355		3
Comesperma griffinii	P2	354424.8	6705337		5
Comesperma griffinii	P2	354443.8	6705300		3
Comesperma griffinii	P2	354426.9	6705486		1
Comesperma griffinii	P2	354444.1	6705329		10
Comesperma griffinii	P2	354445	6705335		3
Comesperma griffinii	P2	354445.7	6705315		3
Comesperma griffinii	P2	351523.1	6701988		1
Comesperma rhadinocarpum	P3	351349.3	6702010		1
Comesperma rhadinocarpum	P3	351360.1	6702007		1
Comesperma rhadinocarpum	P3	349564.9	6701921		1
Comesperma rhadinocarpum	P3	354444.1	6705329		1
Comesperma rhadinocarpum	P3	354426.9	6705486		1
Comesperma rhadinocarpum	P3	354422.6	6705498		1
Comesperma rhadinocarpum	P3	358197.7	6673581		2
Comesperma rhadinocarpum	P3	358195.5	6673577		1
Comesperma rhadinocarpum	P3	357276.4	6702329		1
Comesperma rhadinocarpum	P3	358118.8	6673529		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Comesperma rhadinocarpum	P3	358085	6673539		2
Comesperma rhadinocarpum	P3	351460.5	6689908	TMQ02	
Comesperma rhadinocarpum	P3	357285	6702330		1
Comesperma rhadinocarpum	P3	357284	6702331		1
Comesperma rhadinocarpum	P3	357274.7	6702330		4
Comesperma rhadinocarpum	P3	357246.8	6702327		2
Comesperma rhadinocarpum	P3	357177.5	6702324		2
Comesperma rhadinocarpum	P3	357165.8	6702324		2
Comesperma rhadinocarpum	P3	357161.1	6702323		1
Comesperma rhadinocarpum	P3	357291.1	6702330		1
Comesperma rhadinocarpum	P3	357313	6702332		2
Comesperma rhadinocarpum	P3	357363.1	6697568		1
Comesperma rhadinocarpum	P3	357305.1	6702365		1
Comesperma rhadinocarpum	P3	357280.7	6702341		1
Comesperma rhadinocarpum	P3	357210.1	6702342		1
Comesperma rhadinocarpum	P3	354460.6	6705273		1
Comesperma rhadinocarpum	P3	358052.2	6673524		1
Comesperma rhadinocarpum	P3	358093.3	6673515		2
Comesperma rhadinocarpum	P3	358034.8	6673518		1
Comesperma rhadinocarpum	P3	344405.1	6692906		1
Comesperma rhadinocarpum	P3	358224.6	6673633		1
Comesperma rhadinocarpum	P3	358207	6673632		1
Comesperma rhadinocarpum	P3	358211.9	6673650		2
Comesperma rhadinocarpum	P3	358189.3	6673566		1
Comesperma rhadinocarpum	P3	347435.5	6674160		1
Comesperma rhadinocarpum	P3	347558.7	6674156		1
Comesperma rhadinocarpum	P3	354465.7	6705239		1
Comesperma rhadinocarpum	P3	347399.4	6674149		1
Comesperma rhadinocarpum	P3	347374.5	6674160		1
Comesperma rhadinocarpum	P3	338881.7	6673826		2
Comesperma rhadinocarpum	P3	338963.8	6673833		1
Comesperma rhadinocarpum	P3	354568.1	6702170		1
Comesperma rhadinocarpum	P3	347707.3	6701827		5
Comesperma rhadinocarpum	P3	347693.6	6701824		2
Comesperma rhadinocarpum	P3	352369.6	6702056		1
Comesperma rhadinocarpum	P3	352195.4	6702076		1
Comesperma rhadinocarpum	P3	352171	6702052		1
Comesperma rhadinocarpum	P3	352204.6	6702054		3
Comesperma rhadinocarpum	P3	357261.3	6702308		1
Comesperma rhadinocarpum	P3	357238.9	6702308		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Comesperma rhadinocarpum	P3	357218.9	6702308		4
Comesperma rhadinocarpum	P3	357204.8	6702306		8
Comesperma rhadinocarpum	P3	357188.5	6702306		5
Comesperma rhadinocarpum	P3	357296.9	6702192		10
Comesperma rhadinocarpum	P3	357132.7	6702302		1
Comesperma rhadinocarpum	P3	357286.8	6702307		2
Comesperma rhadinocarpum	P3	357298.6	6702225		2
Comesperma rhadinocarpum	P3	357296.1	6702271		1
Comesperma rhadinocarpum	P3	357187.6	6702293		2
Comesperma rhadinocarpum	P3	357323.5	6702310		3
Comesperma rhadinocarpum	P3	357316.8	6702229		1
Comesperma rhadinocarpum	P3	357317.4	6702137		2
Comesperma rhadinocarpum	P3	357314.5	6702169		1
Comesperma rhadinocarpum	P3	357315.9	6702156		7
Comesperma rhadinocarpum	P3	357319.2	6702212		1
Comesperma rhadinocarpum	P3	357317.2	6702259		1
Comesperma rhadinocarpum	P3	348521.6	6707171		1
Comesperma rhadinocarpum	P3	348529.7	6707160		1
Conostephium magnum	P4	349640.4	6701804		2
Conostephium magnum	P4	352200.7	6696571		100
Conostephium magnum	P4	357019.2	6691832		1
Conostephium magnum	P4	352767.4	6694126		1
Conostephium magnum	P4	351197.6	6694151	TCR11	
Conostephium magnum	P4	351817.5	6700367	TDR07	
Conostephium magnum	P4	351610.6	6700094		1
Daviesia speciosa	T	[redacted]	[redacted]		[redacted]
Daviesia speciosa	T	[redacted]	[redacted]		[redacted]
Daviesia speciosa	T	[redacted]	[redacted]	[redacted]	[redacted]
Desmocladus elongatus	P4	349762	6701972		1
Desmocladus elongatus	P4	354465.7	6705239		2
Desmocladus elongatus	P4	354465.7	6705239		1
Desmocladus elongatus	P4	347562.1	6674238		1
Desmocladus elongatus	P4	347404.6	6674175		1
Desmocladus elongatus	P4	349621.9	6701958		2
Desmocladus elongatus	P4	349640.2	6701961		1
Desmocladus elongatus	P4	354465.3	6705284		1
Desmocladus elongatus	P4	354464.3	6705360		1
Desmocladus elongatus	P4	354465.7	6705345		1
Desmocladus elongatus	P4	354472	6705320		1
Desmocladus elongatus	P4	354457.3	6705415		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Desmocladus elongatus	P4	354489.1	6705373		1
Desmocladus elongatus	P4	351877	6704608	TDR03	
Desmocladus elongatus	P4	347452.2	6674130		2
Desmocladus elongatus	P4	347399.4	6674149		1
Desmocladus elongatus	P4	347404.6	6674138		1
Desmocladus elongatus	P4	346269	6707184		2
Desmocladus elongatus	P4	346311.7	6707181		5
Desmocladus elongatus	P4	348513.9	6707164		1
Desmocladus elongatus	P4	351692.7	6702007		1
Desmocladus elongatus	P4	357421.1	6697283		1
Desmocladus elongatus	P4	357433.4	6697346		1
Desmocladus elongatus	P4	357274.4	6702254		1
Desmocladus elongatus	P4	357274.6	6702222		1
Desmocladus elongatus	P4	357265.1	6702248		1
Desmocladus elongatus	P4	352184.6	6702080		1
Desmocladus nodatus	P3	353516.8	6702158	TDR27	1
Drosera pedicellaris	P1	354467.4	6705326		20
Drosera pedicellaris	P1	354467.4	6705326		280
Drosera pedicellaris	P1	354464.3	6705360		10
Drosera pedicellaris	P1	354467.8	6705275		230
Drosera pedicellaris	P1	354471.4	6705286		10
Drosera pedicellaris	P1	357296.8	6696134		2
Drosera pedicellaris	P1	357305.1	6702365		14
Drosera pedicellaris	P1	357409.5	6697503		12
Drosera pedicellaris	P1	357299.1	6696048		12
Drosera pedicellaris	P1	357344.7	6695960		2
Drosera pedicellaris	P1	357385.6	6695988		100
Drosera pedicellaris	P1	357374.2	6695995		5
Drosera pedicellaris	P1	357269.5	6696080		2
Grevillea erinacea	P3	357102.4	6691822		1
Grevillea erinacea	P3	351460.5	6689908	TMQ02	
Grevillea erinacea	P3	357698.1	6691673	TDR25	
Grevillea erinacea	P3	354484.4	6690766	TDR15	
Grevillea erinacea	P3	356388	6693843		1
Grevillea aff. levis	Potentially undescribed	346085.2	6704742	TDR21	
Grevillea makinsonii	P3	344500.1	6701830		1
Grevillea rudis	P4	344504.4	6703013		2
Grevillea rudis	P4	347143.4	6707173		1
Grevillea rudis	P4	347136.9	6707160		1
Grevillea rudis	P4	351646	6701983		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Grevillea rudis	P4	351687.5	6702059		2
Grevillea rudis	P4	346237.5	6707119		1
Grevillea vestita x biternata	Potentially undescribed	347195.8	6707129		1
Grevillea vestita x biternata	Potentially undescribed	347118.5	6707130		1
Grevillea vestita x biternata	Potentially undescribed	350501.1	6696652		2
Grevillea vestita x biternata	Potentially undescribed	350491.8	6696680		3
Haemodorum loratum	P3	357171.1	6702329		1
Haemodorum loratum	P3	357141.5	6702328		2
Haemodorum loratum	P3	357193.1	6702335		1
Haemodorum loratum	P3	357195.4	6702336		3
Haemodorum loratum	P3	357201.2	6702337		2
Haemodorum loratum	P3	357212.8	6702331		1
Haemodorum loratum	P3	357276.5	6702361		1
Haemodorum loratum	P3	357143.8	6702343		1
Haemodorum loratum	P3	357249.4	6702345		1
Haemodorum loratum	P3	357172.9	6702340		1
Haemodorum loratum	P3	357192.7	6702350		1
Haemodorum loratum	P3	357300.4	6702339		1
Haemodorum loratum	P3	357297.7	6702349		2
Haemodorum loratum	P3	357269	6702346		1
Haemodorum loratum	P3	357275	6702338		2
Haemodorum loratum	P3	357218.4	6702336		2
Haemodorum loratum	P3	352087.8	6702044		1
Haemodorum loratum	P3	352102.4	6702042		2
Haemodorum loratum	P3	352102.4	6702042		1
Haemodorum loratum	P3	352142.2	6702039		2
Haemodorum loratum	P3	352011.5	6702037		2
Haemodorum loratum	P3	352021	6702038		5
Haemodorum loratum	P3	352040.6	6702040		2
Haemodorum loratum	P3	352047.5	6702037		1
Haemodorum loratum	P3	352058.4	6702040		2
Haemodorum loratum	P3	352064.4	6702041		1
Haemodorum loratum	P3	352135.5	6702073		1
Haemodorum loratum	P3	352033.4	6702075		1
Haemodorum loratum	P3	352057.5	6702077		1
Haemodorum loratum	P3	352092	6702073		1
Haemodorum loratum	P3	351993	6702080		1
Haemodorum loratum	P3	352008.3	6702091		1
Haemodorum loratum	P3	352004.4	6702083		2
Haemodorum loratum	P3	354549.7	6702139		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Haemodorum loratum	P3	354588.2	6702135		1
Haemodorum loratum	P3	351994.1	6702035		1
Haemodorum loratum	P3	352000.1	6702036		2
Haemodorum loratum	P3	351991.5	6702041		2
Haemodorum loratum	P3	351967.8	6702040		3
Haemodorum loratum	P3	357234	6702355		2
Haemodorum loratum	P3	351523.1	6701988		2
Haemodorum loratum	P3	351422.8	6702041		1
Haemodorum loratum	P3	352083.5	6702096		1
Haemodorum loratum	P3	358000.1	6673558		3
Haemodorum loratum	P3	354419.3	6705480		1
Haemodorum loratum	P3	354439.5	6705432		1
Haemodorum loratum	P3	354436.3	6705443		1
Haemodorum loratum	P3	354410.3	6705417		2
Haemodorum loratum	P3	354437.2	6705420		1
Haemodorum loratum	P3	354437.2	6705420		3
Haemodorum loratum	P3	354427.6	6705386		1
Haemodorum loratum	P3	354441.8	6705402		1
Haemodorum loratum	P3	350440.8	6707997		3
Haemodorum loratum	P3	339043.4	6673874		1
Haemodorum loratum	P3	347426	6674165		1
Haemodorum loratum	P3	347529.2	6674170		1
Haemodorum loratum	P3	347348.6	6674198		1
Haemodorum loratum	P3	347342.4	6674199		1
Haemodorum loratum	P3	347344.6	6674203		1
Haemodorum loratum	P3	347436.6	6674170		1
Haemodorum loratum	P3	347458.9	6674162		4
Haemodorum loratum	P3	347467.4	6674161		3
Haemodorum loratum	P3	347496.5	6674154		4
Haemodorum loratum	P3	347508	6674148		2
Haemodorum loratum	P3	350354.6	6707981		1
Haemodorum loratum	P3	351599.4	6702057		1
Haemodorum loratum	P3	351573.5	6702057		1
Haemodorum loratum	P3	351574.7	6701988		1
Haemodorum loratum	P3	352202	6702020		2
Haemodorum loratum	P3	352187.8	6702019		1
Haemodorum loratum	P3	352195.3	6702031		4
Haemodorum loratum	P3	352196.7	6701916		1
Haemodorum loratum	P3	352278.8	6702049		3
Haemodorum loratum	P3	352271.7	6702048		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Haemodorum loratum	P3	352292.8	6702051		4
Haemodorum loratum	P3	352183	6702031		7
Haemodorum loratum	P3	352216.3	6702043		5
Haemodorum loratum	P3	352188.9	6702042		2
Haemodorum loratum	P3	352239.4	6702046		2
Haemodorum loratum	P3	352237.9	6702040		4
Haemodorum loratum	P3	338888	6673766		1
Haemodorum loratum	P3	357344.8	6702309		1
Haemodorum loratum	P3	357344.5	6702259		7
Haemodorum loratum	P3	357346.5	6702204		3
Haemodorum loratum	P3	357343.2	6702233		1
Haemodorum loratum	P3	357337.4	6702207		1
Haemodorum loratum	P3	357341.7	6702270		1
Haemodorum loratum	P3	357335.3	6702256		3
Haemodorum loratum	P3	357338.3	6702240		5
Haemodorum loratum	P3	357332.2	6702220		2
Haemodorum loratum	P3	357367.6	6696015		1
Haemodorum loratum	P3	357266.8	6702294		1
Haemodorum loratum	P3	357260.3	6702288		1
Haemodorum loratum	P3	357181.7	6702285		1
Haemodorum loratum	P3	357197.9	6702293		2
Haemodorum loratum	P3	357212.6	6702297		5
Haemodorum loratum	P3	357228.1	6702296		7
Haemodorum loratum	P3	357248.2	6702296		5
Haemodorum loratum	P3	357187.6	6702293		4
Haemodorum loratum	P3	357273.9	6702286		1
Haemodorum loratum	P3	357280.9	6702300		1
Haemodorum loratum	P3	357286.8	6702307		1
Haemodorum loratum	P3	357284.2	6702303		1
Haemodorum loratum	P3	357100.6	6702292		1
Haemodorum loratum	P3	357115.1	6702285		1
Haemodorum loratum	P3	357092.3	6702282		1
Haemodorum loratum	P3	354511.7	6702146		1
Haemodorum loratum	P3	352225.7	6702085		4
Haemodorum loratum	P3	352289.5	6702087		2
Haemodorum loratum	P3	352150.2	6702053		1
Haemodorum loratum	P3	352239.9	6702104		1
Haemodorum loratum	P3	352234.7	6702094		2
Haemodorum loratum	P3	352163.8	6702092		1
Haemodorum loratum	P3	352296.4	6702099		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Haemodorum loratum	P3	352248.1	6702093		1
Haemodorum loratum	P3	352280.4	6702094		1
Haemodorum loratum	P3	352271.1	6702095		2
Haemodorum loratum	P3	354505.3	6702148		1
Haemodorum loratum	P3	354630.9	6702156		3
Haemodorum loratum	P3	354606.8	6702165		2
Haemodorum loratum	P3	354547.6	6702238		1
Haemodorum loratum	P3	346398.5	6707110		1
Haemodorum loratum	P3	350911.4	6704687		1
Haemodorum loratum	P3	350903.4	6704768		2
Haemodorum loratum	P3	338882.9	6673791		1
Haemodorum loratum	P3	356369.4	6693816		2
Haemodorum loratum	P3	356281.4	6693804		1
Haemodorum loratum	P3	344472.2	6690736		1
Haemodorum loratum	P3	347462.7	6674120		4
Haemodorum loratum	P3	347474.3	6674117		1
Haemodorum loratum	P3	347403.7	6674118		3
Haemodorum loratum	P3	347475.7	6674098		1
Haemodorum loratum	P3	347587.7	6674190		1
Haemodorum loratum	P3	347570.5	6674117		5
Haemodorum loratum	P3	347572.2	6674185		1
Haemodorum loratum	P3	347343.6	6674172		1
Haemodorum loratum	P3	347343.4	6674160		4
Haemodorum loratum	P3	347373.2	6674152		1
Haemodorum loratum	P3	347387.5	6674142		1
Haemodorum loratum	P3	338893.6	6673811		1
Haemodorum loratum	P3	338888.2	6673830		2
Haemodorum loratum	P3	338893.4	6673766		2
Haemodorum loratum	P3	338910.8	6673782		2
Haemodorum loratum	P3	338892.7	6673821		1
Haemodorum loratum	P3	348328.7	6706103		2
Haemodorum loratum	P3	348712.8	6707125		8
Haemodorum loratum	P3	348614.5	6707129		3
Haemodorum loratum	P3	348641.8	6707124		5
Haemodorum loratum	P3	348630.3	6707133		3
Haemodorum loratum	P3	348687.1	6707125		5
Haemodorum loratum	P3	348663.7	6707129		5
Haemodorum loratum	P3	348582.8	6707190		3
Haemodorum loratum	P3	348471.3	6707184		6
Haemodorum loratum	P3	348503.3	6707135		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Haemodorum loratum	P3	348576.1	6707209		2
Haemodorum loratum	P3	348634.4	6707168		1
Haemodorum loratum	P3	348504	6707190		2
Haemodorum loratum	P3	348660.6	6707207		2
Haemodorum loratum	P3	348627.3	6707213		2
Haemodorum loratum	P3	350727.5	6691989		2
Haemodorum loratum	P3	350980.3	6692028		1
Haemodorum loratum	P3	350831.5	6692020		1
Haemodorum loratum	P3	350598	6692018		1
Haemodorum loratum	P3	350595.2	6691979		1
Haemodorum loratum	P3	350410.2	6692016		2
Haemodorum loratum	P3	356336.9	6693797		1
Haemodorum loratum	P3	356197	6693752		1
Haemodorum loratum	P3	356221.7	6693803		1
Haemodorum loratum	P3	356353.6	6693847		2
Haemodorum loratum	P3	356342.6	6693844		1
Haemodorum loratum	P3	356320.7	6693840		1
Haemodorum loratum	P3	350472.6	6691979		1
Haemodorum loratum	P3	350472.6	6691979		1
Haemodorum loratum	P3	356388	6693843		1
Haemodorum loratum	P3	356349.6	6693836		3
Haemodorum loratum	P3	356328.3	6693828		2
Haemodorum loratum	P3	356361.7	6693839		2
Haemodorum loratum	P3	356293.4	6693824		3
Haemodorum loratum	P3	356276.9	6693810		3
Haemodorum loratum	P3	356238.4	6693796		2
Haemodorum loratum	P3	356261.9	6693803		2
Haemodorum loratum	P3	356249.3	6693795		2
Haemodorum loratum	P3	356293.5	6693795		1
Haemodorum loratum	P3	356322	6693802		3
Haemodorum loratum	P3	356337.7	6693807		6
Haemodorum loratum	P3	356257.5	6693778		4
Haemodorum loratum	P3	356277.9	6693791		2
Haemodorum loratum	P3	356224.1	6693790		3
Haemodorum loratum	P3	354244.5	6706307		1
Haemodorum loratum	P3	350842.5	6692019		1
Haemodorum loratum	P3	350504.3	6692009		2
Haemodorum loratum	P3	350687.9	6692010		1
Haemodorum loratum	P3	350648.1	6692010		1
Haemodorum loratum	P3	350729.5	6692011		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]	[redacted]	[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hakea megalosperma	T	[redacted]	[redacted]		[redacted]
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344409.6	6692910		2
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344402.8	6692929		1
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344398.4	6692927		1
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344398.4	6693026		1
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344474.7	6693002		1
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344469.6	6693122		1
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344422.1	6693052		1
Hemiandra sp. Eneabba (H. Demarz 3687)	P3	344445.6	6691833		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354491	6702330		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354474	6702242		2
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354482.8	6702223		2
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354478.9	6702203		2
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354489.8	6702241		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354490	6702315		2
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	351376.6	6702008		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354545	6702232		3
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354557.3	6702193		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354536.2	6702280		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354505.8	6702285		2
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354510.2	6702346		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354530	6702225		2
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354534.5	6702232		5
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354534.5	6702232		1
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354524.2	6702161		2
Hemiandra sp. Watheroo (S. Hancocks 4)	P4	354513.3	6702207		1
Hensmania stoniella	P3	358195.5	6673577		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Hensmania stoniella	P3	358092.4	6673535		1
Hensmania stoniella	P3	358232.8	6673633		2
Hensmania stoniella	P3	358225	6673608		1
Hensmania stoniella	P3	358234.7	6673528		1
Hensmania stoniella	P3	358217.9	6673580		5
Hensmania stoniella	P3	358214.7	6673573		2
Hensmania stoniella	P3	358230.7	6673521		1
Hensmania stoniella	P3	354465.7	6705239		2
Hensmania stoniella	P3	357998.4	6673530		1
Hensmania stoniella	P3	338966.7	6673741		1
Hibbertia subglabra	P3	344553.4	6701838		3
Hibbertia subglabra	P3	344534.5	6701898		2
Hibbertia subvillosa	P3	349515	6701950		2
Hibbertia subvillosa	P3	349508.4	6701947		1
Hibbertia subvillosa	P3	349524.4	6701942		12
Hibbertia subvillosa	P3	349554	6701943		1
Hibbertia subvillosa	P3	349503.4	6701949		1
Hibbertia subvillosa	P3	349502	6701953		2
Hibbertia subvillosa	P3	347560.1	6701789		9
Hibbertia subvillosa	P3	347648.4	6701833		4
Hibbertia subvillosa	P3	347670.4	6701814		22
Hibbertia subvillosa	P3	347662.2	6701817		17
Hibbertia subvillosa	P3	347653.7	6701810		7
Hibbertia subvillosa	P3	347648	6701810		12
Hibbertia subvillosa	P3	347636	6701808		9
Hibbertia subvillosa	P3	347631.7	6701792		12
Hibbertia subvillosa	P3	347632.8	6701800		6
Hypolaena robusta	P4	357411	6697432		1
Hypolaena robusta	P4	357411	6697415		1
Hypolaena robusta	P4	357411.5	6697431		1
Hypolaena robusta	P4	357402.2	6697484		1
Hypolaena robusta	P4	358222.7	6673577		1
Hypolaena robusta	P4	358172.8	6673582		1
Hypolaena robusta	P4	357406.7	6697415		2
Hypolaena robusta	P4	357413.9	6697417		1
Hypolaena robusta	P4	357407	6697364		1
Paracaleana dixonii	T	[redacted]			1
Paracaleana dixonii	T				
Petrophile septemfida	P3	358042.3	6673495		1
Petrophile septemfida	P3	358165	6673491		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Phlebocarya pilosissima subsp. pilosissima	P3	358103.8	6673513		1
Poranthera asybosca	P1	358177.4	6673590		3
Poranthera asybosca	P1	358176.6	6673575		3
Poranthera asybosca	P1	357242	6696135		8
Poranthera asybosca	P1	351460.5	6689908	TMQ02	
Poranthera asybosca	P1	358042.3	6673495		1
Poranthera asybosca	P1	357321.8	6695980		5
Poranthera asybosca	P1	348529.3	6707207		3
Poranthera asybosca	P1	348519.3	6707137		2
Poranthera asybosca	P1	353066.5	6702630		100
Poranthera asybosca	P1	353039.9	6702603		60
Poranthera asybosca	P1	352983.2	6702584		50
Poranthera asybosca	P1	352930.8	6702566		50
Poranthera asybosca	P1	353106.6	6702640		100
Poranthera asybosca	P1	353313	6702698		5
Poranthera asybosca	P1	357344.7	6695960		1
Poranthera asybosca	P1	356238.4	6693796		10
Poranthera asybosca	P1	356328.3	6693828		10
Poranthera asybosca	P1	356293.4	6693824		5
Poranthera asybosca	P1	356371.6	6693845		20
Poranthera asybosca	P1	356361.7	6693839		10
Poranthera asybosca	P1	344435.6	6691852		6
Poranthera asybosca	P1	352174	6700262		10
Poranthera asybosca	P1	352171.6	6700231		30
Poranthera asybosca	P1	352177.6	6699457		10
Poranthera asybosca	P1	352181.1	6699438		30
Poranthera asybosca	P1	344456.4	6691894		3
Schoenus griffinianus	P4	357257.2	6696113		1
Schoenus griffinianus	P4	357258.7	6696123		1
Schoenus griffinianus	P4	357246.6	6696176		1
Schoenus griffinianus	P4	357294.1	6696150		1
Schoenus griffinianus	P4	357289.8	6696155		1
Schoenus griffinianus	P4	357297.1	6696155		1
Schoenus griffinianus	P4	357303.4	6696149		3
Schoenus griffinianus	P4	357307.3	6696143		5
Schoenus griffinianus	P4	357374	6697549		2
Schoenus griffinianus	P4	357387.9	6697570		2
Schoenus griffinianus	P4	357352.7	6697563		3
Schoenus griffinianus	P4	357353	6697551		1
Schoenus griffinianus	P4	357356	6697516		1

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Schoenus griffinianus	P4	357354.7	6697477		3
Schoenus griffinianus	P4	357289.1	6702330		1
Schoenus griffinianus	P4	357347.9	6697410		1
Schoenus griffinianus	P4	357161.1	6702323		2
Schoenus griffinianus	P4	357230.9	6702326		6
Schoenus griffinianus	P4	357138.3	6702360		2
Schoenus griffinianus	P4	357097.6	6702352		3
Schoenus griffinianus	P4	357153.3	6702359		2
Schoenus griffinianus	P4	357127.4	6702362		9
Schoenus griffinianus	P4	357240.9	6702364		3
Schoenus griffinianus	P4	357171.8	6702351		1
Schoenus griffinianus	P4	354463.1	6702143		1
Schoenus griffinianus	P4	354490	6702315		1
Schoenus griffinianus	P4	354489.8	6702241		1
Schoenus griffinianus	P4	354460	6702191		6
Schoenus griffinianus	P4	354428	6702188		3
Schoenus griffinianus	P4	354488.4	6702151		1
Schoenus griffinianus	P4	354419	6702145		1
Schoenus griffinianus	P4	354434	6702156		5
Schoenus griffinianus	P4	354448.6	6702163		3
Schoenus griffinianus	P4	354341	6702150		1
Schoenus griffinianus	P4	352172.6	6701988		1
Schoenus griffinianus	P4	352172.5	6702005		2
Schoenus griffinianus	P4	352156.5	6702037		2
Schoenus griffinianus	P4	352171.5	6701956		3
Schoenus griffinianus	P4	352172.7	6701971		4
Schoenus griffinianus	P4	349502	6701953		2
Schoenus griffinianus	P4	349508.4	6701947		1
Schoenus griffinianus	P4	349564.9	6701921		2
Schoenus griffinianus	P4	349585.9	6701924		1
Schoenus griffinianus	P4	350440.8	6707997		1
Schoenus griffinianus	P4	350463.3	6708016		3
Schoenus griffinianus	P4	349606	6701924		3
Schoenus griffinianus	P4	351376.6	6702008		8
Schoenus griffinianus	P4	351367	6702011		29
Schoenus griffinianus	P4	351361.3	6702008		14
Schoenus griffinianus	P4	351440.9	6702014		3
Schoenus griffinianus	P4	351399.3	6702013		6
Schoenus griffinianus	P4	351410	6702037		1
Schoenus griffinianus	P4	351452.1	6701981		10

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Schoenus griffinianus	P4	351454.2	6701996		16
Schoenus griffinianus	P4	351360.1	6702007		5
Schoenus griffinianus	P4	351349.3	6702010		12
Schoenus griffinianus	P4	351344.9	6702009		11
Schoenus griffinianus	P4	351390.6	6702012		1
Schoenus griffinianus	P4	358092.4	6673535		1
Schoenus griffinianus	P4	358192.5	6673549		2
Schoenus griffinianus	P4	358150.7	6673529		1
Schoenus griffinianus	P4	358178.9	6673544		2
Schoenus griffinianus	P4	358000.1	6673558		1
Schoenus griffinianus	P4	358197.7	6673581		1
Schoenus griffinianus	P4	358195.5	6673577		1
Schoenus griffinianus	P4	354451.1	6705449		1
Schoenus griffinianus	P4	354427.1	6705415		4
Schoenus griffinianus	P4	354410.3	6705417		2
Schoenus griffinianus	P4	354422.8	6705419		1
Schoenus griffinianus	P4	354445.7	6705287		6
Schoenus griffinianus	P4	354439.5	6705280		5
Schoenus griffinianus	P4	354435.5	6705452		4
Schoenus griffinianus	P4	354427	6705462		2
Schoenus griffinianus	P4	354430.9	6705439		1
Schoenus griffinianus	P4	354422.6	6705498		1
Schoenus griffinianus	P4	350426.6	6707988		5
Schoenus griffinianus	P4	350414.5	6707980		3
Schoenus griffinianus	P4	350388.6	6707967		1
Schoenus griffinianus	P4	354443	6705386		1
Schoenus griffinianus	P4	354433.5	6705405		1
Schoenus griffinianus	P4	354423.8	6705409		8
Schoenus griffinianus	P4	354413.2	6705409		2
Schoenus griffinianus	P4	354443.6	6705392		2
Schoenus griffinianus	P4	354441.8	6705402		1
Schoenus griffinianus	P4	354444.8	6705382		1
Schoenus griffinianus	P4	354443.6	6705372		1
Schoenus griffinianus	P4	354442.7	6705350		1
Schoenus griffinianus	P4	354443.8	6705300		8
Schoenus griffinianus	P4	354440.2	6705331		3
Schoenus griffinianus	P4	358176.6	6673575		8
Schoenus griffinianus	P4	358177.4	6673590		6
Schoenus griffinianus	P4	358186.7	6673602		2
Schoenus griffinianus	P4	358225.5	6673596		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Schoenus griffinianus	P4	344438.8	6692928		2
Schoenus griffinianus	P4	344435.4	6693029		1
Schoenus griffinianus	P4	344458.1	6693017		4
Schoenus griffinianus	P4	344461.5	6693004		8
Schoenus griffinianus	P4	358230.7	6673521		1
Schoenus griffinianus	P4	358214.7	6673573		2
Schoenus griffinianus	P4	358217.9	6673580		2
Schoenus griffinianus	P4	354470.5	6705336		
Schoenus griffinianus	P4	354464	6705352		5
Schoenus griffinianus	P4	354464.8	6705367		5
Schoenus griffinianus	P4	354467.4	6705326		8
Schoenus griffinianus	P4	354468.5	6705306		2
Schoenus griffinianus	P4	354468.5	6705306		9
Schoenus griffinianus	P4	354456.8	6705367		4
Schoenus griffinianus	P4	354457.3	6705359		4
Schoenus griffinianus	P4	354461.5	6705339		4
Schoenus griffinianus	P4	354457.9	6705310		3
Schoenus griffinianus	P4	354460.6	6705273		2
Schoenus griffinianus	P4	354465.7	6705239		6
Schoenus griffinianus	P4	349638.1	6701782		1
Schoenus griffinianus	P4	358052.2	6673524		1
Schoenus griffinianus	P4	358038.1	6673526		1
Schoenus griffinianus	P4	354457.3	6705415		8
Schoenus griffinianus	P4	354463	6705428		7
Schoenus griffinianus	P4	354470.2	6705427		3
Schoenus griffinianus	P4	354469.5	6705377		1
Schoenus griffinianus	P4	357318.6	6702245		4
Schoenus griffinianus	P4	357316.8	6702229		1
Schoenus griffinianus	P4	357314.5	6702178		4
Schoenus griffinianus	P4	357315.3	6702288		1
Schoenus griffinianus	P4	357324.7	6702290		9
Schoenus griffinianus	P4	357317.2	6702259		2
Schoenus griffinianus	P4	357360.4	6697227		1
Schoenus griffinianus	P4	357344.5	6702298		5
Schoenus griffinianus	P4	357357.8	6702300		4
Schoenus griffinianus	P4	357286.8	6702307		8
Schoenus griffinianus	P4	357323.5	6702310		7
Schoenus griffinianus	P4	357315.9	6702156		6
Schoenus griffinianus	P4	357317.4	6702137		6
Schoenus griffinianus	P4	357327.7	6702269		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Schoenus griffinianus	P4	357188.5	6702306		6
Schoenus griffinianus	P4	357204.8	6702306		9
Schoenus griffinianus	P4	357218.9	6702308		6
Schoenus griffinianus	P4	357261.3	6702308		2
Schoenus griffinianus	P4	357297.5	6702210		8
Schoenus griffinianus	P4	357296.9	6702192		9
Schoenus griffinianus	P4	357288.5	6702239		1
Schoenus griffinianus	P4	357296.3	6702252		7
Schoenus griffinianus	P4	357298.6	6702225		2
Schoenus griffinianus	P4	357288.5	6702215		3
Schoenus griffinianus	P4	354508.3	6702215		1
Schoenus griffinianus	P4	354506.2	6702235		1
Schoenus griffinianus	P4	354506.4	6702269		1
Schoenus griffinianus	P4	354505.3	6702148		3
Schoenus griffinianus	P4	354568.1	6702170		1
Schoenus griffinianus	P4	354609	6702174		36
Schoenus griffinianus	P4	354621.3	6702178		3
Schoenus griffinianus	P4	354630.6	6702176		7
Schoenus griffinianus	P4	354639.4	6702175		1
Schoenus griffinianus	P4	354511.7	6702167		4
Schoenus griffinianus	P4	352369.6	6702056		3
Schoenus griffinianus	P4	352171	6702052		1
Schoenus griffinianus	P4	348529.7	6707160		5
Schoenus griffinianus	P4	351586.3	6702018		1
Schoenus griffinianus	P4	351609.7	6702048		20
Schoenus griffinianus	P4	351630.9	6702050		3
Schoenus griffinianus	P4	357299.1	6696048		5
Schoenus griffinianus	P4	344460.1	6693133		1
Schoenus griffinianus	P4	344456.8	6693172		1
Schoenus griffinianus	P4	344438.7	6693042		1
Schoenus griffinianus	P4	347465.6	6674127		1
Schoenus griffinianus	P4	347433.5	6674137		1
Schoenus griffinianus	P4	344440.9	6693273		1
Stylidium nonscandens	P3	358189.8	6673502		2
Stylidium nonscandens	P3	358044.6	6673520		7
Stylidium nonscandens	P3	358055.3	6673517		5
Stylidium nonscandens	P3	358052.2	6673524		4
Stylidium nonscandens	P3	358093.3	6673515		2
Stylidium nonscandens	P3	358079.5	6673516		4
Stylidium nonscandens	P3	358066.7	6673518		38

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Stylidium nonscandens	P3	358189.6	6673497		4
Stylidium nonscandens	P3	358147.7	6673507		4
Stylidium nonscandens	P3	358136.5	6673508		3
Stylidium nonscandens	P3	358127	6673508		5
Stylidium nonscandens	P3	358103.8	6673513		9
Stylidium nonscandens	P3	358116.2	6673510		1
Stylidium nonscandens	P3	358045.5	6673512		12
Stylidium nonscandens	P3	358019.8	6673524		2
Stylidium nonscandens	P3	358034.8	6673518		7
Stylidium nonscandens	P3	358010.5	6673521		6
Stylidium nonscandens	P3	357998.7	6673517		4
Stylidium nonscandens	P3	358098.7	6673506		5
Stylidium nonscandens	P3	358072.9	6673508		4
Stylidium nonscandens	P3	358214.7	6673573		3
Stylidium nonscandens	P3	358215.8	6673561		13
Stylidium nonscandens	P3	358226.1	6673627		1
Stylidium nonscandens	P3	358222.7	6673609		4
Stylidium nonscandens	P3	358216.1	6673546		3
Stylidium nonscandens	P3	358223.4	6673531		3
Stylidium nonscandens	P3	358218.9	6673541		1
Stylidium nonscandens	P3	358232.9	6673537		1
Stylidium nonscandens	P3	358231.9	6673622		14
Stylidium nonscandens	P3	358232	6673628		23
Stylidium nonscandens	P3	358235.2	6673642		30
Stylidium nonscandens	P3	358232.8	6673633		30
Stylidium nonscandens	P3	358228.6	6673601		4
Stylidium nonscandens	P3	358233	6673605		2
Stylidium nonscandens	P3	358226.4	6673585		1
Stylidium nonscandens	P3	358225.8	6673543		4
Stylidium nonscandens	P3	358230.5	6673551		6
Stylidium nonscandens	P3	358227.3	6673650		1
Stylidium nonscandens	P3	358207	6673632		6
Stylidium nonscandens	P3	358208	6673642		5
Stylidium nonscandens	P3	358173.1	6673565		9
Stylidium nonscandens	P3	358176.6	6673575		5
Stylidium nonscandens	P3	358168.2	6673541		2
Stylidium nonscandens	P3	358178.5	6673558		3
Stylidium nonscandens	P3	358162.8	6673535		2
Stylidium nonscandens	P3	358194.2	6673590		1
Stylidium nonscandens	P3	358015.6	6673551		5

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Stylidium nonscandens	P3	358004.5	6673553		2
Stylidium nonscandens	P3	358040.1	6673543		5
Stylidium nonscandens	P3	358023.6	6673545		1
Stylidium nonscandens	P3	358013.1	6673548		3
Stylidium nonscandens	P3	358031.4	6673546		1
Stylidium nonscandens	P3	358178.9	6673544		6
Stylidium nonscandens	P3	358193.6	6673570		10
Stylidium nonscandens	P3	358194.5	6673559		8
Stylidium nonscandens	P3	358192.5	6673549		4
Stylidium nonscandens	P3	358174.6	6673533		12
Stylidium nonscandens	P3	358088.8	6673538		4
Stylidium nonscandens	P3	358085	6673539		1
Stylidium nonscandens	P3	358059	6673540		4
Stylidium nonscandens	P3	358049.6	6673540		1
Stylidium nonscandens	P3	358064.7	6673540		2
Stylidium nonscandens	P3	358177.1	6673469		3
Stylidium nonscandens	P3	358042.3	6673495		2
Stylidium nonscandens	P3	358050.5	6673501		2
Stylidium nonscandens	P3	358073.5	6673499		2
Stylidium nonscandens	P3	358177.6	6673492		2
Stylidium nonscandens	P3	358189.3	6673491		15
Stylidium nonscandens	P3	358165	6673491		3
Stylidium nonscandens	P3	358148	6673494		2
Stylidium nonscandens	P3	358196.7	6673489		2
Stylidium nonscandens	P3	358185	6673477		6
Stylidium nonscandens	P3	358162.3	6673483		3
Stylidium nonscandens	P3	358140.4	6673507		1
Stylidium torticarpum	P3	344502.2	6706656		1
Stylidium torticarpum	P3	344502.4	6706670		12
Stylidium torticarpum	P3	344505.6	6706675		10
Stylidium torticarpum	P3	344515.9	6706677		19
Stylidium torticarpum	P3	344496.9	6706703		1
Stylidium torticarpum	P3	344588.4	6701771		28
Stylidium torticarpum	P3	344576.4	6701774		27
Stylidium torticarpum	P3	344593.6	6701780		18
Stylidium torticarpum	P3	344603	6701783		12
Stylidium torticarpum	P3	344563.5	6701778		1
Stylidium torticarpum	P3	344576	6701792		3
Stylidium torticarpum	P3	344580.5	6701797		2
Stylidium torticarpum	P3	344574.3	6701800		2

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Stylidium torticarpum	P3	344578.5	6701812		2
Stylidium torticarpum	P3	344575.7	6701815		1
Stylidium torticarpum	P3	344578.7	6701818		1
Stylidium torticarpum	P3	344529	6701786		3
Stylidium torticarpum	P3	347353.5	6706785		160
Styphelia pallens	P2	350838	6701878		1
Styphelia pallens	P2	351491.3	6702004		3
Styphelia pallens	P2	351500.1	6702006		2
Styphelia pallens	P2	351521.8	6702008		3
Styphelia pallens	P2	351526.4	6702004		2
Styphelia pallens	P2	351522.2	6701992		3
Styphelia pallens	P2	351535.4	6702010		4
Styphelia pallens	P2	351522	6701998		6
Styphelia pallens	P2	351513.2	6701997		3
Styphelia pallens	P2	351470.6	6702007		1
Styphelia pallens	P2	351485.3	6702011		2
Styphelia pallens	P2	351506.3	6702012		1
Styphelia pallens	P2	351511.6	6702013		2
Styphelia pallens	P2	351524.4	6702015		1
Styphelia pallens	P2	351520.4	6702009		3
Styphelia pallens	P2	352040.9	6702075		2
Styphelia pallens	P2	352132.8	6702077		1
Styphelia pallens	P2	357275.2	6702183		1
Styphelia pallens	P2	344472.2	6690736		1
Styphelia pallens	P2	350903.4	6704768		1
Styphelia pallens	P2	350920.7	6704679		8
Styphelia pallens	P2	350909.6	6704744		1
Styphelia pallens	P2	350908.5	6704736		4
Styphelia pallens	P2	350908.2	6704700		8
Styphelia pallens	P2	350907.7	6704711		4
Styphelia pallens	P2	350920.2	6704690		6
Styphelia pallens	P2	350916.7	6704705		3
Styphelia pallens	P2	350912.5	6704711		1
Styphelia pallens	P2	350911.4	6704687		3
Styphelia pallens	P2	351625	6702054		1
Styphelia pallens	P2	351540.4	6701990		4
Styphelia pallens	P2	351553.4	6702008		1
Styphelia pallens	P2	351548.2	6702000		1
Styphelia pallens	P2	352237.9	6702040		1
Styphelia pallens	P2	352269.1	6702043		1

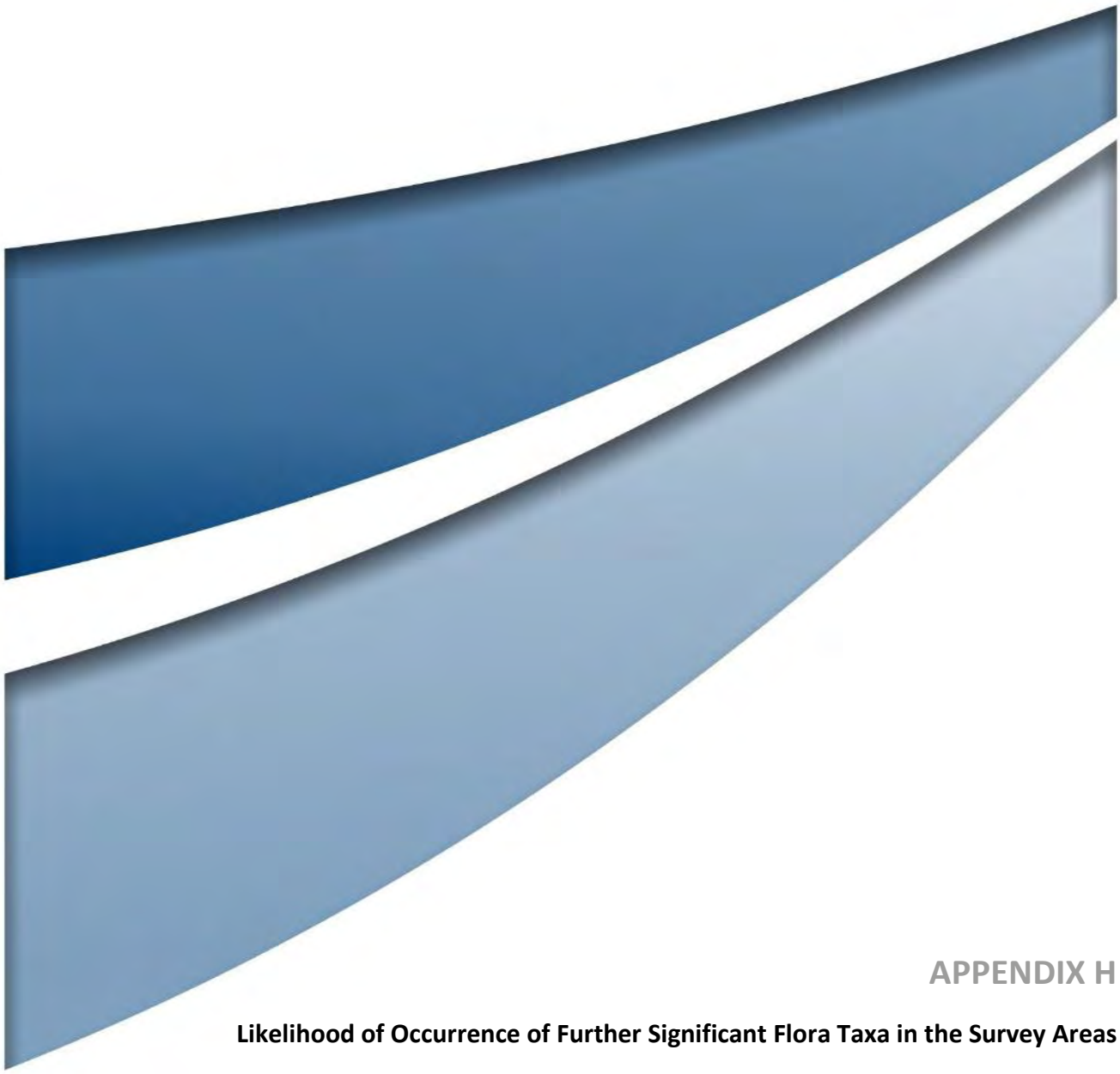
*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Styphelia pallens	P2	352195.3	6702031		1
Styphelia pallens	P2	352202	6702020		3
Styphelia pallens	P2	351532.4	6701986		2
Styphelia pallens	P2	352289.5	6702087		2
Styphelia pallens	P2	352274.2	6702088		2
Styphelia pallens	P2	352172.4	6702089		1
Styphelia pallens	P2	352271.1	6702095		1
Styphelia pallens	P2	352288.4	6702091		2
Styphelia pallens	P2	352248.1	6702093		1
Styphelia pallens	P2	352234.7	6702094		1
Styphelia pallens	P2	352280.4	6702094		1
Styphelia pallens	P2	354663.6	6702169		1
Styphelia pallens	P2	357156	6702285		1
Styphelia pallens	P2	357146.5	6702283		1
Styphelia pallens	P2	357137.8	6702292		2
Styphelia pallens	P2	357187.6	6702293		3
Styphelia pallens	P2	357078.5	6702274		5
Synaphea sparsiflora	P2	357275.2	6702183		3
Synaphea sparsiflora	P2	357270.6	6702174		12
Synaphea sparsiflora	P2	357273.6	6702161		3
Synaphea sparsiflora	P2	357266.9	6702143		4
Synaphea sparsiflora	P2	357260.3	6702140		1
Synaphea sparsiflora	P2	357265.7	6702162		3
Synaphea sparsiflora	P2	357265.7	6702171		4
Synaphea sparsiflora	P2	357264.5	6702177		2
Synaphea sparsiflora	P2	357263.3	6702194		3
Synaphea sparsiflora	P2	357263.2	6702197		17
Synaphea sparsiflora	P2	352127.8	6702077		2
Synaphea sparsiflora	P2	357276.4	6702215		3
Synaphea sparsiflora	P2	357277.5	6702208		5
Synaphea sparsiflora	P2	357313	6702332		1
Synaphea sparsiflora	P2	357299.5	6702328		1
Synaphea sparsiflora	P2	350746.9	6702008		1
Synaphea sparsiflora	P2	349557.3	6701969		3
Synaphea sparsiflora	P2	349560.8	6701960		1
Synaphea sparsiflora	P2	350823.5	6701878		2
Synaphea sparsiflora	P2	350816.7	6701858		2
Synaphea sparsiflora	P2	350820.6	6701899		3
Synaphea sparsiflora	P2	350820.6	6701915		2
Synaphea sparsiflora	P2	358023.6	6673545		3

*All locations are in GDA2020 Zone 50

SpeciesName	Status	Easting*	Northing*	Site	Abundance
Synaphea sparsiflora	P2	354406.9	6705388		4
Synaphea sparsiflora	P2	354470.5	6705336		1
Synaphea sparsiflora	P2	350829.5	6701876		3
Synaphea sparsiflora	P2	350838	6701878		1
Synaphea sparsiflora	P2	350851	6701971		3
Synaphea sparsiflora	P2	350841	6701915		1
Synaphea sparsiflora	P2	350849.2	6701961		1
Synaphea sparsiflora	P2	350995	6701984		1
Synaphea sparsiflora	P2	350942.1	6702023		3
Synaphea sparsiflora	P2	350858.8	6702018		1
Synaphea sparsiflora	P2	350915	6702023		1
Synaphea sparsiflora	P2	350949.4	6702034		2
Synaphea sparsiflora	P2	350968.4	6702025		1
Synaphea sparsiflora	P2	354464.8	6705367		1
Synaphea sparsiflora	P2	352259.9	6702106		2
Synaphea sparsiflora	P2	352188.5	6702076		1
Synaphea sparsiflora	P2	352193.3	6702052		2
Synaphea sparsiflora	P2	352204.6	6702054		3
Synaphea sparsiflora	P2	352222.1	6702057		2
Synaphea sparsiflora	P2	352247.4	6702058		3
Synaphea sparsiflora	P2	352247.4	6702058		2
Synaphea sparsiflora	P2	352263.6	6702059		3
Synaphea sparsiflora	P2	352282.6	6702057		10
Synaphea sparsiflora	P2	352317.7	6702061		1
Synaphea sparsiflora	P2	352150.2	6702053		4
Synaphea sparsiflora	P2	352171	6702052		8
Synaphea sparsiflora	P2	350833.7	6701888		2
Synaphea sparsiflora	P2	351690.2	6701993		5
Synaphea sparsiflora	P2	352171.9	6701998		5
Synaphea sparsiflora	P2	351595.1	6702047		6
Synaphea sparsiflora	P2	351677.9	6702006		1
Synaphea sparsiflora	P2	351673.6	6701999		3
Synaphea sparsiflora	P2	351638.2	6702045		2
Synaphea sparsiflora	P2	351586.3	6702018		3
Synaphea sparsiflora	P2	351624.6	6702022		1
Synaphea sparsiflora	P2	351680.4	6702016		2
Synaphea sparsiflora	P2	351697.5	6702021		1
Synaphea sparsiflora	P2	347169.1	6707166		1
Synaphea sparsiflora	P2	345658	6707109		1

*All locations are in GDA2020 Zone 50



APPENDIX H

Likelihood of Occurrence of Further Significant Flora Taxa in the Survey Areas

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Acacia aprica	T	EN	Jun–Jul	Red or gravelly sand, sandy loam. Plains, rocky hills	34 km east	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Acacia cochlocarpa subsp. *cochlocarpa*	T	EN	Jun–Aug	Clayey, sandy, often gravelly soils	50 km east	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Acacia congesta subsp. *cliftoniana*	P1		Aug–Sep	Rocky or lateritic loam	30 km northeast	Unlikely	Nearest location shown on FloraBase (13.9 km east) is erroneous.	Unlikely	Nearest location shown on FloraBase (13.9 km east) is erroneous, all suitable habitat searched at 10 m spacing	NatureMap
Acacia cummingiana	P3		May–Jun, Aug	Sandplains, lateritic breakaways with grey or yellow sand and lateritic gravel.	4.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Acacia epacantha	P3		Jul–Aug	Lateritic gravelly loam or clay	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Acacia flabellifolia	P3		Aug–Sep	Low hills and ridges with rocky loam, lateritic gravelly soils	5.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Acacia forrestiana	T	VU	Nov–Dec	Gullies, hills, breakaways.	11 km southwest	Possible	Possible at the Brand Hwy intersection with Coorow-Greenhead Rd. Unlikely elsewhere in the Reconnaissance FVSA.	Unlikely	All suitable habitat searched at 10 m spacing	PMST
Acacia lasiocarpa var. *lasiocarpa* Cockleshell Gully variant (E.A. Griffin 2039)	P2		Aug–Oct	Undulating sandplains, flats and breakaways with grey-yellow sand and laterite	9.5 km southwest	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Acacia latipes subsp. *licina*	P3		Jun–Oct	White/grey sand, lateritic soils, sandy loam. Sandplains, flats, hills.	8.8 km northwest	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Acacia recurvata	T	EN	Jul–Aug	Sandy clay, granitic clay-loam. Creeklines, plains, breakaways, low hills.	21.2 km northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Acacia retrorsa	P2		Aug–Sep	Slopes, gullies and flats with grey or brown sand, sandy loam or clay loam over laterite, gravelly and sometimes rocky. Eucalyptus or Corymbia calophylla woodland	8.1 km	Unlikely	Study Area at northeastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution	Unlikely	Study Area at northeastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Acacia wilsonii	T	EN	Nov–Mar	Hilltops, slopes and breakaways with gravelly brown, grey or yellow sand or clay loam over laterite or occasionally sandstone	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap, PMST
Allocasuarina grevilleoides	P3		Sep–Nov	Slopes, outcrops and plains with rocky or gravelly brown sand or clay loam over laterite or granite	0.5 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Allocasuarina ramosissima	P3		May–Sep	Lateritic soils on hills, slopes and breakaways. Grey or white sand or occasionally loamy soils over laterite.	0.1 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap, Woodman (2015)
Andersonia gracilis	T	EN	Aug–Nov	White/grey sand, sandy clay, gravelly loam. Winter-wet areas, near swamps.	56 km south	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Arnocrinum gracillimum	P3		Oct–Nov	White, grey, yellow or lateritic sand.	0.3 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), Woodman (2015)
Austrostipa nunaginensis	P3		Unknown	Flats, mid slopes and some seasonally damp soils. Yellow/brown sand and sandy loam, also recorded on grey light clay soil and in areas of some surface stoniness.	4.5 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Babingtonia peteriana	P2		Aug–Dec	E/NE-facing gentle slopes, red/brown, brown or grey clay/clayey loam over lateritic sandstone, sometimes rocky areas and creekline edges.	16.3 km northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Banksia catoglypta	T	VU	Jun–Jul	Hillslopes and breakaways with grey sand and laterite.	2.8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Banksia chamaephyton	P4		Oct–Dec	Slopes, breakaways and flats with grey or white sand over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Banksia cypholoba	P3		Jun–Sep	Plains, slopes and hills with sand, often with laterite.	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap, Woodman (2015)
Banksia elegans	P4		Oct–Nov	White sand on slopes, low lateritic hills, brown gravelly loam, grey sandy gravel	10 km north (nearest exact location, possibly closer)	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Banksia fraseri var. *crebra*	P3		Jul–Aug	Lateritic hilltops, slopes, plains and valleys with yellow, grey or brown gravelly sand over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Banksia kippistiana var. *paenepeccata*	P3		Oct–Nov	Hills and slopes with white-yellow or grey sand over laterite	2.4 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Banksia nana	P3		Oct	Hills with white/grey sand and/or gravel over laterite	3.9 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Banksia nobilis subsp. *fragrans*	P3		Jul–Sep	Hills, slopes and ridges with white/brown sand with laterite.	4.2 km	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Banksia pteridifolia subsp. *vernalis*	P3		Sep to Oct	White/grey sand over laterite, usually on plains or lower slopes.	1.2 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Banksia serratuloides subsp. *perissa*	T		Aug–Sep	Hillsides, slopes and breakaways with white/grey sand or brown loam with laterite.	3 km	Possible		Unlikely		DBCA(a), DBCA(b), NatureMap, PMST
Banksia splendida subsp. *macrocarpa*	P3		Jul–Aug	Ridges, slopes and undulating plains with white/grey sand and laterite.	0.5 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Banksia subulata	P3		Sep	White/grey or yellow sand over laterite, gravelly laterite.	0.9 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Beaufortia bicolor	P3		Nov–Dec	Sandplains with white sand over laterite.	0.5 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap, Woodman (2015)
Beyeria gardneri	P3		Aug–Sep	Sandplains and hillsides on yellow sand.	1.3 km	Possible		Unlikely		DBCA(b), NatureMap, Woodman (2015)
Beyeria similis	P2		Aug–Sep	Sandplains, slopes or sandstone ridges with white, yellow or red clayey sand	8 km	Possible		Unlikely		NatureMap
Boronia scabra subsp. *condensata*	P2		Aug	Upper slopes and lateritic breakaways with grey/brown sandy clay or loam with laterite.	2.3 km	Possible		Unlikely		DBCA(b), NatureMap
Caladenia denticulata subsp. *albicans*	P1		Aug–Sep	Wet flats, moist depression. Sandy soils.	1.3 km	Possible		Unlikely		DBCA(a), DBCA(b), NatureMap
Caladenia hoffmanii	T	EN	Unknown	Clay, loam, laterite, granite. Rocky outcrops and hillsides, ridges, swamps and gullies.	140 km north-northwest	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Caladenia longicauda subsp. *minima*	P2		Aug	Along creek lines. Red loam with ironstone outcrops, yellow sand	1.2 km	Possible		Unlikely		DBCA(b), NatureMap
Calectasia browneana	P2		Jun–Aug	Slopes and plains and creekline edges with white-grey sand over laterite.	1.4 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Calectasia palustris	P2		Sep to Nov	Winter-wet flats and swamps with white sand	26.5 km south	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Calothamnus accedens	P4		Sep to Jan	Slopes or rises with brown clay loam.	13.7 km north-northwest	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	NatureMap

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Calothamnus arcuatus	P2		Apr–Aug	shallow sandy loam over sandstone or siltstone on slopes near creeks, in kwongan, and in yellow sand over gravel	16 km north	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Calothamnus brevifolius	P4		Jan to Feb or Apr	White/grey or yellow sand	19.4 km east	Possible		Unlikely		NatureMap
Calytrix chrysantha	P4		Nov–Feb	Plains and flats, on yellow or grey sand	Within study area	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST, Woodman (2015), Woodman (2016)
Calytrix flavescens s. lat.	PU		unknown	lateritic slope	NA	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	this survey
Calytrix ecalycata subsp. *ecalycata*	P3		Jul or Sep to Oct	Yellow or white sand, sandy gravel, clay loam, granite, sandstone. Uplands, valley flats, ridges, hills, road verges	7.1 km northeast	Possible	Study Area just outside known distribution	Unlikely	Study Area just outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Calytrix eneabbensis	P4		Jul–Oct	White, grey or yellow sand over laterite. Sandplains.	1.3 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Calytrix purpurea	P2		Sep–Dec	Sandplains and sand dunes with white, grey or yellow sand, often over laterite	9.5 km southwest	Possible	Study Area at southern extreme of known distribution but suitable habitat potentially present	Unlikely	Study Area at southern extreme of known distribution but suitable habitat potentially present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing.	NatureMap
Calytrix superba	P4		Dec–Feb	Sand over laterite. Flats	2 km	Possible	Suitable habitat may not be present in parts of the Study Area within the known distribution	Unlikely	Suitable habitat may not be present in parts of the Study Area within the known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing.	DBCA(b), NatureMap
Catacolea enodis	P2		Unknown	Deep white sand over laterite. Tall heath	2.5 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Caustis gigas	P2		May	Flats and depressions with white or grey sand	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap
Centrolepis milleri	P3		Sep–Oct	Sandplains with grey-white sand or sandy clay	9.8 km	Possible	Study Area outside known distribution but the species is a minute plant with a wide geographic range	Unlikely	Study Area outside known distribution but the species is a minute plant with a wide geographic range	DBCA(b), NatureMap
Chordifex reseminans	P2		Mar–May	Flats and winter-wet depressions with white-grey sand over laterite	2.1 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Chorizema humile	T	EN	Jul–Sep	Plains. Sandy clay or loam.	38.5 km east	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Comesperma griffinii	P2		Oct–Nov	Slopes, plains, open depressions and flats with grey or brown sand or light clay, sometimes with laterite	11.5 km west-southwest	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	NatureMap
Comesperma rhadinocarpum	P3		Oct–Nov	Undulating plains, valley slopes and flats with grey, brown or yellow sandy loam or sand	8 km south	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	NatureMap
Conospermum eatoniae	P3		Aug to Oct	Deep white sand, sandy clay loam	7.2 km southeast	Possible	Study Area just outside known distribution	Unlikely	Study Area just outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(b)
Conospermum scaposum	P3		Sep–Feb	Winter-wet flats and depressions with white, brown or grey sand	Over 30 km south	Unlikely	Study Area outside known distribution. DBCA records from within the Desktop Study Area have erroneous coordinates, no reliable records of this species' occurrence are known north of Badgingarra.	Unlikely	Study Area outside known distribution. DBCA records from within the Desktop Study Area have erroneous coordinates, no reliable records of this species' occurrence are known north of Badgingarra. All suitable habitat searched at 10 m spacing	DBCA(b)
Conostephium magnum	P4		Jul–Sep	Sand dunes and slopes with white-grey sand	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015), Woodman (2016)

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Conostylis dielsii subsp. *teres*	T	EN	Jul–Aug	White, grey or yellow sand, gravel. Low open woodland.	68 km north-northwest	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Conostylis micrantha	T	EN	Jul–Aug	White or grey sand. Sandplains	64 km north-northwest	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Conostylis sp. Eneabba (M. Hislop 3864)	P2			Undulating sandplains, white or grey sand, sometimes over laterite	0.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Cristonia biloba subsp. *pubescens*	P2		Jun–Jul	Hillslopes and ridges with white sand or brown loam and gravel	7 km south	Unlikely	Study Area at (north)eastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution	Unlikely	Study Area at (north)eastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Cyanothamnus ramosus subsp. *lesueuranus*	P2		Jul–Aug	Midslopes and low hills with white sand or gravel over laterite.	1.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Darwinia chapmaniana	T	EN	Sep to Nov	shallow red or yellow clay-loam over sandstone or calcrete, around the edges of saline lakes in winter damp flats	Over 30 km east	Unlikely	Study Area outside known distribution. DBCA records from within the Desktop Study Area have erroneous coordinates. Suitable habitat and remaining populations (with reliable location information) occur further east of the (Desktop) Study Area.	Unlikely	Study Area outside known distribution. DBCA records from within the Desktop Study Area have erroneous coordinates. Suitable habitat and remaining populations (with reliable location information) occur further east of the (Desktop) Study Area - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap, PMST
Darwinia sp. Strawberry (M.G. Corrick 8279)	P2		Sep-Nov	Cream, yellow or grey sand, on sandplains or lateritic gravel	Within study area	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Dasymalla axillaris	T	CR	Sep–Dec	Plains and flats. Yellow sand.	80 km east	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Daviesia debilior subsp. *debilior*	P2		May–Jul	Plains with white-grey sand over laterite	1.9 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Daviesia dielsii	T	EN	Jul	Sandy, often gravelly soils	53 km southeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Daviesia pteroclada	P3		Jul–Aug	Hills and slopes with sandy or clay gravelly soils over laterite	0.4 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Daviesia speciosa	T	EN	Apr–Dec	Breakaways, hilltops, and slopes with gravelly grey, brown or white sand or clay loam over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Desmocladus biformis	P3		Sep–Oct	Hills, slopes and undulating plains with white or brown sand or sandy clay over laterite	10.7 km south-southwest	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Desmocladus elongatus	P4		Aug–Dec	Slopes, plains and uplands with white or grey sand over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Desmocladus nodatus	P3		Oct-Nov	Winter-wet flats, depressions and wetlands with grey clay loam or sandy loam	55 km	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	2024 Umwelt survey
Diuris eburnea	P1		Oct–Nov	Winter wet flats	27 km north	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Diuris recurva	P4		Jul–Aug	Winter-wet areas and drainage lined with brown sandy clay or loam.	0.7 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Drakaea concolor	T	EN	Aug–Dec	Slopes and sandplains. Grey or yellow sand over sandstone	35 km east	Unlikely	Known records outside the Desktop Study Area, suitable habitat unlikely to occur in the Study Area.	Unlikely	Known records outside the Desktop Study Area, suitable habitat unlikely to occur in the Study Area - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Drosera atrata	P3		May–Aug	low kwongan heath on the upper slopes of lateritic hills in poorly drained sandy clay with laterite	6.9 km	Possible	Study Area just outside known distribution but suitable habitat potentially present	Unlikely	Study Area just outside known distribution but suitable habitat potentially present	DBCA(b)
Drosera pedicellaris	P1		Oct–Nov	Heathland with white/grey sand	7.2 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Eleocharis keigheryi	T	VU	Aug to Nov	Clay, sandy loam. Emergent in freshwater: creeks, claypans.	2.8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Eremophila glabra subsp. *chlorella*	T	EN	Jul–Nov	Winter-wet depressions, lake edges and flats with grey-white sandy clay or sand	10.5 south-southwest	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap, PMST
Eremophila nivea	T	EN	Jul–Nov	Winter-wet depressions, lake edges and flats with grey-white sandy clay or sand	40 km northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Eremophila subangustifolia	T	CR (listed as Eremophila sp. Narrow leaves (J.D.Start D12-150))	Aug–Sep	Lake/creek edges, claypans and winter wet flats with brown, white or grey sand, sandy clay or sandy loam	11.3 km southwest	Unlikely	Study Area outside known distribution. Only known from a small area west of the Study Area.	Unlikely	Study Area outside known distribution. Only known from a small area west of the Study Area, all suitable habitat searched at 10 m spacing	PMST
Eucalyptus × *lateritica*	T	VU	Aug–Oct	Lateritic breakaways and mesas with white or grey sand with gravel.	1.5 km	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution.	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(a), NatureMap, PMST
Eucalyptus ×*impensa*	T	EN	Jun–Jul	Hills, slopes and plains with grey, yellow or white sand over laterite.	5.9 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), NatureMap, PMST
Eucalyptus abdita	P2		Feb	Laterite, sandy clay with gravel over laterite. Slopes, breakaways.	5.7 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Eucalyptus absita	T	EN	Apr–Jul	White lateritic sand. Paddocks	33 km south	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Eucalyptus crispata	T	VU	Mar–Jun	Lateritic breakaways and slopes with brown-grey sand or loam with lateritic gravel	6.1 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Eucalyptus exilis	P4		Aug–Oct	Hills, breakaways and slopes with grey or yellow gravelly sand or clay loam	2.5 km	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution.	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Eucalyptus johnsoniana	T	VU	Jul–May	Hills, slopes and plains with grey, yellow or white sand over laterite.	1.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Eucalyptus leprophloia	T	EN	Jul–Nov	Breakaways and slopes with grey or white sand or sandy clay over laterite	6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), PMST
Eucalyptus loxophleba x wandoo	P4		Nov	Grey brown sandy loam, valleys and slopes.	8.5 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Eucalyptus macrocarpa subsp. *elachantha*	P4		Aug–Dec	Hillslopes, ridges, sandplains with white or grey sand over laterite	3.7 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, Woodman (2015)
Eucalyptus macrocarpa x pyriformis	P3		Aug–Oct	Sand, lateritic sandy soils. Hills, rocky ironstone ridges, sandplains	5 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap

						Reconnaissance FVSA		Targeted FVSA		
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Eucalyptus pendens	P4		Aug–Nov	Hillsides, breakaways, sandplains with white or grey sand with lateritic gravel.	1.2 km	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution.	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Eucalyptus pruiniramis	T	EN	Dec–Feb	Skeletal soils over sandstone or laterite. Rocky hillslopes.	31.5 km northeast	Unlikely	Known records outside the Desktop Study Area, suitable habitat unlikely to occur in the Study Area.	Unlikely	Known records outside the Desktop Study Area, suitable habitat unlikely to occur in the Study Area - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	PMST
Eucalyptus rhodantha var. *rhodantha*	T	VU	Jul–Jan	Hillslopes, breakaways and gentle slopes with grey, yellow or brown sand, sometimes over laterite	21.2 km northeast	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMape, PMST
Eucalyptus suberea	T	VU	Nov–Mar	Breakaways and slopes with white gravelly sand over laterite	1.6 km	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution.	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Eucalyptus x carnabyi	P4		Oct–Nov	Grey sand, sandy loam. Lateritic ridges	3.7 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Eucalyptus x impensa	T	E. impensa EN	Jun–Jul	Hills, slopes and plains with grey, yellow or white sand over laterite.	6.1 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Eucalyptus x lateritica	T	E. lateritica VU	Aug–Oct	Lateritic breakaways and mesas with white or grey sand with gravel.	1.8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Eucalyptus zopherophloia	P4		Oct–Jan	Slopes and dunes with grey/white sand. Often with limestone. Coastal areas.	1 km	Unlikely	Study Area outside known distribution (database records showing near Eneabba have erroneous coordinates), suitable habitat unlikely to be present	Unlikely	Study Area outside known distribution (database records showing near Eneabba have erroneous coordinates), suitable habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Gastrolobium hamulosum	T	EN	Aug–Oct	Flats, slopes, ridges with sandy, often gravelly soils or clay.	Over 50 km southeast	Unlikely	Study Area outside known distribution. DBCA record from within the Desktop Study Area has erroneous coordinates.	Unlikely	Study Area outside known distribution. DBCA record from within the Desktop Study Area has erroneous coordinates, all suitable habitat searched at 10 m spacing	DBCA(b), PMST
Goodenia xanthotricha	P2		Nov – Dec, Jan–Feb	Hills, slopes and flats with sandy soils and laterite.	11.8 km northwest	Possible	Study Area at northeastern extreme of known distribution but suitable habitat potentially present	Unlikely	Study Area at northeastern extreme of known distribution but suitable habitat potentially present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Grevillea aff. *levis*	PU		unknown		NA	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	this survey
Grevillea althoferorum subsp. *althoferorum*	T	EN	Sep–Nov	Low rises and slopes with yellow-brown or grey sand	11.5 km northwest	Unlikely	Study Area outside known distribution, habitat unlikely to be present	Unlikely	Study Area outside known distribution, habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap, PMST

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Grevillea amplexans subsp. *adpressa*	P1		Sep	Slopes with yellow or white sand, sometimes over laterite	3.3 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Grevillea batrachioides	T	EN	Oct	Sandstone outcrops with brown sandy loam.	10.3 km southwest	Unlikely	Study Area outside known distribution, habitat unlikely to be present	Unlikely	Study Area outside known distribution, habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	PMST
Grevillea biformis subsp. *cymbiformis*	P3		Oct	Flats, slopes and hills with yellow-white sand	Within study area	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Grevillea christineae	T	EN	Jul–Oct	Tops of slopes, flats. Red-brown clay loam, sandy clau, yellow sand. Moist soils	54 km east-southeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Grevillea cooljarloo	P1		Jun–Nov	Grey or white sand, sandy clay or loamy soils in lo-lying, seasonally wet areas or along creeklines. In heathland, shrubland, sometimes marri or wandoo woodlands.	1.8 km	Unlikely	Study Area at southern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution.	Unlikely	Study Area at southern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap
Grevillea curviloba	T	EN	Aug to Oct	Grey, white or brown sand or sandy loam. Flats, drainage lines and lower slopes	Over 150 km south	Unlikely	Previous collection from within 500 m of the Study Area most likely represents a planted individual, perhaps aso a garden cultivar as indicated on the specimen label	Unlikely	Previous collection from within 500 m of the Study Area most likely represents a planted individual, perhaps also a garden cultivar as indicated on the specimen label, all suitable habitat searched at 10 m spacing	NatureMap, PMST
Grevillea erinacea	P3		Jul–Dec	Plains, hills and slopes with white, grey or yellow sand, often with lateritic gravel	0.1 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Grevillea granulosa	P3		Jul–Nov	Slopes and margins of salt lake. Yellow sand, red-brown saline slay-loam, lateritic or fluviatile gravel	Over 80 km east	Unlikely	Study Area outside known distribution (database record within the Desktop Study Area has erroneous coordinates)	Unlikely	Study Area outside known distribution (database record within the Desktop Study Area has erroneous coordinates), all suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Grevillea humifusa	T	EN	May, Sep–Nov	Slopes with brown gravelly loam over laterite	27 km east	Unlikely	Study Area outside known distribution, habitat unlikely to be present	Unlikely	Study Area outside known distribution, habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	PMST
Grevillea leptopoda	P3		Jun–Oct	Hills and slopes with brown, red or yellow sand or clay loam, sometimes over laterite or occasionally granite	25.5 km northeast	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Grevillea makinsonii	P3		Jul or Sep–Oct	White, grey or yellow sand over laterite, loam, gravel, clay. Rocky hills, sandplains	Within study area	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Grevillea metamorpha	P1		Sep	Undulating plains and creeklines with white sand	3.6 km	Unlikely	Only known from a very small area, suitable habitat within the Study Area is unlikely to be found in proximity to known records	Unlikely	Only known from a very small area, suitable habitat within the Study Area is unlikely to be found in proximity to known records - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(a), DBCA(b)

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Grevillea olivacea	P4		Jun–Sep	White of grey sand. Coastal dunes, limestone rocks	14 km west	Unlikely	Study Area outside known distribution (database record within the Desktop Study Area has erroneous coordinates), suitable habitat unlikely to be present	Unlikely	Study Area outside known distribution (database record within the Desktop Study Area has erroneous coordinates), suitable habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap
Grevillea rudis	P4		Apr–Jan	Hills and slopes with white, grey, yellow or red sand, often with gravel and laterite	0.2 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Grevillea thyrsoides subsp. *thyrsoides*	P3		Feb, Aug–Sep	Hills and plains with grey, white or brown sand or clay loam, often with laterite	7.1 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Grevillea uniformis	P3		Jul–Nov	Hills, slopes and breakaways with grey or brown sand or sandy loam with sandstone or laterite	4.8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Grevillea vestita x biternata	PU	-	unknown	Winter wet clay flats over ferricrete	0.3 km	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	Biota
Guichenotia alba	P3		Jul–Aug	Sandy and gravelly soils, Low-lying flats, depressions	7.3 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Guichenotia quasicalva	P2		Sep–Oct	Sandy clay over laterite. Drainage line.	Within study area	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Haemodorum loratum	P3		Nov	Uplands and sandplains with grey, white or yellow sand and gravel	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Hakea longiflora	P3		Jun–Jul	High in landscape; hills, breakaways and plains with white, grey or yellow gravelly sand or sandy loam over laterite or occasionally sandstone	1.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Hakea megalosperma	T	VU	Apr–Jun	High in landscape; hills, breakaways, slopes and flats with white, grey or brown sand or sandy loam over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap, PMST
Hakea neurophylla	P4		Aug	Hillsides and ridges with white or brown sandy loam or sand and laterite.	1.6 km	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution.	Unlikely	Study Area at northern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap
Hemiandra gardneri	T	EN	Aug–Nov	Plains with yellow or grey sand or clayey sand	21.3 km east-southeast	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap, PMST
Hemiandra rutilans	T	EN	Oct to Nov	Yellow/grey sand	2.8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, PMST
Hemiandra sp. Eneabba (H. Demarz 3687)	P3		Feb	Sandplains with white, grey or yellow sand	0.2 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Hemiandra sp. Watheroo (S. Hancocks 4)	P4		Oct–Nov	Sandplains and hillslopes with grey/white sand sometimes over laterite.	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap, Woodman (2015)
Hensmania chapmanii	T	VU	Dec–Jan	Yellow-grey or lateirtic sand	16.2 km	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap, PMST, Woodman (2015)
Hensmania stoniella	P3		Sep–Nov	Flats and slopes with white, grey or lateritic sand, sometimes winter-wet	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Hibbertia propinqua	P4		Aug–Sep	Slopes and breakaways with grey-brown sand with laterite or sandstone	2.3 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap

						Reconnaissance FVSA		Targeted FVSA		
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Hibbertia subglabra	P3		Sep–Oct	Slopes of hills with grey or white sand and lateritic gravel	8 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	NatureMap
Hibbertia subvillosa	P3		Jun–Oct	Sandy creek beds, heavier soils that H. striata, often disturbed sites	0.6 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Homalocalyx chapmanii	P2		Sep–Oct	Undulating plains, slopes and riverbanks with sand or loam	1.1 km	Possible	Study Area at southern extreme of known distribution, with the nearest record being probably erroneous and occurring further north, though suitable habitat potentially present.	Unlikely	Study Area at southern extreme of known distribution, with the nearest record being probably erroneous and occurring further north, though suitable habitat potentially present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap
Hypocalymma tenuatum	P2		Jul–Aug	Slopes, outcrops and ridges with sandy loam over sandstone or laterite.	5.7 km	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(b)
Hypolaena robusta	P4		Oct to Nov	Flats, grey sand. Banksia - Eucalyptus todtiana woodland	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Jacksonia anthoclada	P3		Nov	Slopes with brown, yellow or white sand over laterite	3.5 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, Woodman (2015)
Jacksonia carduacea	P3		Jul, Nov to Dec	Plains and flats with white, grey or yellow sand, sometimes over laterite	0.6 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Jacksonia pungens	T	EN	Nov–Dec	Yellow sand, gravelly lateritic soils. Undulating areas	50 km east	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Lasiopetalum decoratum	P2		Aug to Dec	Gullies and slopes of breakaways in grey, brown or brown-yellow, loamy sand and lateritic gravel and boulders	3.7 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Lasiopetalum ogilvieanum	P1		Jul–Oct	Undulating plains, lateritic rises	17.8 km northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Lasiopetalum rutilans	P2		Aug – Oct, Dec	Slopes and breakaways with brown clayey sand or sand and laterite or sandstone.	6 km	Possible	Study Area just outside known distribution	Unlikely	Study Area just outside known distribution, all suitable habitat searched at 10 m spacing	DBCA(b)
Lechenaultia juncea	P3		Nov–Dec	White, grey or yellow sand, sandy gravel.	4.8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)
Lepidobolus densus	P4		Aug	Sandplains, lake edges and slopes with brown or yellow sand	11.2 km south-southwest	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Lepidobolus quadratus	P3		Aug–Sep	Dry kwongan, hillslopes and rises with grey-white sand and lateritic gravel	0.5 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)
Lepyrodia curvescens	P2		Sep–Nov	Seasonally inundated swamplands, depressions and flats with white/grey sand or peaty sand.	5.2 km	Unlikely	Study Area at northeastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution	Unlikely	Study Area at northeastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap
Liparophyllum congestiflorum	P4		Sep–Nov	Flats, swamps and drainage lines with grey sandy clay or sand	5.8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap

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Loxocarya gigas	P2		Oct	Low hills and ridges, sandplains with sandy gravelly lateritic soils.	1.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Lyginia excelsa	P2		Mar–Nov	Undulating plains, flats and depressions with white/grey sand	Within study area	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Mesomelaena stygia subsp. *deflexa*	P3		Mar–Oct	Plains, flats and slopes with white, grey or lateritic sand, clay, gravel	8 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Micromyrtus uniovulum	P2		Nov	Ridges, hilltops and slopes with grey or brown sand or clay loam over laterite	17 km north-northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Millotia jacksonii	P2		Sep–Oct	Valleys. Orange or grey sandy clay over laterite or sandstone or siltsone.	8.5 km south-southwest	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Paracaleana dixonii	T	EN	Late Oct–Nov	Flats, plains and slopes with grey sand, sometimes with laterite gravel	Within study area	**Present**	**Recorded during 2024 surveys**	Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST, Woodman (2015)
Patersonia argyrea	P3		Sep–Nov	Hills, slopes and plains with grey sand and lateritic gravel	16.5 km south-southwest	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Persoonia filiformis	P3		Nov–Dec	Plains and slopes with yellow or white sand over laterite	0.6 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)
Persoonia rudis	P3		Sep–Jan	Flats and slopes with white, grey or yellow sand, often over laterite	3.2 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Petrophile biternata	P3		Aug–Oct	Yellow/grey sand & gravel, laterite, quartzite soils. Lateritic ridges plains	3.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Petrophile clavata	P2		Sep	Hilltops, slopes and ridges with grey sand and laterite.	1.2 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Petrophile nivea	T	VU	May, Jul	Uplands with dry bare white sand over gravel over laterite.	5.1 km	Unlikely	Study Area outside known distribution, only known from one small area south of the Study Area	Unlikely	Study Area outside known distribution, only known from one small area south of the Study Area, all suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), PMST
Petrophile septemfida	P3		Jul–Sep	Hillsides, uplands and plains with grey-white sand, often over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Phlebocarya pilosissima subsp. *pilosissima*	P3		Aug–Oct	Slopes with sand over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap, Woodman (2015)
Pityrodia viscida	P4		Sep–Feb	Upper slopes and mid slopes with white or grey sand, sometimes over laterite	0.1 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)
Platysace ramosissima	P3		Oct–Nov	Undulating plains and flats with yellow, brown or grey sand	10 km south	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Podotheca uniseta	P3		Sep–Dec	White/grey sand, sandy loam. Samphire flats	18.5 km northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Poranthera asybosca	P1		Oct	Grey/white sandy soil	18 km northwest	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	NatureMap
Ptilotus clivicola	P2		Nov	Hills and slopes with grey or white gravelly sand over laterite	9.1 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Ptilotus falcatus	P1		Oct–Nov	Exposed north-east facing slope in low heath or gravelly, grey to light brown, sandy loam soils	5.2 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Roycea pycnophylloides	T	EN	Sep to Oct	Salt lakes and saline habitats.	Over 200 km southeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Scaevola eneabba	P2		Feb, Nov	Swales and flats with grey-white sand	1.3 km	Likely	Habitat possibly present	Unlikely	All suitable habitat searched at 10 m spacing	NatureMap

						Reconnaissance FVSA		Targeted FVSA		
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Scaevola globosa	P3		Oct–Dec	Sandy soils on gentle slopes and plains.	16.8 km east	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Scaevola kallophylla	P4		May, Aug–Dec	Coastal plain. Sandy soils over limestone.	20 km north	Unlikely	Study Area outside known distribution, habitat unlikely to be present	Unlikely	Study Area outside known distribution, habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Schoenus griffinianus	P4		Sep–Oct	Undulating sandplains, lower slopes, flats and depressions with grey sand.	0.2 km	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap, Woodman (2015), Woodman (2016)
Schoenus natans	P4		Sep to Dec	Ephemeral wetlands. Melaleuca lateritia/Melaleuca viminea shrubland, sometimes with emergent Eucalyptus rudis	16.2 km north	Unlikely	Habitat unlikely to be present	Unlikely	Habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Schoenus sp. Eneabba (F. Obbens & C. Godden I154)	P2		Nov–Dec	Undulating sandplains, mid slopes and tops of rises with grey, yellow or white sand	2.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Scholtzia brevistylis subsp. *brevistylis*	P1		Oct–Dec	Sandplain, margins of granite outcrops or associated with damp depressions	55 km north-northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Spirogardnera rubescens	T	EN	Aug–Jan	Slopes and plains, gravelly sandy loam	5.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), PMST
Stawellia dimorphantha	P4		Jun–Nov	Undulating plains and slopes with yellow sand	2.2 km	Possible	Study Area at southern extreme of known distribution	Unlikely	Study Area at southern extreme of known distribution, all suitable habitat searched at 10 m spacing	DBCA(a), NatureMap
Stenanthemum limitatum	P2		Oct–Nov	Hillslopes with grey sand or sandy loam, lateritic gravel and occasionally sandstone.	8.9 km	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Stenanthemum sp. Eganu (S. Patrick 4537)	P2		Unknown	Unknown	5.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b)
Stylidium aeonioides	P4		Sep–Nov	Hillsides and breakaways, low heath and open woodland with sandy clay loam over laterite.	11.2 km	Possible	Study Area at northeastern extreme of known distribution but suitable habitat potentially present	Unlikely	Study Area at northeastern extreme of known distribution but suitable habitat potentially present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Stylidium carnosum subsp. Narrow leaves (J.A. Wege 490)	P1		Sep–Oct	Hillslopes and plains with white-grey sand and lateritic gravel	0.5 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Stylidium cornuatum	P2		Sep	brown or orange brown clay-loam in seasonally moist habitats	0.1 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Stylidium diplotrichum	P2		Sep–Nov	Hillslopes and gullies, Acacia and myrtaceous shrubland and low heath with clayey sand or clay loam over laterite.	5.7 km	Unlikely	Study Area just outside known distribution, potentially suitable habitat likely to occur even further outside known range	Unlikely	Study Area just outside known distribution, potentially suitable habitat likely to occur even further outside known range - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b)
Stylidium drummondianum	P3		Aug–Oct	Upper hillslopes and breakaways, low health or mallee shrubland on sand or clayey sand over laterite	0.1 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)
Stylidium inversiflorum	P4		Sep–Nov	Sandplains, hillslopes and gullies, heath, open woodland on white or grey sand over laterite	1.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap

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Stylidium nonscandens	P3		Sep–Nov	Sand over laterite. Hillslopes and crests. Banksia woodland, heath, mallee shrubland.	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Stylidium pseudocaespitosum	P2		Sep–Nov	Breakaways and hillslopes on white, grey or yellow sand over laterite	38 km north	Unlikely	Study Area outside known distribution	Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Stylidium sp. Three Springs (J.A. Wege & C. Wilkins JAW 600)	P2		Sep	Rocky slopes, flats and outcrops with clay-sand or loam.	7.1 km	Unlikely	Study Area outside known distribution	Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)
Stylidium striatum	P4		Sep to Dec	Brown or yellow sandy clay with laterite. Slopes and flats	Over 200 km south-southeast	Unlikely	Study Area outside known distribution. Existing collections having records in DBCA database from within 20 km of the Study Area have been described as having violet flowers, therefore are most likely representative of another taxon, see Wege (2007): 'The name S. striatum has long been misapplied in Western Australia to a member of the S. brunonianum complex presently referred to as S. neurophyllum'	Unlikely	Study Area outside known distribution. Existing collections having records in DBCA database from within 20 km of the Study Area have been described as having violet flowers, therefore are most likely representative of another taxon, see Wege (2007): 'The name S. striatum has long been misapplied in Western Australia to a member of the S. brunonianum complex presently referred to as S. neurophyllum' - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Stylidium tinkeri	P2		Apr, Oct to Nov	Winter-wet depressions, flats, wetlands and valleys with brown or grey clay loam	13.5 km north	Possible	Most records north of the Study Area, one record near Badgingarra	Unlikely	Most records north of the Study Area, one record near Badgingarra, all suitable habitat searched at 10 m spacing	NatureMap
Stylidium torticarpum	P3		Sep–Nov	Adjacent to drainage lines, depressions, and beneath breakaways, heath or mallee shrubland on sandy clay or clay loam over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Styphelia carolineae	P2		May–Jul	White sand over laterite in dense, species-rich heath.	15 km southwest	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Styphelia filamentosa	P3		Oct–Jan	Uplands and low rises with white-grey sand over laterite	2.2 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Styphelia filifolia	P3		Feb to Jun	Sand, sometimes winter damp.	9.5 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	NatureMap
Styphelia hyalina	P3		Jun, Oct–Dec	Sand or loam soils, on lateritic upalnds and often in association with breakaways	13.7 km north	Unlikely	Study Area outside known distribution. Only known from a small area north of the Study Area.	Unlikely	Study Area outside known distribution. Only known from a small area north of the Study Area, all suitable habitat searched at 10 m spacing	NatureMap
Styphelia longissima	T	CR	Jun–Sep	Hillsides with gentle slopes and yellow sand	2.7 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Styphelia marginata	T	EN	May–Sep	Sandplain, hillside. White-grey or brown sand, sandy clay.	35 km north-northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Styphelia obtecta	T	EN	Oct–Nov	Plains with white, grey or yellow sand	3.2 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST

						Reconnaissance FVSA		Targeted FVSA		
Taxon	**WA Cons status**	**EPBC Status**	**Flowering**	**Habitat**	**Nearest Record returned from Desktop Searches**	**Likelihood**	**Reason**	**Likelihood**	**Reason**	**Source**
Styphelia pallens	P2		Oct–Dec	Usually high in the landscape in sand or light loam over laterite	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(b), NatureMap
Styphelia williamsiorum	P3		Oct–Dec	Lateritic uplands, often close to breakaways, in shallow, sandy soils	5.2 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Synaphea endothrix	P3		Jul–Oct	Ridges and hills with brown, yellow or white gravelly sand over laterite	6.1 km	Unlikely	Potentially suitable habitat within the Study Area is outside known distribution	Unlikely	Potentially suitable habitat within the Study Area is outside known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Synaphea oulopha	P3		Jul–Oct	Lateritic breakaways and rises on grey sand, gravelly loam, clay	1.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Synaphea sparsiflora	P2		Aug–Sep	Slopes / crests of hills and lateritic ridges with grey / brown sand	Within study area	**Present**	**Recorded during 2024 surveys**	**Present**	**Recorded during 2024 surveys**	DBCA(a), DBCA(b), NatureMap
Synaphea xela	P2		Aug	Undulating sites with red-brown gravelly sand, white-pink, grey-brown clayey sand and loam, over laterite.	0.7 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Tetratheca angulata	P3		Sep–Dec	Low hill crests, breakaways with massive laterite boulders with sandy to gravelly laterite soils.	2.3 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Tetratheca nephelioides	T	CR	Jul–Jan	Slopes and ridges with white or grey gravelly sand over laterite	6.4 km	Unlikely	Potentially suitable habitat within the Study Area is outside this species' limited distribution	Unlikely	Potentially suitable habitat within the Study Area is outside this species' limited distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Thelymitra apiculata	P4		Jun–Jul	Hillslopes with grey sand, lateritic gravel and laterite.	5.3 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), NatureMap
Thelymitra pulcherrima	P2		Jul–Sep	Flats and slopes of lateritic hills with white-grey sand or grey-brown sandy clay	6 km	Possible	Habitat possibly present	Unlikely	Habitat possibly present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Thelymitra stellata	T	EN	Sep–Nov	Ridges and tops of lateritic hills with grey or brown sand or loam and lateritic gravel	0.3 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST
Thryptomene spicata	P2		Sep–Nov	Slopes with grey, yellow or brown lateritic sand, Rocky Springs ferricrete	6.3 km	Unlikely	Apparently a short range endemic, habitat unlikely to be present in the Study Area	Unlikely	Apparently a short range endemic, habitat unlikely to be present in the Study Area - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Thysanotus glaucus	P4		Oct–Mar	White, grey or yellow sand, sandy gravel.	2.2 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Thysanotus vernalis	P3		Sep – Oct	Slopes, flats and winter wet depressions with grey, brown or white sand with lateritic gravel over laterite	0.1 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Verticordia albida	T	EN	Nov–Jan	Undulating sandplains with grey, white or yellow sand, sometimes over laterite	4 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap, PMST, Woodman (2015)
Verticordia amphigia	P3		Oct–Nov	Winter-wet depressions with sandy loam, sandy clay , sand over laterite, clay pans, occasionally rocky red loam (on ferricrete).	6 km	Possible	Habitat possibly present	Unlikely	Habitat possibly present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Verticordia argentea	P2		Nov–Apr	White, grey or yellow sand. Sand ridges, undulating plains.	6.5 km	Possible	Suitable habitat may not be present in parts of the Study Area within the known distribution	Unlikely	Suitable habitat may not be present in parts of the Study Area within the known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap
Verticordia aurea	P4		Sep–Dec	Sandplains with deep white-grey sand	1.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)

						Reconnaissance FVSA		Targeted FVSA		
Taxon	WA Cons status	EPBC Status	Flowering	Habitat	Nearest Record returned from Desktop Searches	Likelihood	Reason	Likelihood	Reason	Source
Verticordia densiflora var. *roseostella*	P3		Sep–Dec	Sandplains and breakaways with yellow, grey or white sand or sandy loam, often with laterite	0.5 km	Likely	Habitat possibly present	Unlikely	Habitat possibly present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Verticordia fragrans	P3		Sep–Nov	Sandplains and low-lying areas with white, grey or yellow sand or clay loam	8.5 km	Possible	Suitable habitat may not be present in parts of the Study Area within the known distribution	Unlikely	Suitable habitat may not be present in parts of the Study Area within the known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap
Verticordia insignis subsp. *eomagis*	P3		Aug–Nov	Sandplains and rocky rises with sandy soils over laterite.	0.4 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Verticordia luteola var. *luteola*	P3		Nov–Jan	Flats. Grey sand over gravel.	17.2 km north	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	NatureMap
Verticordia luteola var. *rosea*	P1		Dec–Jan	White sand. Flats.	7.1 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap
Verticordia muelleriana subsp. *muelleriana*	P3		Sep–Jan	Sandplains and slopes with white-grey or yellow sand	2.6 km	Possible		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(b), NatureMap, Woodman (2015)
Verticordia penicillaris	P4		Sep–Oct	Hills, rocky creeks and outcrops with shallow grey or brown sandy loam or clay loam, often with granite or sometimes laterite or sandstone	16 km north	Unlikely	Study Area outside known distribution (database record in Eneabba town arbitrarily positioned, locality says NE of Eneabba)	Unlikely	Study Area outside known distribution (database record in Eneabba town arbitrarily positioned, locality says NE of Eneabba), all suitable habitat searched at 10 m spacing	NatureMap
Verticordia rutilastra	P3		Sep–Nov	Lateritic breakaways and slopes with white or brown gravelly sand or sandy loam	0.6 km	Likely		Unlikely	All suitable habitat searched at 10 m spacing	DBCA(a), DBCA(b), NatureMap
Walteranthus erectus	P2		Feb	Coastal limestone ridges with sand over limestone	20 km west	Unlikely	Study Area outside known distribution, habitat unlikely to be present	Unlikely	Study Area outside known distribution, habitat unlikely to be present - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	NatureMap
Wurmbea tubulosa	T	EN	Jun–Aug	Riverbanks, seasonally-wet places with clay or loam.	40 km northeast	Unlikely	Study Area outside known distribution	Unlikely	Study Area outside known distribution, all suitable habitat searched at 10 m spacing	PMST
Xanthosia tomentosa	P4		Sep–Dec	Undulating sandplains, tops of hills and ridges with white-grey sand over laterite	3 km	Possible	Study Area at northeastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution	Unlikely	Study Area at northeastern extreme of known distribution, potentially suitable habitat within the Study Area occurs further outside known distribution - all remnant vegetation in the Targeted FVSA was searched at 10 m spacing	DBCA(b), NatureMap

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Environmental & Social
Consultants

Umwelt (Australia) Pty Limited

T| 1300 793 267 E| info@umwelt.com.au www.umwelt.com.au