

Vegetation Inventory Report: Melbourne Strategic Assessment Conservation Area 1

November 2015



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Cover photo: Plains Everlasting *Chrysocephalum* sp. 1

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Terms and abbreviations

BCS	Biodiversity Conservation Strategy for Melbourne's Growth Areas (DEPI 2013a)
CaLP Act	The Victorian Catchment and Land Protection Act 1994
DELWP	The Victorian Department of Environment, Land, Water and the Environment
DEPI	The former Victorian Department of Environment and Primary Industries (now DELWP)
DSE	The former Victorian Department of Sustainability and Environment (now DELWP)
EPBC Act	The Federal Environment Protection and Biodiversity Conservation Act 1999
EVC	Ecological Vegetation Class, the units used to describe vegetation type in Victoria
FFG Act	The Victorian Flora and Fauna Guarantee Act 1988
MNES	Matters of National Environmental Significance, as listed under the EPBC-Act.
NTG	Natural Temperate Grassland of the Victorian Volcanic Plain
SHW	Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains
WGR	Western Grassland Reserve

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1. INTRODUCTION

The Victorian Government has committed to establish a series of Conservation Areas on the periphery of Melbourne for the conservation of threatened plants, animals and ecological communities (DEPI 2013a). They include a network of small areas within Melbourne's Urban Growth Boundary, as well as the larger Western Grassland Reserve (WGR, 15,000 ha) and the Grassy Eucalypt Woodland Reserve (approximately 1,200 ha).

The establishment of the reserves is the result of the Melbourne Strategic Assessment, which aims to mitigate environmental losses caused by the expansion of Melbourne's Urban Growth Boundary. This expansion will impact 'Matters of National Environmental Significance (MNES)' listed under the Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). A 'Strategic Impact Assessment' conducted by the Victorian Government recommended ways of mitigating environmental impacts. The mitigation measures agreed to by the Victorian and Australian governments are outlined in the 'Program Report' and the 'Biodiversity Conservation Strategy (DEPI 2013a; DSE 2009). The commitments include regular reporting on ecological outcomes. A Monitoring and Reporting Framework (MRF) provides the logic and basis for monitoring target species and communities. The MRF gives specific Key Performance Indicators (KPIs) for each listed species and vegetation community.

All Conservation Areas will be managed to achieve these management targets. The precise management strategy required to achieve the targets will, however, vary from place to place. Each area is different, and each supports a wide range of plant and animal species, different vegetation patterns, management issues, and other features. Detailed information about the type and distribution of assets and threats is required for each property that is protected. Much of that information will be contained in Fauna Inventory and Vegetation Inventory documents for each property.

The Metropolitan Planning Authority (MPA) is developing the Kororoit Precinct Structure Plan (PSP) which will guide development of the area for housing, local town centres (including shops, services and Council and educational facilities) and conservation areas.

Three conservation areas (CA1, 2 & 3) in the Kororoit PSP were designated for protection in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (DEPI 2013a). Draft Conservation Concept Plans have been prepared for each of these areas, but further design work is now required for two of the designated conservation areas to:

- ensure the long term viability and protection of the grasslands and Spiny Rice-flower.
- increase the community's appreciation and acceptance of the value of grassland conservation areas within residential areas.
- ensure greater 'open space' benefit to the public from areas reserved for conservation through the strategic placement and use of access points, picnic and play areas, paths, trails, boardwalks, interpretive signage etc.

This Vegetation Inventory report will help to inform preparation of a landscape masterplans for Conservation Area 1 (13 ha) within the Kororoit PSP area.

1.1 Purpose and scope

This Vegetation Inventory report forms part of the basic information required to start managing protected land. It should serve as a useful reference for managers, and also the logical basis of management actions. The specific purpose of this document is to:

- Identify and map any EPBC-listed plant species or ecological communities that are the targets of conservation measures under the MSA.
- Provide enough information about the distribution of vegetation on the land to allow management and landscape design planning to proceed. This information includes the distribution of native vegetation types, significant species, and exotic species which threaten natural values.
- Help fulfil (for the survey area) DELWP's commitment to produce a detailed inventory of the vegetation

This document does not:

- constitute a management plan,
- describe the fauna of the survey area,
- make any claims about the likely presence or absence of values not recorded.

1.2 Survey area

This report covers Conservation Area 1, a roughly rectangular area (13 ha) of land that is south of Taylors Road, north of Reed Court and west of Sinclairs Road, Plumpton. The location of the survey area is shown in Figure 1.



Figure 1. The location of Conservation Area 1

1.3 Previous survey information

The area has been subject to the following known vegetation surveys/reports:

- The Growth Areas Authority (2010a) included the area in the Melton–Wyndham Investigation Area: Section H assessed by Biosis Research; this work included habitat hectare assessment and general floristic survey.
- Biosis Research (Franco and McCutcheon 2011) again surveyed the site, as it was included in the Rockbank Marsh 1080 Contract Area for the Growth Areas Authority; this work included targeted flora surveys undertaken during spring (over 5 days early November 2010), summer (5 days through February 2011) and were also proposed for autumn/early winter (May–June 2011) but no data is included in the report.
- The Biodiversity Conservation Strategy (BCS) (DEPI 2013a) presents information for the site including native vegetation habitat score and records of rare or threatened species. While numerous references are included it is unclear of the source of each item of information. It is also apparent that the records of Spiny Rice–flower records presented in the BCS are not spatially correct as they are inconsistent with the source report (i.e. Franco and McCutcheon 2011).

2. SURVEY METHODS

The site was surveyed using the methods described in (DELWP 2015a) and also included a targeted flora survey for Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens* using the methods in DSE (2010) (e.g. 5m spaced transects).

2.1 Coverage and intensity

The land was surveyed during the following days in August 2015: 23rd (8 hrs by two botanists), 27th (2 hrs by two botanists), 30th (3 hrs by two botanists). Of that time essentially 4hrs (2hrs x two botanists) was devoted to a general floristic inventory and vegetation mapping and the remainder used for targeted flora survey (e.g. transects).

2.2 Definitions

Native vegetation

‘Native vegetation’ is defined according to DEPI (2013b) “...either...an area of vegetation where at least 25 per cent of the total perennial understory plant cover is native, or any area with three or more canopy trees where the canopy foliage cover is at least 20 per cent of the area”.

EPBC-listed communities

EPBC-listed communities are described according to the listing advice provided by the Threatened Species Scientific Committee, posted on the Department of Environment website.

Plant taxonomy

Plant taxonomy follows the Royal Melbourne Botanic Gardens Census of Vascular Plants in Victoria (Walsh and Stajsic 2007) except for departures from this standard within the Victorian Biodiversity Atlas (DEPI 2014a) due to more recent taxonomic publications.

Significance of plants

Several sources are used to describe the conservation status or significance of plant species:

- EBPC listed (Critically Endangered, Endangered, Vulnerable). Follows the lists of species and communities maintained by the Australian Department of the Environment, available on the internet.
- FFG listed. Follows the list maintained by DELWP (updated 2013).
- Victorian Rare or Threatened (VROT; Endangered in Victoria, Vulnerable in Victoria, Rare in Victoria, Poorly Known). Defined by inclusion on either the ‘Advisory List of Rare or Threatened Plants in Victoria’ (DEPI 2014b), maintained by DELWP.

Categories of Weeds

The Victorian Catchment and Land Protection Act 1994 (CaLP Act) lists noxious weeds in several categories, used here:

- State prohibited weeds “either do not occur in Victoria but pose a significant threat if they invade, or are present, pose a serious threat and can reasonably be expected to be eradicated. If present, infestations of a State prohibited weed are relatively small. They are to be eradicated from Victoria if possible or excluded from the State.”
- Regionally prohibited weeds “are not widely distributed in a region but are capable of spreading further. It is reasonable to expect that they can be eradicated from a region and they must be managed with that goal. Land owners, including public authorities responsible for crown land management, must take all reasonable steps to eradicate regionally prohibited weeds on their land”.
- Restricted weeds are “plants that pose an unacceptable risk of spreading in this State and are a serious threat to another State or Territory of Australia. Trade in these weeds and their propagules; either as plants, seeds or contaminants in other materials is prohibited”.
- Regionally Controlled weeds are “usually widespread in a region. To prevent their spread, ongoing control measures are required. Land owners have the responsibility to take all reasonable steps to prevent the growth and spread of Regionally controlled weeds on their land.”

3. SURVEY RESULTS

3.1 EPBC-listed 'Matters of National Environmental Significance'

Matters of National Environmental Significance (MNES) are those species or communities listed under the EPBC Act. MNES are the specific environmental values referred to by the Key Performance Indicators and targets (DELWP 2015b).

Two matters of national environmental significance are known to occur naturally at the study site:

- Natural Temperate Grassland of the Victorian Volcanic Plain (hereafter NTG)
- A population of Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens*

3.1.1 Natural Temperate Grassland of the Victorian Volcanic Plain (NTG)

NTG is a treeless grassland community occurring on heavy soils on basalt terrain, dominated in intact stands by native tussock-forming grasses of the genera *Themeda*, *Poa*, *Rytidosperma* and/or *Austrostipa*. It also contains a variety of native herbs (notably daisies, *Asteraceae*), which may be dominant in some cases (TSSC 2008). NTG corresponds closely to 'Western (Basalt) Plains Grassland Community' listed under the FFG Act (see below).

In the NTG at the site Kangaroo Grass *Themeda triandra* is the dominant grass species with Wallaby-grasses *Rytidosperma* spp. and Spear-grasses *Austrostipa* spp. also common and more dominant in lower quality areas. Forbs can also dominate some small areas, although are often sparse across much of the site. The forbs found commonly at this site include: Narrow Plantain *Plantago gaudichaudii*, Cut-leaf Goodenia *Goodenia pinnatifida*, Plains Stackhousia *Stackhousia subterranea*, Grassland Wood-sorrel *Oxalis perennans*, Lemon Beauty-heads *Calocephalus citreus*, Plains Everlasting *Chrysocephalum* sp. 1. and Cotton Fireweed *Senecio quadridentatus*. Spiny Rice-flower also occurred throughout.

NTG covers most of the surveyed land (12 ha, 91%). An area of NTG on the property is shown in Figure 2. The distribution of the community on the property is shown in Figure 3.



Figure 2. Natural Temperate Grassland (NTG) in Conservation Area 2; Wallaby Grass *Rytidosperma spp.* is dominant in the foreground beyond which Kangaroo Grass *Themeda triandra* can be seen to dominate much of the site.

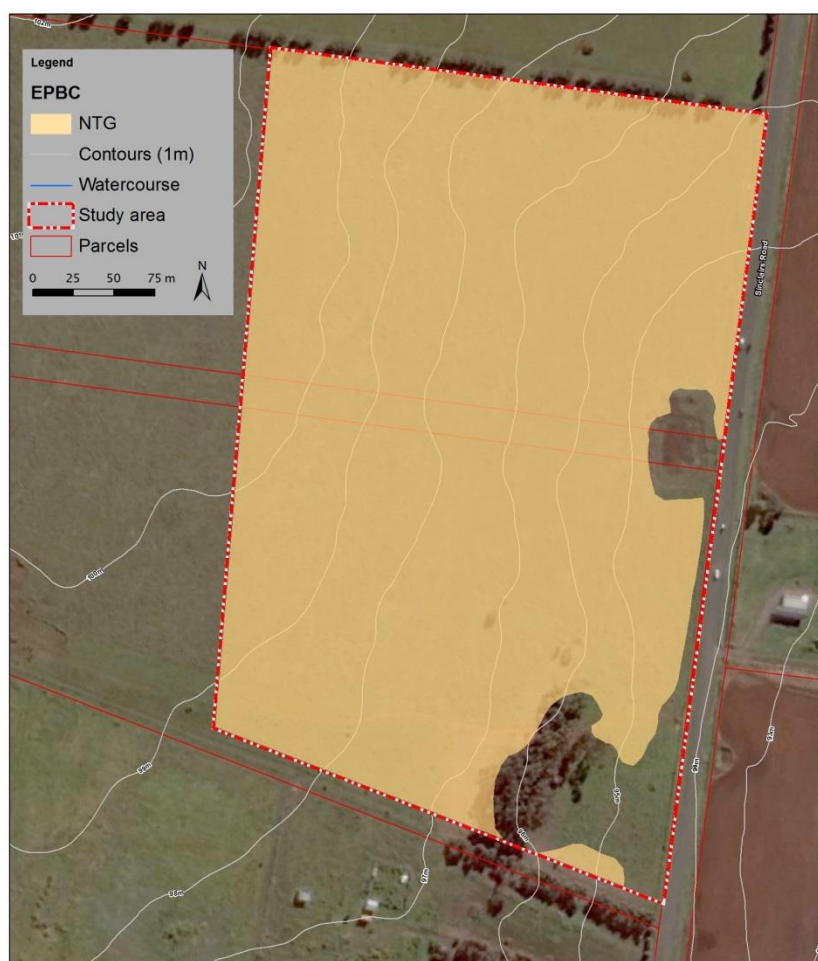


Figure 3. The distribution of Natural Temperate Grassland (NTG) at CA1

3.1.2 Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens*

Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens* is a stunted sub-shrub that grows to 30 cm high. It is limited to the basalt plains of Victoria and listed as critically endangered under the EPBC Act (Department of Environment 2015). Spiny Rice-flower is shown in Figure 4.

Habitat for the species was traversed in transects 5m apart. The total number of individuals recorded was 69. The location of these records are shown in Figure 12 (Section 3.5.1). Note that the distribution is considerably different to the locations shown in the Biodiversity Conservation Strategy (DEPI 2013a) which appears to be due to errors in the spatial data presented in the BCS (i.e. the location of the individuals has not changed).



Figure 4. A young Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens* at Conservation Area 1.

3.2 FFG-listed values

The Flora and Fauna Guarantee Act 1988 (FFG Act) is the primary Victorian legislation dedicated to the conservation of threatened species and communities. Although the structure of the MSA do not directly relate to the FFG Act, FFG-listed assets provide a useful structure for considering the status of the values on the property.

- One FFG-listed community occurs:
 - 'Western (Basalt) Plains Grassland Community', which corresponds directly with the EVC Plains Grassland, discussed below (Section 3.3).

- FFG-listed taxa include:

Spiny Rice Flower which is also EPBC listed, and is discussed above.

3.3 Ecological Vegetation Classes

The survey area contains 12 ha of native vegetation (91% of the property). The patterns of vegetation on the property can be described using one EVC, Plains Grassland. The current distribution of this EVC is shown in Figure 5 below. The assumed distribution of EVCs before European settlement ('pre-1750') is shown in Figure 6.

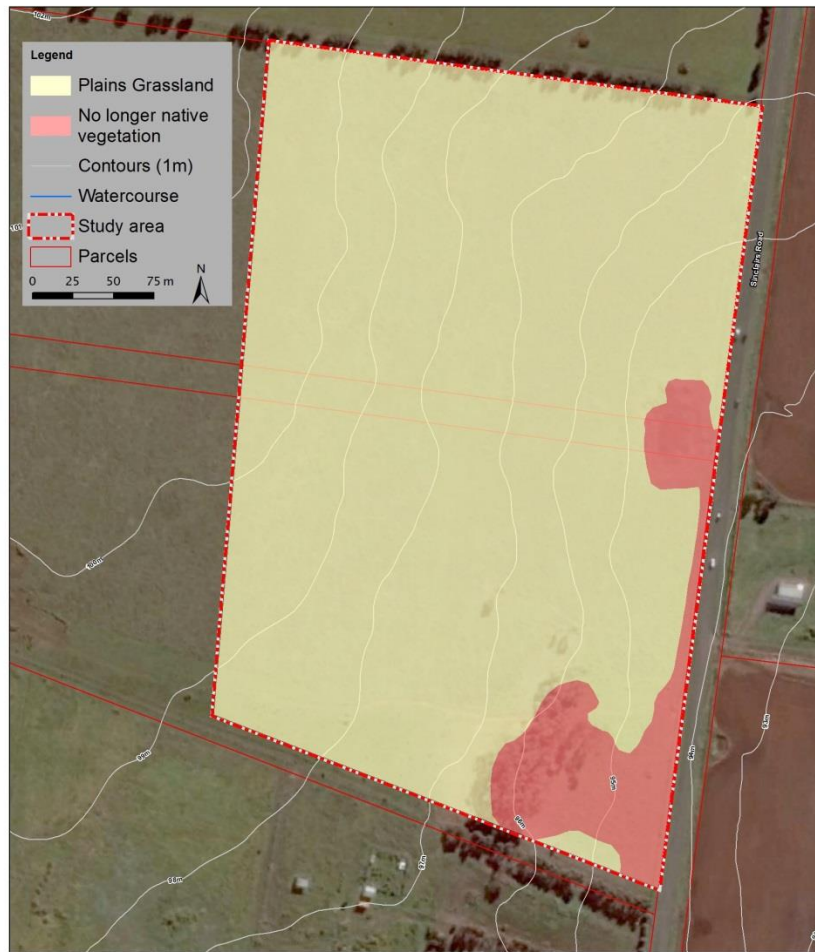


Figure 5. The current distribution of native vegetation classified according to EVC

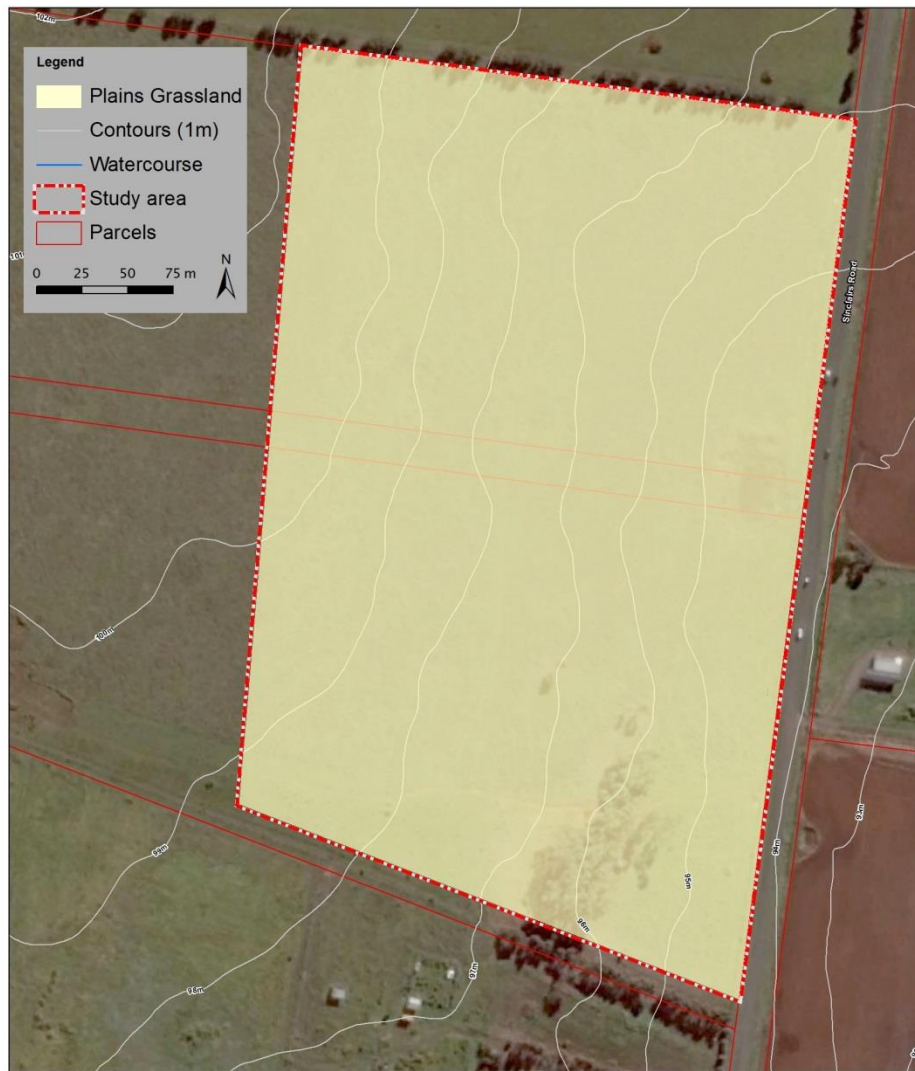


Figure 6. The likely pre-1750 distribution of Ecological Vegetation Classes

Plains Grassland (EVC 132)

This EVC includes all areas classified as NTG (Section 3.1.1). This EVC covers 12 ha of the site (91%).

The condition states of the Plains Grassland (and Plains Grassland habitat) areas are provided in Section 3.4.

3.4 Vegetation Patterns: Natural Temperate Grassland ‘States’

To assist the management of NTG, DELWP has created a state–transition model (STM) of this ecosystem. This is a conceptual model which describes the structure and dynamics of NTG in a way that is useful for management and planning. Any location within the NTG ecosystem (i.e. NTG habitat including current native vegetation or cleared land) can be described as being in a particular ‘state’. Locations may ‘transition’ (change) between states over time, as a result of natural disturbance or management. The ability to maintain and enhance NTG condition (i.e. reach management targets) depends on the ability to manipulate the transitions between states. Mapping the states is important because locations in a given ‘state’ share a particular set of management constraints and opportunities.

While some states are generally more intact than others, it is important to acknowledge that ‘quality’ or ‘value’ may vary substantially within a given state; and the assignment of a site to a particular state is not the same as a quality assessment.

NTG habitat was identified in several states, described below. Their distribution is shown in Figure 7.

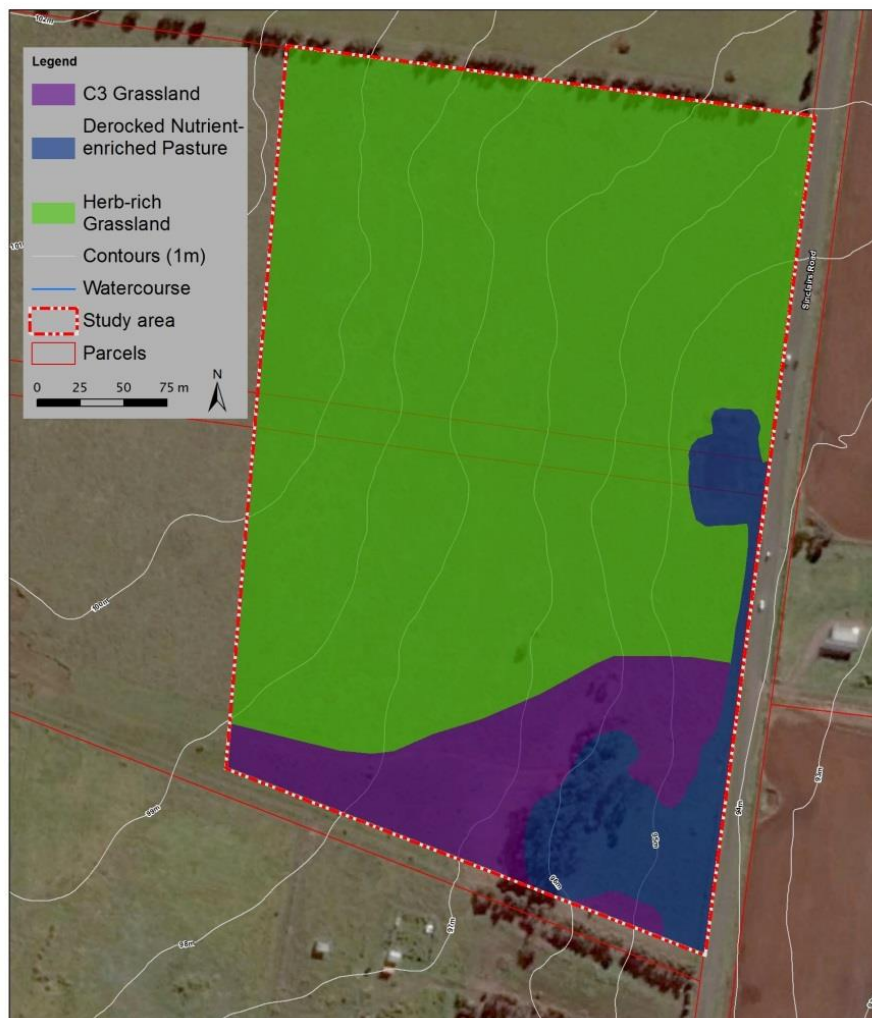


Figure 7. States of Natural Temperate Grassland Habitat

Herb-rich Grassland (HG)

This state includes areas with >10% Kangaroo Grass cover, an obvious cover of sensitive native herbs, and no history of cropping. It is considered of very high value, and is very rare in the landscape. It occupies much of the central areas of the site and is the dominant grassland state on the site. Note that the abundance of sensitive native herbs (excluding grasses) is quite variable across the site, with significant areas having a relatively low cover that could be considered to be the Themeda Grassland (TG) state rather than Herb-rich Grassland; however there were no easily distinguishable patterns which allowed mapping out of two separate states. Future management should consider the potential to reduce biomass cover and open inter-tussock spaces allowing increased recruitment for non-grass species.

The Herb-rich Grassland at the site is consistent with the description provided for NTG in Section 3.1.1. Herb-rich Grassland covers 10 ha of the site (79 %).



Figure 8. Herb-rich Grassland: overall non-grass herb-cover is relatively low.



Figure 9. Herb-rich Grassland: pockets dominated by non-grass herbs are scattered throughout, such as this area dominated by Plains Everlasting *Chrysocephalum* sp. 1.

C3 Grassland (C3G)

This state includes areas with <10% Kangaroo Grass cover and no history of cropping. It is uncommon in the landscape. The examples on site have few native herbs and are generally degraded in relation to the rest of the site. Weed cover can be high.

C3 Grassland covers 2 ha of the site (12 %); Figure 10 shows an example of this state at the site.



Figure 10. C3 Grassland in the south-east of the site

De-rocked Nutrient-enriched Pasture (DNP)

This state includes previously ploughed areas with less than 25% cover of native grasses. It includes the south-east of the site and along the eastern boundary, including an existing dam (Figure 11). The south-eastern area includes a portion with planted Sugar Gum *Eucalyptus cladocalyx*, which are regenerating in the adjacent grassland areas.

De-rocked Nutrient-enriched Pasture covers 1 ha of the site (9 %).



Figure 11. De-rocked Nutrient-enriched Pasture (cropped land) includes the existing (empty) dam on site.

3.5 Plant taxa

One hundred and thirteen vascular plant taxa have been recorded as naturally occurring on the surveyed land. Forty-seven (47) of the 111 taxa are native (42%).

Appendix 1 lists all of the vascular plant species recorded. Due to the seasonality of assessment and limited survey period this should be considered a preliminary list that should be refined with future survey work (for instance Growth Areas Authority (2010b) note Chocolate Lily *Arthropodium strictum* occurring on the property (a larger area than CA1) but this species was not observed during this study).

3.5.1 National and State significant native taxa

One taxon recorded at the site is EPBC and FFG listed: Spiny Rice Flower (refer to Section 3.1.2).

One taxon previously recorded at the site but not recorded in this survey is listed as 'Vulnerable' in Victoria (VROT); another taxon listed as 'Poorly Known' in Victoria (VROT) was recorded in this survey.

Table 1 lists the National and State significant flora taxa recorded at the site with some brief notes about their occurrence. Figure 12 shows the distribution of these taxa (but not those that are widespread).

Table 1. Plant taxa listed under the EPBC Act, FFG Act or on the DELWP Advisory List (VROT) (DEPI 2014b).

Scientific Name	Common Name	EPBC	FFG	VROT	Observations
<i>Convolvulus angustissimus</i> <i>subsp. omnigracilis</i>	Slender Bindweed			k	Few scatterings across site (not mapped)
<i>Microseris scapigera s.s.</i>	Plains Yam-daisy			v	Recorded in BCS, DELWP advises records are from 'GAA 3' (2010/2011) – it was not seen in this study but likely to be not visible at time of assessment.
<i>Pimelea spinescens subsp. spinescens</i>	Spiny Rice-flower	CR	L	e	Scattered across site (refer to Figure 12)

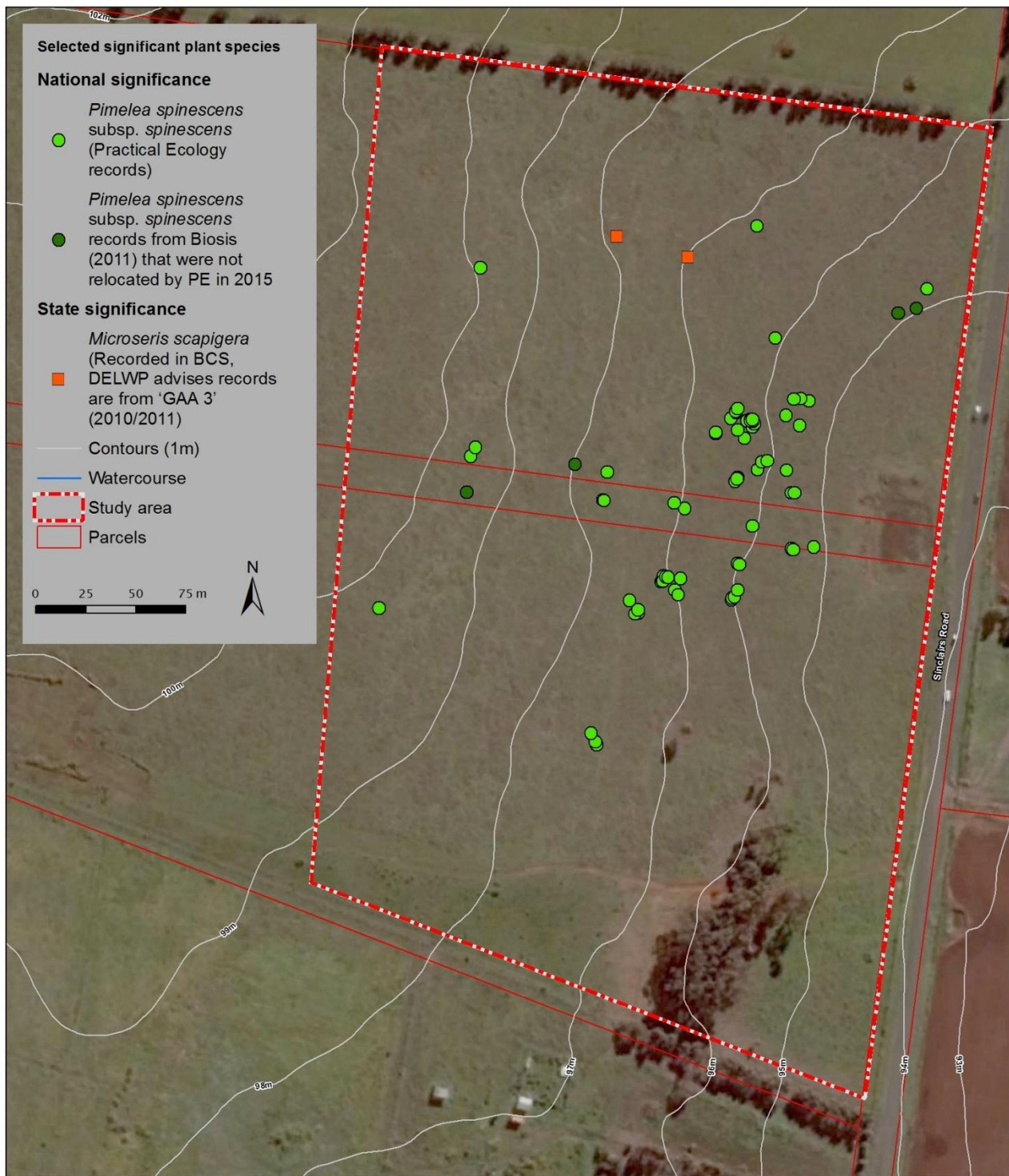


Figure 12. The locations of National and State significant plant taxa (i.e. EPBC Act, FFG Act or on the DELWP Advisory List (DEPI 2014b)).

3.5.2 Weeds

Of the 111 plant taxa recorded, 64 were introduced (58%). Some of the introduced plants identified pose serious risks to native vegetation on or near the surveyed land, or to agriculture in the surrounding areas. The identification and mapping of those species is necessary to assist management.

Table 2 lists the weeds recorded on the property which are listed under the CaLP Act, and notes their category of listing in the Port Phillip region. Figure 13 shows the distribution on the surveyed land of some of these weeds; however it should not be considered an exhaustive indication and some very abundant weeds are not shown.

Table 2. Declared noxious weeds recorded on the surveyed land

CALP Act Category	Scientific Name	Common Name	Observation
Restricted	<i>Asphodelus fistulosus</i>	Onion Weed	Disturbed areas (DNP) in south-east
Regionally Controlled	<i>Cirsium vulgare</i>	Spear Thistle	Lightly scattered
Regionally Controlled	<i>Cynara cardunculus</i>	Artichoke Thistle	Widespread
Regionally Controlled	<i>Dittrichia graveolens</i>	Stinkwort	A couple of plants found in C3G
Regionally Controlled	<i>Echium plantagineum</i>	Paterson's Curse	Lightly scattered
Regionally Controlled	<i>Lycium ferocissimum</i>	African Boxthorn	Widely scattered
Regionally Controlled	<i>Marrubium vulgare</i>	Horehound	Limited locations
Regionally Controlled	<i>Nassella trichotoma</i>	Serrated Tussock	Widespread with some dense areas of infestation
Restricted	<i>Oxalis pes-caprae</i>	Soursob	Disturbed areas
Regionally Controlled	<i>Opuntia ?stricta</i>	Prickly Pear	Southern boundary
Regionally Controlled	<i>Physalis hederifolia</i>	Sticky Ground-cherry	Disturbed areas (DNP) in south-east
Regionally Controlled	<i>Ulex europaeus</i>	Gorse/Furze	Widely scattered
Regionally Controlled	<i>Xanthium spinosum</i>	Bathurst Burr	Disturbed areas in south (DNP and C3G)

In addition to these species, several others are considered serious weeds:

- *Galenia pubescens* Blanket Weed (mostly disturbed areas)
- *Nassella hyalina* Cane Needle-grass (eastern boundary).
- *Eucalyptus cladocalyx* Sugar Gum (mostly planted but some are regenerating in the adjacent grassland areas).

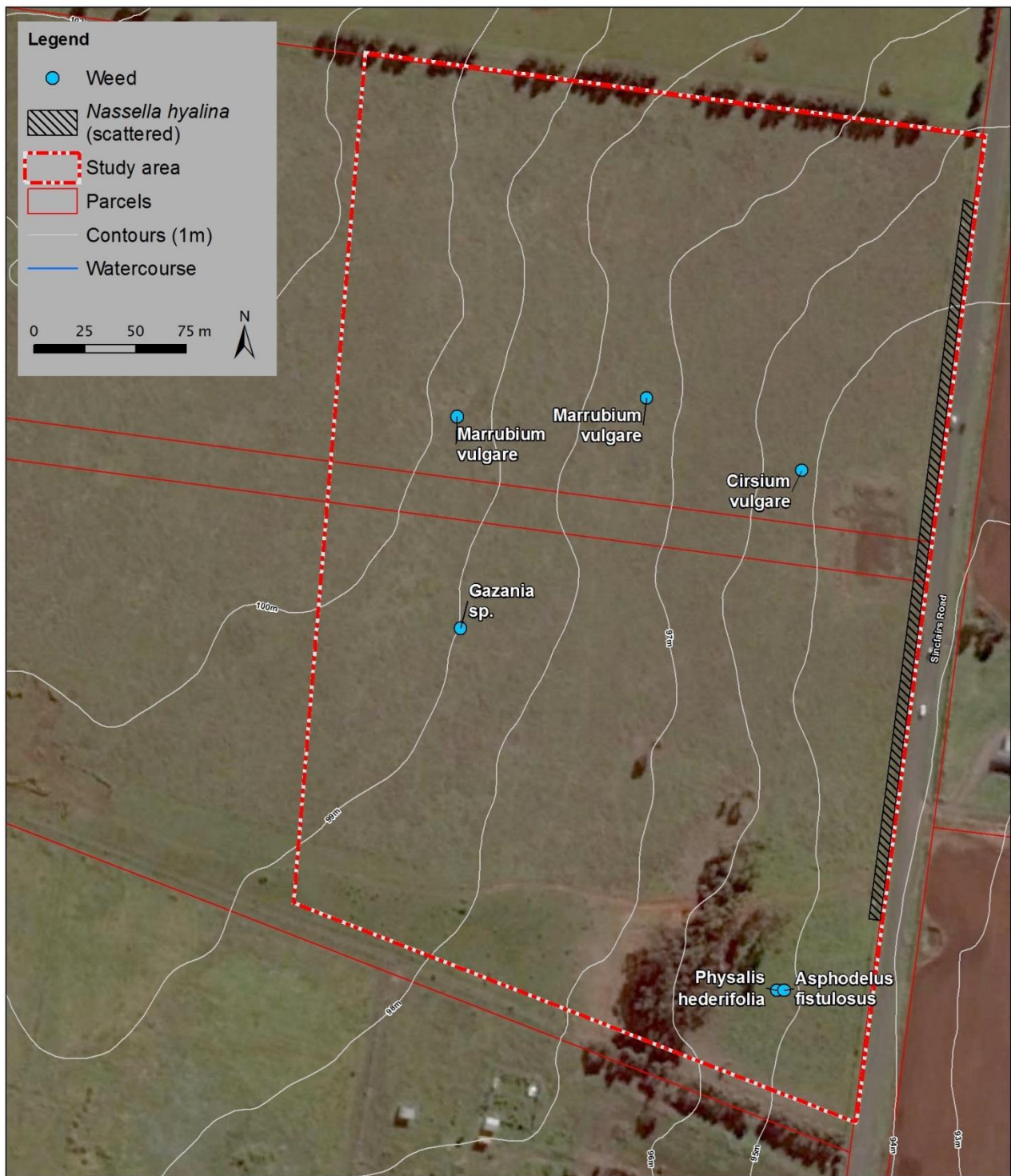


Figure 13. The locations of selected weed species. Note *Nassella trichotoma* and *Cynara cardunculus* are widespread and are not shown.

3.6 Hot Spots

The information presented above provides a formal spatial assessment of the values. This section provides a subjective assessment of where these values intersect to create conspicuous concentrations of biological values (and risks), called here “hot spots”. These are the places of particular interest on the property, and places where intensive or intricate management may be justified to protect the values of the site. The assessment of hot spots is necessarily subjective, because it takes into account some intangible quantities, including interesting or unusual juxtapositions of biological values for educational purposes, etc.

The Herb-rich Grassland is identified as a hotspot as shown in Figure 14.

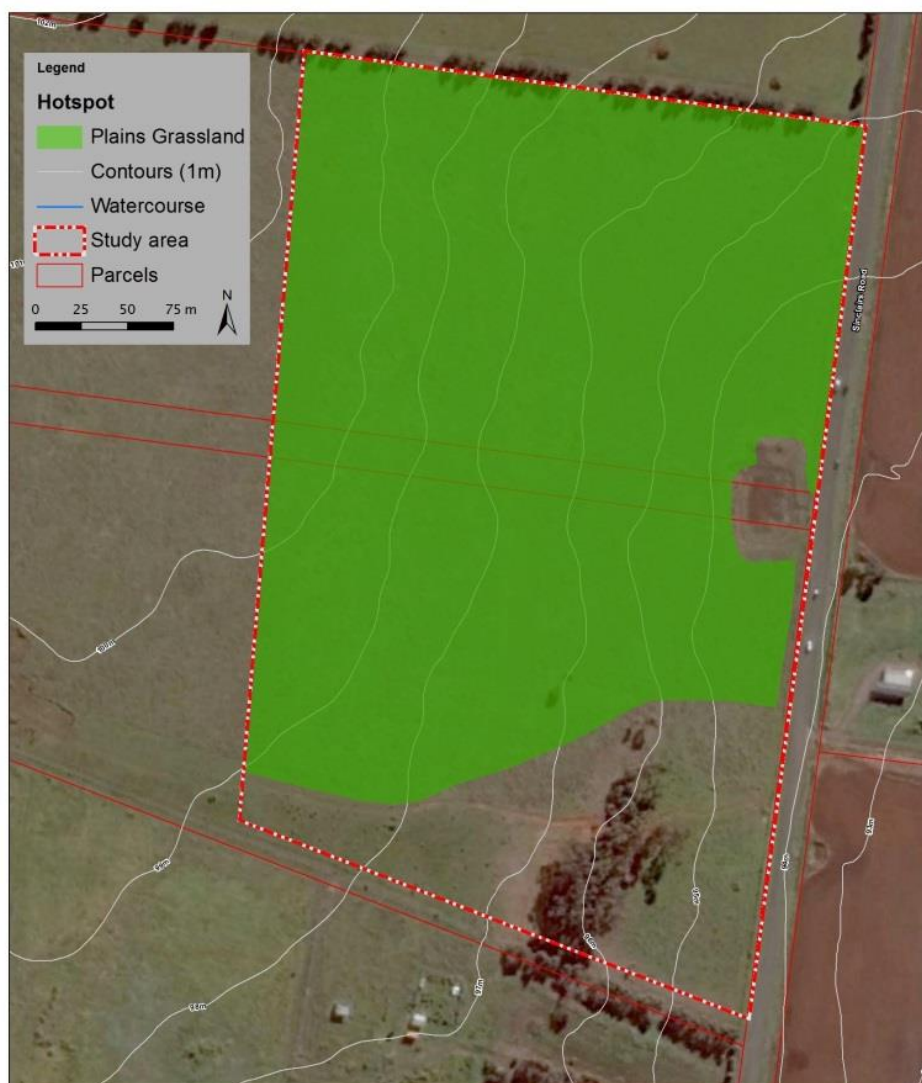


Figure 14. Distribution of ‘hot spot’ at Conservation Area 1.

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Appendix 1. List of vascular plants identified

INDIGENOUS

Family	Scientific Name	Common Name	EPBC	FFG	VROT
MONOCOTS					
Cyperaceae	<i>Schoenus apogon</i>	Common Bog-sedge			
Juncaceae	<i>Juncus flavidus</i>	Gold Rush			
Poaceae	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass			
Poaceae	<i>Austrostipa curticoma</i>	Short-crown Spear-grass			
Poaceae	<i>Austrostipa gibbosa</i>	Spurred Spear-grass			
Poaceae	<i>Austrostipa scabra</i>	Rough Spear-grass			
Poaceae	<i>Chloris truncata</i>	Windmill Grass			
Poaceae	<i>Lachnagrostis filiformis s.s.</i>	Common Blown-grass			
Poaceae	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass			
Poaceae	<i>Poa sieberiana</i>	Grey Tussock-grass			
Poaceae	<i>Rytidosperma fulvum</i>	Copper-awned Wallaby-grass			
Poaceae	<i>Rytidosperma geniculatum</i>	Kneed Wallaby-grass			
Poaceae	<i>Rytidosperma setaceum var. setaceum</i>	Bristly Wallaby-grass			
Poaceae	<i>Themeda triandra</i>	Kangaroo Grass			
DICOTS					
Apiaceae	<i>Eryngium ovinum</i>	Blue Devil			
Apiaceae	<i>Eryngium vesiculosum</i>	Prickfoot			
Asteraceae	<i>Calocephalus citreus</i>	Lemon Beauty-heads			
Asteraceae	<i>Cassinia arcuata</i>	Drooping Cassinia			
Asteraceae	<i>Chrysocephalum sp. 1</i>	Plains Everlasting			
Asteraceae	<i>Euchiton sphaericus</i>	Annual Cudweed			
Asteraceae	<i>Helichrysum luteoalbum</i>	Jersey Cudweed			
Asteraceae	<i>Senecio quadridentatus</i>	Cotton Fireweed			
Asteraceae	<i>Solenogyne dominii</i>	Smooth Solenogyne			
Asteraceae	<i>Vittadinia cuneata</i>	Fuzzy New Holland Daisy			
Asteraceae	<i>Vittadinia gracilis</i>	Woolly New Holland Daisy			
Asteraceae	<i>Leptorhynchus squamatus</i>	Scaly Buttons			
Campanulaceae	<i>Wahlenbergia spp.</i>	Bluebell			
Celastraceae	<i>Stackhousia subterranea</i>	Plains Stackhousia			
Chenopodioideae	<i>Atriplex semibaccata</i>	Berry Saltbush			
Chenopodioideae	<i>Einadia nutans</i>	Nodding Saltbush			
Chenopodioideae	<i>Enchylaena tomentosa var. tomentosa</i>	Ruby Saltbush			
Chenopodioideae	<i>Maireana decalvans s.l.</i>	Black Cotton-bush			
Convolvulaceae	<i>Convolvulus angustissimus subsp. omnigracilis</i>	Slender Bindweed			k
Convolvulaceae	<i>Dichondra repens</i>	Kidney-weed			
Crassulaceae	<i>Crassula sieberiana s.l.</i>	Sieber Crassula			
Geraniaceae	<i>Erodium crinitum</i>	Blue Heron's-bill			
Geraniaceae	<i>Geranium retrorsum s.l.</i>	Grassland Crane's-bill			
Goodeniaceae	<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia			
Goodeniaceae	<i>Velleia paradoxa</i>	Spur Velleia			
Hypericaceae	<i>Hypericum gramineum spp. agg.</i>	Small St John's Wort			
Oxalidaceae	<i>Oxalis perennans</i>	Grassland Wood-sorrel			
Plantaginaceae	<i>Plantago gaudichaudii</i>	Narrow Plantain			

Family	Scientific Name	Common Name	EPBC	FFG	VROT
Plantaginaceae	<i>Plantago varia</i>	Variable Plantain			
Rubiaceae	<i>Asperula conferta</i>	Common Woodruff			
Sanguisorbeae	<i>Acaena echinata</i>	Sheep's Burr			
Thymelaeaceae	<i>Pimelea spinescens subsp. spinescens</i>	Spiny Rice-flower	CR	L	e
Violaceae	<i>Melicytus sp. aff. dentatus (Volcanic Plain variant)</i>	Tangled Shrub-violet			

INTRODUCED

Family	Scientific Name	Common Name
MONOCOTS		
Asphodelaceae	<i>Asphodelus fistulosus</i>	Onion Weed
Iridaceae	<i>Romulea rosea</i>	Onion Grass
Poaceae	<i>Aira spp.</i>	Hair Grass
Poaceae	<i>Avena barbata</i>	Bearded Oat
Poaceae	<i>Bromus catharticus</i>	Prairie Grass
Poaceae	<i>Bromus diandrus</i>	Great Brome
Poaceae	<i>Bromus hordeaceus subsp. hordeaceus</i>	Soft Brome
Poaceae	<i>Cynodon dactylon var. dactylon</i>	Couch
Poaceae	<i>Dactylis glomerata</i>	Cocksfoot
Poaceae	<i>Ehrharta erecta var. erecta</i>	Panic Veldt-grass
Poaceae	<i>Ehrharta longiflora</i>	Annual Veldt-grass
Poaceae	<i>Holcus lanatus</i>	Yorkshire Fog
Poaceae	<i>Hordeum spp.</i>	Barley Grass
Poaceae	<i>Lolium perenne</i>	Perennial Rye-grass
Poaceae	<i>Lolium rigidum</i>	Wimmera Rye-grass
Poaceae	<i>Nassella hyalina</i>	Cane Needle-grass
Poaceae	<i>Nassella trichotoma</i>	Serrated Tussock
Poaceae	<i>Phalaris aquatica</i>	Toowoomba Canary-grass
Poaceae	<i>Vulpia bromoides</i>	Squirrel-tail Fescue
DICOTS		
Aizoaceae	<i>Aptenia cordifolia</i>	Heart-leaf Ice-plant
Aizoaceae	<i>Galenia pubescens var. pubescens</i>	Galenia
Asteraceae	<i>Arctotheca calendula</i>	Cape weed
Asteraceae	<i>Cirsium vulgare</i>	Spear Thistle
Asteraceae	<i>Conyza spp.</i>	Fleabane
Asteraceae	<i>Cynara cardunculus subsp. flavescent</i>	Artichoke Thistle
Asteraceae	<i>Dittrichia graveolens</i>	Stinkwort
Asteraceae	<i>Gamochaeta purpurea s.l.</i>	Purple Cudweed
Asteraceae	<i>Gazania linearis</i>	Gazania
Asteraceae	<i>Helminthotheca echinoides</i>	Ox-tongue
Asteraceae	<i>Hypochaeris radicata</i>	Flatweed
Asteraceae	<i>Sonchus oleraceus</i>	Common Sow-thistle
Asteraceae	<i>Xanthium spinosum</i>	Bathurst Burr
Boraginaceae	<i>Echium plantagineum</i>	Paterson's Curse
Brassicaceae	<i>Brassica fruticulosa</i>	Twiggy Turnip
Brassicaceae	<i>Brassica spp.</i>	Turnip
Brassicaceae	<i>Capsella bursa-pastoris</i>	Shepherd's Purse
Brassicaceae	<i>Lepidium africanum</i>	Common Peppergrass
Cactaceae	<i>Opuntia spp.</i>	Prickly pear
Caryophyllaceae	<i>Cerastium glomeratum s.l.</i>	Common Mouse-ear Chickweed
Chenopodioideae	<i>Chenopodium album</i>	Fat Hen
Chenopodioideae	<i>Chenopodium murale</i>	Sowbane
Fabaceae	<i>Medicago polymorpha</i>	Burr Medic
Fabaceae	<i>Trifolium angustifolium var. angustifolium</i>	Narrow-leaf Clover
Fabaceae	<i>Trifolium glomeratum</i>	Cluster Clover
Fabaceae	<i>Trifolium spp.</i>	Clover

Family	Scientific Name	Common Name
Fabaceae	<i>Ulex europaeus</i>	Gorse
Fabaceae	<i>Vicia sativa</i>	Common Vetch
Fumariaceae	<i>Fumaria spp.</i>	Fumitory
Gentianaceae	<i>Centaurium erythraea</i>	Common Centaury
Geraniaceae	<i>Erodium botrys</i>	Big Heron's-bill
Lamiaceae	<i>Marrubium vulgare</i>	Horehound
Lamiaceae	<i>Salvia verbenaca</i>	Wild Sage
Malvaceae	<i>Malva parviflora</i>	Small-flower Mallow
Malvaceae	<i>Modiola caroliniana</i>	Red-flower Mallow
Myrsinaceae	<i>Lysimachia arvensis</i>	Pimpernel
Myrtaceae	<i>Eucalyptus cladocalyx</i>	Sugar Gum
Oxalidaceae	<i>Oxalis pes-caprae</i>	Soursob
Plantaginaceae	<i>Plantago coronopus</i>	Buck's-horn Plantain
Plantaginaceae	<i>Plantago lanceolata</i>	Ribwort
Polygonaceae	<i>Acetosella vulgaris</i>	Sheep Sorrel
Polygonaceae	<i>Rumex crispus</i>	Curled Dock
Polygonaceae	<i>Rumex spp. (naturalised)</i>	Dock (naturalised)
Solanaceae	<i>Lycium ferocissimum</i>	African Box-thorn
Solanaceae	<i>Physalis hederifolia</i>	Sticky Ground-cherry
Solanaceae	<i>Solanum nigrum s.l.</i>	Black Nightshade