M70/656 ABERCROMBIE ROAD, POSTANS

FLORA AND VEGETATION SURVEY

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Threatened Ecological Communities

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1 INTRODUCTION

1.1 Background

Mining Tenement M70/656 (the site) is located on the southern part of Lot 313 Abercrombie Road, Postans in the City of Kwinana, approximately 30km south of the Perth Central Business District (Figure 1). The tenement is 18.02ha and is bounded by mostly cleared rural land to the east, Ratcliffe Road and native vegetation to the south-west, a quarry to the north and other large mostly cleared land to the west (Figure 2).

The owners of the tenement, WA Limestone, plan to expand the existing quarry to the north into the tenement. A preliminary flora and vegetation survey was undertaken on the site in late spring 2017 (Natural Area Holdings, 2018). PGV Environmental was commissioned by WA Limestone to undertake a flora and vegetation survey of the tenement in mid-spring and to assess the conservation significance of flora and vegetation communities to assist the applications for future mining of the site.

1.2 Scope of Works

A Detailed Flora and Vegetation Survey was undertaken in accordance with EPA Technical Guidance *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016). The survey included the following:

- Desktop search and review of the Department of Biodiversity, Conservation and Attractions (DBCA) Threatened and Priority flora and ecological community Databases;
- A search of the Naturemap website (DBCA, 2020);
- A search of the Commonwealth Government's Protected Matters Search Tool (DAWE, 2020) to identify species potentially occurring within the area that are protected under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999;
- Examination of historic and recent aerial photography and contour and soil maps to provisionally identify vegetation types and condition;
- Field survey using quadrats to record native and introduced species as well as a thorough site walkover of any areas of native vegetation;
- Recording of any significant plant species using a hand-held GPS;
- Description and mapping of vegetation types and vegetation condition; and
- Compilation of a flora list.

2 EXISTING ENVIRONMENT

2.1 Land Use

The site is currently zoned 'Parks and Recreation' and contains a corridor zoned 'Public purposes - special uses' under the Metropolitan Region Scheme (National Map, 2020) (Plate 1). Zoning under the City of Kwinana Local Planning Scheme No. 2 (WAPC, 1992) reflects the zoning under the MRS.

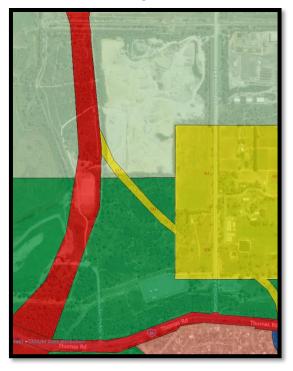


Plate 1: Zoning under the MRS

The earliest available historic aerial photograph on-line from 1953 (Landgate, 2020) shows that the site contains native vegetation (Plate 2). The site remains completely vegetated in 1989 (Plate 3) apart from a few tracks through the site.

Plate 2: Aerial Photograph 1953

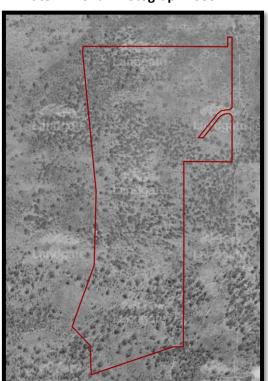


Plate 3: Aerial Photograph 1989



The 2013 aerial photo shows the extent of quarrying activity on the northern half of the lot and shows the tenement as uncleared native vegetation (Plate 4).



Plate 4: Aerial Photograph 2013 (Landgate, 2020)

The site remains vegetated to the present (Figure 2).

2.2 Topography

The site is gently undulating with a south-west/north-east trending ridge at an elevation of around 31m Australian Height Datum (AHD) in the central western part of the site which slopes down gently to the north, east and south. The lowest part of the site has an elevation of around 18m along the eastern boundary (Figure 2).

2.3 Geology and Soils

2.3.1 Geology

The site is mapped as part of the Spearwood System which has the highest relief of the dune systems on the Swan Coastal Plain (Bolland, 1998). The Spearwood system consists of slightly calcareous Aeolian sand remnant from leaching of the underlying Pleistocene Tamala limestone (Davidson, 1995).

2.3.2 Soils

Two Spearwood soil units are mapped on the site and are described as follows:

- Spearwood S2a Phase (211Sp_S2a) lower slopes of dune ridge with moderately deep to deep siliceous yellow-brown sands or pale sands with yellow-brown subsoils and minor limestone outcrop (DPIRD, 2020), mapped over the majority of the site; and
- Spearwood Wet, Swamp Phase (211SpW_SWAMP) which are soils that occur with swamps (DPIRD, 2020). This soil phase is located in a very small area on the western boundary.

2.4 Hydrology

Groundwater is at approximately 1m AHD, which is 17m to 30m below the surface level, and generally flows to the north-west (DWER, 2020). There are no wetlands mapped on the site (National Map, 2020).

3 METHODOLOGY

3.1 Database Searches

Searches of the following databases were undertaken for a 10km radius around the central point of the site prior to the site survey:

- Department of Biodiversity, Conservation and Attractions (DBCA) Declared Rare and Priority Flora database and Threatened Ecological Communities database (Appendix 1);
- DBCA Naturemap Database (DBCA, 2020) (Appendix 2); and
- The Commonwealth Government's Protected Matters Search Tool to identify species potentially occurring within the area that are protected under the *Environment Protection and Biodiversity Conservation* (EPBC) *Act 1999* (DAWE, 2020). A radius of 5km was used for this database (Appendix 3).

3.2 Site Survey

A flora and vegetation survey of the site was conducted by Dr Paul van der Moezel of PGV Environmental on 13 September 2020.

The site was thoroughly walked to record all species in the survey area. The site was walked in parallel transects spaced 20m apart in order to maximise the recording of small plants, particularly orchid species. The dense stands of *Acacia rostellifera* were harder to walk through and had a lower site coverage.

Information on flora composition and vegetation structure was recorded in six 10m x 10m non-permanent quadrats in representative vegetation types.

Most plant species were identified in the field. Some specimens were photographed or taken for identification at the Perth Reference Herbarium or office using standard reference guides.

3.3 Survey Conditions

The conditions that the survey was undertaken in are presented in Table 1 in order to assess the adequacy of the survey. In summary, there were no constraints to the survey.

Table 1: Statement of Botanical Survey Conditions

Issue	Constraints (Y/N)*	Comment
Competency/experience of the		Dr Paul van der Moezel has extensive
consultant conducting the survey	No	botanical survey experience in the Perth
consultant conducting the survey		Metropolitan Region.
		The timing of the survey in mid-
	No	September was optimal to identify most
Proportion of the flora identified^		flora species on the site including all
		potential Threatened and Priority Flora.
		No follow-up survey required.
Sources of information	No	The flora in the Perth Metropolitan
(historic/recent or new data)	INU	Region is well documented.

Issue	Constraints (Y/N)*	Comment
Proportion of the task achieved and		No follow-up survey required as no
further work that may need to be	No	Threatened Flora expected to occur in
undertaken		other seasons.
Timing/weather/season/cycle	No	The spring survey was optimal for most flora species. 2020 was a good year for ephemeral species, including orchids.
Disturbances (Fire)	No	The fire age of the vegetation was mostly greater than 5 years.
Intensity of survey (e.g. In retrospect	No	
was the intensity adequate)	INO	The time spent on the small site and ease
Completeness (e.g. was relevant area fully surveyed)	No	of access made for a full coverage.
Resources (e.g. degree of expertise	No	Experienced botanist undertook most
available for plant identification)	INO	plant identifications on site.
Remoteness and/or access problems	No	Easily accessible site in the Perth
Remoteriess and/or access problems	INO	Metropolitan Region.
Availability of contextual (e.g.		
bioregional) information for the study	No	Bush Forever
area.		

^{*}Constraints have been rated as Significant, Moderate or No constraints

[^]Fungi and nonvascular flora (e.g. algae, mosses and liverworts) were not specifically surveyed for during the survey.

4 RESULTS

4.1 Flora Database Searches

A search of the DBCA Threatened Flora Databases: the WA Herbarium database (WAHerb), the Threatened (Declared Rare) and Priority Flora Species List (TFPL) (Appendix 1) and Naturemap Database (Appendix 2) indicates that a number of species that are listed as Endangered, Threatened or Priority have been located within a 10km radius of the site. The and the EPBC Act Protected Matters Search Tool (Appendix 3) indicates species that may have habitat within 5km radius of the site. The results from these database searches are shown in Table 2. None of the species has been recorded from the survey area.

Table 3 lists the likelihood that any of these species could occur on the site based on the soil types and vegetation condition.

Table 2: Conservation Significant Flora Identified in Database Searches

Scientific Name	Common Name	Conservation Status (WA)	Status under EPBC Act
	King Spider-orchid, Grand	Status (VVI)	7100
Caladenia huegelii	Spider-orchid, Rusty Spider-	Schedule 1	Endangered
	orchid		
Drakaea elastica	Glossy-leafed Hammer Orchid	Schedule 1	Endangered
Synaphea sp. Serpentine		Schedule 1	Critically
(G.R Brand 103)		Scriedule 1	Endangered
Diuris purdiei	Purdie's Donkey-orchid	Schedule 2	Endangered
Drakaea micrantha	Dwarf Hammer-orchid	Schedule 2	Vulnerable
Andersonia gracilis	Slender Andersonia	Schedule 3	Endangered
Diuris drummondii	Tall Donkey Orchid	Schedule 3	Vulnerable
Diuris micrantha	Dwarf Bee-orchid	Schedule 3	Vulnerable
Eleocharis keigheryi	Keighery's Eleocharis	Schedule 3	Vulnerable
Acacia lasiocarpa var.			
bracteolata long peduncle		Priority 1	
variant (G.J. Keighery		Priority 1	
5026)			
Acacia sp. Binningup (G.			
Cockerton et al. WB		Priority 1	
37784)			
Boronia jucunda		Priority 1	
Lachnagrostis nesomytica		Priority 1	
subsp. <i>paralia</i>		Friority 1	
Tetraria sp. Chandala (G.J.		Priority 2	
Keighery 17055)		Friority 2	
Thelymitra variegata	Queen of Sheba	Priority 2	
Amanita preissii	Cinnamon-ring Lepidella	Priority 3	
Amanita wadjukiorum	Wadjuk Lepidella	Priority 3	
Austrostipa mundula		Priority 3	

Scientific Name	Common Name	Conservation Status (WA)	Status under EPBC Act
Babingtonia urbana	Coastal Plain Babingtonia	Priority 3	
Cyathochaeta teretifolia		Priority 3	
Hibbertia spicata subsp.		Driority 2	
leptotheca		Priority 3	
Jacksonia gracillima		Priority 3	
Phlebocarya pilosissima		Priority 3	
subsp. <i>pilosissima</i>		Priority 3	
Pimelea calcicola		Priority 3	
Pithocarpa corymbulosa		Priority 3	
Sphaerolobium calcicola		Priority 3	
Stylidium paludicola		Priority 3	
Styphelia filifolia		Priority 3	
Aponogeton hexatepalus	Stalked Water Ribbons	Priority 4	
Dodonaea hackettiana	Hackett's Hopbush	Priority 4	
Grevillea olivacea		Priority 4	
Jacksonia sericea	Waldjumi	Priority 4	
Kennedia beckxiana	Cape Arid Kennedia	Priority 4	
Lepidium puberulum		Priority 4	
Microtis quadrata	South Coast Mignonette Orchid	Priority 4	
Myosotis australis	Southern Forget-me-not	Priority 4	
Stylidium ireneae		Priority 4	
Stylidium longitubum	Jumping Jacks	Priority 4	
Stylidium striatum	Fan-leaved Triggerplant	Priority 4	
Tripterococcus sp. Brachylobus (A.S. George 14234)		Priority 4	
Verticordia lindleyi subsp. lindleyi		Priority 4	

Conservation Codes are shown in Appendix 4

Table 3: Likelihood of Identified Significant Flora Species Occurring on the Site

Scientific Name	Common Name	Habitat*	Likelihood to occur on the site
Caladenia huegelii	King Spider- orchid, Grand Spider- orchid, Rusty Spider-orchid	The Grand Spider-orchid prefers sand or clay loam. This species generally does not survive in disturbed areas.	Unlikely – Shallow sand over limestone not typical habitat for the species
Drakaea elastica	Glossy-leafed Hammer Orchid	The Glossy-leafed Hammer Orchid prefers low-lying situations adjoining winter-wet swamps. This species does not survive in disturbed areas.	No – not swampy habitat

Scientific Name	Common Name	Habitat*	Likelihood to occur on the site
Synaphea sp. Serpentine (G.R Brand 103)		Synaphea sp. Serpentine occurs in greybrown sandy loams or clay in seasonally wet areas (DPaW, 2017).	No – not seasonally wet habitat
Diuris purdiei	Purdie's Donkey- orchid	Purdie's Donkey Orchid occurs in grey- black sand in moist winter-wet swamps.	No – not swampy habitat
Drakaea micrantha	Dwarf Hammer- orchid	Dwarf Hammer-orchid occurs in grey sands over dark, grey to blackish, sandy clay-loam substrates in winter wet depressions or swamps.	No – not swampy habitat
Andersonia gracilis	Slender Andersonia	Slender Andersonia occurs in white/grey sand, sandy clay, gravelly loam in winterwet areas, near swamps.	No – not winter-wet habitat
Diuris drummondii	Tall Donkey Orchid	The Tall Donkey Orchid grows in low-lying depressions, swamps, in areas that contain surface water well into summer (Brown <i>et al.</i> , 2013).	No – not swamp habitat
Diuris micrantha	Dwarf Bee- orchid	The Dwarf Bee-orchid is usually found on cleared firebreaks or open sandy patches that have been disturbed with Jarrah Banksia woodland or thickets of Spearwood (Kunzea ericifolia/glabrescens) (Williams et al., 2001).	Highly Unlikely – not suitable habitat
Eleocharis keigheryi	Keighery's Eleocharis	Keighery's Eleocharis occurs in clay, sandy loam and is emergent in freshwater: creeks, claypans.	No – not wetland habitat
Acacia lasiocarpa var. bracteolata long peduncle variant (G.J. Keighery 5026)		This variant of <i>Acacia lasiocarpa</i> occurs in grey or black sand over clay in swampy areas, winter wet lowlands.	No – not swamp habitat
Acacia sp. Binningup (G. Cockerton et al. WB 37784)		Acacia sp. Binningup grows in sand in Tuart Woodland on the Quidalup dune system (ALA, 2020).	No – not in the Quindalup system
Boronia jucunda		Boronia jucunda prefers quartzite in rocky areas in open eucalypt woodland.	No – not suitable quartzite habitat
Lachnagrostis nesomytica subsp. paralia		Lachnagrostis nesomytica subsp. paralia occurs in calcareous sands on coastal dunes and swales.	Unlikely – not coastal dune habitat
Tetraria sp. Chandala (G.J. Keighery 17055)		Tetraria sp. Chandala is recorded from a mound spring in peaty sand (Western Australian Herbarium, 2005).	No – not mound spring habitat

Scientific Name	Common Name	Habitat*	Likelihood to occur on the site
Thelymitra	Queen of	The Queen of Sheba orchid grows on	No – not suitable
variegata	Sheba	sandy clay, sand and laterite.	habitat
Amanita preissii	Cinnamon- ring Lepidella	Cinnamon-ring Lepidella is found under shrubs and <i>Eucalyptus</i> in West Australia (Amanitaceae Org, 2015) in sandy soil and lateritic gravel, associated with <i>Allocasuarina fraseriana, Acacia pulchella, Corymbia calophylla, Callitris</i> sp., <i>Eucalyptus gomphocephala, E. marginata, Macrozamia fraseri</i> and <i>Pinus pinaster</i> (Davidson <i>et al.,</i> 2017).	Unlikely – not suitable habitat
Amanita wadjukiorum	Wadjuk Lepidella	Wadjuk Lepidella is solitary to gregarious, in sandy soil in degraded native vegetation with <i>Allocasuarina fraseriana</i> , <i>Corymbia calophylla</i> , <i>C. citriodora</i> and <i>Brachychiton</i> sp (Davidson <i>et al.</i> , 2013).	Unlikely – not suitable habitat
Austrostipa mundula		Austrostipa mundula occurs on plains in grey sand (Western Australian Herbarium, 2001).	Unlikely – not suitable habitat
Babingtonia urbana	Coastal Plain Babingtonia	Coastal Plain Babingtonia occurs in orange sand, brown loam, white sandy clay on low flats, winter-wet swamps	Highly Unlikely – not lowland habitat
Cyathochaeta teretifolia		Cyathochaeta teretifolia occurs in grey sand, sandy clay on swamps, creek edges.	Highly Unlikely – not swamp or creek habitat
Hibbertia leptotheca		Hibbertia leptotheca grows near-coastal limestone ridges, outcrops and cliffs in coastal heaths and thickets usually dominated by species of <i>Melaleuca</i> and <i>Acacia</i> (Thiele, 2019).	Highly Unlikely – not coastal habitat
Jacksonia gracillima		Jacksonia gracillima occurs in grey and brown well-drained sand.	Highly Unlikely – not suitable habitat
Phlebocarya pilosissima subsp. pilosissima		Phlebocarya pilosissima subsp. pilosissima grows in white or grey sand with lateritic gravel.	No – not suitable habitat
Pimelea calcicola		Pimelea calcicola occurs in sand on coastal limestone ridges.	Possible
Pithocarpa		Pithocarpa corymbulosa occurs in gravelly	No – not suitable
corymbulosa		or sandy loam amongst granite outcrops.	habitat

Scientific Name	Common Name	Habitat*	Likelihood to occur on the site
Sphaerolobium calcicola		Sphaerolobium calcicola grows in white- grey-brown sand, sandy clay over limestone, black peaty sandy clay on tall dunes, winter-wet flats, interdunal swamps, low-lying areas.	No – not wetland habitat
Stylidium paludicola		Stylidium paludicola prefers peaty sand over clay in winter wet habitats in Marri and Melaleuca woodland, Melaleuca shrubland.	No – not suitable habitat
Styphelia filifolia		Styphelia filifolia occurs in sandy soils of the coastal plain (with one known occurrence from the northern Darling Scarp), usually in Banksia or Jarrah woodland and in low-lying situations (Hislop and Lelièvre, 2017).	Highly Unlikely – not low-lying habitat
Aponogeton hexatepalus	Stalked Water Ribbons	Stalked Water Ribbons grow in freshwater: ponds, rivers, claypans	No – no permanent water habitat
Dodonaea hackettiana	Hackett's Hopbush	Hackett's Hopbush occurs in sand with outcropping limestone.	Possible
Grevillea olivacea		Grevillea olivacea grows in white or grey sand on coastal dunes, limestone rocks.	Highly Unlikely – not coastal habitat
Jacksonia sericea	Waldjumi	Waldjumi grows in calcareous and sandy soils.	Possible
Kennedia beckxiana	Cape Arid Kennedia	Cape Arid Kennedia occurs in sand, loam on granite hills and outcrops.	No – not granitic habitat
Lepidium puberulum		Lepidium puberulum grows in sandy soils in coastal habitats.	Highly Unlikely – not coastal habitat
Microtis quadrata	South Coast Mignonette Orchid	South Coast Mignonette Orchid occurs on clay based coastal flats (Brown et al., 2013).	No – not clay habitat
Myosotis australis	Southern Forget-me- not	Southern Forget-me-nots grow in grey sand over limestone	Highly Unlikely – thought to be extinct
Stylidium ireneae		Stylidium ireneae occurs in sandy loam in valleys near creek lines, woodland, often with Agonis.	Highly Unlikely – not creekline habitat
Stylidium Iongitubum	Jumping Jacks	Jumping Jacks prefer sandy clay, clay in seasonal wetlands.	No – not wetland habitat
Stylidium striatum	Fan-leaved Triggerplant	The Fan-leaved Triggerplant grows in brown clay loam over laterite on hillslopes in Jarrah/Marri forest, Wandoo woodland.	No – not lateritic habitat

Scientific Name	Common Name	Habitat*	Likelihood to occur on the site
Tripterococcus sp. Brachylobus (A.S. George 14234)		Tripterococcus sp. Brachylobus occurs in grey, black or peaty sand winter-wet flats	No – not wetland habitat
Verticordia lindleyi subsp. lindleyi		Verticordia lindleyi subsp. lindleyi prefers sand, sandy clay in winter-wet depressions.	No – not winter-wet habitat

^{*} sourced from Florabase (DBCA, 2017) and SPRAT Database (DoEE, 2016) as well as the DBCA database searches unless otherwise denoted

4.2 TEC and PEC Desktop Search

A search of DBCA's Threatened (TEC) and Priority Ecological Communities (PEC) database was conducted within a radius of 5km around the site (14-0920EC) (Appendix 5). Two TECs and four Priority 3 PECs at State level were identified in the database search. One of these is also listed as a TEC under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Three of the State listed PECs are listed under the EPBC Act as TECs. The communities identified in the database searches are outlined in Table 4.

Table 4: Threatened and Priority Ecological Communities likely to occur within 5km of the Site

Ecological Community	Description	Conservation Status WA	Status under the EPBC Act
SCP19b	Woodlands over sedgelands in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et al. (1994).	Critically Endangered	Endangered (Listed as FCT19)
SCP26a	Melaleuca huegelii - Melaleuca systena shrublands on limestone ridges (floristic community type 26a as originally described in Gibson et al. (1994))	Endangered	
SCP24	Northern Spearwood shrublands and woodlands	Priority 3	
SCP25	Southern Eucaly <i>ptus gomphocephala-Agonis</i> flexuosa woodlands	Priority 3	Critically Endangered as part of Tuart Woodland TEC
Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered
Tuart woodlands	Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered

4.3 Flora

A total of 109 plant species were recorded during the survey (Appendix 6). The total consisted of 73 native and 36 introduced species. The percentage of introduced species (33%) is high considering the site does not appear to have been cleared in the past. The number of native species is considered moderate compared to the that which would be similar vegetation types in better condition.

Natural Area Holdings (NAH) (2018) recorded 63 species including 49 native and 14 introduced. NAH undertook their survey in mid-November which is past the peak flowering period to survey on Spearwood dune soils in the Perth Metropolitan Region. The addition of 46 more species, including 24 native species, in the mid-September survey of this report reflects the earlier survey period.

The plant Families with the highest representation of species were the Fabaceae (Pea and Wattle family – 13 species, including 10 native and 3 introduced), Proteaceae (Banksia family - 10 species, all native), Asparagaceae (Lily family – 10 species, 9 native and 1 introduced) and the Cyperaceae (Sedge family – 7 species, all native). Unusually, the Myrtaceae (Eucalyptus, Melaleuca and others) was only represented by two species, Tuart and Jarrah. This outcome was recorded in both NAH and the PGV Environmental survey. There does not seem to be any obvious reason for the absence of any *Melaleuca, Calothamnus, Calytrix* and other genera that might normally be expected to occur on the site.

There were no Threatened (Declared Rare) or Priority plant species recorded on the site in either the NAH 2017 survey (NAH, 2018) or this 2020 survey.

Quadrat Data are provided in Appendix 7.

Species richness in the six quadrats ranged from 21-28 species. The percentage of introduced species in all quadrats was very high with the highest values for the *Acacia rostellifera* dense heath vegetation (average 62%) and the lower values in Tuart and Jarrah/Banksia woodlands with 58% and 38%, respectively.

4.4 Vegetation

4.4.1 Vegetation Complex

Vegetation Complexes are a broad level of vegetation description which is based on the underlying geomorphology and rainfall (Heddle *et al.*, 1980). The areas of remnant native vegetation on the site is part of the Cottesloe Complex—Central and South vegetation complex which is described as:

Mosaic of woodland of *Eucalyptus gomphocephala* (Tuart) and open forest of *E. gomphocephala* – *E. marginata* (Jarrah) – *Corymbia calophylla* (Marri), closed heath on the limestone outcrops' (Heddle *et al.*, 1980).

The general description of the vegetation complex matches the vegetation types recorded on the site.

4.4.2 Vegetation Type

For small scale sites, such as the survey area, vegetation mapping can be further refined by using vegetation types which are described by the composition and structure of the dominant species rather than based on geomorphology.

Three native vegetation types were described and mapped on the site. The vegetation type is described in Table 5 and mapped in Figure 3.

4.4.3 Floristic Community Types

Floristic Community Types (FCT) are based on the whole floristic composition of the vegetation rather than being determined by soil type and geomorphology (Vegetation Complex) or the nature of the dominant species (Vegetation Types).

The FCT on the site was determined using the spreadsheet method which compares the species in the quadrats to the species found in each FCT (Table 12 in Gibson *et al.* 1994).

The low native species richness values and high proportion of introduced species makes a definitive match with known FCTs difficult. However using the method above, the vegetation on the site was found to be most similar to FCT28 'Spearwood *Banksia attenuata* or *B. attenuata* – *Eucalyptus* woodland'.

Table 5: Vegetation Types on the Site

Vegetation Type	Description	Photograph
Ar Acacia rostellifera Closed Heath to Tall Open Scrub o weeds	Two large and two smaller stands of this vegetation type were recorded on the site. Acacia rostellifera is dense (50-75% cover) and up to 2m high. Occasional Tuart trees occur in the unit. The understorey is sparse and consists mostly of grassy weed species such as Perennial and Annual Veldtgrass (Ehrharta calycina, E. longiflora), Blowfly Grass (Briza maxima) and Hare's Tail Grass (Lagurus ovatus). Common native species include Xanthorrhoea preissii, Macrozamia riedlei, Conostylis aculeata and Hardenbergia comptoniana. The soils were orange-brown sands with some surface limestone. Quadrats AR1 and AR4 are representative of this vegetation type.	
Eg Eucalyptus gomphocephalo Low Open Woodland over Banksia attenuata/ Allocasuarina fraseriana Lo Open Woodland over Acad pulchella/Grevillea vestita/ Xanthorrhoea preissii Oper Low Heath	Tuart (<i>Eucalyptus gomphocephala</i>) woodland occurred on the upper slopes and top of the low ridge that occurs on the central western part of the site. The Tuart trees are up to 10m high and low density (average 5-10% cover) with a sparse lower tree canopy of <i>Banksia attenuata</i> and in some places <i>Allocasuarina fraseriana</i> . The understorey is an open low heath with common native species <i>Xanthorrhoea preissii</i> , <i>Macrozamia riedlei</i> , <i>Hibbertia subvaginata</i> , <i>Acacia pulchella</i> , <i>Conostylis aculeata</i> and <i>Hardenbergia comptoniana</i> . <i>Grevillea</i>	

Vegetation Type	Description	Photograph
EmBa Eucalyptus marginata/ Banksia attenuata Low Woodland to Low Open Woodland over Xanthorrhoea preissii Open Low Heath	The Jarrah (Eucalyptus marginata)/Banksia woodland vegetation type occurred on lower slopes in the north and south-east parts of the site. Jarrah was up to 8m high and low density (5-10% cover) with a secondary tree canopy of Banksia attenuata around 3-4m high and less than 10% cover. Common understorey species in the open low heath include Xanthorrhoea preissii, Macrozamia riedlei, Dianella revoluta var. divaricata, Conostylis aculeata, Drosera stolonifera, Drosera erythrorhiza and Hardenbergia comptoniana. The soils were orange-brown sand with no surface limestone. Quadrats AR3 and AR5are representative of this vegetation type.	

4.4.4 Vegetation Condition

The condition of the vegetation was assessed according to the system of Keighery as described in Bush Forever (Government of Western Australia, 2000) (Table 6).

Table 6: Vegetation Condition Rating Scale

Condition	Description		
Pristine	Pristine or nearly so, no obvious signs of disturbance.		
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.		
Very Good	Vegetation structure altered, obvious signs of disturbance. For example, 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 disturbance. Retains basic vegetation structure or ability to regenerate to it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, 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. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, 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 are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.		

The condition of the vegetation is shown in Figure 4. All areas of native vegetation on the site were assessed as being in Good condition. The low condition rating is due to the abundance of weeds, particularly grassy weeds, most likely the result of frequent fires. No areas were assessed in Very Good condition or better due to the abundance of weeds.

4.5 Conservation Significance of Flora and Vegetation

4.5.1 Flora

No Threatened or Priority flora species were recorded on the site. No other species of conservation significance were recorded.

4.5.2 Vegetation

4.5.2.1 Vegetation Complex

The vegetation on the site is part of the Cottesloe Complex - Central and South (Heddle *et al.*, 1980). Approximately 32% of the pre-European vegetation extent of this complex remains, of which 14% is currently managed by DBCA (DBCA, 2018).

The percentage retention is above EPA's target for minimum 30% retention of vegetation complexes State-wide in the Perth and Peel Region Constrained Areas and the area in protection is above the 10% minimum criteria for vegetation complexes.

4.5.2.2 Threatened and Priority Ecological Communities

The FCT on the site was determined to be most similar to FCT28 'Spearwood *Banksia attenuata* or *B. attenuata* – *Eucalyptus* woodland'. FCT 28 is not a TEC or PEC at State level. FCT 28 occurs in the upland areas of the nearby Bush Forever Site 269 'The Spectacles' as well as Site 268 'Mandogalup' Road Bushland, Mandogalup' and Site 349 'Leda Reserve and Adjacent Bushland'.

The Tuart woodland vegetation type has potential to be FCT 25 'Southern *Eucalyptus gomphocephala* – *Agonis flexuosa* woodlands' however the understorey composition was very similar to the Jarrah/Banksia woodland and matched more closely with FCT28.

The vegetation types containing Tuart trees have has potential to be part of the Tuart Woodlands and Forests of the Swan Coastal Plain TEC. An assessment of the TEC is provided below.

The vegetation types containing *Banksia attenuata* trees have has potential to be part of the Banksia Woodlands of the Swan Coastal Plain TEC. An assessment of the TEC is provided below.

4.5.2.3 Tuart Woodlands and Forests of the Swan Coastal Plain

Description

The Tuart Woodlands and Forests of the Swan Coastal Plain was listed as a Threatened Ecological Community (TEC) with a rating of Critically Endangered under the Commonwealth EPBC Act on 4 July 2019 (for brevity the community will be called the Tuart Woodland TEC in this report). A description of the Tuart Woodland TEC is available through the EPBC Act listing and more specifically the *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological* released by the Commonwealth Government (Commonwealth of Australia, 2019). According to the Conservation Advice the diagnostic characteristics of the TEC are:

Key diagnosis characteristics

- The ecological community is limited to patches of vegetation (with their associated biota) that meet all of the following key diagnostic characteristics:
- Occurs in the Swan Coastal Plain Bioregion, Western Australia (IBRA v7. Department of the Environment 2012).
- Primarily occurs on the Spearwood and Quindalup dune systems but can also occur on the Bassendean dunes and Pinjarra Plain. It can occur on the banks of rivers and wetlands.
- The primary defining feature is the presence of at least two living established *Eucalyptus gomphocephala* (Tuart) trees in the uppermost canopy layer, although they may co-occur with trees of other species. There is a gap of no more than 60 m between the outer edges of the canopies of adjacent Tuart trees. These trees may occur either as single stemmed trees or as a mallee growth form.
- Most often occurs as a woodland but can occur in other structural forms, For example, forest, open forest, woodland, open woodland, and various mallee forms.

- Other tree species may be present in the canopy or sub-canopy. They commonly include: Agonis flexuosa (Peppermint) and Banksia grandis (Bull Banksia) (both in the southern part of the range), Banksia attenuata (Candlestick Banksia), Eucalyptus marginata (Jarrah); and less commonly, Corymbia calophylla (Marri), Banksia menziesii (Firewood Banksia) and Banksia prionotes (Acorn Banksia).
- An understorey of native plants is typically present, which may include grasses, herbs and shrubs, although this is often modified by disturbance. Some understorey plant species that are most commonly present are listed in Section 2.3.3 of the Conservation Advice.
- Native fauna species that are most commonly present are noted in Section 2.4 of the Conservation Advice (Commonwealth of Australia, 2019).

Defining a patch of the ecological community

- A patch of the ecological community is a discrete and mostly continuous area of vegetation that meets the key diagnostic characteristics.
- Boundaries for a patch can extend beyond a site or property boundary, or potential area of impact for a proposed action.
- The patch boundary is 30 m beyond the outer canopy of the established Tuart trees (≥15 cm diameter at breast height (DBH)), including dead Tuart trees (stags). See Plate 5
- Where a dead Tuart tree (stag) is being considered for inclusion in a patch of the ecological community, the vertical projection of its outermost remaining branches is used to define the edge of its canopy. If the species of a stag tree is unclear, if the edge of its canopy is within 60 m of an identified Tuart tree the stag is presumed to be a Tuart.
- Patches of Tuart woodlands and forests may contain areas that vary in structural or biological complexity. One part of a patch may have a larger number of mature trees and more ecological diversity, whereas another part of the same patch may demonstrate fewer mature trees and less groundcover. Areas with soil exposed and/or plant litter can also be expected within this ecological community.
- Variation in quality or condition of vegetation across a patch should not necessarily be considered to be evidence of multiple patches. Patches of the ecological community can be spatially variable and are often characterised by one or more areas within a patch that meet higher condition thresholds amongst areas of lower condition.
- If an area meets the key diagnostic characteristics but the average condition across that area
 falls below the minimum condition thresholds, the largest area or areas of at least 0.5 ha that
 meet minimum condition thresholds on average, should be specified as the patch or patches
 of the nationally listed ecological community. This may result in multiple patches of the
 ecological community being identified within the overall area first identified as meeting the
 key diagnostics.
- A patch may include small areas without understorey vegetation, such as bare ground, as well as waterbodies or hardscape (e.g. roads, paths, car parks, or buildings) that do not significantly alter the overall function of the ecological community. These small areas do not break up a patch, or divide a patch into multiple patches, as long as there are some parts of the canopy within 60 m of the outer edges of the canopies of adjacent Tuart trees (as per Plate 5). However, existing buildings and other human-made structures and gardens are not

part of the nationally protected ecological community and should be excluded from the calculation of patch size and condition. See Plate 6 (Commonwealth of Australia, 2019).

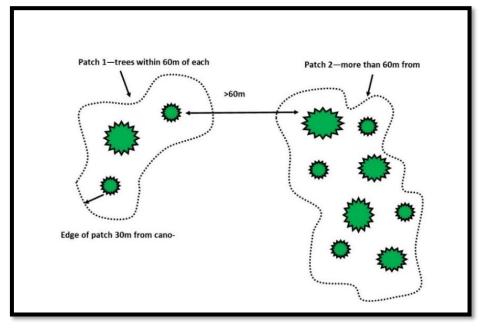
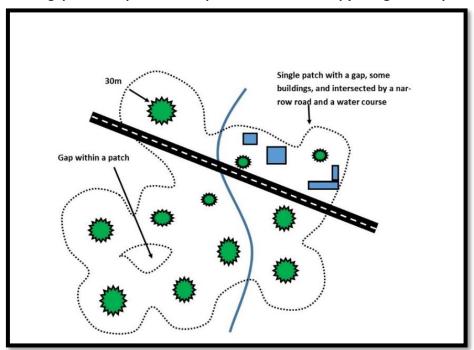


Plate 5: Tuart TEC Patch boundaries

Source: Commonwealth of Australia, 2019

Plate 6: Variation within a patch, including small areas without understorey vegetation, and a small gap within a patch due to part of the Tuart canopy being >60 m apart



Source: Commonwealth of Australia, 2019

Condition thresholds and categories

For confirmed patches of the ecological community, following the key diagnostic characteristics and patch definition above (Step 1), determine the following requirements for information on condition to indicate if they are part of the nationally protected ecological community:

- If the patch is smaller than 0.5 ha it is **not** part of the nationally protected ecological community.
- If the patch is at least 0.5 ha and up to 5 ha in size, conduct on ground surveys. Patches in
 this size range are presumed to be part of the nationally protected ecological community
 unless surveys indicate they do not meet the minimum condition required for national
 protection. For patches in this size range inclusion in the nationally protected ecological
 community is determined by surveyed characteristics such as native plant species richness
 and contribution to cover, habitat values, evidence of regeneration and landscape
 characteristics.
- All patches of 5 ha or greater that meet the key diagnostic characteristics are part of the nationally protected ecological community. It is not necessary to conduct additional surveys to confirm that they meet biotic condition thresholds (Table 7) and that they are protected.

Table 7: Tuart TEC Condition Categories and Thresholds

All patches ≥ 5 ha is part of the nationally protected ecological community, regardless of their understorey condition. That is, thresholds in this table do not apply to patches ≥ 5 ha, but the key diagnostic characteristics and patch definition must be met.

Patch size	≥2 ha <5 ha	≥0.5 ha <2 ha
Bioticthresholds		
Very high condition ≥80 % of all understorey^ vegetation cover is native# Or At least 12 native understorey^ species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)	Medium sized patches with very high condition understorey. PART OF THE PROTECTED ECOLOGICAL COMMUNITY	Smaller patches with very high condition understorey. PART OF THE PROTECTED ECOLOGICAL COMMUNITY
High condition ≥60 % of all understorey^ vegetation cover is native# Or At least 8 native understorey^ species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)	Medium sized patches with high condition understorey. PART OF THE PROTECTED ECOLOGICAL COMMUNITY	Smaller patches with high condition understorey. AND That either: have an important landscape role (≤100 m to native vegetation)* OR have a habitat role (≥2 very large trees per 0.5 ha)* OR show regeneration (≥15 seedlings and/or saplings per 0.5 ha)* PART OF THE PROTECTED ECOLOGICAL COMMUNITY

Patch size	≥2 ha <5 ha	≥0.5 ha <2 ha
Biotic thresholds		
Moderate condition	Medium sized patches with moderate condition understorey.	NOT PART OF THE PROTECTED
≥50 % of all understorey^ vegetation cover is native#	AND	(but may be a focus for local
	That either: have an important landscape	protection or restoration)
Or	role (≤100 m to native vegetation)*	
	OR have a habitat role (≥2 very large trees per 0.5 ha)*	
At least 4 native understorey^ species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)	OR show regeneration (≥15 seedlings and/or saplings per 0.5 ha)*	
	PART OF THE PROTECTED ECOLOGICAL COMMUNITY	
Poor		
Has minimal or no native cover and species richness. That is:	NOT PART OF THE PROTECTED ECOLOGICAL COMMUNITY	NOT PART OF THE PROTECTED ECOLOGICAL COMMUNITY
<50 % of all understorey^ vegetation cover is native#	(but may be a focus for local protection or restoration)	(but may be a focus for local protection or restoration)
And	,	,
Less than 4 native understorey^ species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)		

Tuart Woodland TEC Assessment

The key diagnostic characteristics of the Tuart Woodland TEC are contained in the Approved Conservation Advice for the TEC published at the time of the listing on 16 September 2016.

The Conservation Advice contains the following step-wise approach to use in determining if the TEC occurs on a site:

- Step 1: Is the Tuart Woodlands and Forests ecological community in your proposed project site? Is it in other adjacent or off-site areas that may be impacted (for example, by introducing weeds)?
- Step 2: What is the patch size and condition category of the Tuart Woodlands and Forests in the proposed project site and in the surrounding area?
- Step 3: What further information can assist in identifying patches of the Tuart Woodlands and Forests and avoiding significant adverse impacts?
- Step 4: Will your proposed action have a significant impact on Tuart Woodlands and Forests

Assessment

The assessment of the Tuart Woodland TEC on the site is outlined in Table 8 and Table 9.

The definition of the Tuart Woodland TEC resulted in two separate patches of potential TEC on the site with Patch 1 extending off-site to the west.

As the definition of the Tuart Woodland TEC is based on the location of Tuart trees and extending 30m beyond the outermost canopy the boundary of the Tuart Woodland ecological community does not match the boundary of the Tuart Low Open Woodland which is based on vegetation structure and floristics. As a result, the boundary of the two Tuart Woodland patches overlaps vegetation types that do not contain Tuart woodland or Tuart woodland understorey.

The area of each Tuart woodland patch was calculated as 4.52ha for Patch 1 (3.06ha inside the lot and 1.46ha on the lot to the west) and 2.96ha for Patch 2 (2.91ha on the lot and 0.05ha on the lot to the east).

The conclusion of the assessment is that the two patches of Tuart vegetation are part of the Tuart Woodlands and Forests TEC. The total area of Tuart Woodland TEC on the site is calculated to be 5.97ha (Figure 5).

<u>Step 1: Is the Tuart Woodlands and Forests ecological community in your proposed project site? Is it in other adjacent or off-site areas that may be impacted (for example, by introducing weeds)?</u>

Table 8: Tuart Woodland TEC Step 1 Diagnostics

Key diagnostic	Information	Key diagnostic questions*	Response (yes/no/possibly) and detailed
characteristics*		(Refer to Section 3.2 of the Approved Conservation Advice for a complete explanation of these diagnostic features – other sections of the Approved Conservation Advice are referenced where relevant)	comments. Use as much space as you need to fully answer the question#
Location and physical environment	Bioregion	Is the proposal site within the Swan Coastal Plain IBRA bioregion?	Yes
Soils and Landform	Soil type	Is the soil type consistent with where the Tuart Woodlands and Forests may occur? (see Section 2.2.1*)	Yes, Spearwood Dune soil type
	Location in the landscape, topography	Is the topography/physical environment consistent with where the Tuart Woodlands and Forests may occur? Is the site associated with any hydrology (groundwater/surface water)?	Yes, Tuarts commonly found in the Postans area. Not associated with any hydrology
Structure	Presence of Tuart trees	How many Tuart trees are present and are they consistent with the characteristics set out in the Approved Conservation Advice? Note: Please present this information in terms of total number of trees (dead, established, seedlings etc.) and trees per hectare of the footprint. Diagrams/maps should also be provided.	At least 50 established Tuarts on the site including 38 with a dbh >50cm
	Structural form	What structural form is the vegetation?	Low Woodland
Composition	Dominant tree species, emergent tree layer, understory	Is the composition of the community consistent with the characteristics set out in the Approved Conservation Advice? What other tree species are present? How many native understorey species are present and what is the number of weedy species/proportion of weeds?	Tuarts mostly in pure stands but sometimes with Jarrah and Banksia trees. Native understorey low with a range of 10-15 in quadrats (average 12.5) and with abundant weed species and cover. Refer to quadrat data.

Key diagnostic characteristics*	Information	Key diagnostic questions* (Refer to Section 3.2 of the Approved Conservation Advice for a complete explanation of these diagnostic features – other sections of the Approved Conservation Advice are referenced where relevant)	Response (yes/no/possibly) and detailed comments. Use as much space as you need to fully answer the question#
Defining a patch of Tuart Woodlands and Forests	Patch definition	What is the extent of the patch? Note: Descriptions of patch extent must include analysis of canopy extent and associated understorey vegetation (see Section 3.2.2*). Patches may extend beyond the project area or include areas of infrastructure (i.e. road, powerline). The referral should make clear how, and how much of the patch will be directly or indirectly impacted.	Two patches mapped within the boundary of the site With Patch 1 extending to the west and south-west outside ethe boundary of the site. Area of Patch 1 (on and off-site) = 4.52ha Area of Patch 2 (on and off-site) = 2.96ha
Relationship with other ecological communities	Other vegetation communities	Are other vegetation communities present? What are they and how do they intergrade and/or interact with the Tuart Woodlands and Forests TEC? (see Section 3.2.3*)	Native Jarrah, Banksia and <i>Acacia rostellifera</i> occurs to the north, east and south of the patch.

The complete key diagnostic characteristics are provided in the Approved Conservation Advice.

Step 2: What is the patch size and condition category of the Tuart Woodlands and Forests in the proposed project site and in the surrounding area?

Table 9: Tuart Woodland TEC Step 2 Diagnostics

Size and	Information	Relevant content to be discussed in the referral	Detailed comments.
condition*		(Refer to Section 3.3 of the Approved Conservation Advice for a	Use as much space as you need to fully answer the
		complete explanation of these diagnostic features)	question#
Patch Size	Patch size in hectares	Is the patch size large enough to meet the minimum patch size	Both patch sizes are larger than the 0.5ha
		in this section? (Section 3.3*)	minimum
		Note: Patch boundaries are not limited to the proposal site.	
		You must make clear that the patch boundary is consistent	
		with Section 3.2.2 •.	

^{*} The Tuart Woodlands and Forests may include restored, planted or revegetated flora. Do not exclude vegetation from being classed as the Tuart Woodlands and Forests because it is a planted, restoration or revegetation site (unless it is a garden).

[#] Comments should include references to appropriate supporting information and data.

Size and condition*	Information	Relevant content to be discussed in the referral (Refer to Section 3.3 of the Approved Conservation Advice for a	Detailed comments. Use as much space as you need to fully answer the
		complete explanation of these diagnostic features)	question#
Patch condition	Condition thresholds	Using the condition categories in this section, what is the patch condition? (Section 3.3.1*) What is the quality and size (hectares) of the vegetation community in and around the site where the proposed action will occur? Is the patch expected to improve in condition (e.g. after appropriate fire management) or is there a threatening process underway that will reduce the current size and/or condition?	Condition category with an average of 12.5 native understorey species is rated as Very High. Both patches are above the 0.5ha minimum for an area of Tuart woodland in Very High category to be the TEC.
		Note: Refer to Section 3.4 – Step 3 – Further information to assist in identifying patches of the protected ecological community and avoiding significant adverse impacts	
		If patch quality varies over the site; characterisation of the variation should be provided. Patch condition includes consideration of thresholds for characteristics such as plant species richness, landscape features, Tuart tree age and size and other habitat roles of the vegetation. Other vegetation condition measures (e.g. Keighery scale) do not necessary reflect the condition thresholds and both should be provided, where relevant. Where threats are identified (i.e. those listed	
A Further in formation		in Appendix C of the Approved Conservation Advice) please provide further information on what these are and how they have impacted the condition.	

[•] Further information on the key diagnostic characteristics is provided in the Approved Conservation Advice.

[#] Comments should include references to appropriate supporting information and data. The response which includes the information does not need to be presented in table form. (Commonwealth of Australia, 2019)

4.5.2.4 Banksia Woodland TEC Assessment

The Banksia Woodlands of the Swan Coastal Plain Threatened Ecological Community (Banksia Woodland TEC) is listed as an Endangered TEC under the Commonwealth EPBC Act. The Banksia Woodland community is a conglomerate of a number of Banksia-dominated FCTs recognised at State level. FCT 23a is one of the FCTs that form part of the Banksia Woodland TEC. However, the identification of one of the relevant FCTs on a site is not of itself sufficient to assign the vegetation to the Banksia Woodland TEC. The vegetation needs to meet specific criteria to be considered the TEC.

The Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community (Commonwealth of Australia, 2016) (Conservation Advice) describes the Banksia Woodland TEC as:

The ecological community is a woodland associated with the Swan Coastal Plain of southwest Western Australia. A key diagnostic feature is a prominent tree layer of Banksia, with scattered eucalypts and other tree species often present among or emerging above the Banksia canopy. The understorey is a species rich mix of sclerophyllous shrubs, graminoids and forbs. The ecological community is characterised by a high endemism and considerable localised variation in species composition across its range (Commonwealth of Australia, 2016).

Table 10 assesses the vegetation type on the site against the Banksia Woodland TEC criteria contained in the Conservation Advice.

In summary, the Jarrah/Banksia (EmBa) vegetation type was considered to meet all the requirements of the Banksia Woodland TEC, listed as Priority 3 in Western Australia. While the density of Banksia trees was not high (average around 10%) they were considered to form a distinctive tree layer with the more dominant Jarrah trees. The size of the patch of Jarrah/Banksia, around 9.1ha, is well over the minimum 2ha required for vegetation in Good condition.

A total of around 9.1ha of Banksia Woodland TEC is mapped on the site (Figure 5).

The area containing Tuart woodland (Eg vegetation type) were not considered to meet the definition of the Banksia Woodland TEC. While *Banksia attenuata* was present as a secondary tree layer with the Tuarts, the density of Banksia trees was very low (2% average) and was not considered a distinctive upper layer of trees as the Banksia Woodland TEC requires. No young Banksia saplings or seedlings were observed on the site, indicating that the Tuart woodland will not regenerate over time to have a more distinctive Banksia tree cover.

Table 10: Assessment of the Banksia Woodland of the Swan Coastal Plain TEC.

		Vegetation Type		
		Eg	EmBa	
Feature	Characteristic	Eucalyptus gomphocephala Low Open Woodland over Banksia attenuata/Allocasuarina fraseriana Low Open Woodland over Acacia pulchella/Grevillea vestita/Xanthorrhoea preissii Open Low Heath	Eucalyptus marginata/Banksia attenuata Low Woodland to Low Open Woodland over Xanthorrhoea preissii Open Low Heath	
Banksia Species	The patch must include at least one of the following diagnostic species: • Banksia attenuata (Candlestick Banksia) • Banksia menziesii (Firewood Banksia) • Banksia prionotes (Acorn Banksia) • Banksia ilicifolia (Holly-Leaved Banksia).	Banksia attenuata present	Banksia attenuata present.	
Vegetation Structure	 A distinctive upper sclerophyllous layer of low trees (occasionally large shrubs more than 2 m tall), typically dominated or codominated³ by one or more of the Banksia species (B. attenuata, B. menziesii, B. ilicifolia, B. prionotes); An emergent tree layer of medium or tall (>10 m) height Eucalyptus or Allocasuarina (Sheoak) species may sometimes be present above the Banksia canopy. An understory that is often highly species-rich consists of: A layer of sclerophyllous shrubs of various heights; and, A herbaceous ground layer of cord rushes, sedges and perennial and ephemeral forbs, that sometimes includes grasses. The development of a ground layer may vary depending on the density of the shrub layer and disturbance history. 	 Banksia trees do not form a distinctive upper layer of low trees. Where present they represent about 2% canopy cover mixed with Tuart trees Tuart (<i>Eucalyptus gomphocephala</i>) is always emergent in this vegetation type. Understorey of shrubs, sedges, herbs in Good condition have a low diversity of native species including shrubs, sedges, climbing plants and ephemerals. 	 Banksia trees range from sparse to common with an average canopy cover of around 10% forming a reasonably distinctive upper layer of trees. Jarrah (<i>Eucalyptus marginata</i>) is always emergent in this vegetation type Understorey of shrubs, sedges, herbs, in Good condition have a low diversity of native species including shrubs, sedges, climbing plants and ephemerals. Completely Degraded areas have very few native species. 	
Vegetation Condition	An area of Banksia woodland needs to be at least in Good condition to be considered the TEC.	Vegetation type is all Good	Vegetation type is all Good	
Patch Size	The Banksia woodland TEC needs to meet a minimum 'patch' size depending on its condition to qualify as the TEC, as follows: 'Pristine' – no minimum patch size 'Excellent' – 0.5ha 'Very Good' – 1ha 'Good' – 2ha	One patch of Tuart vegetation occurs on the site with an area of around 3.9ha	One patch of EmBa on site with an area of around 9.1ha.	
Conclusion	•	Banksia trees do not form a distinctive upper layer of low trees. The Tuart woodland vegetation type is therefore not considered part of the Banksia Woodland TEC.	Meets the definition of the Banksia Woodland TEC.	

(Commonwealth of Australia, 2016)

5 SUMMARY AND CONCLUSIONS

The Flora and Vegetation survey of the site resulted in the following findings:

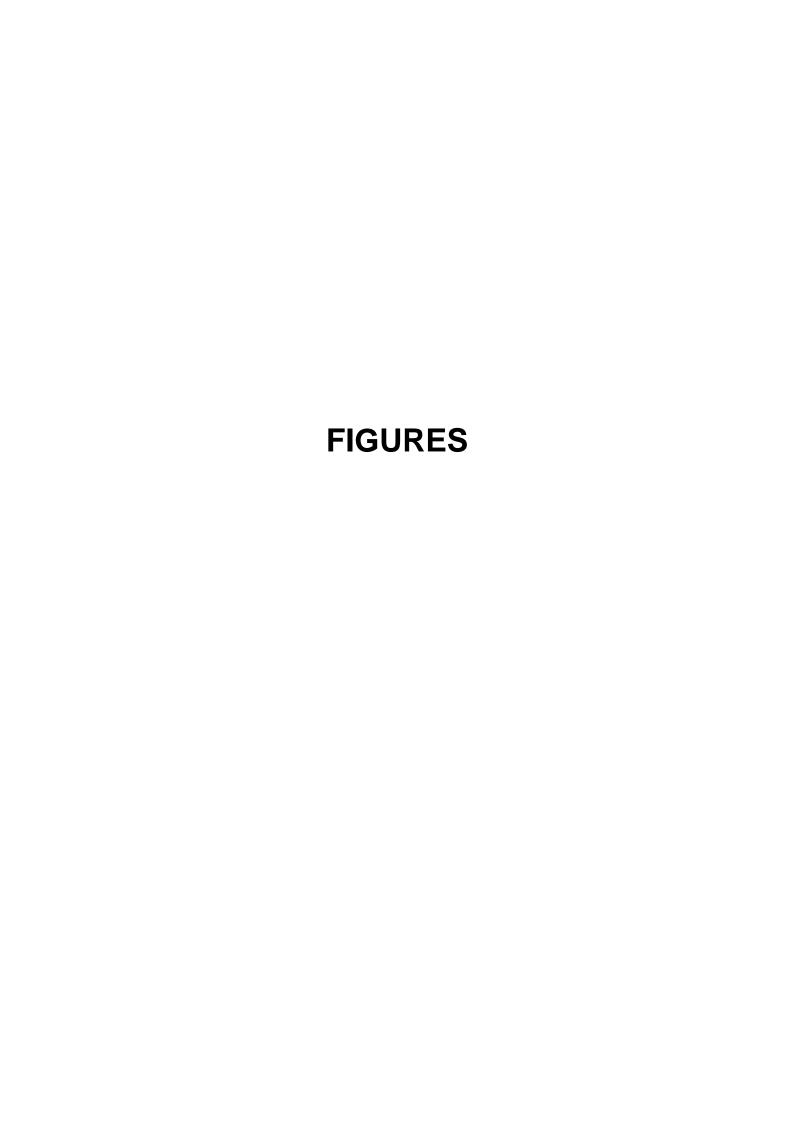
- A total of 109 plant species were recorded during the 2020 flora survey. This total consisted of 73 native species and 36 (33%) introduced species;
- No Threatened (Declared Rare) or Priority flora species were recorded on the site;
- Three vegetation types were described and mapped on the site: *Acacia rostellifera* Closed Heath to Tall Open Scrub, Tuart Low Woodland, and Jarrah/Banksia Low Open Woodland;
- The vegetation was all rated in Good condition with a relatively low number of native species and a high proportion of weeds in the understorey;
- The vegetation is part of the Cottesloe Central and South Vegetation complex which is well retained in the Perth Metropolitan Region;
- The vegetation was assessed as being part of FCT28 'Spearwood *Banksia attenuata* or *B. attenuata Eucalyptus* woodland';
- The vegetation is not a Threatened Ecological Community at State level;
- Two patches of Tuart woodland ecological community as defined under the EPBC Act were assessed as occurring on the site, with one patch extending onto the site to the west. Both patches were rated as being in Very Good condition and were large enough (>0.5ha) to meet the criteria for the Tuart Woodlands and Forests TEC which is listed as Critically Endangered under the Commonwealth EPBC Act and Priority 3 in Western Australia. The total area of Tuart Woodland TEC on the site is calculated to be 5.97ha;
- The Jarrah/Banksia vegetation type (EmBa) was assessed as meeting the criteria for the Banksia Woodlands of the Swan Coastal Plain TEC which is listed under the EPBC Act and Priority 3 in Western Australia. A total of 9.1ha of the Banksia Woodland TEC is mapped on the site in one large patch; and
- Any proposed clearing of the Tuart Woodland TEC or Banksia Woodland TEC will require a Referral under the EPBC Act and likely Controlled Action assessment.

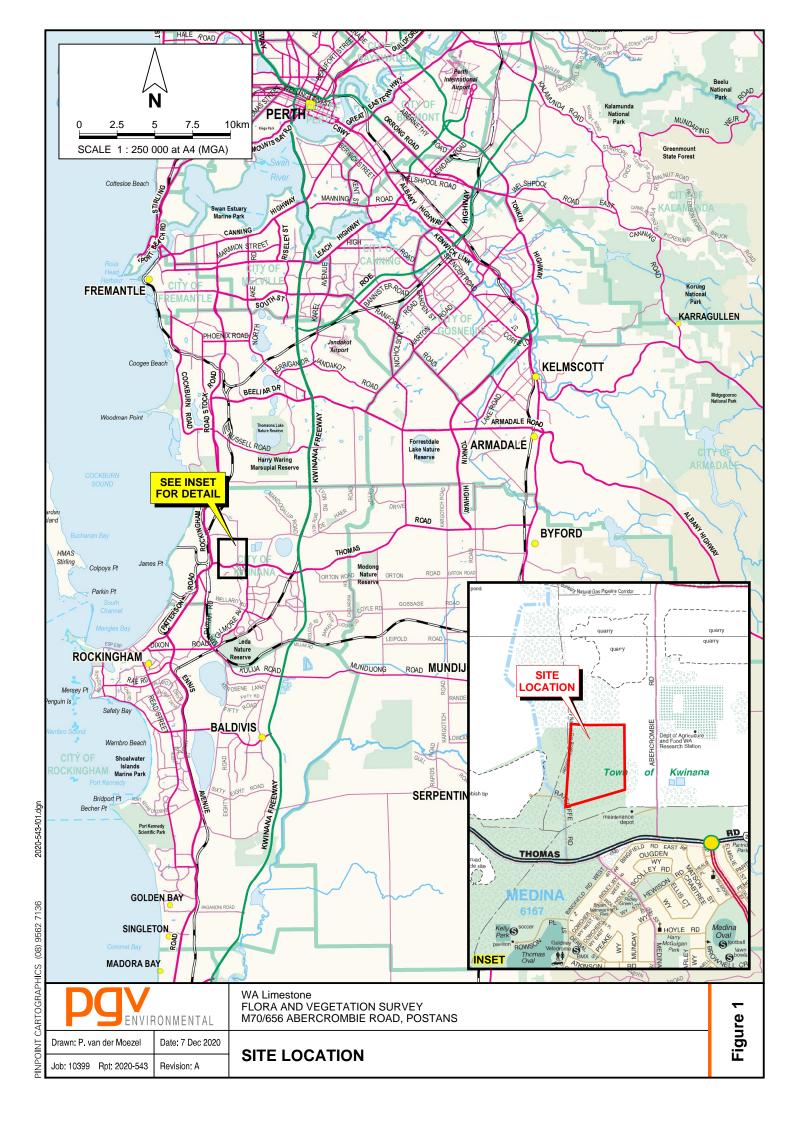
6 REFERENCES

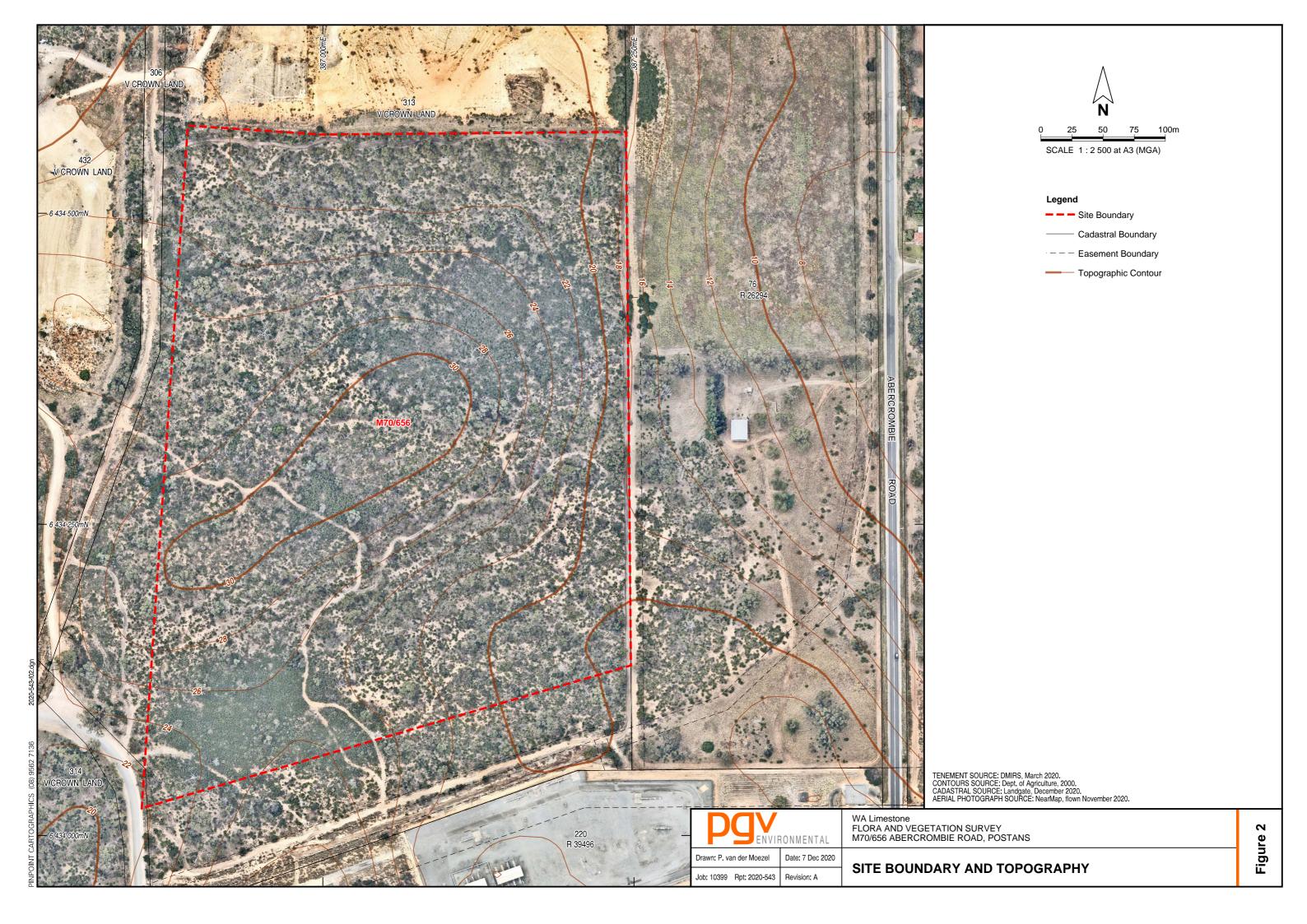
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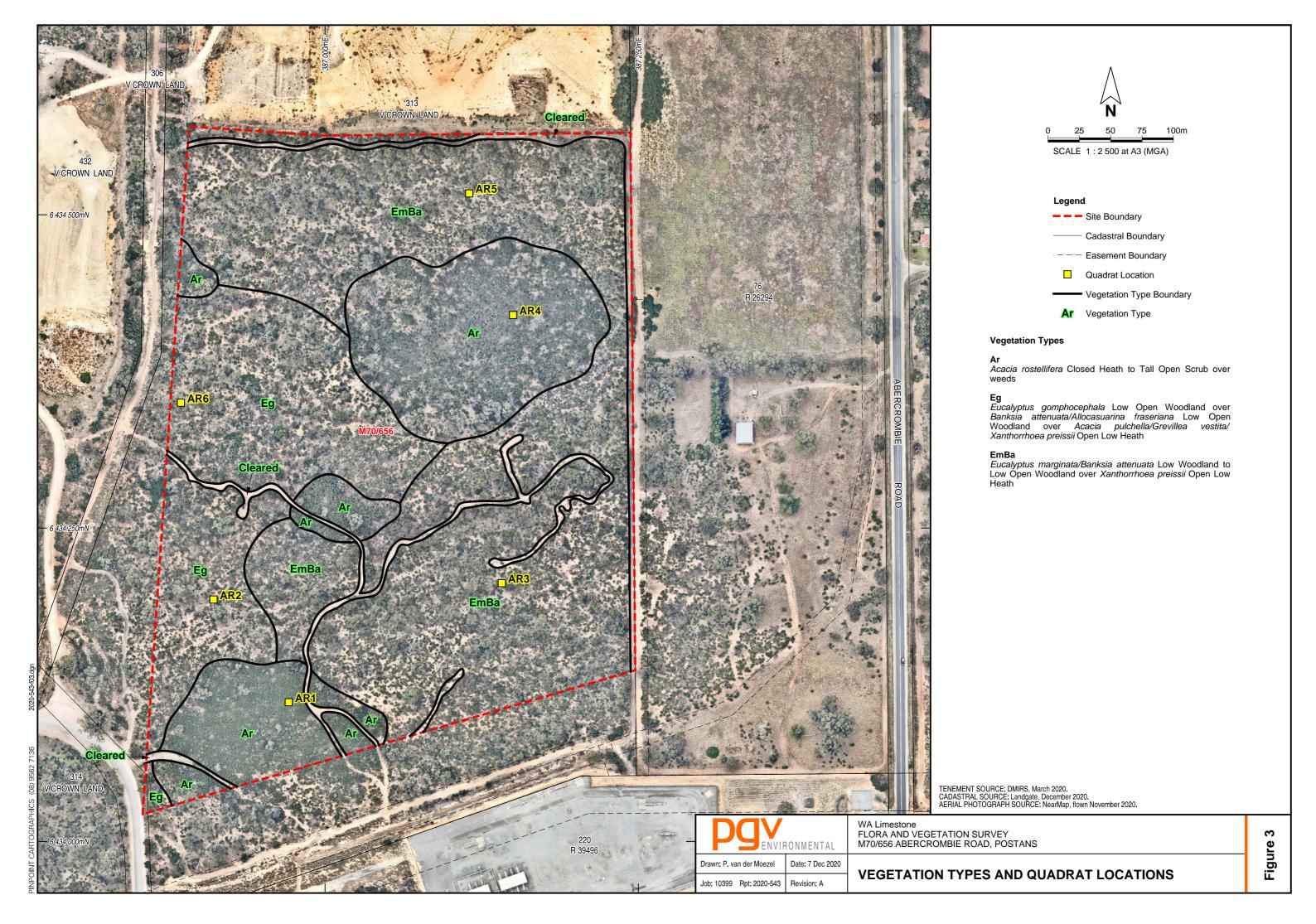
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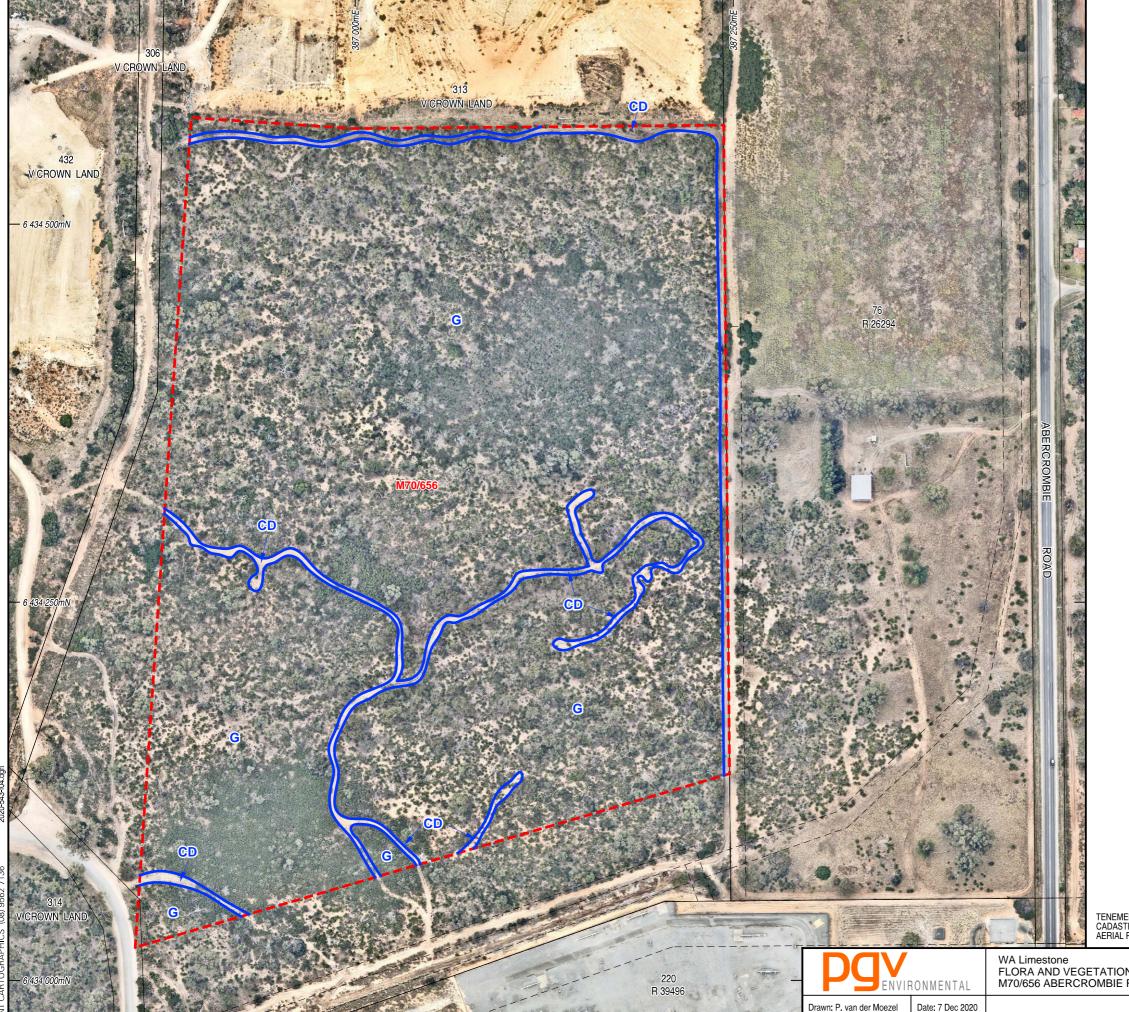
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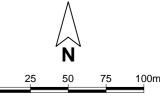












SCALE 1:2500 at A3 (MGA)

Legend

- - Site Boundary

Cadastral Boundary

--- Easement Boundary

Vegetation Condition Boundary

VG Vegetation Condition

Vegetation Condition

(SOURCE: Bush Forever, Govt. of W.A., 2000)

Pristine or nearly so, no obvious signs of disturbance.

Ex - Excellent

Vegetation structure intact, disturbance affecting individual species and weeds are non aggressive species.

VG - Very Good
Vegetation structure altered, obvious signs of disturbance.
For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.

Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and grazing.

D - Degraded

Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.

CD - Completely Degraded
The structure of the vegetation is no longer intact and the areas is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora composing weed or crop species with isolated native trees or shrubs.

CI - Cleared

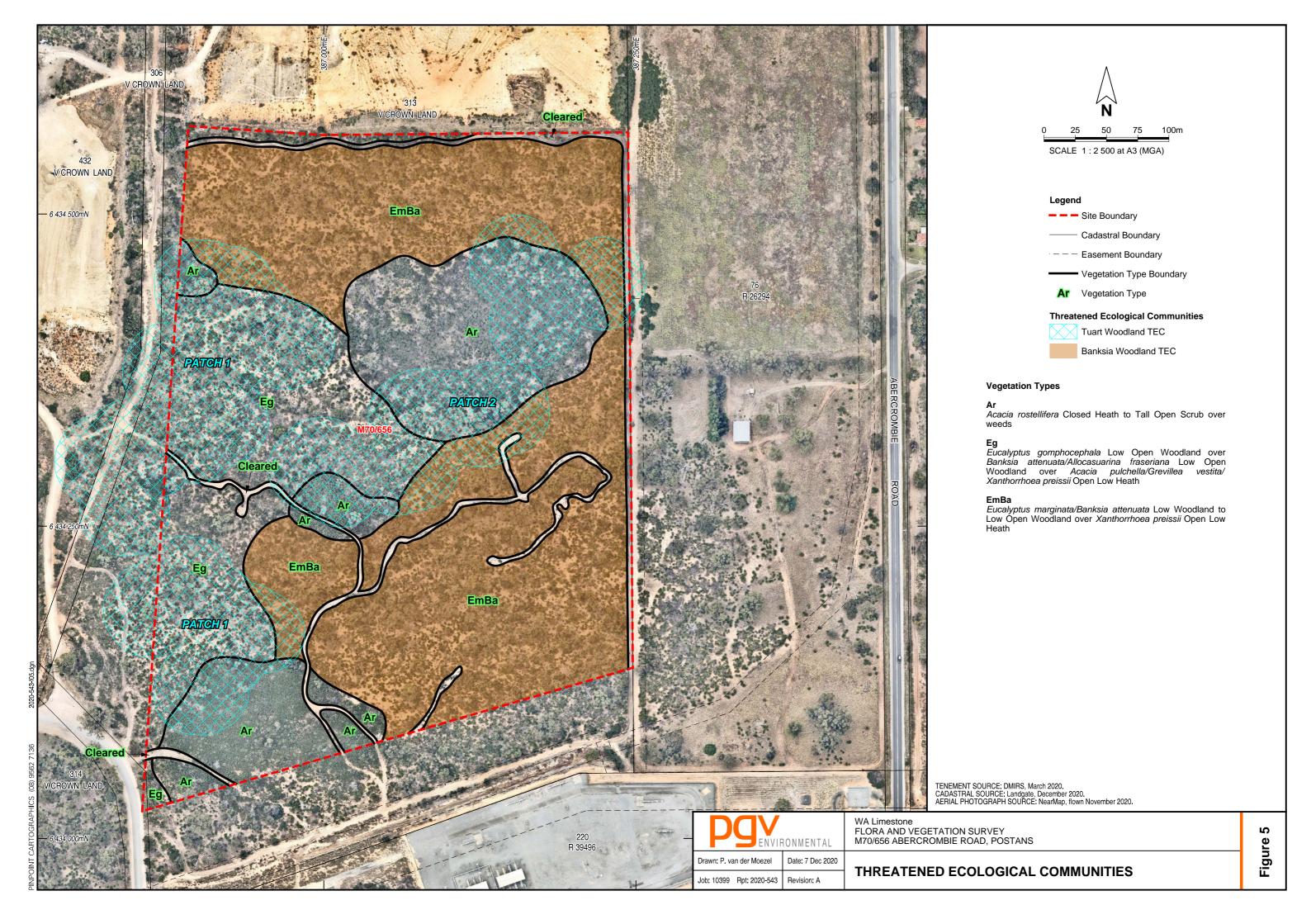
No native vegetation remaining.

TENEMENT SOURCE: DMIRS, March 2020. CADASTRAL SOURCE: Landgate, December 2020. AERIAL PHOTOGRAPH SOURCE: NearMap, flown November 2020.

FLORA AND VEGETATION SURVEY M70/656 ABERCROMBIE ROAD, POSTANS

VEGETATION CONDITION

Job: 10399 Rpt: 2020-543 Revision: A



APPENDIX 1 DBCA Flora Database Searches

FID	Sheet	NameID	Taxon	Cons_Coo	Plant_Desc	Site	Vegetation	Frequency Notes	Geo_Met hod	Precision	Date
2684	190705	14932	Acacia lasiocarpa var bracteolata long peduncle variant (G.J Keighery 5026)	1		Black sandy swampy area.	Jarrah.		AUTO	3	26/08/1957
2687	619884	14932	Acacia lasiocarpa var. bracteolata long peduncle variant (G.J Keighery 5026)	1	Low spreading, sparsely branched shrub, to 1 m x 1 m. Flowers yellow.	Low lying sand over clay. Winter wet, open.			AUTO	3	5/08/1982
3965	9047905	48762	Acacia sp. Binningup (G. Cockerton et al. WB 37784)	1	Suckering clumping shrubs to 1.5 m.	Sand.	Tuart woodland. Associated species: Acacia saligna, Xanthorrhoea preissii, Rhagodia baccata, Spyridium globosum, Acacnthocarpus preissii and annual grasses.	c. 200 in 20 m x 20 m.	GPS	1	24/10/2017
5796	9004637	48332	Amanita preissii	3	Pileus 83 mm diameter, cream (C, pale 3A2), plane with decurved margin and slightly raised centre, margin not striate, appendiculate. Universal veil on pileus crustose, thin, as small soft floccose warts, adnate, white. Lamellae cream (D, 3A2-4A2), narro		Banksia/eucalypt woodland with Kunzea ericifolia, Acacia pulchella, Eucalyptus marginata.	one.	GPS	1	4/06/2018
5809	8942137	43542	Amanita wadjukiorum	3	Pileus 90 mm diameter, milky coffee (5D4-6D4), plane with depressed centre and upturned margin, dry, margin not striate, appendiculate. Universal veil on pileus as large straight sided warts in centre of disc, vinaceous buff (6B2), adnate. Lamellae cream	3	Jarrah/marri/banksia woodland. Eucalyptus marginata, Corymbia calophylla.	one.	GPS	1	18/06/2017

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	Notes	Geo_Met hod	Precision	Date
7121	4095251	141	Aponogeton hexatepalus	4	Aquatic bulbous herb 15 cm high.	Seasonal wetland on Pinjarra Plain. Red loam.	Open Melaleuca viminea scrub over Leptocarpus coangustatus dense low sedges.	common.		GPS	1	7/08/1992
7768	567426	35317	Austrostipa mundula	3	Caespitose perennial grass.	In sand over limestone.				MAN	3	30/08/1967
7923	3377962	45402	Babingtonia urbana	3	Erect open shrub, 40 cm high. Flowers white and pink centres.	Dry summer swamp. Sandy white clay soil.	Heath type vegetation.			MAN	0	23/03/1981
11310	7332025	16633	Boronia juncea subsp. juncea	1	Shrub to 1 m high x 0.5 m wide. Pink and purple flowers.	Gentle slope with a north aspect. Surface soil is dark brown sandy loam and sub surface soil is dark brown sandy loam. Drainage is poor and wet during winter and spring only with soil being waterlogged at present.	Melaleuca preissiana, M. rhaphiophylla low open woodland over Astartea scoparia closed heath over Centella asiatica herbland. Excellent to pristine vegetation condition with some weed species affecting the herb layer.	a couple.		GPS	1	2/12/2005
12519	908622	1596	Caladenia huegelii	Т	To 80 cm tall, one with two flowers, no odour.	In grey sand on gently undulating terrain.	Low woodland - low forest over scrub and heath; Banksia attenuata, B. menziesii, B. ilicifolia, Allocasuarina fraseriana, Eucalyptus todtiana, E. marginata over Adenanthos.		Abundanc e: four plants in full flower.	MAN	3	9/09/1985
12527	256021	1596	Caladenia huegelii	Т		In sandy soil.	Jarrah - Banksia woodland.			MAN	3	7/09/1958
12531	4421213	1596	Caladenia huegelii	Т	Up to 60 cm high.	Coastal plain. Grey sand.	Closed Banksia woodland. Banksia sp., Stirlingia latifolia, Hibbertia spp., Hypocalymma robustum, Conostephium pendulum		Abundanc e: 23 plants flowering. Plants found only in 'depressio n' ca 50 m x 75 m.	GPS	1	20/09/1996

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	Notes	Geo_Met	Precision	Date
12532	4421205	1596	Caladenia huegelii	т	Up to 60 cm high.	Coastal plain. Grey sand.	Closed Banksia woodland. Banksia sp., Stirlingia latifolia, Hibbertia spp., Hypocalymma robustum, Conostephium pendulum		Abundanc e: 23 plants flowering. Plants found only in 'depressio n' ca 50 m x 75 m.	GPS	1	20/09/1996
12537	6752624	1596	Caladenia huegelii	т	Ca 30 cm tall. Linear hairy leaf 15 cm x 1 cm.	Grey sand.	Low open woodland of Melaleuca preissiana over Low Open Shrubland of Melaleuca thymoides over Dasypogon sp. and Desmocladus sp. herbland on lower slopes.	plants,	Condition of populatio n: healthy.	GPS	1	30/10/2003
12542	7439938	1596	Caladenia huegelii	т		Private land. Flat. White / grey sand.		452 mature plants.	Healthy population but at risk from disturbance given location and proximity to sand.	GPS	1	21/10/2004
16310	7332149	16245	Cyathochaeta teretifolia	3	Tufty sedge with height of 1.5 m and width of 1 m.	Gentle slope with a north aspect. Surface soil is dark brown sandy loam and sub surface soil is dark brown sandy loam. Drainage is poor and wet during winter and spring only with soil being waterlogged at present.	Melaleuca preissiana, M. rhaphiophylla low open woodland over Astartea scoparia closed heath over Centella asiatica herbland. Excellent to pristine vegetation condition with some weed species affecting the herb layer.	locally common.	Outside quadrat.	GPS	1	2/12/2005
16322	7858736	16245	Cyathochaeta teretifolia	3		Black peat.	Melaleuca preissiana, Eucalyptus rudis subsp. rudis, Pteridium esculentum			GPS	0	24/10/2007

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequenc	y Notes	Geo_Met hod	Precision	Date
16335	6534163	16245	Cyathochaeta teretifolia	3						MAN	3	10/12/1995
18776	9012524	10796	Diuris drummondii	T						MAN	4	1/11/1959
18785	8891451	10796	Diuris drummondii	T						MAN	3	6/12/1959
18800	4981588	12938	Diuris micrantha	T						AUTO	3	24/09/1984
18802	8063621	12938	Diuris micrantha	Т	Plants tall, flowers very small, yellow with red-brown markings.	Swamp. Black peaty soil.	Miscellaneous rushes and sedges.			UNK	3	23/09/1985
18804	8649731	12938	Diuris micrantha	Т	Orchid.	Swamp. Inundated black clay peat. Burnt in 2009.	Open scrub over dense low sedges. Lepidosperma longitudinale, Wurmbea sp., Burchardia sp., Romulea rosea Trifolium sp., cape tulip.	7 plants.	Area occupied is c. 2.5 m x 1.5 m. Populatio n 1a.	GPS	1	22/09/2009
18812	7500971	1637	Diuris purdiei	Т		Burnt winter wet swamp on N side (private land). Burnt last summer.	Low heath of Homalospermum, Pericalymma? etc. over sedges and many herbaceous species, Drosera, Stylidium etc Paperbarks (Melaleuca preissiana).	30+ plants.		UNK	3	11/10/1987
18907	4260171	4763	Dodonaea hackettiana	4						AUTO	2	28/11/1993
18911	1157663	4763	Dodonaea hackettiana	4	Shrub 2.5 m high. Fruit red/green.	Grey sand.				MAN	3	20/12/1980
18912	1157566	4763	Dodonaea hackettiana	4						MAN	3	11/11/1981
18913	1157655	4763	Dodonaea hackettiana	4					2159/62/ 2.	MAN	3	/09/1962

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	Notes	Geo_Met	Precision	Date
18915	1157132	4763	Dodonaea hackettiana	4	Erect shrub, 2 m high, variable age structure.	Disturbed area, in sandy paddock.	Eucalyptus marginata open forest, with grasses, Carpobrotus sp.		Abundanc e: large populatio n, dominant shrub. (Within populatio n 3262- 3267).	MAN	3	5/12/1978
18916	1157124	4763	Dodonaea hackettiana	4	Erect shrub, 1 m high, variable age structure.	Disturbed area, in sandy paddock.	Eucalyptus marginata open forest, with grasses, Carpobrotus sp.		Abundanc e: large populatio n, dominant shrub. (Within populatio n 3262- 3267).	MAN	3	5/12/1978
18918	1157612	4763	Dodonaea hackettiana	4	Erect shrub, of small tree, 4 - 5 m high.	Sand with outcropping limestone.	Tall danse Banksia forest.		(Within populatio n 3268-3271).	MAN	3	5/12/1978
18920	1157647	4763	Dodonaea hackettiana	4	Erect shrub, ca 1.5 m high.	Level, but disturbed sand.		rare.		MAN	4	22/04/1986
18921	4594711	4763	Dodonaea hackettiana	4	Tall shrub 3 m high x 1-1.5 m wide.	Flat, leaf litter, grey sand over limestone.	Eucalyptus rudis, Banksia sp.	rare, localised.		AUTO	3	10/12/1996
18926	7104588	4763	Dodonaea hackettiana	4	Perennial, erect shrub, 4 m high x 3 m wide. Orange flowers. Reproductive method: seeds.	Plain. Reserve. Lake upland. Beeliar Regional Park. Grey dry	Tall trees with Eucalyptus rudis and paperbarks.	6-20	Population structure: 50% in bud, 100% flowering. With many alien species.	GPS	1	16/10/2003

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	Notes	Geo_Met hod	Precision	Date
18930	6097774	4763	Dodonaea hackettiana	4	Slender tall shrub 4/5 m high. In fruit.	Dune, grey sand.	Acacia rostellifera tall shrubland over Melaleuca systena.	scattered.		GPS	1	28/10/2001
18995	231282	1639	Drakaea elastica	Т		In deep grey sand on gradual slopes in undulating plain.	Low woodland of Banksia attenuata, B. menziesii, B. ilicifolia, and Jarrah over scrub of Adenanthos cygnorum and Kunzea over herbs.	ca 60 plants.	Abundance: ca 60 plants.	MAN	3	28/10/1982
29317	3358232	2054	Grevillea olivacea	4	Open erect shrub 1-2 m, style red; perianth green-red.	Coastal dunes. White sand.	Coastal Acacia shrubland.		Self seeding from plantings.	MAN	3	13/07/1993
33821	4463781	20462	Jacksonia gracillima	3	Swamp Form. Low spreading shrub.	Soil: Grey sand. Topography/drainage: Well drained flat. Geomorphology: Bassendean sands.	Vegetation: Banksia attenuata, B. ilicifolia Low Forest A over Melalueca thymoides, Kunzea ericifolia Scrub over Patersonia occidentalis, Dasypogon bromilifolius Herbs over Lepidosperma angustatum Very Open Low Sedges.	1		GPS	1	27/11/1992
33827	6836445	20462	Jacksonia gracillima	3	Low spreading shrub to 30 cm x 120 cm. Standard yellow- orange with red band close to base and yellow eye; wings yellow-orange in distal half, red basally, keel red.	Coastal plain, low flat. Dry, but in area of high water table. Grey sand.	Open heath over dense herbs. Kunzea glabrescens, Melaleuca thymoides, Dasypogon bromeliifolius, Phlebocarya ciliata.	occasiona I.		GPS	1	12/11/2003
33828	7127499	20462	Jacksonia gracillima	3	Decumbent shrub - 20 cm high and 50 cm wide. Flowers standard orange-yellow; eye yellow with red halo; wings/keel red, in full flower.	Winter wet flats; brown clay.	Melaleuca uncinata tall shrubland over low shrubland of Calothamnus, Verticordia spp over sedges.			UNK	2	5/11/2004

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	Notes	Geo_Met hod	Precision	Date
33838	9076557	20462	Jacksonia gracillima	3	Spreading low shrub, 50 cm high.	Very gentle lower slope of dune on edge of broad swale. Grey sand. > 7 years since fire.	Corymbia calophylla and Eucalyptus marginata subsp. marginata open forest, over Allocasuarina fraseriana, Banksia ilicifolia, B. menziesii and B. attenuata scattered low trees to low woodland, over Xanthorrhoea preissii high open shrubland, over Daviesia	6 plants.		GPS	1	25/10/2010
33842	8415331	20462	Jacksonia gracillima	3	Decumbent perennial to 0.3 m high x 1.4 m diam.	Flat, well-drained but adjacent to winter-wet swamp; pale grey sand.	Banksia woodland.	infrequen t.		GPS	1	14/11/2010
33989	6511570	4027	Jacksonia sericea	4	Prostrate shrub, buds and orange flowers.					ТОРО	2	1/12/1995
34157	8873712	4035	Kennedia beckxiana	4	Vigorous climbing shrub with twining stems climbing up a Melaleuca preissiana tree to a height of about 4 m. Glabrous leaves divided into 3 leaflets. Inflorescence stalked with obvious amplexicaule bract. Showy orange-red flowers, most still in bud but s	Poorly drained flat at edge of lake. Black loamy sand. Litter cover 20%, depth <1 cm. Moss cover 50%. Bare ground cover 20%.	Melaleuca preissiana Low Woodland, over an Open Tall Shrubland of Acacia longifolia and Kunzea glabrescens, over an Open Shrubland of Solanum nigrum, Climbers of Kennedia beckxiana and Fumaria sp., a Fernland of Pteridium esculentum, an Open Grassland of	Two plants present.	Plant is to be removed as it is invading native bushland where it is not a local native.		1	19/08/2016
34386	296015	30334	Lachnagrostis nesomytica subsp. paralia	1	Small upright grass 30 cm high.		Callitris forest.			AUTO	3	20/10/1978
34387	6706711	30334	Lachnagrostis nesomytica subsp. paralia	1	Annual grass, 50 mm high x 150 mm wide.	Disturbed soil. Plain. Reserve. Dry grey/brown sand. Dune beside sea.	Medium trees. With scattered Melaleuca lanceolata, Parapholis incurva, Trachyandra divaricata, Geranium molle, Cotula and Euphorbia spp., and grasses.	2-5 plants.		GPS	1	11/11/2003

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	Notes	Geo_Met hod	Precision	Date
34388	6706738	30334	Lachnagrostis nesomytica subsp. paralia	1	Grass, 0.15 m high x 0.03 m wide.	Reserve. Dune swale. Dry white soil.	With Nicotiana glauca, Callitris preissii and Solanum symonii.	over 50 plants in 11-100 sq m.		GPS	1	23/11/2002
35525	2159341	3043	Lepidium puberulum	4			Burnt area, regenerating. Melaleuca/Acacia communities.			AUTO	3	17/09/1991
35543	6750400	3043	Lepidium puberulum	4	Annual herb 0.2 m high x 0.1 m wide.	Dune. Recent soil disturbance. Dry, white sand.	Medium trees, Melaleuca lanceolata, Trachyandra, Acanthocarpus. Associated vegetation: lawn	21-50 plants.		GPS	1	13/10/2002
35544	6756751	3043	Lepidium puberulum	4	Erect herb. Height: 150 mm and width: 100 mm. Flower colour: green.	Topography: lawn on sand bench. Collection site: enclosure. Soil colour: brown. Soil: sand.	like area with weeds. Characteristic species: Stenotaphrum, Euphorbia, Erodium, Anagallis, Hypochaeris, Trachymene.	2-5 plants.		GPS	1	24/08/2003
35545	7815603	3043	Lepidium puberulum	4	Erect annual herb. Flowes greenish - white; in fruit and flower.	Mossy black sand.	Callitris preissii low woodland.	locally very common.	GARD Q3.	GPS	1	17/10/2006
35546	7810717	3043	Lepidium puberulum	4	Delicate herb to <0.05 m; clusters of tiny flowers.	Site slopes gently to the W; dark brown sand; well drained.	Heath A/B of Acacia rostellifera and Leucopogon australis over Low Heath C/D of Acanthocarpus preissii and Eremophila glabra; Very Open Herbs of Zantedeschia aethiopica, Trachymene coerulea; Very Open Low Sedges of Carex preissii.		Vegetation noted as being in excellent condition with some mature Acacia deaths.	GPS	1	2/10/2007
38799 39142 39143	282235 3461688 4400267	33742 6722 6722	Microtis quadrata Myosotis australis Myosotis australis	4 4 4	Flowers white. Erect annual herb 20 cm.	In black peaty soil.	Under paperbarks.		deaths.	AUTO AUTO	3 3 2	11/11/1960 /10/1901 20/10/1978
			•		Flowers white.							

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	Notes	Geo_Met hod	Precision	Date
39147	8775249	6722	Myosotis australis	4	Leafy annual herb 10 - 30 cm, with small white flowers.	On narrow flat between coastal vegetated, stabilised dunes and limestone breakaway.	Associated vegetation: coastal woodland of tall Melaleuca lanceolata trees over middense layer of Eremophila glabra, Acanthocarpus preissii and Trachyandra divaricata, over dense ground layer of Galium sp., small grasses and mosses.	few - several plants.	Heavily grazed by wallabies and being displaced by Trachyand ra divaricata.		1	16/09/2016
40843	1084135	11557	Phlebocarya pilosissima subsp. pilosissima	3		Sand ridge.	In Banksia woodland.			MAN	2	23/05/1978
41077	3409112	5237	Pimelea calcicola	3	Low spreading shrub 20-30 cm high. Flowers pale pink.	Low rises. Grey sand, calcareous/limestone.	Low heath.		Abundanc e: very common.	AUTO	3	13/11/1983
41092	5592224	5237	Pimelea calcicola	3	Erect, perennial, dwarf shrub.	Brown sand and protruding limestone.	Melaleuca/Acacia rostellifera patches. Associated vegetation: Dryandra sessilis, Phyllanthus calycinus, Hibbertia hypericoides, Ehrharta calycina.			MAN	0	10/11/1997
41096	9172173	5237	Pimelea calcicola	3	Erect, compact, perennial shrub, 80 cm high x 80 cm wide. Flowers white.	Plain. Reserve. Dry, white sand.	Tall shrubland with Acacia rostellifera.	2-5 plants.	Populatio n structure: 100% flowering.	GPS	1	20/10/2014
44887	3464008	20348	Sphaerolobium calcicola	3	Erect multi-stemmed shrub 20- 30 cm tall. In full flower. Flowers yellow-red.	Tall dunes, grey-white sand over white sand.	Low open heath of Jacksonia/Olearia axillaris and Acacia lasiocarpha.	rare in area.		MAN	0	23/10/1993
45997	7746865	17850	Stylidium ireneae	4	,		•			UNK	3	2/12/2004
46152	3172805	7756	Stylidium longitubum	4	Ephemeral herb, flowers pink.					AUTO	3	22/11/1973
46340	2857685	25800	Stylidium paludicola	3	0.5 m tall, flowers pink.	Near edge of swamp.	Amongst Juncus.			MAN	0	4/12/1974

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency Notes	Geo_Met hod	Precision	Date
46346	7332416	25800	Stylidium paludicola	3	Small herb to 400 mm high. Just finished flowering.	Gentle slope with a south east aspect. Surface soil is a very dark brown sandy loam and the subsurface soil is a very dark brown sandy loam/loam. Wetland - winter wet. Litter cover 90% with 10% bare ground.	Melaleuca preissiana woodland over Astartea scoparia open heath over Lepidosperma longitudinale open sedgeland.	occasiona I.	GPS	1	7/12/2005
46347	7279906	25800	Stylidium paludicola	3	Herb to 0.4 m high. Flowers pink/red.	Gentle slope, south aspect, surface soil is dark grey loamy sand and sub surface soil is very dark grey brown sandy loam, drainage is poor and wet during winter and spring only.	Melaleuca preissiana, Kunzea glabrescens low open forest over Astartea scoparia, Hypocalymma angustifolium open shrubland over Lepidosperma longitudinale open sedgeland. Vegetation is in a pristine to excellent condition with some rabbit diggings and pot	scattered.	GPS	1	22/11/2005
46348	6239404	25800	Stylidium paludicola	3		In swampy area.			MAN	3	/11/1965
47189	6443044	48297	Styphelia filifolia	3	Erect shrub to 60 cm high and 60 cm wide. Flowers white, strictly pendulous.	Sandy rise. Dry littered. Grey sand.	Banksia woodland. B. attenuata, B. menziesii, Allocasuarina humilis, Stirlingia latifolia.	scattered.	GPS	2	21/04/2002
48263	4622316	28354	Synaphea sp. Serpentine (G.R. Brand 103)	Т	Low shrub 20 cm high x 50 cm wide, flowers yellow.	Pinjarra Plain, sumpland. Red brown loam.	Marri Woodland with Eucalyptus calophylla, Phyllanthus calycinus, Mesomelaena tetragona.		MAN	0	15/08/1991

FID	Sheet	NameID	Taxon	Cons_Cod e	Plant_Desc	Site	Vegetation	Frequency	/ Notes	Geo_Met hod	Precision	Date
48971	9076492	35581	Tetraria sp. Chandala (G.J. Keighery 17055)	,	Erect sedge, 70 cm high.	Dampland on edge of open water, wetland on plain. Black peat. > 10 years since fire.	Eucalyptus rudis subsp. rudis open forest, over Melaleuca preissiana and M. rhaphiophylla open woodland, over Taxandria linearifolia scattered tall shrubs, over Cyathochaeta teretifolia high closed sedgeland with Pteridium esculentum high fernland. Assoc		Excellent vegetation condition (low weed cover), though disturbance nearby (transmiss ion lines).	GPS	1	2/11/2010
49482	279188	1717	Thelymitra variegata	2		In yellow sand.	With Banksia attenuata, Casuarina fraseri, Hibbertia hypericoides, etc.			AUTO	3	16/08/1959
51095	2521296	44444	Tripterococcus sp. Brachylobus (A.S. George 14234)	4	Slender erect multi-stemmed shrub to 40 cm. Flowers orange-yellow, in full flower.	Winter wet flats, peaty sand over clay.	Hypocalymma angustifolium low heath.	scattered groups of 5-15 plants.		MAN	3	21/02/1992
52364	1057251	14714	Verticordia lindleyi subsp. lindleyi	4	Compact erect shrub, 36 cm high, flowers pink.	Dry summer swamp. Sandy white clay soil.	Heath type.	•		MAN	3	23/03/1981

FID	Popld	Nameio	l Taxon Acacia	Con sSta tus	Ran	mbe	Pop (Pop Stat us	District	Vesting	Purpo se1	CountDate	Method	Cou	otal '	Cou Are ntTy Occ pe py		Flo PopCon HabCo er diti nditi	HabNotes	SoilCo dit	n Landfo rm	RockTy Grave	SoilTyp I e	SoilCo or	l Draina ge
907	92883	14932	lasiocarpa var. bracteolata long peduncle variant (G.J. Keighery 5026)			1			SWAN COASTAL	LGA		5/08/1982 0:00		0	0		N			MOIST	-		CLAY_S ND	5	
2452	84412	141	Aponogeton hexatepalus	4		7			SWAN COASTAL	UNKNOW N		10/08/1992 0:00	ESTMT	150	150		Υ		Tribonanthes australis, Drosera sp., Stylidium sp., Stylidium utricularioides, Lepyrodia muirii		OD_S WAMP		LOAM	RED	PERMI NUN
2490	84399	141	Aponogeton hexatepalus	4		22			SWAN COASTAL	NON	UCL	16/09/1993 0:00	ESTMT	0	100		N		Diuris micrantha. Sedges.						
2496	84405	141	Aponogeton hexatepalus	4		28			SWAN COASTAL	PRI		5/11/1997 0:00		0	0		N		DomSp: Triglochin sp.		OD_S WAMP		CLAY	GREY	SEASIN UN
2688	95084	45402	Babingtonia urbana	3		2			SWAN COASTAL	LGA	VER	23/03/1981 0:00		0	0		N		Dry summer swamp. Sandy white clay.				SAND	WHITE	:
4604	84970	1596	Caladenia huegelii	Т	CR	9			SWAN COASTAL	RDL	UCL	1/10/2004 0:00		0	0		N		Healthy to moderate woodland. Conostylis aculeata, Dasypogon bromelifolius, Stirlingia latifolia, Pimelea	DRY	RI_DU NE		SAND	GREY	
4606	84932	1596	Caladenia huegelii	Т	CR	12	:	x	SWAN COASTAL	PRI		15/10/1997 0:00	ACT_IND	0	0		N		Xanthorrhoea preissii, Patersonia sp., Hibbertia sp., Stirlingia latifolia. Banksia/Jarrah	DRY	FL_PLA IN		SAND	GREY	
4635	84944	1596	Caladenia huegelii	Т	CR	41	:	x	SWAN COASTAL	MRD	VER	23/10/2006 0:00		0	0		N		woodland. Xanthorrhoea preisii, Patersonia sp., Hibbertia sp., Stirlingia latifolia.	DRY	FLAT		SAND	GREY	

FID	Popld	Nameio	d Taxon		WA Ran k	Nu	Sub Pop e Cod e	Stat	District	Vesting	Purpo se1	CountDate	Method	Mat Cou nt	l LiveT otal		Occu	InFlo wer		n HabCo nditi	HabNotes	SoilCon dit	Landfo rm	RockTy pe	Gravel	SoilTyp e	SoilCol or	Draina ge
4636	97288	1596	Caladenia huegelii	T	CR	42	A		SWAN COASTAL	SPC	GVT	23/09/2011 0:00	ACT_IND	447	0	PLA NTS	####	γ	HEALTH Y	1 VRY_G OOD	Low open woodland over low open shrubland and herbland on lower slopes. Banksia Woodland. The overall condition of the vegetation due to drought conditions is declining. Recentfire (April 2011?) in NE edge of Lot 820, NW edge of Lot 4 (42F) & SE edge o	MOIST	SLOPE			SAND	WHITE	WLL_D RND
4637	97289	1596	Caladenia huegelii	Т	CR	42	В		SWAN COASTAL	PRI		2/10/2013 0:00	ACT_IND	15	0	PLA NTS	262	Y	HEALTH Y	¹ GOOD	Vegetation away from the edges within the wider remnants were in Excellent condition; the more narrow remnants were Good to Completely Degraded. This site contains a high diversity of flora species.	MOIST	FL_PLA IN			SAND	GREY	WLL_D RND
4638	97290	1596	Caladenia huegelii	Т	CR	42	С		SWAN COASTAL	PRI		9/10/2004 0:00		5	5			Y			Low open woodland over low open shrubland and herbland on lower slopes. Banksia Woodland.		SLOPE			SAND	GREY	

FID	Popld I	Nameid	i Taxon		WA Ran k	Nu	Sub Pop e Coo e	Stat	District	Vesting	Purpo se1	CountDate	Method	Mat Cou nt	ICOH.	LiveT otal	Cou Area ntTy Occu pe py	11	PopCon diti	HabCo nditi	HabNotes	SoilCor dit	Landfo rm	RockTy pe	Gravel	SoilTyp e	SoilCol or	Draina ge
4639	97291 :	1596	Caladenia huegelii	Т	CR	42	D		SWAN COASTAL	LGA	VER	23/09/2011 0:00		0		0		N		DEGRA DED	Low open woodland over low open shrubland and herbland on lower slopes. Banksia Woodland. Lowerslope to drainage line. Undulating topography. Habitat condition: Good to degraded. The road reserve is declining in condition due to the impacts of rubbish		SLOPE			SAND	GREY	WLL_D RND
4640	106241 :	1596	Caladenia huegelii	Т	CR	42	E		SWAN COASTAL	PRI		14/10/2005 0:00	ACT_IND	0		0		Υ	MODER ATE		Low open woodland over low open shrubland and herbland on lower slopes. Banksia Woodland.		SLOPE			SAND	GREY	
4641	106242	1596	Caladenia huegelii	Т	CR	42	F		SWAN COASTAL	PRI		14/10/2005 0:00	ACT_IND	0		0		Υ	MODER ATE		Low open woodland over low open shrubland and herbland on lower slopes. Banksia Woodland.		SLOPE			SAND	GREY	
4660	97306	1596	Caladenia huegelii	Т	CR	59	Α		SWAN COASTAL	СС	CFF	21/09/2004 0:00		1		1		N			Banksia woodland.		FLAT			SAND	GREY	
4661	97307	1596	Caladenia huegelii	Т	CR	59	В		SWAN COASTAL	СС	CFF	21/09/2004 0:00		1		1		Υ			Banksia woodland.	DRY	FLAT			SAND	GREY	
4662	97308	1596	Caladenia huegelii	T	CR	59	С		SWAN COASTAL	СС	CFF	4/10/2010 0:00	ACT_IND	0		0		N			Banksia woodland. *Erharta calycina at densities >70%.	DRY	SLOPE			SAND	WHITE	

FID	Popld	Nameio	i Taxon		WA Ran k	Nu	Sub Pop e Cod e	Pop Stat us	District	Vesting	Purpo se1	CountDate	Method	Mat Cou nt	JuvC Seed ount ICou	d Livel	Cou ntTy pe	Occu	InFlo wer	PopCon diti	HabCo nditi	HabNotes	SoilCor dit	n Landfo rm	RockTy pe	Gravel	SoilTyp e	SoilCol or	Draina ge
4663	97309	1596	Caladenia huegelii	Т	CR	59	D		SWAN COASTAL	сс	CFF	4/10/2011 0:00	ACT_IND	1		0	PLA NTS	1	Y	HEALTH Y	VRY_G OOD	Presence of perrenial veldt grass (highly invasive weed species) is the factor downgrading condition from excellent to very good. Intact native species structure and diversity	DRY	SLOPE			SAND	GREY	WLL_D RND
4664	97310	1596	Caladenia huegelii	Т	CR	59	Е		SWAN COASTAL	СС	CFF	25/09/2012 0:00	ACT_IND	29		0	PLA NTS	500	Υ	HEALTH Y	VRY_G OOD	Located in small	DRY	SLOPE			SAND	GREY	WLL_D RND
4665	114909	1596	Caladenia huegelii	Т	CR	59	F		SWAN COASTAL	RDL	PAR	25/09/2012 0:00	ACT_IND	8		0	PLA NTS	475	Υ	HEALTH Y	EXCELE NT	patch of excellent bush adjacent to a more disturbed area		HILL			SAND	GREY	WLL_D RND
4666	97312	1596	Caladenia huegelii	Т	CR	60	Α		SWAN COASTAL	PRI		11/10/2005 0:00	ACT_IND	6		6			Υ			Banksia Woodland		FLAT			SAND	GREY	
4667	97313	1596	Caladenia huegelii	Т	CR	60	В		SWAN COASTAL	PRI		11/10/2005 0:00	ACT_IND	11		0			Υ										
4668	97314	1596	Caladenia huegelii	Т	CR	60	С		SWAN COASTAL	PRI		16/10/2005 0:00	ACT_IND	3		3			Υ										
4669	106221	1596	Caladenia huegelii	Т	CR	60	D		SWAN COASTAL	PRI		10/10/2005 0:00	ACT_IND	5		0			Υ										
4670	84954	1596	Caladenia huegelii	Т	CR	61			SWAN COASTAL	PRI		5/10/2005 0:00		1		1			Υ			Banksia wookland, understorey of a variety of grasses of Hibbertia.		FLAT			SAND	GREY	

FID	Popld	Nameio	i Taxon		WA Ran k	Pop Nu mbe r	Pop Cod	Pop Stat us	District	Vesting	Purpo se1	CountDate	Method	Mat Cou nt	ount		otal	Cou ntTy pe		nFlo ver	PopCon H diti r	labCo Iditi	HabNotes	SoilCon dit	Landfo rm	RockTy pe Gravel	SoilTyp e	SoilCol or	Draina ge
4671	84955	1596	Caladenia huegelii	Т	CR	62			SWAN COASTAL	LGA	REC	27/09/2013 0:00	ACT_IND	12			0	PLA NTS	514 Y		HEALTH \	OOD	Low Open Forest of Banksia attenuata, B. menziesii, B. ilicifolia, Allocasuarina fraseriana and Nuytsia floribunda overTall Shrubland of Adenanthos cygnorum and Kunzea glabrescens over Open Low Heath of Xanthorrhoea preissii, Melaleuca thymoides, Calytri	MOIST	FLAT		SAND	GREY	WLL_D RND
4676	84960	1596	Caladenia huegelii	Т	CR	67			SWAN COASTAL	NON	GVT	10/10/2011 0:00	ACT_IND	13			0	PLA NTS	2890 Y		HEALTH E	XCELE NT		MOIST	FLAT		SAND	GREY	WLL_D RND
4682	84964	1596	Caladenia huegelii	Т	CR	72			SWAN COASTAL	PRI		19/09/2007 0:00	ACT_IND	1			1		Υ	•				DRY	FLAT		SAND		
4687	84968	1596	Caladenia huegelii	Т	CR	76			SWAN COASTAL	PRI		1/10/2009 0:00	ACT_IND	1		0	1		Υ				Banksia woodland. Kunzea ericifolia, Lepidosperma spp, Xanthorrhoea preisii,	DRY			SAND	GREY	
4689	106981	1596	Caladenia huegelii	Т	CR	78	А		SWAN COASTAL	PRI		25/09/2012 0:00	ACT_IND	1	1		0	PLA NTS	1 Y	, ,	HEALTH Y		Tall Open Scrub of Kunzea glabrescens and Adenanthos cygnorum	DRY	SLOPE		SAND	GREY	WLL_D RND
4690	107683	1596	Caladenia huegelii	Т	CR	78	В		SWAN COASTAL	PRI		25/09/2013 0:00	ACT_IND	3			0	PLA NTS	Υ	,	HEALTH Y								
4692	110509	1596	Caladenia huegelii	Т	CR	80			SWAN COASTAL	PRI		20/10/2011 0:00	ACT_IND	4			0	PLA NTS	370 Y		HEALTH E	XCELE NT		MOIST			SAND	GREY	WLL_D RND
6309	93196	16245	Cyathochaeta teretifolia	3		12			SWAN	PRI		24/10/2007 0:00		0			0		N	1			Woodland	INUND ATE	OD_S WAMP		PEAT	BLACK	
6322	93210	16245	Cyathochaeta teretifolia	3		25			SWAN COASTAL	PRI		2/12/2005 0:00		0			0		N	I			[soil type		SLOPE		SND	BROW N	SEASIN UN
7198	101444	12938	Diuris micrantha	Т	VU	1	Α		SWAN COASTAL	NON	UCL	20/09/2010 0:00	ACT_IND	6			0	PLA NTS	3.75 Y		HEALTH \	/RY_G DOD	additional]: clay	DRY	OD_S WAMP		PEAT	BLACK	

FID	Popld	Nameio	l Taxon		WA Ran k	Nu	Sub Pop Cod e	Pop Stat us		Vesting	Purpo se1	CountDate	Method	Mat JuvC Seed Ount nt	LiveT Cou Area otal ntTy Occo otal pe py	a InFlo PopCon HabCo wer diti nditi	HabNotes	SoilCon dit	Landfo rm	RockTy pe Gravel	SoilTyp e	SoilCol or	Draina ge
7199	101445	12938	Diuris micrantha	Т	VU	1	В		SWAN COASTAL	NON	UCL	24/09/2002 0:00		0	0	N							
7220	85052	1637	Diuris purdiei	Т	EN	5			SWAN COASTAL	PRI		14/01/2004 0:00		0	0	N		MOIST	OD_S WAMP		CLAY	GREY	
7252	99183	4763	Dodonaea hackettiana	4		4	Α		SWAN COASTAL	PRI		15/10/1980 0:00		0	0	N							
7253	99184	4763	Dodonaea hackettiana	4		4	В		SWAN COASTAL	LGA	VER	15/10/1980 0:00		0	0	N							
7254	99185	4763	Dodonaea hackettiana	4		4	С		SWAN COASTAL	NON	ОТН	15/10/1980 0:00		0	0	N							
7255	99186	4763	Dodonaea hackettiana	4		4	D		SWAN COASTAL	NON	ОТН	15/10/1980 0:00		0	0	N							
7256	99187	4763	Dodonaea hackettiana	4		4	E		SWAN COASTAL	CC	NRE	15/10/1980 0:00		0	0	N							
7257	99189	4763	Dodonaea hackettiana	4		5	Α		SWAN COASTAL	LGA	VER	15/10/1980 0:00	ACT_IND	27	27	N	Sand with outcropping limestone.		OUTCR OP	LIMEST N	SAND		
7258	99190	4763	Dodonaea hackettiana	4		5	В		SWAN COASTAL	СС	CFF	15/10/1980 0:00	ACT_IND	13	13	N							
7259	99191	4763	Dodonaea hackettiana	4		5	С		SWAN COASTAL	LGA	NRE	15/10/1980 0:00		0	0	N							
7260	99192	4763	Dodonaea hackettiana	4		5	D		SWAN COASTAL	CC	CFF	15/10/1980 0:00	ESTMT	700	1750	N							
7261	99193	4763	Dodonaea hackettiana	4		5	E		SWAN COASTAL	СС	CFF	15/10/1980 0:00	ESTMT	15	23	N							
7262	99194	4763	Dodonaea hackettiana	4		5	F		SWAN COASTAL	PRI		15/10/1980 0:00		0	0	N							
7263	87266	4763	Dodonaea hackettiana	4		6			SWAN COASTAL	PRI		11/11/1981 0:00		0	0	N			SLOPE	LIMEST N	SAND		
7277	87256	4763	Dodonaea hackettiana	4		15			SWAN COASTAL	PRI		5/01/1987 0:00	ESTMT	3	3	N			FLAT		SAND		
7278	87257	4763	Dodonaea hackettiana	4		16			SWAN COASTAL	LGA	REC	15/06/1987 0:00		0	0	N							
7283	87261	4763	Dodonaea hackettiana	4		20			SWAN COASTAL	PRI		28/10/2001 0:00		0	0	N			RI_DU NE		SAND	GREY	
7285	87263	4763	Dodonaea hackettiana	4		22			SWAN COASTAL	NON	UCL	16/10/2003 0:00	UNKNOW N	12	12	Υ		DRY	CD_LK BED		SAND	GREY	
7286	87264	4763	Dodonaea hackettiana	4		23			SWAN COASTAL	PRI		1/12/2005 0:00	ESTMT	20	20	N	DomSp: Victorian Tea Tree		RIDGE	LIMEST N	SAND	BROW N	
7343	97391	1639	Drakaea elastica	Т	CR	2	Α	Χ	SWAN COASTAL	PRI		28/07/2005 0:00		0	0	N	Kunzea ericifolia scrub	DRY	FLAT		SAND	WHITE	
7344	97392	1639	Drakaea elastica	Т	CR	2	В	Χ	SWAN COASTAL	PRI		28/07/2005 0:00		0	0	N	Kunzea ericifolia scrub		FL_PLA IN		SAND	GREY	
7345	97393	1639	Drakaea elastica	Т	CR	2	С	Х	SWAN COASTAL	PRI		28/07/2005 0:00		0	0	N	Kunzea ericifolia scrub		FL_PLA IN		SAND	GREY	
7351	85084	1639	Drakaea elastica	Т	CR	7			SWAN COASTAL	PRI		28/07/2005 0:00	ESTMT	0	0	N			FLAT		SAND	GREY	

FID	PopId	Nameio	l Taxon		WA Ran k	Nii Pon	at District	Vesting	Purpo se1	CountDate	Method	Mat Cou nt	JuvC Seed ount ICou	LiveT otal	Cou A ntTy (pe p	Area Occu oy	InFlo wer	PopCon diti	HabCo nditi	HabNotes	SoilCon dit	Landfo rm	RockTy pe	Gravel	SoilTyp e	SoilCol or	Draina ge
7388	85074	1639	Drakaea elastica	Т	CR	31	SWAN COASTAI	PRI		17/08/2010 0:00		0		0			N			Banksis sp., Calothamnus sp., Conostylis sp., grasses (interpreted from photo).		FLAT			SAND	WHITE	
7444	91320	13635	Drakaea micrantha	Т	EN	15	SWAN COASTAI	PRI		14/11/2002 0:00		0		0			N				MOIST	FL_PLA	LATERI TE		SAND	WHITE	
15659	89306	7756	Stylidium longitubum	4		23	SWAN COASTAI	PRI		17/11/1995 0:00		0		0			N					SLOPE			LOAM_ SND	BROW N	SEASIN UN
16652	93725	44444	Tripterococcus sp. Brachylobus (A.S. George 14234)	4		13	SWAN COASTAI	NON	GVT	21/02/1992 0:00	ESTMT	10		10			N			Winter wet flats, peaty sand over clay.					CLAY_S ND		SEASIN UN
16991	92661	14714	Verticordia lindleyi subsp. lindleyi	4		2	SWAN COASTAI	UNKNOW . N	1	23/03/1981 0:00		0		0			N			Dry summer swamp. Sandy white clay soil.		OD_S WAMP			SND_C LAY	WHITE	
17019	92664	14714	Verticordia lindleyi subsp. lindleyi	4		22	SWAN COASTAI	LGA	REC	15/06/1991 0:00		0		0			N										

APPENDIX 2 Naturemap Report



NatureMap Species Report

Created By Guest user on 18/11/2020

Current Names Only Yes

Core Datasets Only Yes

Method 'By Circle'

Centre 115° 48' 05" E,32° 13' 19" S

Buffer 10km

Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	1316	21773
Other specially protected fauna	2	14
Priority 1	3	3
Priority 2	1	1
Priority 3	13	195
Priority 4	17	328
Protected under international agreement	21	328
Rare or likely to become extinct	18	547
TOTAL	1391	23189

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Rare or lik	ely to bed	come extinct			
1.	1596	Caladenia huegelii (Grand Spider Orchid)		T	
2.	24784	Calidris ferruginea (Curlew Sandpiper)		T	
3.	24790	Calidris tenuirostris (Great Knot)		T	
4.	24731	Calyptorhynchus banksii subsp. naso (Forest Red-tailed Black Cockatoo)		Т	
5.	24733	Calyptorhynchus baudinii (Baudin's Cockatoo, White-tailed Long-billed Black Cockatoo)		Т	
6.	24734	Calyptorhynchus latirostris (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo)		Т	
7.	48400	Calyptorhynchus sp. (white-tailed black cockatoo)		T	
8.	25335	Caretta caretta (Loggerhead Turtle)		Т	
9.	25336	Chelonia mydas (Green Turtle)		Т	
10.	24092	Dasyurus geoffroii (Chuditch, Western Quoll)		Т	
11.	25346	Dermochelys coriacea (Leatherback Turtle)		Т	
12.	10796	Diuris drummondii (Tall Donkey Orchid)		Т	
13.	12938	Diuris micrantha		Т	
14.	1639	Drakaea elastica (Glossy-leaved Hammer Orchid)		Т	
15.	24043	Eubalaena australis (Southern Right Whale)		Т	
16.	24146	Myrmecobius fasciatus (Numbat, Walpurti)		Т	
17.	24798	Numenius madagascariensis (Eastern Curlew)		Т	
18.	34113	Westralunio carteri (Carter's Freshwater Mussel)		Т	
Protected	under int	ernational agreement			
19.	41323	Actitis hypoleucos (Common Sandpiper)		IA	
20.	25554	Apus pacificus (Fork-tailed Swift, Pacific Swift)		IA	
21.	25736	Arenaria interpres (Ruddy Turnstone)		IA	
22.	24779	Calidris acuminata (Sharp-tailed Sandpiper)		IA	
23.	24786	Calidris melanotos (Pectoral Sandpiper)		IA	
24.	24788	Calidris ruficollis (Red-necked Stint)		IA	
25.	24789	Calidris subminuta (Long-toed Stint)		IA	
26.	41332	Chlidonias leucopterus (White-winged Black Tern, white-winged tern)		IA	
27.	48587	Hydroprogne caspia (Caspian Tern)		IA	
28.	25741	Limosa limosa (Black-tailed Godwit)		IA	
29.	24690	Macronectes giganteus (Southern Giant Petrel)		IA	
30.	41347	Onychoprion anaethetus (Bridled Tern)		IA	
31.	48591	Pandion cristatus (Osprey, Eastern Osprey)		IA	
32.	24843	Plegadis falcinellus (Glossy Ibis)		IA	
33.	24383	Pluvialis squatarola (Grey Plover)		IA	
34.	25640	Sterna dougallii (Roseate Tern)		IA	
35.	48597	Thalasseus bergii (Crested Tern)		IA	
36.	24806	Tringa glareola (Wood Sandpiper)		IA	
			Kojoš		

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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Que Area
37.		Tringa nebularia (Common Greenshank, greenshank)		IA	
38.		Tringa stagnatilis (Marsh Sandpiper, little greenshank)		IA	
39.	41351	Xenus cinereus (Terek Sandpiper)		IA	
ther speci	ally prot	ected fauna			
40.	25624	Falco peregrinus (Peregrine Falcon)		S	
41.	48070	Phascogale tapoatafa subsp. wambenger (South-western Brush-tailed Phascogale,		S	
		Wambenger)			
riority 1					
42.	48762	Acacia sp. Binningup (G. Cockerton et al. WB 37784)		P1	
43.	16633	Boronia juncea subsp. juncea		P1	
44.	30334	Lachnagrostis nesomytica subsp. paralia		P1	
riority 2					
45.	35581	Tetraria sp. Chandala (G.J. Keighery 17055)		P2	
ulaultu 2					
riority 3	40222	Amenite preiseii (Cinnemen ring Lepidelle)		Do	
46. 47.		Amanita preissii (Cinnamon-ring Lepidella) Austrostipa mundula		P3 P3	
48.		Cyathochaeta teretifolia		P3	
49.		Hibbertia spicata subsp. leptotheca		P3	
50.		Idiosoma sigillatum (Swan Coastal Plain shield-backed trapdoor spider)		P3	
51.		Jacksonia gracillima		P3	
52.		Lerista lineata (Perth Slider, Lined Skink)		P3	
53.		Neelaps calonotos (Black-striped Snake, black-striped burrowing snake)		P3	
54.		Pimelea calcicola		P3	
55.	8163	Pithocarpa corymbulosa (Corymbose Pithocarpa)		P3	
56.	25006	Pletholax gracilis subsp. edelensis (Keeled Legless Lizard (Shark Bay))		P3	
57.	25800	Stylidium paludicola		P3	
58.	24855	Tyto novaehollandiae subsp. novaehollandiae (Masked Owl (southwest))		P3	
riority 4					
59.	1/11	Aponogeton hexatepalus (Stalked Water Ribbons)		P4	
60.		Dodonaea hackettiana (Hackett's Hopbush)		P4	
61.		Falsistrellus mackenziei (Western False Pipistrelle, Western Falsistrelle)		P4	
62.		Hydromys chrysogaster (Water-rat, Rakali)		P4	
63.		Isoodon fusciventer (Quenda, southwestern brown bandicoot)		P4	
64.		Ixobrychus dubius (Australian Little Bittern)		P4	
65.		Jacksonia sericea (Waldjumi)		P4	
66.	48024	Notamacropus eugenii subsp. derbianus (Tammar Wallaby, Tammar)		P4	
67.		Notamacropus irma (Western Brush Wallaby)		P4	
68.	25196	Notoscincus butleri (lined soil-crevice skink (Dampier))		P4	
69.	24328	Oxyura australis (Blue-billed Duck)		P4	
70.	24663	Phaethon rubricauda (Red-tailed Tropicbird)		P4	
71.	17850	Stylidium ireneae		P4	
72.	7756	Stylidium longitubum (Jumping Jacks)		P4	
73.	7803	Stylidium striatum (Fan-leaved Triggerplant)		P4	
74.	33992	Synemon gratiosa (Graceful Sunmoth)		P4	
75.	48135	Thinornis rubricollis (Hooded Plover, Hooded Dotterel)		P4	
on-conser	vation ta	axon			
76.		??			
77.		?Anigozanthos humilis			
78.		?Arnocrinum preissii			
79.		?Austrostipa compressa			
80.		?Austrostipa semibarbata			Υ
81.		?Burchardia congesta			
82.		?Hovea pungens			Υ
83.		?Hovea trisperma var. trisperma			
84.		?Hybanthus calycinus			Υ
85.		?Hypolaena exsulca			Υ
86.		?Kunzea glabrescens			
87.		?Lepidosperma squamatum s.l.			
88.		?Lomandra caespitosa			
89.		?Lotus subbiflorus			
90.		?Lysimachia arvensis			
91.		?Mesomelaena pseudostygia			Υ
		?Microlaena stipoides			
92.		?Persoonia saccata			Υ
93.					
93. 94.		?Phlebocarya ciliata			
93.					Υ

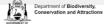






	Name ID	Species Name	Naturalise	ed Conserv	vation Code	¹ Endemic To Query Area
97.		?Rytidosperma occidentalis				
98.		?Sowerbaea laxiflora				
99.	45400	?Vicia sativa				Υ
100.		Acadia applanata				
101.		Acacia cochlearis (Rigid Wattle)				
102. 103.		Acacia cyclops (Coastal Wattle) Acacia huegelii				
103.		Acacia lasiocarpa (Panjang)				
105.		Acacia lasiocarpa var. lasiocarpa				
106.		Acacia pulchella (Prickly Moses)				
107.		Acacia pulchella var. glaberrima				
108.		Acacia pulchella var. goadbyi				
109.	3525	Acacia rostellifera (Summer-scented Wattle)				
110.	3527	Acacia saligna (Orange Wattle, Kudjong)				
111.	30032	Acacia saligna subsp. saligna				
112.	3557	Acacia stenoptera (Narrow Winged Wattle)				
113.	3584	Acacia truncata				
114.	3602	Acacia willdenowiana (Grass Wattle)				
115.		Acanthaluteres brownii				
116.		Acanthaluteres sp.				Υ
117. 118.		Acanthaluteres spilomelanurus Acanthistius serratus				
119.	24260	Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill)				
120.		Acanthiza chrysorrhoa (Yellow-rumped Thornbill)				
121.		Acanthiza inornata (Western Thornbill)				
122.		Acanthocarpus preissii				
123.	24560	Acanthorhynchus superciliosus (Western Spinebill)				
124.	25535	Accipiter cirrocephalus (Collared Sparrowhawk)				
125.	24281	Accipiter cirrocephalus subsp. cirrocephalus (Collared Sparrowhawk)				
126.		Accipiter fasciatus (Brown Goshawk)				
127.	24282	Accipiter fasciatus subsp. fasciatus (Brown Goshawk)				
128.	40400	Acethylaria adiayus				Υ
129. 130.		Acetabularia caliculus Acritoscincus trilineatus (Western Three-lined Skink)				
131.		Acrocephalus australis (Australian Reed Warbler)				
132.		Actinotus glomeratus				
133.		Adenanthos cygnorum (Common Woollybush)				
134.	11837	Adenanthos cygnorum subsp. cygnorum (Common Woollybush)				
135.	1791	Adenanthos obovatus (Basket Flower)				
136.	4582	Adriana quadripartita (Bitter Bush)				
137.		Afraflacilla huntorum				Υ
138.	4505	Afurcagobius suppositus				
139. 140.		Agave americana (Century Plant) Agonis flexuosa var. flexuosa	Y			
141.		Aira caryophyllea (Silvery Hairgrass)	Υ			
142.	104	Aira caryophyllea/cupaniana group	•			
143.	185	Aira cupaniana (Silvery Hairgrass)	Υ			
144.		Aira praecox (Early Hairgrass)	Υ			
145.		Aleurina ferruginea				
146.	1728	Allocasuarina fraseriana (Sheoak, Kondil)				
147.	1732	Allocasuarina humilis (Dwarf Sheoak)				
148.		Allotrochosina karri				
149. 150.	4E0E	Ammotretis elongatus				
151.		Amperea ericoides Amphipogon laguroides				
152.		Amphipogon laguroides subsp. laguroides				
153.		Amphipogon turbinatus				
154.		Aname mainae				
155.		Aname tepperi				
156.	24310	Anas castanea (Chestnut Teal)				
157.		Anas gracilis (Grey Teal)				
158.		Anas platyrhynchos (Mallard)				
159.		Anas rhynchotis (Australasian Shoveler)				
160. 161.		Anas superciliosa (Pacific Black Duck) Angianthus preissianus				
161.		Anhinga novaehollandiae (Australasian Darter)				
163.		Anigozanthos humilis subsp. humilis				
164.		Anigozanthos manglesii (Mangles Kangaroo Paw, Kurulbrang)				
165.	11261	Anigozanthos manglesii subsp. manglesii				
166.	44629	Anilios australis			_	
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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Qu Area
167.		Anoplocapros Inticularis			
168.		Anoplocapros robustus			
169. 170.		Anotrichium crinitum Anser anser			
170.	60/10	Anthocercis littorea (Yellow Tailflower)			
171.					
172.		Anthochaera carunculata (Red Wattlebird) Anthochaera lunulata (Western Little Wattlebird)			
174.		Antithamnion hanovioides			
175.		Aotus cordifolia			
176.		Aotus gracillima			
177.		Aotus procumbens			
178.		Aphelia cyperoides			
179.		Apium annuum			
180.		Apium prostratum (Sea Celery)			
181.		Apium prostratum subsp. prostratum var. prostratum (Sea Celery)			
182.		Aplosporella yalgorensis			
183.		Apogon rueppellii			
184.		Apogon victoriae			
185.	24991	Aprasia repens (Sand-plain Worm-lizard)			
186.	24001	Aptychotrema vincentiana			
187.	24285	Aquila audax (Wedge-tailed Eagle)			
188.	2-7200	Aracana aurita			
189.		Arachnura higginsi			
190.		Araneus cyphoxis			
191.		Araneus senicaudatus			
191.	7838	Arctotheca calendula (Cape Weed, African Marigold)	Υ		
193.		Arcyria cinerea	,		
194.		Arcyria incarnata			
195.		Arcyria insignis			
196.		Ardea ibis (Cattle Egret)			
197.		Ardea modesta (great egret, white egret)			
198.		Ardea novaehollandiae (White-faced Heron)			
199.		Ardea pacifica (White-necked Heron)			
200.		Arenaria leptoclados	Υ		
201.		Argemone ochroleuca subsp. ochroleuca	Y		
202.	17707	Argiope protensa			
203.		Argiope trifasciata			
204.	28293	Argyranthemum frutescens subsp. foeniculaceum	Υ		
205.		Arnocrinum preissii	'		
206.		Artamus cinereus (Black-faced Woodswallow)			
207.		Artamus cyanopterus (Dusky Woodswallow)			
208.	2.000	Artema atlanta			
209.		Artoria flavimana			
210.		Artoria linnaei			
211.		Artoriopsis expolita			
212.	226	Arundo donax (Giant Reed)	Υ		
213.		Asparagus asparagoides (Bridal Creeper)	Y		
214.		Asphalagus asparaguides (Bridai Greeper) Asphodelus fistulosus (Onion Weed)	Y		
214.		Astartea affinis (West-coast Astartea)	1		
216.		Astartea scoparia (Common Astartea)			
217.	20203	Asteraceae sp.			
218.		Asterella drummondii			
219.	7851	Asteridea pulverulenta (Common Bristle Daisy)			
220.	7001	Asterorhombus cf. osculus			Υ
221.	6334	Astroloma pallidum (Kick Bush)			'
222.	0004	Atherinosoma wallacei			
223.	2/152	Atriplex cinerea (Grey Saltbush)			
224.		Atriplex Cirerea (Grey Salubush) Atriplex prostrata (Hastate Orache)	Υ		
225.	2711	Austracantha minax	,		
226.		Austrogautieria manjimupana			
227.	47713	Austronomus australis (White-striped Free-tailed Bat)			
228.	47713	Austrottipa ?semibarbata			Υ
229.	17234	Austrostipa compressa			1
230.		Austrostipa flavescens			
231.		Austrostipa mollis			
231.		Austrostipa irioliis Austrostipa semibarbata			
232.	17203				
233.	37/121	Austrostina sp. Marchagee (B.R. Maslin 1407)			
234.		Austrostipa sp. Marchagee (B.R. Maslin 1407) Avellinia michelii	V		
236.			Y Y		
230.	233	Avena barbata (Bearded Oat)	4.6	of all Districtions	
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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
237.	234	Avena fatua (Wild Oat)	Υ		Aiou
238.		Avena sativa (Common Oat)	Υ		
239.	24318	Aythya australis (Hardhead)			
240.	18280	Babiana nana	Υ		
241.	36441	Babingtonia camphorosmae (Camphor Myrtle)			
242.		Backobourkia brounii			
243.	38979	Badhamia utricularis			
244.		Badumna insignis			
245.	1800	Banksia attenuata (Slender Banksia, Piara)			
246.	32580	Banksia dallanneyi subsp. dallanneyi var. dallanneyi			
247.	1819	Banksia grandis (Bull Banksia, Pulgarla)			
248.	1822	Banksia ilicifolia (Holly-leaved Banksia)			
249.	1830	Banksia littoralis (Swamp Banksia, Pungura)			
250.	1834	Banksia menziesii (Firewood Banksia)			
251.	32077	Banksia sessilis var. cygnorum			
252.	1852	Banksia telmatiaea (Swamp Fox Banksia)			
253.		Barnardius zonarius			
254.	740	Baumea arthrophylla			
255.	741	Baumea articulata (Jointed Rush)			
256.	743	Baumea juncea (Bare Twigrush)			
257.	748	Baumea vaginalis (Sheath Twigrush)			
258.	5382	Beaufortia elegans (Elegant Beaufortia)			
259.	7046	Bellardia trixago (Bellardia)	Υ		
260.	48868	Bellardia viscosa	Υ		
261.		Bianor maculatus			
262.	24319	Biziura lobata (Musk Duck)			
263.	749	Bolboschoenus caldwellii (Marsh Club-rush)			
264.	4413	Boronia crenulata (Aniseed Boronia)			
265.	11503	Boronia crenulata subsp. crenulata var. crenulata			
266.	16636	Boronia crenulata subsp. viminea			
267.	4417	Boronia dichotoma			
268.	11381	Boronia ramosa subsp. anethifolia			
269.	3710	Bossiaea eriocarpa (Common Brown Pea)			
270.		Brachaluteres jacksonianus			
271.	6341	Brachyloma preissii (Globe Heath)			
272.	8661	Brachypodium distachyon (False Brome)	Υ		
273.	7878	Brachyscome iberidifolia			
274.	42381	Brachyurophis semifasciatus (Southern Shovel-nosed Snake)			
275.	3000	Brassica tournefortii (Mediterranean Turnip)	Υ		
276.		Brassica x napus	Υ		
277.	244	Briza maxima (Blowfly Grass)	Υ		
278.	245	Briza minor (Shivery Grass)	Υ		
279.		Briza sp.			
280.		Bromus diandrus (Great Brome)	Υ		
281.		Bromus hordeaceus (Soft Brome)	Υ		
282.		Bromus madritensis (Madrid Brome)	Υ		
283.		Buddleja madagascariensis	Υ		
284.		Bulbine semibarbata (Leek Lily)			
285.		Burchardia bairdiae			
286.	12770	Burchardia congesta			
287.		Byssomerulius corium			
288.		Cacatua galerita (Sulphur-crested Cockatoo)			
289.		Cacatua pastinator (Western Long-billed Corella)			
290.		Cacatua roseicapilla (Galah)			
291.		Cacatua sanguinea (Little Corella)			
292.		Cacatua tenuirostris (Eastern Long-billed Corella)	Υ		
293.		Cacomantis flabelliformis (Fan-tailed Cuckoo)			
294.		Cacomantis pallidus (Pallid Cuckoo)			
295.		Caesia micrantha (Pale Grass Lily)			
296.		Caesia occidentalis			
297.	3002	Cakile maritima (Sea Rocket)	Υ		
298.		Caladenia ?flava			
299.		Caladenia discoidea (Dancing Orchid)			
300.		Caladenia flava (Cowslip Orchid)			
301.		Caladenia flava subsp. flava			
302.		Caladenia georgei			
303.		Caladenia latifolia (Pink Fairy Orchid)			
304.		Caladenia longicauda subsp. calcigena			
305.	1/760	Caladenia nobilis			
306.		Caladenia sp.	, fail .		
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	ume ib	Species Name	Naturalised	Conservation Code	Area
307.	2846	Calandrinia calyptrata (Pink Purslane)			
308.		Calandrinia corrigioloides (Strap Purslane)			
309.		Calandrinia granulifera (Pygmy Purslane)			
310.		Calandrinia liniflora (Parakeelya)			
311.		Calectasia narragara			
312.		Callitriche brutia subsp. brutia	Υ		
313.	96	Callitris preissii (Rottnest Island Pine, Maro)			
314.	36600	Callitris pyramidalis (Swamp Cypress)			
315.		Calocera guepinioides			
316.	5411	Calothamnus hirsutus			
317.	5415	Calothamnus lateralis			
318.		Calothamnus quadrifidus (One-sided Bottlebrush, Kwowdjard)			
319.					
		Calothamnus quadrifidus subsp. quadrifidus			
320.		Calyptorhynchus banksii (Red-tailed Black-Cockatoo)			
321.	5439	Calytrix angulata (Yellow Starflower)			
322.	5458	Calytrix flavescens (Summer Starflower)			
323.	5460	Calytrix fraseri (Pink Summer Calytrix)			
324.	5476	Calytrix sapphirina			
325.		Campichthys galei			
326.	2795	Carpobrotus edulis (Hottentot Fig)	Υ		
327.			,		
		Carpobrotus virescens (Coastal Pigface, Kolboko, Bain)			
328.		Cartonema philydroides			
329.		Cassytha flava (Dodder Laurel)			
330.	2952	Cassytha glabella (Tangled Dodder Laurel)			
331.	2954	Cassytha micrantha			
332.	2957	Cassytha racemosa (Dodder Laurel)			
333.	11242	Cassytha racemosa forma pilosa			
334.		Cassytha racemosa forma racemosa			
335.		Casuarina equisetifolia	Υ		
336.		Casuarina equisetifolia subsp. equisetifolia	Υ		
337.		Caulerpa cactoides			
338.	44539	Caulerpa cylindracea			
339.	46993	Caulerpa taxifolia var. distichophylla			
340.	26580	Caulerpa trifaria			
341.	41563	Cenchrus purpureus (Elephant Grass)	Υ		
342.		Cenchrus setaceus (Fountain Grass)	Y		
343.		Centaurea melitensis (Maltese Cockspur, Malta Thistle)	Y		
344.		Centaurium erythraea (Common Centaury)	Υ		
345.		Centaurium tenuiflorum	Υ		
346.	6214	Centella asiatica			
347.	1121	Centrolepis aristata (Pointed Centrolepis)			
348.	1125	Centrolepis drummondiana			
349.	1132	Centrolepis mutica			
350.	1134	Centrolepis polygyna (Wiry Centrolepis)			
351.		Ceramium macilentum			
352.		Cerastium glomeratum (Mouse Ear Chickweed)	Υ		
	2009		1		
353.		Cercophonius sulcatus			
354.		Chaetanthus aristatus			
355.	24186	Chalinolobus gouldii (Gould's Wattled Bat)			
356.	24187	Chalinolobus morio (Chocolate Wattled Bat)			
357.	18156	Chamaecytisus palmensis (Tagasaste)	Υ		
358.	1280	Chamaescilla corymbosa (Blue Squill)			
359.		Chamaescilla corymbosa var. corymbosa			
360.		Champia affinis			
361.		Champia zostericola			
362.		Charadrius ruficapillus (Red-capped Plover)			
363.	1513	Chasmanthe floribunda (African Cornflag)	Υ		
364.		Chelidonichthys kumu			
365.		Chelmonops curiosus			
366.	43380	Chelodina colliei (South-western Snake-necked Turtle)			
367.		Chenonetta jubata (Australian Wood Duck, Wood Duck)			
368.		Cheramoeca leucosterna (White-backed Swallow)			
369.	33939	Cherax cainii (Marron)			
370.		Cherax destructor			
371.		Cherax quinquecarinatus			
372.		Cherax sp.			
373.	24980	Christinus marmoratus (Marbled Gecko)			
374.		Chroicocephalus novaehollandiae			
375.	41787	Chrysanthemoides monilifera subsp. rotundata	Υ		Υ
376.					
570.	24431	Chrysococcyx basalis (Horsfield's Bronze Cuckoo)	, faial		
			Departme	nt of Biodiversity,	WEST
	and the second second	the Department of Biodiversity, Conservation and Attractions and the Western Australian Museum.	Conserva	tion and Attractions	AUST



	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
377.	24288	Circus approximans (Swamp Harrier)			
378.	7937	Cirsium vulgare (Spear Thistle, Scotch Thistle)	Υ		
379.		Cladophora herpestica			
380.		Cladophora valonioides			
381.		Cladorhynchus leucocephalus (Banded Stilt)			
382. 383.		Cladostephus spongiosus Clastoderma debaryanum			
384.		Claviclonium ovatum			
385.	20000	Cleidopus gloriamaris			
386.	10804	Clematis linearifolia			
387.		Clynotis albobarbatus			
388.		Clynotis severus			
389.	26682	Codium spinescens			
390.	25675	Colluricincla harmonica (Grey Shrike-thrush)			
391.	24399	Columba livia (Domestic Pigeon)	Υ		
392.		Comatricha nigra			
393.		Comesperma calymega (Blue-spike Milkwort)			
394.		Comesperma confertum			
395. 396.		Comesperma integerrimum Comesperma virgatum (Milkwort)			
397.		Conium maculatum (Hemlock)	Υ		
398.		Conspermum stoechadis subsp. stoechadis (Common Smokebush)	•		
399.		Conospermum triplinervium (Tree Smokebush)			
400.		Conostephium pendulum (Pearl Flower)			
401.	6349	Conostephium preissii			
402.	1418	Conostylis aculeata (Prickly Conostylis)			
403.	11826	Conostylis aculeata subsp. aculeata			
404.	12109	Conostylis aculeata subsp. preissii			
405.	1427	Conostylis candicans (Grey Cottonhead)			
406.		Conostylis candicans subsp. candicans			
407.		Conostylis juncea			
408.		Conostylis setigera (Bristly Cottonhead)			
409. 410.		Conostylis setigera subsp. setigera Conostylis setosa (White Cottonhead)			
411.	1433	Conyza ?bonariensis			
412.	7939	Conyza bonariensis (Flaxleaf Fleabane)	Υ		
413.		Conyza parva	Y		
414.		Conyza sp.			
415.	20074	Conyza sumatrensis	Υ		
416.	25568	Coracina novaehollandiae (Black-faced Cuckoo-shrike)			
417.		Cormocephalus novaehollandiae			
418.		Cortaderia selloana subsp. selloana	Y		
419.		Cortinarius phalarus			
420.		Corvus coronoides (Australian Raven)			
421. 422.		Corvus coronoides subsp. perplexus (Australian Raven) Corvus splendens (House Crow)			
423.		Corymbia calophylla (Marri)			
424.		Corynotheca micrantha (Sand Lily)			
425.		Corynotheca micrantha (dana Eny) Corynotheca micrantha var. micrantha			
426.		Coryphaena hippurus			
427.	7945	Cotula coronopifolia (Waterbuttons)	Υ		
428.	24671	Coturnix pectoralis (Stubble Quail)			
429.	25701	Coturnix ypsilophora (Brown Quail)			
430.	24420	Cracticus nigrogularis (Pied Butcherbird)			
431.		Cracticus tibicen (Australian Magpie)			
432.		Cracticus tibicen subsp. dorsalis (White-backed Magpie)			
433.		Cracticus torquatus (Grey Butcherbird)			
434.		Craspedocarpus venosus			
435. 436		Crassula colorata (Dense Stonecrop)			
436. 437.		Crassula colorata var. colorata Crassula exserta			
437.		Crassula exserta Crassula glomerata	Υ		
		Crassula thunbergiana subsp. thunbergiana	Y		
439.		Crinia glauerti (Clicking Frog)	•		
439. 440.	25399	- , , , ,			
		Crinia insignifera (Squelching Froglet)			
440.		Crinia insignifera (Squelching Froglet) Cristiceps aurantiacus			
440. 441.					
440. 441. 442.		Cristiceps aurantiacus			
440. 441. 442. 443.	25400 4802	Cristiceps aurantiacus Cristiceps australis			

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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
447.		Cryptoblepharus plagiocephalus			
448.		Cryptostylis ovata (Slipper Orchid)			
449. 450.		Ctenophorus adelaidensis (Southern Heath Dragon, Western Heath Dragon)			
450.		Ctenotus australis Ctenotus fallens			
451. 452.					
452.	25040	Ctenotus gemmula (Jewelled South-west Ctenotus (Swan Coastal Plain subpop P3), skink)			
453.	6663	Cuscuta epithymum (Lesser Dodder, Greater Dodder)	Υ		
454.	26714	Cutleria multifida			
455.	768	Cyathochaeta avenacea			
456.		Cyclosa trilobata			
457.	24322	Cygnus atratus (Black Swan)			
458.	19625	Cymbalaria muralis subsp. muralis	Υ		
459.		Cynoglossus broadhursti			
460.	806	Cyperus polystachyos (Bunchy Sedge)			
461.	816	Cyperus tenuiflorus (Scaly Sedge)	Υ		
462.		Cyrtophora parnasia			
463.	26729	Cystophora subfarcinata			
464.	30901	Dacelo novaeguineae (Laughing Kookaburra)	Υ		
465.	30902	Dacelo novaeguineae subsp. novaeguineae (Laughing Kookaburra)	Υ		
466.	38781	Dacryopinax spathularia			
467.		Dactylopus dactylopus			
468.		Dampiera linearis (Common Dampiera)			
469.		Dampiera pedunculata			
470.		Daphoenositta chrysoptera (Varied Sittella)			
471.		Daption capense (Cape Petrel)			
472.		Darwinia sp. Karonie (K. Newbey 8503)			
473.		Dasyclonium incisum			
474.		Dasypogon bromeliifolius (Pineapple Bush)			
475.		Daucus glochidiatus (Australian Carrot)			
476.		Daviesia divaricata (Marno)			
477.		Daviesia divaricata subsp. divaricata			
478.		Daviesia nudiflora subsp. nudiflora			
479.		Daviesia physodes			
480.	3845	Daviesia triflora			
481.	05700	Decapterus muroadsi Delan faranti (Faranti Lantas Lineati)			
482.		Delma fraseri (Fraser's Legless Lizard)			
483.		Delma grayii			
484.		Demansia psammophis subsp. reticulata (Yellow-faced Whipsnake)			
485. 486.		Descomyces angustisporus Desmocladus fasciculatus			
487.		Desmocladus lasciculatus Desmocladus flexuosus			
488.		Destributadus liexuosus Deyeuxia quadriseta (Reed Bentgrass)			
489.		Dianella revoluta (Blueberry Lily)			
490.		Dianella revoluta var. divaricata			
491.		Dicaeum hirundinaceum (Mistletoebird)			
492.		Dichopogon capillipes			
493.		Dicranema revolutum			
493.		Dictyopteris australis			
494.		Dictyota dichotoma			
496.		Dictyota furcellata			
497.		Didymium clavus			Υ
498.		Dielsia stenostachya			
499.		Digitaria didactyla (Queensland Blue Couch)	Υ		
500.		Dingosa serrata			
501.	4454	Diplolaena dampieri (Southern Diplolaena)			
502.		Diplolaena drummondii			
503.		Diplotaxis muralis (Wall Rocket)	Υ		
505.	0011				
504.		Disa bracteata	Υ		
	19649	Disa bracteata Dischisma arenarium	Y Y		
504.	19649 7054				
504. 505.	19649 7054 7055	Dischisma arenarium	Υ		
504. 505. 506.	19649 7054 7055	Dischisma arenarium Dischisma capitatum (Woolly-headed Dischisma)	Υ		
504. 505. 506. 507.	19649 7054 7055 12943	Dischisma arenarium Dischisma capitatum (Woolly-headed Dischisma) Diuris brumalis	Υ		
504. 505. 506. 507. 508.	19649 7054 7055 12943 1634	Dischisma arenarium Dischisma capitatum (Woolly-headed Dischisma) Diuris brumalis Diuris corymbosa/magnifica	Υ		
504. 505. 506. 507. 508. 509.	19649 7054 7055 12943 1634 12939	Dischisma arenarium Dischisma capitatum (Woolly-headed Dischisma) Diuris brumalis Diuris corymbosa/magnifica Diuris laxiflora (Bee Orchid)	Υ		
504. 505. 506. 507. 508. 509.	19649 7054 7055 12943 1634 12939 3095	Dischisma arenarium Dischisma capitatum (Woolly-headed Dischisma) Diuris brumalis Diuris corymbosa/magnifica Diuris laxiflora (Bee Orchid) Diuris magnifica	Υ		
504. 505. 506. 507. 508. 509. 510.	19649 7054 7055 12943 1634 12939 3095 48747	Dischisma arenarium Dischisma capitatum (Woolly-headed Dischisma) Diuris brumalis Diuris corymbosa/magnifica Diuris laxiflora (Bee Orchid) Diuris magnifica Drosera erythrorhiza (Red Ink Sundew)	Υ		
504. 505. 506. 507. 508. 509. 510. 511.	19649 7054 7055 12943 1634 12939 3095 48747 3097	Dischisma arenarium Dischisma capitatum (Woolly-headed Dischisma) Diuris brumalis Diuris corymbosa/magnifica Diuris laxiflora (Bee Orchid) Diuris magnifica Drosera erythrorhiza (Red Ink Sundew) Drosera geniculata	Υ		

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516 3010 Dosen muchael (Pris Pristocol)		Name ID	Species Name	Natural	ised Conservation Cod	e ¹ Endemic To Query Area
10	516.					
1919 2917 Coresia political (Parilly Strukery)						
221			•			
		3124				
1312 Dismost according (Permited Standards)		3131				
STR. Expeller groredial proteins						
STR. Enhance Enhance Strain S						
527. Erbination Recognitions Y	525.		Egretta garzetta			
1405	526.		Egretta novaehollandiae			
S20. 347 Enhance conjuncta (Presentant Medit Clause) Y	527.		Ehrharta ?longiflora			Υ
550. 349 Enhants Incipitors (Arman Vestic Cross) Y						
SS2. Blance analisms SS3. 1915. By Infrastructure Discrete Public Entered Cotate SS3. 1915. By Infrastructure Discrete Public Entered Cotate SS6. 1915. By Infrastructure Discrete Public Entered Cotate SS6. 1915. By Infrastructure Discrete Public Entered Cotate SS7. 1917. By Entered Entered Public Entered Cotate SS8. 6132. Pythinkum citatum SS8. 6132. Pythinkum citatum SS8. 6133. Pythinkum citatum SS8. 6133. Pythinkum citatum SS8. 6133. Pythinkum citatum SS8. 6134. By Infrastructure Discrete Public SS8. SS8. SS8. SS8. SS8. SS8. SS8. SS8		349		Y		
533. 47837 Begronte melanoge (Black-fronted Datemin) 534. 549 Sphranten homonic (Phylip Enamed Orchin) 535. 544 Sphranten homonic (Phylip Enamed Orchin) 537. 1178 Epidobum hiller/devariant aubair, consesum (Variable Willow Herb) 538. 6132 Epidobum hiller/devariant aubair, consesum (Variable Willow Herb) 539. 6133 Epidobum hiller/devariant aubair, consesum (Variable Willow Herb) 540. 22657 Epidobum delibrium (Willow Herb) 541. 378 Engrosite delibrium (Willow Herb) 542. 378 Engrosite delibrium (Willow Herb) 543. 378 Engrosite delibrium (Willow Herb) 544. 379 Engrosite delibrium (Willow Herb) 545. 1348 Enemes pasionale (Minea Lovegass) 546. 1398 Enemes autoricaps aubair, attorocorps 547. 548. Engrosite delibrium (Willow Herb) 548. 1440 Engrosite delibrium (Pariabin Home Pariabin (Pariabin Home Pariabin Home Pariabin Home Pariabin (Pariabin Home Pariabin			•			
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1756						
1946. Epidema grandflorum (Sabe-in-a-cradio) 1957. Int 1956. Epidemia ciliaturi. 1958. 6112 Epidemia ciliaturi. 1959. 6113 Epidemia ciliaturi. 1959. 6114 STA Fargrosis ciliateriasi Episkegasi) 1959. 6124 STA Fargrosis ciliateriasi Episkegasi) 1959. 6125 Epidemia ciliaturi. 1959. 725 Emenophia glabra (Era Bush) 1959. 725 Emenophia glabra subapa abbicana 1959. 6125 Epidemia ciliaturi. 1959. 6125 Epidem		1043				
11756 Epicholum Billerdimanum subpo, cinerroum (Variable Willow Harto)		1645				
538. 6132 Epilohum inligrams (Hairy Willow Herb)						
540. 24567 Epitheruse alchinors (White-fronted Chal)			, , , , , , , , , , , , , , , , , , , ,	Υ		
541. 374 Emgrests cilanents (Ethingmas)						
542. 376 Eragrostis curulus (Articant Lovegrass) 543. 379 Eragrostis englatis (Clustered Lovegrass) 544. Eragrostis en longatis (Clustered Lovegrass) 545. 13949 Eranaea astrocorapa 547. 554 Erenaea astrocorapa 547. 554 Erenaea pauciflora 548. 14104 Eranaea astrocorapa 549. 7215 Eranophila glabra subsp. asterocarpa 549. 7215 Eranophila glabra subsp. asterocarpa 550. 1717 Eranophila glabra subsp. asterocarpa 551. Erioghoria bisplicista 552. 4333 Erodum cicutarum (Cormon Storisbill) 553. 1544 Erygnium prantificum unisus primatificum 554. 24737 Erythrogorya cincus (Red-Aneed Detector) 555. Eubelichtivity mossicus 556. 5515 Eubelichtivity mossicus 556. 5515 Eubelichtivity mossicus 557. Self Eubelyntus decurula (Nare-Alexaed Detector) 558. 558 Eubelyntus decurula (Nare-Alexaed Detector) 559. Eubelichtivity mossicus 550. 5516 Eubelyntus decurula (Nare-Alexaed Detector) 559. 5518 Eubelyntus decurula (Nare-Alexaed Detector) 559. 5519 Eucelyntus decurula (Nare-Alexaed Detector) 5510 Eubelichtivity mossicus 5510 Eubelichtivity mossicus 552 Eucelyntus generalis (Iruar, Duard) 553. 5519 Eucelyntus marginetis suitapa marginetis (Jarrah) 554 Eucelyntus marginetis suitapa marginetis (Jarrah) 555 Eucelyntus marginetis suitapa marginetis (Jarrah) 557 Eucelyntus marginetis suitapa marginetis (Jarrah) 558 Eucelyntus marginetis suitapa marginetis (Jarrah) 559 Eucelyntus marginetis suitapa marginetis (Jarrah) 560 Eucelyntus marginetis suitapa marginetis (Jarrah) 561 S783 Eucelyntus marginetis suitapa marginetis (Jarrah) 562 Eucelyntus marginetis suitapa marginetis (Jarrah) 563 Eucelyntus marginetis suitapa marginetis (Jarrah) 564 Eucelyntus marginetis suitapa marginetis (Jarrah) 565 Eucelyntus marginetis suitapa marginetis (Jarrah) 567 Eucelyntus marginetis suitapa marginetis (Jarrah) 568 Eucelyntus marginetis suitapa marginetis (Jarrah) 569 Eucelyntus marginetis suitapa marginetis (Jarrah) 570 Eucelyntus marginetis suitapa marginetis suitapa marginetis suitapa marginetis suitapa marginetis suitapa marginetis suitapa marginetis suit	540.	24567	Epthianura albifrons (White-fronted Chat)			
543. 379 Evagrostis chrogata (Clustered Lovegrass) 544. Eragrostis chrogata (Clustered Lovegrass) 545. 13949 Evanoea asterocapa 546. 13950 Evanoea asterocapa subsp. asterocarpa 547. 548. 14104 Evanoea paucificar 548. 14104 Evanoea paucificar 549. 1715 Evanophila glatim (Tar Bush) 550. 17175 Evanophila glatim (Tar Bush) 551. Eviphrota bispiciare 552. 4333 Evalum ciutarium (Common Storkshill) Y 553. 15446 Eyrojium pinnatificium subsp. pinnatificium 554. 2437 Eyritrograpa ciuncus (Reshared Dotterest) 555. Eublichtrya mosaicus 556. Eublichtrya mosaicus 557. 5649 Eucalyptus decipiens (Limestone Mariock, Morit) 557. 5649 Eucalyptus decipiens (Limestone Mariock, Morit) 559. 5708 Eucalyptus decipiens (Limestone Mariock, Morit) 560. 13374 Eucalyptus marginal (Limestone Mariock, Morit) 561. 5763 Eucalyptus surginal subsp. marginae (Laman) 560. 13676 Eucalyptus marginal (Limestone Mariock, Morit) 561. 5763 Eucalyptus surginal subsp. marginae (Laman) 562. 31911 Eucalyptus marginal (Limestone Mariock, Morit) 563. 5790 Eucalyptus surginal subsp. marginae (Laman) 564. 3872 Euchlopsus marginae (Laman, Dana) 565. 5673 Eucalyptus nudis (Flooded Cum, Kulurda) 568. 5695 Eucalyptus nudis (Flooded Cum, Kulurda) 569. 3870 Eucalyptus nudis (Flooded Cum, Kulurda) 560. 15137 Euchlopses inearis (Swamp Pea) 561. 5770 Eucalyptus nudis (Flooded Cum, Kulurda) 562. 3811 Eucalyptus involution (European) 563. 5790 Eucalyptus involution (European) 564. 3872 Euchlopses inearis (Swamp Pea) 571. 4875 Euphrothia penalisis (Sea Spurge) 771. 4875 Euphrothia penalisis (Sea Spurge) 772. 34757 Euphrothia penalisis (Sea Spurge) 773. 4486 Euphrothia inearicalia (Earlation Camation Weed) 774. 26830 Euphrothia penalisis (Sea Spurge) 775. 2872 Falco conchroides (Austalian Kastral, Nankeen Kastral) 576. 2873 Falco berigeren (Brown Falcon) 5773. 24827 Falco conchroides (Austalian Kastral, Nankeen Kastral) 5774 Filosum conchroides (Austalian Hobby) 581. Filosum conchroides (Austalian Hobby) 581. Filosum conchroides (Footled Club Push) 585. Filosum conchroides (F	541.	374	Eragrostis cilianensis (Stinkgrass)	Υ		
544. Eragrantis sp. indet. 545. 13849 Eremaea sateriocarpa 547. 5541 Eremaea pauciflora 548. 14104 Eremaea pauciflora 549. 7215 Eremophila globra urbay, abbicana 550. 17175 Eremophila globra urbay, abbicana 551. Eriophora biapicasa 552. 4332 Erofunia ciduatrium Common Storkabilly Y 553. 15448 Eryngium pinnatifichum subsp. pinnatifichum Y 554. 24737 Erythrogonya ciricutus (Red-Inneed Dotterer) 555. Eubelichtiny mossicus 566. 5615 Eucalyptus decipan (Limestone Marlock, Morl) 567. 5648 Eucalyptus decuraly (Rimanth, Diara) 568. 5659 Eucalyptus gorunphocaphala (Tuart, Duart) 560. 13847 Eucalyptus amprianas (Lamanh, Diara) 560. 13847 Eucalyptus marginata (Lamanh, Diara) 560. 13847 Eucalyptus marginata (Lamanh, Diara) 561. 5783 Eucalyptus urdis inflooded Gum, Kulurita) 562. 13611 Eucalyptus urdis inflooded Gum, Kulurita) 563. 5790 Eucalyptus todis inflooded Gum, Kulurita) 564. 3672 Euchiching sinnoral (Elo	542.	376	Eragrostis curvula (African Lovegrass)	Υ		
545. 13949 Eremaea asterocapa 546. 13950 Eremaea asterocapa subsp. asterocapa 547. 5641 Eremaea paucillora 548. 14104 Eremaea paucillora 549. 7215 Eremophila glabar (Eremaea) 550. 17175 Eremophila glabar (Eremaea) 551. Erophom balpicata 552. 4333 Erodium cicutarium (Common Storksbill) Y 553. 15446 Elyrighum pirmafildum subsp. plansifildum Y 554. 24379 Erythropyony circuit (Robe Anoed Octorer) Eubalichtlya mosalus 555. Eubalichtlya mosalus Eubalpita Studies (Imestone Martock, Moll) 557. 5649 Eucalyptus decipiens (Ilmestone Martock, Moll) 557. 559. 5659 Eucalyptus decipiens (Ilmestone Martock, Moll) 557. 559. 5609 Eucalyptus gemphocophala (Tuart, Duart) 559. 550. 5619 Eucalyptus marginata subsp. morginata (Jernath, Diara) 561. 562. 5611 Eucalyptus marginata (Jernath, Diara) 562. 15611 Eucalyptus marginata (Jernath, Diara) 563. 15612 Eucalyptus articulate (Jernath, Diara 564. 15612 Eucalyptus articulate (J	543.	379	Eragrostis elongata (Clustered Lovegrass)			
546. 13690. Eremaea asterocarpa subsp. asterocarpa 547. 5541. Eremaea pauciflora 548. 14104. Eremaea pauciflora var. pauciflora 549. 7215. Eremophila glabra subsp. ablicans 550. 11715. Eremophila glabra subsp. ablicans 551. Eriophora biapicata 552. 4333. Erodium cicutarium (Common Storkstill) Y 553. 15446. Eryngium pirnatifidum auskap, pirnatifidum Y 554. 24379. Erythrogonys cincutas (Ret-kneed Dotterel) *** 555. Eubaldystys mospines *** 557. 5649. Eucalyptus deceunda (Narrow-leaved Red Mallee) *** 558. 5659. Eucalyptus goruphocephale (Tuart, Durar) *** 569. 5708. Eucalyptus radia (Floreded Gum, Kulturda) *** 561. 5783. Eucalyptus radia (Cocastal Blackbutt) *** 562. 15172. Euchinos pinaencus *** 563. 5790. Eucalyptus todiana (Cocastal Blackbutt) *** 564. 3872. Euchinosa silvensis (Swamp Pea) *** 565. 25746. Euchyptus dinion (Ultile Penguin) *** 567. <td>544.</td> <td></td> <td>Eragrostis sp. indet.</td> <td></td> <td></td> <td></td>	544.		Eragrostis sp. indet.			
547. 548. 14104 Eremase paucillora 548. 14104 Eremase paucillora vir, paucillora 549. 7215 Eremophila glabra (Tar Bush) 550. 11715 Eremophila glabra subsp. ablicians 551. Eriophora biopicata 552. 4333 Erodium cicutarium (Common Storkshil) Y 553. 15446 Eryngium pirmalifidum subsp, pirmalifidum Y 555. Eubalichthys mosakus Eubalichthys mosakus 556. Eubalputs chrophysis (Imestone Mariock, Mol) 557. 557. 5615 Euzalyptus decipients (Imestone Mariock, Mol) 557. 5649 Euzalyptus gradina (Larrah, Diran) 568. 5659 Euzalyptus rudis (Tarrah, Diran) 569. 1547 Euzalyptus rudis subsp, marginata (Larrah) 561. 5768 Euzalyptus rudis subsp, rudis 562. 13511 Euzalyptus rudis subsp, rudis 563. 5780 Euzalyptus rudis subsp, rudis 564. 3872 Euzhinopsis inearis (Stan Spurge) 565. 1517 Euzhino sphaericus 566. 25746 Euzhyptus Indiana (Cossial Blackhuri) 567. 4827 Euphobria haloiscoppia (Sun Spurge) Y </td <td>545.</td> <td></td> <td></td> <td></td> <td></td> <td></td>	545.					
548. 14104 Eremeep pauciflora var. pauciflora 549. 7215 Eremophila globra vistory 550. 11775 Eremophila globra vistory 551. Eriophora bispicate 552. 4338 Erdum cictarium (Common Storksbill) Y 553. 15446. Erygnym pinnatifdum subsp. pinnatifdum 554. 24379 Erythragoryas cinctus (Red-Arneed Dotterel) 555. 5615. Eubalichthys mosaicus 556. 5615. Eucalphus decipiens (Limestone Marlock, Morl) 557. 5640. Eucalphus decipiens (Limestone Marlock, Morl) 558. 5652. Eucalphus decipiens (Limestone Marlock, Morl) 559. 5708. Eucalphus decipiens (Limestone Marlock, Morl) 561. 5736. Eucalphus under subsp. marginata (Jarah) 561. 5736. Eucalphus under subsp. marginata (Jarah) 562. 15311. Eucalphus autis subsp. marginata (Jarah) 563. 5790. Eucalphus under Subsp. rulls 564. 3872. Euchloripasi lineanis (Swamp Pea) 565. 15137. Euchloripasi lineanis (Swamp Pea) 566. 25746. Euchloriba paralias (Gun Spurge) Y						
549. T215 Eremophila glabra (Tar Bush)						
551. Eriophora biapicata 4333 Erodum cicuratum (Common Storksbill) Y						
552. 4333 Erodium cicutarium (Common Storksbill) Y 553. 15446 Eryngium pinnetifidum subsp. pinnetifidum 554. 24379 Erythrogonys circuts, Red-Amed Datreel) 555. Eubalichthys mosacus 556. 5615 Eucalyptus decipiens (Limestone Marlock, Moll) 557. 5649 Eucalyptus and (Narrow-leaved Red Mailee) 558. 5659 Eucalyptus marginate (Jurat, Duart) 559. 5708 Eucalyptus marginate subsp. marginate (Jarrah) 561. 5763 Eucalyptus marginate subsp. marginate (Jarrah) 561. 5763 Eucalyptus tradis subsp. marginate (Jarrah) 562. 13811 Eucalyptus tradis subsp. marginate (Jarrah) 563. 5790 Eucalyptus tradis subsp. marginate (Jarrah) 564. 3872 Eucalyptus tradis subsp. marginate (Jarrah) 565. 15137 Euclinitos splaenicus 564. 3872 Eucalyptus tradis subsp. marginate (Jarrah) 565. 15137 Euchitos splaenicus 566. 25748 Eudyptule minor (Little Penguin) 567. 4627 Euphorbia heisocopia (Sun Spure) Y		17173				
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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
586.	894	Fimbristylis velata			
587.	6221	Foeniculum vulgare (Fennel)	Υ		
588.		Fomitopsis lilacinogilva			
589.	5209	Frankenia pauciflora (Seaheath)			
590.	25727	Fulica atra (Eurasian Coot)			
591.		Fulica atra subsp. australis (Eurasian Coot)			
592.		Fumaria bastardii	Υ		
593.	2969	Fumaria capreolata (Whiteflower Fumitory)	Υ		
594.		Fumaria sp.			
595.		Gahnia trifida (Coast Saw-sedge)			
596.		Galinsoga parviflora (Potato Weed)	Y		
597.		Galium aparine (Goosegrass)	Y		
598. 599.		Galium murale (Small Goosegrass) Gallinula tanahrasa (Dusky Moorhan)	Υ		
600.		Gallinula tenebrosa (Dusky Moorhen) Gallinula tenebrosa subsp. tenebrosa (Dusky Moorhen)			
601.		Gallirallus philippensis (Buff-banded Rail)			
602.		Gamochaeta calviceps	Υ		
603.		Gamochaeta coarctata	Y		
604.		Gastrolobium capitatum			
605.		Gastrolobium ebracteolatum			
606.		Gastrolobium linearifolium			
607.	20482	Gastrolobium nervosum			
608.	24959	Gehyra variegata			
609.	26850	Gelinaria ulvoidea			
610.	3936	Genista linifolia (Flaxleaf Broom)	Υ		
611.	24401	Geopelia cuneata (Diamond Dove)			
612.	4339	Geranium molle (Dove's Foot Cranesbill)	Υ		
613.		Gerres subfasciatus			
614.	25530	Gerygone fusca (Western Gerygone)			
615.		Girella zebra			
616.	1520	Gladiolus caryophyllaceus (Wild Gladiolus)	Υ		
617.	26860	Gloiocladia halymenioides			
618.	26864	Gloiosaccion brownii			
619.		Glyciphila melanops (Tawny-crowned Honeyeater)			
620.		Gomphocarpus fruticosus (Narrowleaf Cottonbush)	Υ		
621.		Gompholobium aristatum			
622.		Gompholobium tomentosum (Hairy Yellow Pea)			
623.		Gonocarpus pithyoides			
624. 625.		Goodenia pulchella Gracilaria cliftonii			
626.		Grallina cyanoleuca (Magpie-lark)			
627.		Grammatotheca bergiana var. bergiana	Υ		
628.		Gratiola pubescens			
629.		Grevillea crithmifolia			
630.		Grevillea preissii subsp. preissii			
631.		Grevillea vestita			
632.	12824	Grevillea vestita subsp. vestita			
633.	26884	Griffithsia ovalis			
634.	26886	Griffithsia teges			
635.		Gymnapistes marmoratus			
636.		Gymnopilus allantopus			
637.		Gymnopilus eucalyptorum			Υ
638.		Gymnopilus purpuratus			
639.		Gymnothorax woodwardi			
640.		Gyrostemon subnudus			
641.	24487	Haematopus longirostris (Pied Oystercatcher)			
642.		Haemodorum sp.			
643.		Haemodorum spicatum (Mardja)			
644.		Hakea lissocarpha (Honey Bush)			
645. 646		Hakea prostrata (Harsh Hakea)			
646.		Hakea trifurcata (Two-leaf Hakea)			
647. 648.	2216	Hakea varia (Variable-leaved Hakea) Haletta semifasciata			
649.	24203	Haliaeetus leucogaster (White-bellied Sea-Eagle)			
649. 650.		Haliastur indus (Brahminy Kite)			
651.		Haliastur sphenurus (Whistling Kite)			
652.		Halopeltis australis			
653.		Hamirostra isura (Square-tailed Kite)			
654.		Hardenbergia comptoniana (Native Wisteria)			
655.		Hasarius adansoni			
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NatureMap is a collaborative project of the Department of Biodiversity, Conservation and Attractions and the Western Australian Museum







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
656.	25410	Heleioporus eyrei (Moaning Frog)			
657.	3016	Heliophila pusilla	Υ		
658.	6710	Heliotropium europaeum (Common Heliotrope)	Υ		
659.	6839	Hemiandra pungens (Snakebush)			
660.		Hemiandra sp. Jurien (B.J. Conn & M.E. Tozer BJC 3885)			
661.		Hemiergis quadrilineata			
662.		Hemigenia sericea (Silky Hemigenia)			
663.		Hennedya crispa			
664.	1293	Hensmania turbinata			
665.		Heteroclinus sp.			
666. 667.	24061	Heterodontus portusjacksoni Heteronotia binoei (Bynoe's Gecko)			
668.		Heterosiphonia crassipes			
669.		Heterosiphonia muelleri			
670.	20000	Heurodes turritus			
671.	5134	Hibbertia huegelii			
672.		Hibbertia hypericoides (Yellow Buttercups)			
673.		Hibbertia hypericoides subsp. hypericoides			
674.		Hibbertia perfoliata			
675.	5162	Hibbertia racemosa (Stalked Guinea Flower)			
676.	48381	Hibbertia striata			
677.	5173	Hibbertia subvaginata			
678.	5176	Hibbertia vaginata			
679.	47965	Hieraaetus morphnoides (Little Eagle)			
680.	25734	Himantopus himantopus (Black-winged Stilt)			
681.		Hippocampus elongatus			
682.	24491	Hirundo neoxena (Welcome Swallow)			
683.		Hogna crispipes			
684.		Holasteron perth			
685.	444	Holconia westralia			
686.		Holcus lanatus (Yorkshire Fog)	Y		
687. 688.	440	Holcus setiger (Annual Fog) Holoplatys dejongi	Y		
689.	6222	Homalosciadium homalocarpum			
690.		Homalospermum firmum			
691.		Hordeum glaucum (Northern Barley Grass)	Υ		
692.		Hovea pungens (Devil's Pins, Puyenak)	·		
693.		Hovea trisperma (Common Hovea)			
694.	12859	Hovea trisperma var. trisperma			
695.	12741	Hyalosperma cotula			
696.	5216	Hybanthus calycinus (Wild Violet)			
697.	5218	Hybanthus debilissimus			
698.		Hydnoplicata convoluta			
699.		Hydroclathrus clathratus			
700.		Hydrocotyle blepharocarpa			
701.		Hydrocotyle callicarpa (Small Pennywort)			
702.		Hydrocotyle scutellifera			
703.		Hydrophis elegans (Elegant Seasnake, Bar-bellied Seasnake)			
704. 705.		Hydrophis ornatus (Ornate Reef Seasnake, Sea Snake) Hydrophis platurus (Yellow-bellied Seasnake)			
705. 706.		Hypnea charoides			
707.		Hypnea musciformis			
708.		Hypocalymma angustifolium (White Myrtle, Kudjid)			
709.		Hypocalymma angustifolium subsp. Swan Coastal Plain (G.J. Keighery 16777)			
710.		Hypocalymma robustum (Swan River Myrtle)			
711.	8086	Hypochaeris glabra (Smooth Catsear)	Υ		
712.	9352	Hypochaeris radicata (Flat Weed, Cats-ear)	Υ		
713.	1070	Hypolaena exsulca			
714.	17841	Hypolaena pubescens			
715.		Hypoplectrodes nigroruber			
716.		Idiommata blackwalli			
717.	40500	Inegocia japonica			
718.		Inocybe brunneidisca			
719. 720.		Inocybe froudistii Inocybe rufuloides	Υ		
720. 721.	40070	Iridaceae sp.	ī		V
721.	910	Isolepis cernua (Nodding Club-rush)			
723.		Isolepis cernua var. cernua			
724.		Isolepis cernua var. setiformis			
725.		Isolepis cyperoides			
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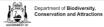
	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
726.	917	Isolepis marginata (Coarse Club-rush)			
727.		Isolepis oldfieldiana			
728.	924	Isolepis stellata (Star Club-rush)			
729. 730.	7396	Isopeda leishmanni Isotoma hypocrateriformis (Woodbridge Poison)			
731.		Isotropis cuneifolia (Granny Bonnets)			
732.		Isotropis cuneifolia subsp. cuneifolia			
733.		Ixiolaena viscosa (Sticky Ixiolaena)			
734.	4012	Jacksonia furcellata (Grey Stinkwood)			
735.	4029	Jacksonia sternbergiana (Stinkwood, Kapur)			
736.	26985	Jania micrarthrodia			
737.		Juncus acutus subsp. acutus	Υ		
738.		Juncus bufonius (Toad Rush)	Y		
739. 740.		Juncus kraussii (Sea Rush)	Υ		
741.		Juncus microcephalus Juncus pallidus (Pale Rush)	ĭ		
742.		Juncus pauciflorus (Loose Flower Rush)			
743.		Juncus planifolius (Broadleaf Rush)			
744.		Kanekonia queenslandica			
745.		Kanekonica queenslandica			
746.		Kangarosa properipes			
747.		Kennedia coccinea (Coral Vine)			
748.		Kennedia prostrata (Scarlet Runner)			
749.		Kogia breviceps (Pygmy Sperm Whale)			
750. 751.		Kunzea ericifolia (Spearwood, Pondil) Kunzea glabrescens (Spearwood)			
751. 752.	13430	Kyphosus sydneyanus			
753.		Laccaria lateritia			
754.	20019	Lachnagrostis filiformis			
755.	19955	Lachnagrostis plebeia			
756.	19956	Lachnagrostis preissii			
757.	8096	Lactuca serriola (Prickly Lettuce)	Υ		
758.	18585	Lagenophora huegelii			
759.	467	Lagocephalus sceleratus			
760. 761.	467	Lagurus ovatus (Hare's Tail Grass) Lampona cylindrata	Y		
761. 762.	28342	Landoltia punctata (Thin Duckweed)			
763.		Larus crassirostris (Black-tailed Gull)			Υ
764.		Larus novaehollandiae subsp. novaehollandiae (Silver Gull)			
765.	4052	Latrobea tenella			
766.		Latrodectus hasseltii			
767.		Laurencia dendroidea			
768.		Laurencia elata			
769. 770.		Laurencia filiformis			
770. 771.		Lawrencia spicata Laxmannia ramosa (Branching Lily)			
771.		Laxmannia ramosa (Branching Eny) Laxmannia ramosa subsp. ramosa			
773.		Laxmannia squarrosa			
774.		Lechenaultia expansa			
775.	7574	Lechenaultia floribunda (Free-flowering Leschenaultia)			
776.	7580	Lechenaultia linarioides (Yellow Leschenaultia)			
777.		Lenormandia latifolia			
778.		Leocarpus fragilis	V		
779. 780.	44490	Leontodon rhagadioloides Lepidosperma ?aff. costale	Υ		Υ
781.	925	Lepidosperma :an. costale Lepidosperma angustatum			r
782.		Lepidosperma longitudinale (Pithy Sword-sedge)			
783.		Lepidosperma pubisquameum			
784.		Lepidosperma pubisquameum "flat form"			
785.	944	Lepidosperma scabrum			
786.		Lepidosperma scabrum (inland form)			Υ
787.		Lepidosperma sp.			
788. 780		Lepidosperma sp. Briyton Street broad inflorescence			Υ
789. 790.		Lepidosperma sp. Brixton Street broad inflorescence Lepidosperma sp. Brixton Street broadish inflorescence			Υ
790. 791.		Lepidosperma sp. Brixton Street produish filliorescence Lepidosperma sp. Brixton Street narrow inflorescence			ı
792.	29150	Lepidosperma sp. Birken diest narrow innocessine Lepidosperma sp. Margaret River (B.J. Lepschi 1841)			
793.		Lepidosperma squamatum			
794.		Lepidosperma squamatum s.l.			
795.	946	Lepidosperma striatum	2.5	<u>_</u>	
			Department	of Biodiversity,	WESTERN







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
796.		Lepidotrigla papilio			
797.	1653	Leporella fimbriata (Hare Orchid)			
798.	1077	Leptocarpus canus (Hoary Twine-rush)			
799.	1078	Leptocarpus coangustatus			
800.	19833	Leptocarpus laxus			
801.		Leptocarpus scariosus			
802.		Leptoceras menziesii			
803.		Leptomeria cunninghamii			
804.		Leptomeria empetriformis			
805.		Leptomeria pauciflora (Sparse-flowered Currant Bush)			
806.		Leptomeria preissiana			
807.		Leptosomia rosea			
808.		Leptospermum laevigatum (Coast Teatree)	Y		
809. 810.		Lepyrodia muirii Lerista distinguenda			
811.		Lerista elegans			
812.		Leucopogon australis (Spiked Beard-heath)			
813.		Leucopogon conostephioides			
814.		Leucopogon parviflorus (Coast Beard-heath)			
815.		Leucopogon polymorphus			
816.		Leucopogon propinquus			
817.		Levenhookia pusilla (Midget Stylewort)			
818.		Levenhookia pusilla/stipitata			
819.	7677	Levenhookia stipitata (Common Stylewort)			
820.		Lialis burtonis			
821.	31280	Lichenomphalia chromacea			
822.	31333	Lichenomphalia umbellifera			
823.	25661	Lichmera indistincta (Brown Honeyeater)			
824.	25415	Limnodynastes dorsalis (Western Banjo Frog)			
825.	4362	Linum marginale (Wild Flax)			
826.	36160	Liparophyllum capitatum			
827.	25378	Litoria adelaidensis (Slender Tree Frog)			
828.	25388	Litoria moorei (Motorbike Frog)			
829.	9289	Lobelia anceps (Angled Lobelia)			
830.		Lobelia rhytidosperma (Wrinkled-seeded Lobelia)			
831.		Lobelia tenuior (Slender Lobelia)			
832.		Lobophora variegata			
833.		Logania vaginalis (White Spray)			
834.		Lolium perenne (Perennial Ryegrass)	Y		
835. 836.	4/6	Lolium rigidum (Wimmera Ryegrass)	Y		
837.		Lolium sp. (annual) Lomandra ?caespitosa			
838.		Lomandra ?preissii			
839.	1223	Lomandra caespitosa (Tufted Mat Rush)			
840.		Lomandra hermaphrodita			
841.		Lomandra maritima			
842.		Lomandra micrantha (Small-flower Mat-rush)			
843.		Lomandra micrantha subsp. micrantha			
844.	1234	Lomandra nigricans			
845.	1239	Lomandra preissii			
846.	1243	Lomandra sericea (Silky Mat Rush)			
847.	1246	Lomandra suaveolens			
848.	25683	Lonchura castaneothorax (Chestnut-breasted Mannikin)			
849.		Lophoictinia isura			
850.		Lotus subbiflorus	Υ		
851.		Luzula meridionalis (Field Woodrush)			
852.	39048	Lycogala epidendrum			
853.		Lycosa ariadnae			
854.		Lycosa australicola			
855.		Lycosa godeffroyi			
856.	1097	Lyginia barbata			
857.	10040	Lyginia barbata/imberbis			
858.		Lygginia imberbis			
859. 860		Lyperanthus serratus (Rattle Beak Orchid)	V		
860. 861.		Lysimachia arvensis (Pimpernel) Lysinema ciliatum (Curry Flower)	Y		
862.		Lysinema elegans			
863.		Lythrum hyssopifolia (Lesser Loosestrife)	Υ		
864.		Macarthuria australis			
865.		Macropus fuliginosus (Western Grey Kangaroo)			
		, , ,	Departmen	of Biodiversity,	MESTERN







	Name ID	Species Name	Naturalised	Conservation Code	Endemic To Area
866.	18119	Macrozamia fraseri			
867.	85	Macrozamia riedlei (Zamia, Djiridji)			
868.	24326	Malacorhynchus membranaceus (Pink-eared Duck)			
869.	25651	Malurus lamberti (Variegated Fairy-wren)			
870.		Malurus splendens (Splendid Fairy-wren)			
871.		Malva arborea (Tree Mallow)	Υ		
872.		Malva pseudolavatera	Y		
873.		Manorina flavigula (Yellow-throated Miner)	ı		
874.	24000				
		Maratus pavonis Mavillicosta scabricons			
875.		Maxillicosta scabriceps Maxillicosta scabriceps			
876.		Medicago polymorpha (Burr Medic)	Y		
877.		Megalurus gramineus (Little Grassbird)			
878.		Melaleuca armillaris subsp. armillaris	Υ		
879.		Melaleuca cuticularis (Saltwater Paperbark)			
880.	5920	Melaleuca huegelii (Chenille Honeymyrtle)			
881.	13271	Melaleuca huegelii subsp. huegelii			
882.	13273	Melaleuca incana subsp. incana			
883.	5926	Melaleuca lateritia (Robin Redbreast Bush)			
884.	5946	Melaleuca pauciflora			
885.		Melaleuca preissiana (Moonah)			
886.		Melaleuca rhaphiophylla (Swamp Paperbark)			
887.		Melaleuca seriata			
888.		Melaleuca systena			
889.		Melaleuca teretifolia (Banbar)			
890.					
		Melaleuca thymoides Melaleuca viminea subsp. viminea			
891.		Melaleuca viminea subsp. viminea			
892.		Melanodryas cucullata (Hooded Robin)			
893.		Melia azedarach (White Cedar)			
894.		Melilotus albus	Y		
895.		Melilotus indicus	Υ		
896.	25663	Melithreptus brevirostris (Brown-headed Honeyeater)			
897.	25184	Menetia greyii			
898.	25185	Menetia maini			
899.	25186	Menetia surda subsp. cresswelli			
900.	25187	Menetia surda subsp. surda			
901.		Mentha pulegium (Pennyroyal)	Υ		
902.		Merops ornatus (Rainbow Bee-eater)			
903.		Mesomelaena pseudostygia			
904.		Mesomelaena tetragona (Semaphore Sedge)			
905.	331	Metavelifer multiradiatus			
905.		Meuschenia freycineti			
		•			
907.		Meuschenia hippocrepis			
908.		Microcanthus strigatus			
909.		Microcarbo melanoleucos			
910.	25693	Microeca fascinans (Jacky Winter)			
911.	485	Microlaena stipoides (Weeping Grass)			
912.	1658	Microtis atrata (Swamp Mignonette Orchid)			
913.	15419	Microtis media subsp. media			
914.	8106	Millotia tenuifolia (Soft Millotia)			
915.		Minuartia mediterranea	Υ		
916.		Missulena granulosa			
917.		Missulena hoggi			
918.		Monacanthus chinensis			
919.	37440	Monopsis debilis var. depressa	Υ		
			Ţ		
920.		Monotaxis grandiflora (Diamond of the Desert)			
921.		Monotaxis occidentalis			
922.		Moraea flaccida (One-leaf Cape Tulip)	Y		
923.		Moraea ochroleuca	Υ		
924.	25188	Morethia adelaidensis			
925.	25189	Morethia boulengeri			
926.	25191	Morethia lineoocellata			
927.	25192	Morethia obscura			
928.	25193	Morethia ruficauda subsp. exquisita			
929.		Morethia ruficauda subsp. ruficauda			
930.		Morethia storri			
931.		Morus serrator (Australasian Gannet)			
932.		Muehlenbeckia adpressa (Climbing Lignum)			
JJL.			Υ		
033		Mus musculus (House Mouse)	Υ		
933. 934.	24223	Myandra bicincta			







	Name ID	Species Name	Naturali	sed Conservation Code	¹ Endemic To Qu Area
936.	7291	Myoporum insulare (Blueberry Tree, boobialla)			
937.	27089	Myriodesma peronii			
938.	6189	Myriophyllum crispatum			
939.	6199	Myriophyllum tillaeoides			
940.		Nanometa gentilis			
941.		Neatypus obliquus			
942.	25248	Neelaps bimaculatus (Black-naped Snake)			
943.		Neoodax balteatus			
944.		Neoodax sp.			
945.	24738	Neophema elegans (Elegant Parrot)			
946.		Neosebastes pandus			
947.		Nephila edulis			
948.	492	Neurachne alopecuroidea (Foxtail Mulga Grass)			
949.	.02	Nicodamus mainae			
950.	607/	Nicotiana glauca (Tree Tobacco)	Υ		
			'		
951.	25252	Notechis scutatus (Tiger Snake)			
952.	05407	Notolabrus parilus			
953.		Notoscincus ornatus subsp. ornatus			
954.		Nuytsia floribunda (Christmas Tree, Mudja)			
955.		Nycticorax caledonicus (Rufous Night Heron)			
956.	24194	Nyctophilus geoffroyi (Lesser Long-eared Bat)			
957.		Ocrisiona parmeliae			
958.	24407	Ocyphaps lophotes (Crested Pigeon)			
959.	6140	Oenothera mollissima	Υ		
960.	14292	Oenothera stricta subsp. stricta	Υ		
961.	8127	Olearia axillaris (Coastal Daisybush)			
962.	8149	Olearia rudis (Rough Daisybush)			
963.		Olpidium brassicae			Υ
964.		Omegophora armilla			•
965.		Ommatoiulus moreletii			
966.	70.40	Onigocia pedimacula?			
967.		Opercularia hispidula (Hispid Stinkweed)			
968.		Opercularia vaginata (Dog Weed)			
969.	12782	Ophioglossum gramineum			
970.		Ophisurus serpens			
971.	36177	Ornduffia albiflora			
972.	1372	Ornithogalum arabicum (Lesser Cape Lily)	Y		
973.	4113	Ornithopus compressus (Yellow Serradella)	Υ		
974.	7122	Orobanche minor (Lesser Broomrape)	Υ		
975.	24085	Oryctolagus cuniculus (Rabbit)	Υ		
976.	27107	Osmundaria prolifera			
977.	4358	Oxalis purpurea (Largeflower Wood Sorrel)	Υ		
978.		Pachycephala rufiventris (Rufous Whistler)			
979.		Pagrus auratus			
980.		Parablennius postoculomaculatus			
981.	1667	Paracaleana nigrita (Flying Duck Orchid)			
	1007	, , , ,			
982.	540	Paraperis haackei			
983.		Parapholis incurva (Coast Barbgrass)	Υ		
984.		Parasuta gouldii			
985.		Pardalotus punctatus (Spotted Pardalote)			
986.		Pardalotus striatus (Striated Pardalote)			
987.		Pardalotus striatus subsp. westraliensis (Striated Pardalote)			
988.	527	Paspalum dilatatum	Υ		
989.	528	Paspalum distichum (Water Couch)	Υ		
990.	24642	Passer montanus (Eurasian Tree Sparrow)	Υ		
991.	1550	Patersonia occidentalis (Purple Flag, Koma)			
992.		Patersonia occidentalis var. angustifolia			
993.		Patersonia occidentalis var. occidentalis			
994.		Pavo cristatus (Common Peafowl, Indian Peafowl)	Υ		
995.	_1017	Pegasus volitans	·		
996.	1313	-	Υ		
		Pelargonium capitatum (Rose Pelargonium)	Y		
997.	4346	Pelargonium littorale			
998.		Pelates sexlineatus			
999.	24648	Pelecanus conspicillatus (Australian Pelican)			
		Pempheris klunzingeri			
1000.	10100	Pentameris airoides (False Hairgrass)	Υ		
	40423				
1000.	40423	Pentapodus vitta			
1000. 1001.		Pentapodus vitta Pericalymma ellipticum (Swamp Teatree)			
1000. 1001. 1002.	6006	·			





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1006.	2273	Persoonia saccata (Snottygobble)			
1007.	27126	Petalonia fascia			
1008.	48060	Petrochelidon ariel (Fairy Martin)			
1009.	48061	Petrochelidon nigricans (Tree Martin)			
1010.		Petroica boodang (Scarlet Robin)			
1011.		Petroica goodenovii (Red-capped Robin)			
1012.		Petrophile axillaris			
1013.		Petrophile linearis (Pixie Mops)			
1014.		Petrophile macrostachya			
1015.		Petrophile serruriae			
1016.		Petrophile striata	V		
1017.		Petrorhagia dubia	Υ		
1018. 1019.		Phalacrocorax carbo (Great Cormorant) Phalacrocorax molanologopa (Little Pied Cormorant)			
1019.		Phalacrocorax melanoleucos (Little Pied Cormorant) Phalacrocorax sulcirostris (Little Black Cormorant)			
1020.		Phalacrocorax varius (Pied Cormorant)			
1021.		Phalaris minor (Lesser Canary Grass)	Υ		
1023.		Phalaris paradoxa (Paradoxa Grass)	Ϋ́		
1024.		Phaps chalcoptera (Common Bronzewing)			
1025.		Phaps elegans (Brush Bronzewing)			
1026.		Philotheca spicata (Pepper and Salt)			
1027.	10020	Phlebia rufa			
1028.		Phlebia subceracea			
1029.	1478	Phlebocarya ciliata			
1030.		Pholiota communis			
1031.		Phryganoporus candidus			
1032.	6734	Phyla nodiflora var. nodiflora	Υ		
1033.		Phylidonyris niger (White-cheeked Honeyeater)			
1034.		Phylidonyris novaehollandiae (New Holland Honeyeater)			
1035.	16177	Phyllangium paradoxum			
1036.	4675	Phyllanthus calycinus (False Boronia)			
1037.		Phyllophryne scortea			
1038.	20652	Physalis angulata	Υ		
1039.	6983	Physalis peruviana (Cape Gooseberry)	Υ		
1040.	39071	Physarum luteolum			Υ
1041.	39079	Physarum viride			
1042.	2793	Phytolacca octandra (Red Ink Plant)	Υ		
1043.		Phytophthora cinnamomi			
1044.	5252	Pimelea lanata			
1045.	5254	Pimelea leucantha			
1046.	18117	Pimelea rosea subsp. rosea			
1047.		Pinkfloydia harveii			
1048.		Pinus radiata (Radiata Pine)	Υ		
1049.		Plantago major (Greater Plantain)	Υ		
1050.		Platalea flavipes (Yellow-billed Spoonbill)			
1051.	24842	Platalea regia (Royal Spoonbill)			
1052.		Platycephalus longispinis			
1053.		Platycercus icterotis (Western Rosella)			
1054.		Platycercus spurius (Red-capped Parrot)			
1055. 1056.		Platycercus zonarius subsp. semitorquatus (Twenty-eight Parrot) Platysace compressa (Tapeworm Plant)			
1057. 1058.		Platysace filiformis Platytheca galioides			
1058.		Pletholax gracilis (Keeled Legless Lizard)			
1060.		, , , ,			
1060.	23007	Pletholax gracilis subsp. gracilis (Keeled Legless Lizard) Pluteus atromarginatus			
1062.	38825	Pluteus pauperculus			
1063.		Poa annua (Winter Grass)	Υ		
1064.		Poa drummondiana (Knotted Poa)			
1065.		Poa poiformis (Coastal Poa)			
1066.		Poa porphyroclados			
1067.		Poaceae sp.			
1068.	25703	Podargus strigoides (Tawny Frogmouth)			
1069.		Podargus strigoides subsp. brachypterus (Tawny Frogmouth)			
1070.	25704	Podiceps cristatus (Great Crested Grebe)			
1071.		Podolepis gracilis (Slender Podolepis)			
1072.		Podotheca ?gnaphalioides			
1073.	8182	Podotheca angustifolia (Sticky Longheads)			
1074.	8183	Podotheca chrysantha (Yellow Podotheca)			
1075.	8184	Podotheca gnaphalioides (Golden Long-heads)			
			Department Conservation	of Biodiversity,	WESTERN







	Name ID	Species Name	Naturalised	Conservation Code	Engemic To Q Area
1076.		Pogona minor (Dwarf Bearded Dragon)			
1077.		Pogona minor subsp. minor (Dwarf Bearded Dragon)			
1078.		Pogona minor subsp. mitchelli (Dwarf Bearded Dragon)			
1079.		Pogona nullarbor (Nullabor Bearded Dragon)			
1080.		Poliocephalus poliocephalus (Hoary-headed Grebe)			
1081.	27162	Pollexfenia pedicellata			
1082.	582	Polypogon monspeliensis (Annual Beardgrass)	Υ		
1083.	583	Polypogon tenellus			
1084.		Polyspina piosae			
1085.	25722	Polytelis anthopeplus (Regent Parrot)			
1086.	4691	Poranthera microphylla (Small Poranthera)			
1087.		Poranthera microphylla/moorokatta			
1088.	25731	Porphyrio porphyrio (Purple Swamphen)			
1089.	24767	Porphyrio porphyrio subsp. bellus (Purple Swamphen)			
1090.		Porzana fluminea (Australian Spotted Crake)			
1091.		Porzana pusilla (Baillon's Crake)			
1092.		Porzana tabuensis (Spotless Crake)			
1093.		Prasophyllum drummondii (Swamp Leek Orchid)			
1094. 1095.		Prasophyllum hians (Yawning Leek Orchid)			
	10853	Prasophyllum plumiforme			
1096.		Prionosternum nitidiceps			
1097.	05:	Prionosternum scutatum			
1098.		Proablepharus reginae			
1099.	25200	Proablepharus tenuis			
1100.		Psammoperca waigiensis			
1101.	25201	Pseudemoia baudini			
1102.		Pseudocalliurichthys goodladi			
1103.		Pseudocaranx dentex			
1104.		Pseudocaranx wrighti			
1105.	36139	Pseudocodium devriesii	Υ		
1106.	8189	Pseudognaphalium luteoalbum (Jersey Cudweed)			
1107.	25511	Pseudonaja affinis (Dugite)			
1108.	25259	Pseudonaja affinis subsp. affinis (Dugite)			
1109.	42416	Pseudonaja mengdeni (Western Brown Snake)			
1110.		Pseudophryne guentheri (Crawling Toadlet)			
1111.		Pseudorhombus jenynsii			
1112.	24702	Pterodroma brevirostris (Kerguelen Petrel)			
1113.	21.02	Pterois antennata			
1114.		Pterostylis aff. nana			
		·			V
1115.	45400	Pterostylis aff. nana long sepal			Ţ
1116.		Pterostylis aspera			
1117.		Pterostylis ectypha			
1118.		Pterostylis glebosa			
1119.		Pterostylis recurva (Jug Orchid)			
1120.	12217	Pterostylis sanguinea			
1121.		Pterostylis sp.			
1122.	1698	Pterostylis vittata (Banded Greenhood)			
1123.		Pterygotrigla polyommata			
1124.	2718	Ptilotus drummondii (Narrowleaf Mulla Mulla)			
1125.	11260	Ptilotus drummondii var. drummondii (Pussytail)			
1126.	2742	Ptilotus manglesii (Pom Poms, Mulamula)			
1127.	2751	Ptilotus polystachyus (Prince of Wales Feather)			
1128.		Pultenaea ochreata			
1129.	4181	Pultenaea reticulata			
1130.		Purpureicephalus spurius			
1131.	48835	Pycnoporus coccineus			
1132.		Pygopus lepidopodus (Common Scaly Foot)			
1133.		Pygopus nigriceps			
1134.		Pyrorchis nigricans (Red beaks, Elephants ears)			
1134.		Pyrorcnis nigricans (Red beaks, Elephants ears) Quinetia urvillei			
			V		
1136.		Ranunculus trilobus (Buttercup)	Y		
1137.		Rattus fuscipes (Western Bush Rat)			
1138.	24245	Rattus rattus (Black Rat)	Υ		
1139.		Raveniella peckorum			
1140.		Recurvirostra novaehollandiae (Red-necked Avocet)			
1141.		Regelia ciliata			
1142.	8197	Reichardia tingitana (False Sowthistle)	Υ		
1143.	3084	Reseda lutea (Cutleaf Mingnonette)	Υ		
	3085	Reseda luteola (Wild Mingnonette)	Υ		
1144.					
1144. 1145.	48434	Reticularia lobata			Υ



	Hame ID	Species Name	Naturalised	Conservation Code	Area
146.		Rhabdosargus sarba			
147.		Rhagodia baccata subsp. baccata			
148.		Rhamnus alaternus (Buckthorn)	Υ		
149.		Rhipidura albiscapa (Grey Fantail)			
150.	25614	Rhipidura leucophrys (Willie Wagtail)			
151.	13300	Rhodanthe citrina			
152.		Rickenella fibula			
153.	14485	Romulea flava var. minor	Υ		
154.	1556	Romulea rosea (Guildford Grass)	Υ		
155.	14924	Romulea rosea var. communis	Υ		
156.	10970	Rostraria cristata	Υ		
157.	116	Ruppia polycarpa			
158.	40431	Rytidosperma acerosum			
159.		Rytidosperma occidentale			
160.		Sagina apetala (Annual Pearlwort)	Υ		
161.		Sagina maritima	Y		
162.		Salsola australis	•		
163.		Samolus junceus			
164.		Samolus repens (Creeping Brookweed)			
165.		Samolus repens var. repens			
166.	2/230	Sarconema filiforme			
167.		Sardinella lemuru			
168.		Scabiosa atropurpurea (Purple Pincushion)	Υ		
169.		Scaevola anchusifolia			
170.		Scaevola canescens (Grey Scaevola)			
171.		Scaevola crassifolia (Thick-leaved Fan-flower)			
172.	13152	Scaevola thesioides subsp. thesioides			
173.	48834	Schinus terebinthifolia	Υ		
174.	978	Schoenus brevisetis			
175.	982	Schoenus clandestinus			
176.	984	Schoenus curvifolius			
177.	986	Schoenus efoliatus			
178.	992	Schoenus grandiflorus (Large Flowered Bogrush)			
179.	1004	Schoenus nitens (Shiny Bog-rush)			
180.		Schoenus pedicellatus			
181.	1017	Schoenus subbulbosus			
182.		Scholtzia involucrata (Spiked Scholtzia)			
183.		Scleroderma cepa			
184.		Scobinichthys granulatus			
185.		Scorpaena sumptuosa			
186.		Scorpis georgianus			
187.	25011	Scytosiphon Iomentaria			
		• •			
188.		Selaginella gracillima (Tiny Clubmoss)			
189.		Senecio condylus			
190.	25534	Sericornis frontalis (White-browed Scrubwren)			
191.		Servaea melaina			
192.		Servaea spinibarbis			
193.		Shepleya claviformis			Υ
194.	2909	Silene gallica (French Catchfly)	Υ		
195.	15972	Silene gallica var. gallica	Υ		
196.		Sillago bassensis			
197.		Sillago burrus			
198.	8225	Siloxerus humifusus (Procumbent Siloxerus)			
199.		Simaetha tenuior			
200.	25266	Simoselaps bertholdi (Jan's Banded Snake)			
201.		Simoselaps littoralis (West Coast Banded Snake)			
202.		Siphamia cuneiceps			
203.		Siphonognathus argyrophanes			
204.		Siphonognathus radiatus			
205.	42785	Sirophysalis trinodis			
206.	72100	Smeringopus natalensis			
	20040				
207.		Smicrornis brevirostris (Weebill) Salanum linguageum (Apple of Sodom)	V		
208.		Solanum linnaeanum (Apple of Sodom)	Y		
209.		Solanum nigrum (Black Berry Nightshade)	Υ		
210.		Solanum symonii			
211.		Solieria robusta			
212.		Sonchus asper (Rough Sowthistle)	Υ		
213.		Sonchus hydrophilus (Native Sowthistle)			
214.	8231	Sonchus oleraceus (Common Sowthistle)	Υ		
	4242	Sowerbaea laxiflora (Purple Tassels)			
215.	1312	Comorbaca taxinora (Furpic Fuscolo)			



	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1216.	4211	Sphaerolobium vimineum (Leafless Globe Pea)			
1217.		Sphyraena obtusata			
1218.	635	Sporobolus virginicus (Marine Couch)			
1219.	27310	Spyridia filamentosa			
1220.	4828	Spyridium globulosum (Basket Bush)			
1221.		Squatina australis			
1222.		Steatoda grossa			
1223.	2918	Stellaria media (Chickweed)	Υ		
1224.	39087	Stemonitis splendens			
1225.	19403	Stenopetalum gracile			
1226.	48594	Sternula nereis (Fairy Tern)			
1227.	24329	Stictonetta naevosa (Freckled Duck)			
1228.		Stigmatopora argus			
1229.		Stigmatopora nigra			
1230.	2316	Stirlingia latifolia (Blueboy)			
1231.		Strabozebrias cancellatus			
1232.	25597	Strepera versicolor (Grey Currawong)			
1233.	25589	Streptopelia chinensis (Spotted Turtle-Dove)	Υ		
1234.	30951	Streptopelia chinensis subsp. tigrina (Spotted Turtle-Dove)	Υ		
1235.	25590	Streptopelia senegalensis (Laughing Turtle-Dove)	Υ		
1236.	24942	Strophurus spinigerus subsp. spinigerus			
1237.	25831	Stylidium araeophyllum (Stilt Walker)			
1238.		Stylidium araeophyllum/neurophyllum			
1239.	7693	Stylidium brunonianum (Pink Fountain Triggerplant)			
1240.	7694	Stylidium bulbiferum (Circus Triggerplant)			
1241.	7696	Stylidium calcaratum (Book Triggerplant)			
1242.	7699	Stylidium carnosum (Fleshy-leaved Triggerplant)			
1243.	7717	Stylidium divaricatum (Daddy-long-legs)			
1244.	7718	Stylidium diversifolium (Touch-me-not)			
1245.	7734	Stylidium guttatum (Dotted Triggerplant)			
1246.	25801	Stylidium hesperium			
1247.	7774	Stylidium piliferum (Common Butterfly Triggerplant)			
1248.	7785	Stylidium repens (Matted Triggerplant)			
1249.	25806	Stylidium scariosum			
1250.	7798	Stylidium schoenoides (Cow Kicks)			
1251.	7806	Stylidium utricularioides (Pink Fan Triggerplant)			
1252.	1260	Stypandra glauca (Blind Grass)			
1253.		Sus scrofa (Pig)	Υ		
1254.	2326	Synaphea polymorpha (Albany Synaphea, Pinda)			
1255.		Synaphea spinulosa			
1256.	15532	Synaphea spinulosa subsp. spinulosa			
1257.		Synchiropus papilio			
1258.		Tachybaptus novaehollandiae (Australasian Grebe, Black-throated Grebe)			
1259.	24682	Tachybaptus novaehollandiae subsp. novaehollandiae (Australasian Grebe, Black-			
		throated Grebe)			
1260.		Tachyglossus aculeatus (Short-beaked Echidna)			
1261.	24331	Tadorna tadornoides (Australian Shelduck, Mountain Duck)			
1262.		Tamopsis distinguenda			
1263.		Tamopsis perthensis			
1264.	24167	Tarsipes rostratus (Honey Possum, Noolbenger)			
1265.		Tasmanicosa leuckartii			
1266.		Taxandria linearifolia			
1267.		Templetonia retusa (Cockies Tongues)			
1268.	2791	Tersonia cyathiflora (Button Creeper)			
1269.		Tetragnatha demissa			
1270.		Tetragnatha nitens			
1271.		Tetragnatha valida			
1272.		Tetragonia decumbens (Sea Spinach)	Y		
1273.	1036	Tetraria octandra			
1274.		Thelymitra aff. pauciflora			
1275.		Thelymitra campanulata (Shirt Orchid)			
1276.		Thelymitra crinita (Blue Lady Orchid)			
1277.		Thelymitra fuscolutea (Chestnut Sun Orchid)			
1278.		Thelymitra graminea			
1279.		Thelymitra macrophylla			
1280.	1710	Thelymitra mucida (Plum Orchid)			
	20731	Thelymitra vulgaris			
1281.					
1282.		Thelymitra xanthotricha			
	5077	Thelymitra xanthotricha Thomasia cognata Thomasia triphylla			







	Name ID	Species Name	Naturalised	Conservation Code	'Endemic To Que Area
1285.	2644	Threlkeldia diffusa (Coast Bonefruit)			
1286.	24845	Threskiornis spinicollis (Straw-necked Ibis)			
1287.		Thysanophrys cirronasus			
1288.		Thysanotus ?thyrsoideus			
1289.	1318	Thysanotus arbuscula			
1290.	1319	Thysanotus arenarius			
1291.	1328	Thysanotus dichotomus (Branching Fringe Lily)			
1292.	1338	Thysanotus manglesianus (Fringed Lily)			
1293.		Thysanotus manglesianus/patersonii complex			
1294.	1339	Thysanotus multiflorus (Many-flowered Fringe Lily)			
1295.		Thysanotus patersonii			
1296.		Thysanotus sp.			
1297.	1351	Thysanotus sparteus			
1298.		Thysanotus thyrsoideus			
1299.		Thysanotus triandrus			
1300.		Tiliqua multifasciata (Central Blue-tongue)			
1300.					
		Tiliqua occipitalis (Western Bluetongue)			
1302.		Tiliqua rugosa			
1303.		Tiliqua rugosa subsp. aspera			
1304.		Tiliqua rugosa subsp. rugosa			
1305.	25549	Todiramphus sanctus (Sacred Kingfisher)			
1306.		Torquigener pleurogramma			
1307.		Trachymene pilosa (Native Parsnip)			
1308.	38845	Trechispora farinacea			
1309.	1481	Tribonanthes australis (Southern Tiurndin)			
1310.	48141	Tribonyx ventralis (Black-tailed Native-hen)			
1311.	4383	Tribulus terrestris (Caltrop)	Υ		
1312.	39097	Trichia decipiens			
1313.	25723	Trichoglossus haematodus (Rainbow Lorikeet)			
1314.	25521	Trichosurus vulpecula (Common Brushtail Possum)			
1315.	24158	Trichosurus vulpecula subsp. vulpecula (Common Brushtail Possum)			
1316.	1361	Tricoryne elatior (Yellow Autumn Lily)			
1317.	1363	Tricoryne tenella			
1318.		Tricostularia neesii			
1319.		Tridentiger trigonocephalus			
1320.	17145	Trifolium angustifolium var. angustifolium	Υ		
1321.		Trifolium campestre (Hop Clover)	Y		
1322.	7202	Trifolium campestre/dubium	•		
1323.	1203	Trifolium cernuum (Drooping Flower Clover)	Υ		
1324.		Trifolium hirtum (Rose Clover)	Y		
		· ,			
1325.		Trifolium resupinatum var. resupinatum	Υ		
1326.		Triglochin mucronata			
1327.		Triglochin striata			
1328.		Triticum aestivum (Wheat)	Υ		
1329.	4360	Tropaeolum majus (Garden Nasturtium)	Υ		
1330.		Trygonoptera personata			
1331.		Trygonorrhina fasciata			
1332.	39103	Tubifera ferruginosa			
1333.	48147	Turnix varius (Painted Button-quail)			
1334.	24851	Turnix velox (Little Button-quail)			
1335.	30954	Tursiops aduncus (Indo-Pacific Bottlenose Dolphin)			
1336.	24069	Tursiops truncatus (Bottlenose Dolphin)			
1337.	99	Typha orientalis (Bulrush, Cumbungi)			
1338.	25762	Tyto alba (Barn Owl)			
1339.		Tyto alba subsp. delicatula (Barn Owl)			
1340.		Ulva lactuca			
1341.		Ulva rigida			
1342.		Upeneichthys lineatus			
1343.		Upeneichthys stotti			
1344.		Urodacus novaehollandiae			
1345.	8254	Urospermum picroides (False Hawkbit)	Υ		
1345.		Ursinia anthemoides (Ursinia)	Ϋ́		
1346.		Ursinia anthemoides (Ursinia) Ursinia anthemoides subsp. anthemoides	Y		
1348.	1/6/	Urtica urens (Small Nettle)	Y		
1349.	0/	Vanacampus poecilolaemus			
1350.		Vanellus tricolor (Banded Lapwing)			
		Varanus gouldii (Bungarra or Sand Monitor)			
1351.	05007	Varanus tristis subsp. tristis (Racehorse Monitor)			
1352.					
		Vellereophyton dealbatum (White Cudweed)	Υ		
1352.		Vellereophyton dealbatum (White Cudweed) Venator immansueta	Y		



	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1355.		Venatrix pullastra			
1356.	7107	Verbascum virgatum (Twiggy Mullein)	Υ		
1357.	15725	Verbesina encelioides	Υ		
1358.	7108	Veronica arvensis (Wall Speedwell)	Υ		
1359.	7111	Veronica persica (Creeping Speedwell)	Υ		
1360.	15432	Verticordia densiflora var. densiflora			
1361.	24206	Vespadelus regulus (Southern Forest Bat)			
1362.	4320	Vicia hirsuta (Hairy Vetch)	Υ		
1363.	11474	Vicia sativa subsp. nigra	Υ		
1364.	27360	Vidalia spiralis			
1365.	4325	Viminaria juncea (Swishbush, Koweda)			
1366.	24040	Vulpes vulpes (Red Fox)	Υ		
1367.	722	Vulpia bromoides (Squirrel Tail Fescue)	Υ		
1368.	11137	Vulpia fasciculata	Υ		
1369.	724	Vulpia myuros (Rat's Tail Fescue)	Υ		
1370.	12052	Vulpia myuros forma megalura	Υ		
1371.	33101	Vulpia myuros forma myuros	Υ		
1372.		Vulpia sp.			
1373.	7384	Wahlenbergia capensis (Cape Bluebell)	Υ		
1374.	7389	Wahlenbergia preissii			
1375.	8282	Waitzia suaveolens (Fragrant Waitzia)			
1376.	18118	Watsonia meriana var. meriana	Υ		
1377.	6658	Wilsonia backhousei (Narrow-leaf Wilsonia)			
1378.	6659	Wilsonia humilis (Silky Wilsonia)			
1379.	1394	Wurmbea dioica (Early Nancy)			
1380.	12072	Wurmbea dioica subsp. alba			
1381.	1398	Wurmbea monantha			
1382.	28194	Xanthoria parietina			
1383.	1256	Xanthorrhoea preissii (Grass tree, Palga)			
1384.		Xanthorrhoea sp.			
1385.		Xanthosia ?huegelii			Υ
1386.	6289	Xanthosia huegelii			
1387.	2331	Xylomelum occidentale (Woody Pear, Djandin)			
1388.	1049	Zantedeschia aethiopica (Arum Lily)	Υ		
1389.		Zebraplatys fractivittata			
1390.		Zebrias cancellatus			
1391.	25765	Zosterops lateralis (Grey-breasted White-eye, Silvereye)			

Conservation Codes

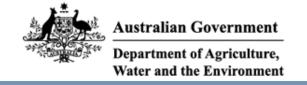
1 - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority 1
2 - Priority 2
3 - Priority 2
4 - Priority 5
5 - Priority 5





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

APPENDIX 3 Protected Matters Search Tool Report



EPBC Act Protected Matters Report

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

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

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 18/11/20 19:19:50

Summary

Details

Caveat

Matters of NES

Other Matters Protected by the EPBC Act

Extra Information

Acknowledgements



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Coordinates
Buffer: 5.0Km



Summary

Matters of National Environmental Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	2
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	3
Listed Threatened Species:	45
Listed Migratory Species:	43

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	67
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	3
Regional Forest Agreements:	None
Invasive Species:	36
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Forrestdale and thomsons lakes	Within 10km of Ramsar
Peel-yalgorup system	30 - 40km upstream

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.

produce indicative distribution maps.		
Name	Status	Type of Presence
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area
Sedgelands in Holocene dune swales of the southern Swan Coastal Plain	Endangered	Community likely to occur within area
Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area
Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area
<u>Calyptorhynchus latirostris</u> Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
<u>Diomedea dabbenena</u> Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or

Name	Status	Type of Presence
		related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
<u>Limosa Iapponica baueri</u> Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat likely to occur within area
<u>Limosa Iapponica menzbieri</u> Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur

Name	Status	Type of Presence
		within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat known to occur within area
<u>Pseudocheirus occidentalis</u> Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat likely to occur within area
Other		
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat likely to occur within area
Plants		
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area
Caladenia huegelii King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat likely to occur within area
<u>Diuris micrantha</u> Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat known to occur within area
<u>Diuris purdiei</u> Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat likely to occur within area
Drakaea elastica Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat likely to occur within area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<u>Dermochelys coriacea</u> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Sharks		
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area

Name	Status	Type of Presence
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species * Species is listed under a different scientific name on t	he EPBC Act - Threatened	[Resource Information] I Species list.
Name Migratory Marine Birds	Threatened	Type of Presence
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
<u>Diomedea dabbenena</u> Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<u>Diomedea sanfordi</u> Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area
Sterna dougallii Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area

Name	Threatened	Type of Presence
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Breeding known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Limosa Iapponica		
Bar-tailed Godwit [844]		Species or species habitat likely to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [Resource Information]

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

Name

Commonwealth Land -

Commonwealth Land -		
Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on	the EPBC Act - Threatened	Species list.
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus		
Common Noddy [825]		Species or species habitat may occur within area
Anous tenuirostris melanops		
Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Ardea alba Great Egret, White Egret [59541]		Breeding known to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
<u>Diomedea dabbenena</u> Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<u>Diomedea sanfordi</u> Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Larus pacificus Pacific Gull [811]		Foraging, feeding or related behaviour may occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species

Name	Threatened	Type of Presence
rano	Throatoriou	habitat likely to occur within
		area
Pachyptila turtur		
Fairy Prion [1066]		Species or species habitat
		likely to occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat
		may occur within area
Difficult analysis		
Puffinus assimilis		Coroning fooding or related
Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur
		within area
Puffinus carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater		Foraging, feeding or related
[1043]		behaviour likely to occur
Rostratula benghalensis (sensu lato)		within area
Painted Snipe [889]	Endangered*	Species or species habitat
r airtied Shipe [009]	Lituarigered	likely to occur within area
		moly to occur within area
Sterna anaethetus		
Bridled Tern [814]		Foraging, feeding or related
		behaviour likely to occur
Sterna caspia		within area
Caspian Tern [59467]		Foraging, feeding or related
Caopian rom [co tor]		behaviour known to occur
		within area
Sterna dougallii		
Roseate Tern [817]		Foraging, feeding or related
		behaviour likely to occur within area
Thalassarche cauta		within area
Shy Albatross [89224]	Endangered	Foraging, feeding or related
,	Ü	behaviour likely to occur
-		within area
Thalassarche impavida	Vulnarabla	Charles or angeles habitat
Campbell Albatross, Campbell Black-browed Albatross [64459]	vuirierable	Species or species habitat may occur within area
[01100]		may coodi witim area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat
		may occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related
		behaviour likely to occur
		within area
Thinornis rubricollis		Occasion and a size helitat
Hooded Plover [59510]		Species or species habitat may occur within area
		may booti within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat
		likely to occur within area
Fish		
Acentronura australe		
Southern Pygmy Pipehorse [66185]		Species or species habitat
		may occur within area
Commish there are let		
Campichthys galei		Oncolos or anadas bablis
Gale's Pipefish [66191]		Species or species habitat may occur within area
		may occur willill alta
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish,		Species or species habitat
Eastern Upside-down Pipefish [66227]		may occur within area
Hippocompus anguetus		
Hippocampus angustus Western Spiny Seahorse, Narrow-bellied Seahorse		Species or species
western opiny seamorse, narrow-belieu seamorse		opedies of species

Name Threatened Type of Presence habitat may occur within [66234] Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse Species or species habitat [66235] may occur within area Hippocampus subelongatus West Australian Seahorse [66722] Species or species habitat may occur within area Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Species or species habitat Pipefish [66243] may occur within area Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249] Species or species habitat may occur within area Lissocampus fatiloguus Prophet's Pipefish [66250] Species or species habitat may occur within area Lissocampus runa Javelin Pipefish [66251] Species or species habitat may occur within area Maroubra perserrata Sawtooth Pipefish [66252] Species or species habitat may occur within area Mitotichthys meraculus Western Crested Pipefish [66259] Species or species habitat may occur within area Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264] Species or species habitat may occur within area Phycodurus eques Leafy Seadragon [66267] Species or species habitat may occur within area Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268] Species or species habitat may occur within area Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269] Species or species habitat may occur within area Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273] Species or species habitat may occur within area Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish Species or species habitat may occur within area [66276] Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Species or species habitat Pipefish [66277] may occur within area Urocampus carinirostris Hairy Pipefish [66282] Species or species habitat may occur within area Vanacampus margaritifer

Mother-of-pearl Pipefish [66283]

Mother-of-pean ripensin [00200]

Vanacampus phillipi
Port Phillip Pipefish [66284]

Species or species habitat may occur within

Species or species habitat may occur within area

	Threatened	Type of Presence
Vanacampus poecilolaemus		area
Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammals		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat known to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765] Dermochelys coriacea	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Whales and other Cetaceans		[Resource Information]
Name	Status	T of D
	Status	Type of Presence
Mammals	Status	Type of Presence
	Otatus	Species or species habitat may occur within area
Mammals Balaenoptera acutorostrata	Claius	Species or species habitat
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera edeni	Endangered	Species or species habitat may occur within area Species or species habitat
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus		Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus Blue Whale [36] Caperea marginata	Endangered	Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus Blue Whale [36] Caperea marginata Pygmy Right Whale [39] Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60] Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus Blue Whale [36] Caperea marginata Pygmy Right Whale [39] Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60] Eubalaena australis	Endangered	Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat may occur within area
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus Blue Whale [36] Caperea marginata Pygmy Right Whale [39] Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60] Eubalaena australis Southern Right Whale [40] Grampus griseus	Endangered	Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area Breeding known to occur within area Species or species habitat may occur within area

Name	Status	Type of Presence
Stenella attenuata		habitat may occur within area
Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]	9	Species or species habitat likely to occur within area
<u>Tursiops truncatus s. str.</u> Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Leda	WA
Unnamed WA39584	WA
Unnamed WA39752	WA
Invasive Species	[Resource Information]

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

Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus		
Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Streptopelia chinensis		
Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Streptopelia senegalensis		
Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Funambulus pennantii Northern Palm Squirrel, Five-striped Palm Squirrel [129]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Brachiaria mutica Para Grass [5879]		Species or species habitat may occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax Broom [2800]	า	Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within

Name	Status	Type of Presence
Lantana camara		area
Lantana, Common Lantana, Kamara Lantana, Large- leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Lycium ferocissimum		Species or species habitat likely to occur within area
African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Olea europaea Olive, Common Olive [9160]		Species or species habitat may occur within area
Opuntia spp.		
Prickly Pears [82753]		Species or species habitat likely to occur within area
Pinus radiata		
Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate		
Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]	reichardtii	Species or species habitat likely to occur within area
Salvinia molesta		
Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Tamarix aphylla		
Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area
Nationally Important Wetlands		[Resource Information]
Name		State
Spectacles Swamp		WA

Caveat

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

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-32.22178 115.80106

Acknowledgements

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

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

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

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

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APPENDIX 4 Conservation Codes

Conservation Codes for Western Australian Flora and Fauna

Specially protected fauna or flora are species* which have been adequately searched for and are deemed to be, in the wild, either rare, at risk of extinction, or otherwise in need of special protection, and have been gazetted as such. Conservation codes have been transitioned under regulations 170, 171 and 172 of the *Biodiversity Conservation Regulations 2018*.

T Threatened species – Schedules 1-4

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

- Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for Threatened Fauna.
- Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the Wildlife Conservation (Rare Flora) Notice 2018 for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR Critically endangered species

Threatened species considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for critically endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for critically endangered flora.

EN Endangered species

Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU Vulnerable species

Threatened species considered to be "facing a high risk of extinction in the wild in the mediumterm future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the Wildlife

Conservation (Specially Protected Fauna) Notice 2018 for vulnerable fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for vulnerable flora.

EX Presumed extinct species

Species where "there is no reasonable doubt that the last member of the species has died", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW Extinct in the wild species

Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI Migratory species

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018.*

CD Species of special conservation interest (conservation dependent fauna)

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation* (Specially Protected Fauna) Notice 2018.

OS Other specially protected species

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation* (Specially Protected Fauna) Notice 2018.

P Priority species

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

Priority 1: Poorly-known species

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

Priority 2: Poorly-known species

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

Priority 3: Poorly-known species

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

Priority 4: Rare, Near Threatened and other species in need of monitoring

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.
- (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Western Australian Ecological Communities

Threatened Ecological Communities

The BC Act provides for the statutory listing of threatened ecological communities (TECs) by the Minister.

Presumed Totally Destroyed (PD)

An ecological community that has been adequately searched for but for which no representative occurrences have been located. The community has been found to be totally destroyed or so extensively modified throughout its range that no occurrence of it is likely to recover its species composition and/or structure in the foreseeable future.

^{*}Species includes all taxa (plural of taxon - a classificatory group of any taxonomic rank, e.g. a family, genus, species or any infraspecific category i.e. subspecies or variety, or a distinct population).

Critically Endangered (CR)

An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated.

Endangered (EN)

An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future.

Vulnerable (VU)

An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range.

Priority Ecological Communities

Possible threatened ecological communities that do not meet survey criteria or that are not adequately defined are added to the Priority Ecological Community List under priorities 1, 2 and 3. These three categories are ranked in order of priority for survey and/or definition of the community. Ecological communities that are adequately known, and are rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list, are placed in Priority 4. These ecological communities require regular monitoring. Conservation Dependent ecological communities are placed in Priority 5.

Priority One: Poorly-known ecological communities

Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤ 5 occurrences or a total area of ≤ 100 ha).

Occurrences are believed to be under threat either due to limited extent, or being on lands under immediate threat (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) or for which current threats exist. May include communities with occurrences on protected lands. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.

Priority Two: Poorly-known ecological communities

Communities that are known from few occurrences with a restricted distribution (generally ≤10 occurrences or a total area of ≤200ha). At least some occurrences are not believed to be under immediate threat (within approximately 10 years) of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.

Priority Three: Poorly known ecological communities

- (i) Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or:
- (ii) communities known from a few widespread occurrences, which are either large or with significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat (within approximately 10 years), or;
- (iii) munities made up of large, and/or widespread occurrences, that may or may not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, inappropriate fire regimes, clearing, hydrological change etc.

Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.

Priority Four: Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.

- (i) Rare. Ecological communities known from few occurrences that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These communities are usually represented on conservation lands.
- (ii) Near Threatened. Ecological communities that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for a higher threat category.
- (iii) Ecological communities that have been removed from the list of threatened communities during the past five years.

Priority Five: Conservation Dependent ecological communities

Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

Commonwealth of Australia Conservation Codes

Threatened Flora and Fauna

Threatened fauna and flora may be listed under Section 178 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in any one of the following six categories:

Extinct

A native species is eligible to be included in the extinct category at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died.

Extinct in the wild

A native species is eligible to be included in the extinct in the wild category at a particular time if, at that time:

- a) it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
- b) it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.

Critically endangered

A taxon is Critically Endangered when the best available evidence indicates that it meets any of the five criteria for the category identified in Part 7.01 of the EPBC Regulations, and it is therefore considered to be facing an extremely high risk of extinction in the wild.

Endangered

A taxon is Endangered when the best available evidence indicates that it meets any of the five criteria for the category identified in Part 7.01 of the EPBC Regulations, and it is therefore considered to be facing a very high risk of extinction in the wild.

Vulnerable

A taxon is Vulnerable when the best available evidence indicates that it meets any of the five criteria for the category identified in Part 7.01 of the EPBC Regulations, and it is therefore considered to be facing a high risk of extinction in the wild.

Conservation dependent

A native species is eligible to be included in the conservation dependent category at a particular time if, at that time:

- a) the species is the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered;
 or
- b) the following subparagraphs are satisfied:
 - i. the species is a species of fish;

- ii. the species is the focus of a plan of management that provides for management actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long term survival in nature are maximised;
- iii. the plan of management is in force under a law of the Commonwealth or of a State or Territory;
- iv. cessation of the plan of management would adversely affect the conservation status of the species.

The EPBC Act does not provide for listing in a data deficient category. Where sufficient data (evidence) is unavailable to allow assessment by the Threatened Species Scientific Committee against the criteria for listing, the species are found to be ineligible. A recommendation is made to the Minister to not include the species in any category under the EPBC Act. For reasons of transparency and to inform future research, the Threatened Species Scientific Committee publishes the names of those species found to be data deficient. As data deficient is not a listing category under the EPBC Act, this has no statutory implications and the species is not considered to be listed under the EPBC Act.

Threatened Ecological Communities

Threatened Ecological communities under the EPBC Act are listed in three categories.

Critically endangered

If, at that time, an ecological community is facing an extremely high risk of extinction in the wild in the immediate future (indicative timeframe being the next 10 years).

Endangered

If, at that time, an ecological community is not critically endangered but is facing a very high risk of extinction in the wild in the near future (indicative timeframe being the next 20 years).

Vulnerable

If, at that time, an ecological community is not critically endangered or endangered, but is facing a high risk of extinction in the wild in the medium—term future (indicative timeframe being the next 50 years).

APPENDIX 5 DBCA TEC/PEC Database Search

OCC_UN QUE	II COM_ID	COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
		Melaleuca huegelii - Melaleuca systena shrublands on								
1877	SCP26a	limestone ridges (floristic community type 26a as originally described in Gibson et al. (1994))	Endangered		1	ANKETELL01		500	318	211
		Woodlands over sedgelands in Holocene dune swales of the								
591	SCP19b	southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	5	IP14-07	MYIP14-13	2000	334	219
		al. (1994). Woodlands over sedgelands in Holocene dune swales of the								
596	SCP19b	southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	1	IP14-08		2000	335	220
		al. (1994).								
942	SCP19b	Woodlands over sedgelands in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangorod	1	IP14-01		2000	339	224
942	3CP190	al. (1994).	Critically Endangered	Endangered	1	IP14-01		2000	333	224
		Woodlands over sedgelands in Holocene dune swales of the								
598	SCP19b	southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	1	IP14-03		2000	340	225
		al. (1994). Woodlands over sedgelands in Holocene dune swales of the								
1908	SCP19b	southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	1	IP14-04		2000	341	226
		al. (1994).								
889	SCP19b	Woodlands over sedgelands in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	5	IP14-09CENTRE	IP14-PLOT3	2000	342	227
003	301 130	al. (1994).	Citically Endangered	Lindangered	3	II 14 OSCENTILE	114112013	2000	342	227
		Woodlands over sedgelands in Holocene dune swales of the								
888	SCP19b	southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	2	IP14-10NORTH	IP14-10SOUTH	2000	343	228
		al. (1994). Woodlands over sedgelands in Holocene dune swales of the								
594	SCP19b	southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	1	IP14-02		2000	344	229
		al. (1994).								
593	SCP19b	Woodlands over sedgelands in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	3	IP14 PLOT1	IP14-06	2000	346	231
333	00. 200	al. (1994).	critically industries	2.100.100		2 20 . 2	21 00	2000	0.0	
		Woodlands over sedgelands in Holocene dune swales of the								
605	SCP19b	southern Swan Coastal Plain (original description; Gibson et al. (1994).	Critically Endangered	Endangered	1	COOL15		2000	348	233
		Woodlands over sedgelands in Holocene dune swales of the								
603	SCP19b	southern Swan Coastal Plain (original description; Gibson et	Critically Endangered	Endangered	1	COOL14		2000	349	234
2642	SCD24	al. (1994). Northern Spearwood shrublands and woodlands	Priority 2		ว	MTB01	MTD Most	500	1202	1107
2642 3610	SCP24 SCP24	Northern Spearwood shrublands and woodlands Northern Spearwood shrublands and woodlands	Priority 3 Priority 3		2 1	MTB_East	MTB_West	500 500	1383 1750	1431
			•			_				

OCC_UNI QUE	COM_ID	COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
110829	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05111		200	107828	20024
110836	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05118		200	107835	20031
110837	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05119		200	107836	20032
110859	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	·	Endangered	1	BanksiaWld05141		200	107858	20054
110861	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05143		200	107860	20056
110862	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05144		200	107861	20057
111284	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	Banksia Wld 05566		200	108283	20479
111285	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05567		200	108284	20480
111286	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	Banksia Wld 05568		200	108285	20481
111287	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	Banksia Wld 05569		200	108286	20482
111288	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	Banksia Wld 05570		200	108287	20483
111291	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05573		200	108290	20486
111440	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05722		200	108439	20635
111441	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05723		200	108440	20636
111442	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05724		200	108441	20637
111443	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05725		200	108442	20638
111444	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05726		200	108443	20639
111445	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld05727		200	108444	20640
111446	Banksia WL SCP	Panksia Dominated Woodlands of the Swan Coastal Plain IPPA	Priority 3	Endangered	1	BanksiaWld05728		200	108445	20641

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111538	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05820		200	108537	20733
111586	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05868		200	108585	20781
111587	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05869		200	108586	20782
111588	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05870		200	108587	20783
111589	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	•	Endangered	1	BanksiaWld05871		200	108588	20784
111625	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05907		200	108624	20820
111626	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05908		200	108625	20821
111627	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05909		200	108626	20822
111628	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld05910		200	108627	20823
111904	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06186		200	108903	21099
111905	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06187		200	108904	21100
111906	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06188		200	108905	21101
111907	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06189		200	108906	21102
111908	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06190		200	108907	21103
111947	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06229		200	108946	21142
111948	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06230		200	108947	21143
111949	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06231		200	108948	21144
111950	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06232		200	108949	21145
112016	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06298		200	109015	21211

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112390	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06672		200	109389	21585
112391	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06673		200	109390	21586
112392	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06674		200	109391	21587
112393	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06675		200	109392	21588
112394	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06676		200	109393	21589
112481	Banksia WL SCP	Panksia Dominated Woodlands of the Swan Coastal Plain IPPA	Priority 3	Endangered	1	BanksiaWld06763		200	109480	21676
112540	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06822		200	109539	21735
112541	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06823		200	109540	21736
112555	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06837		200	109554	21750
112556	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld06838		200	109555	21751
112601	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06883		200	109600	21796
112630	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06912		200	109629	21825
112631	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06913		200	109630	21826
112660	Banksia WL SCP	Panksia Dominated Woodlands of the Swan Coastal Dlain IRRA	Priority 3	Endangered	1	BanksiaWld06942		200	109659	21855
112734	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld07016		200	109733	21929
112797	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld07079		200	109796	21992
112804	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld07086		200	109803	21999
112805	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld07087		200	109804	22000
112928	Banksia WL SCP	Panksia Daminatad Waadlands of the Cuan Coastal Plain IRDA	Priority 3	Endangered	1	BanksiaWld07210		200	109927	22123
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112929	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07211		200	109928	22124
112930	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07212		200	109929	22125
112931	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07213		200	109930	22126
112943	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07225		200	109942	22138
112944	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07226		200	109943	22139
112945	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07227		200	109944	22140
112946	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07228		200	109945	22141
112948	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07230		200	109947	22143
112978	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07260		200	109977	22173
112979	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07261		200	109978	22174
112980	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07262		200	109979	22175
112987	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07269		200	109986	22182
113015	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07297		200	110014	22210
113046	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07328		200	110045	22239
113047	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07329		200	110046	22240
113083	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07365		200	110082	22276
113110	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07392		200	110109	22303
113124	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld07406		200	110123	22317
116380	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10662		200	113379	25571

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116381	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10663		200	113380	25572
116382	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10664		200	113381	25573
116383	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10665		200	113382	25574
116384	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10666		200	113383	25575
116385	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10667		200	113384	25576
116386	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10668		200	113385	25577
116390	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10672		200	113389	25581
116391	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10673		200	113390	25582
116392	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10674		200	113391	25583
116466	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10748		200	113465	25657
116467	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10749		200	113466	25658
116468	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10750		200	113467	25659
116469	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10751		200	113468	25660
116472	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10754		200	113471	25663
116473	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10755		200	113472	25664
116480	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10762		200	113479	25671
116481	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10763		200	113480	25672
116482	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10764		200	113481	25673
116483	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10765		200	113482	25674

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116484	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10766		200	113483	25675
116485	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10767		200	113484	25676
116486	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10768		200	113485	25677
116487	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10769		200	113486	25678
116573	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10855		200	113572	25764
116574	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10856		200	113573	25765
116575	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10857		200	113574	25766
116576	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10858		200	113575	25767
116577	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10859		200	113576	25768
116578	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10860		200	113577	25769
116579	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10861		200	113578	25770
116580	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10862		200	113579	25771
116581	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10863		200	113580	25772
116582	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10864		200	113581	25773
116583	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10865		200	113582	25774
116584	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10866		200	113583	25775
116585	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10867		200	113584	25776
116586	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10868		200	113585	25777
116587	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10869		200	113586	25778

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116588	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10870		200	113587	25779
116592	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10874		200	113591	25783
116593	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10875		200	113592	25784
116594	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10876		200	113593	25785
116595	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10877		200	113594	25786
116596	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10878		200	113595	25787
116597	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10879		200	113596	25788
116598	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10880		200	113597	25789
116599	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10881		200	113598	25790
116600	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10882		200	113599	25791
116601	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10883		200	113600	25792
116602	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10884		200	113601	25793
116603	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10885		200	113602	25794
116605	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10887		200	113604	25796
116606	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10888		200	113605	25797
116607	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10889		200	113606	25798
116608	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10890		200	113607	25799
116609	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10891		200	113608	25800
116610	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10892		200	113609	25801

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116611	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10893		200	113610	25802
116612	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10894		200	113611	25803
116613	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10895		200	113612	25804
116614	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10896		200	113613	25805
116615	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10897		200	113614	25806
116616	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10898		200	113615	25807
116617	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10899		200	113616	25808
116618	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10900		200	113617	25809
116619	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10901		200	113618	25810
116621	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10903		200	113620	25812
116622	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10904		200	113621	25813
116624	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10906		200	113623	25815
116625	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10907		200	113624	25816
116627	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10909		200	113626	25818
116631	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10913		200	113630	25822
116634	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10916		200	113633	25825
116637	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10919		200	113636	25828
116638	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10920		200	113637	25829
116639	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10921		200	113638	25830

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116640	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10922		200	113639	25831
116641	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10923		200	113640	25832
116642	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10924		200	113641	25833
116643	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10925		200	113642	25834
116644	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	*	Endangered	1	BanksiaWld10926		200	113643	25835
116646	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10928		200	113645	25837
116647	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	*	Endangered	1	BanksiaWld10929		200	113646	25838
116648	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10930		200	113647	25839
116649	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10931		200	113648	25840
116650	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10932		200	113649	25841
116651	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	•	Endangered	1	BanksiaWld10933		200	113650	25842
116652	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10934		200	113651	25843
116653	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10935		200	113652	25844
116654	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region		Endangered	1	BanksiaWld10936		200	113653	25845
116655	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10937		200	113654	25846
125345	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0244		500	122414	120663
125346	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0245		500	122415	120664

OCC_UNI QUE	DM_ID	COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
Tua 125347 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0246		500	122416	120665
Tua 125348 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0247		500	122417	120666
Tua 125349 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0248		500	122418	120667
Tua 125350 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0249		500	122419	120668
Tua 125351 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0250		500	122420	120669
Tua 125352 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0251		500	122421	120670
Tua 125353 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0252		500	122422	120671
Tua 125354 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0253		500	122423	120672
Tual 125356 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0255		500	122425	120674
Tua 125505 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0404		500	122574	120823
Tua 125925 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0824		500	122994	121243
Tua 125926 woo ds	oodlan	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0825		500	122995	121244

OCC_UNI COM	_ID COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
Tuart 125928 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0827		500	122997	121246
Tuart 125929 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0828		500	122998	121247
Tuart 125930 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0829		500	122999	121248
Tuart 126008 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0907		500	123077	121326
Tuart 126009 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0908		500	123078	121327
Tuart 126010 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0909		500	123079	121328
Tuart 126011 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0910		500	123080	121329
Tuart 126012 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0911		500	123081	121330
Tuart 126013 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0912		500	123082	121331
Tuart 126014 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0913		500	123083	121332
Tuart 126015 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and torests of	Priority 3	Critically Endangered	1	TuartWld0914		500	123084	121333
Tuart 126016 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of	Priority 3	Critically Endangered	1	TuartWld0915		500	123085	121334

OCC_UN QUE	COM_ID	COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
126017	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0916		500	123086	121335
126018	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0917		500	123087	121336
126019	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0918		500	123088	121337
126020	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0919		500	123089	121338
126021	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0920		500	123090	121339
126022	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0921		500	123091	121340
126023	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0922		500	123092	121341
126024	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0923		500	123093	121342
126025	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0924		500	123094	121343
126026	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0925		500	123095	121344
126027	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0926		500	123096	121345
126028	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0927		500	123097	121346

OCC_UNI QUE	ID COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
Tuart 126029 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld0928		500	123098	121347
Tuart 126156 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1055		500	123225	121474
Tuart 126157 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1056		500	123226	121475
Tuart 126158 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1057		500	123227	121476
Tuart 126159 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1058		500	123228	121477
Tuart 126160 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1059		500	123229	121478
Tuart 126161 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1060		500	123230	121479
Tuart 126162 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1061		500	123231	121480
Tuart 126163 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1062		500	123232	121481
Tuart 126164 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1063		500	123233	121482
Tuart 126165 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1064		500	123234	121483
Tuart 126166 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1065		500	123235	121484

OCC_UNI QUE	/I_ID_COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
Tuari 126167 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1066		500	123236	121485
Tuari 126168 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1067		500	123237	121486
Tuari 126169 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1068		500	123238	121487
Tuari 126170 wood ds	Tuart (Fucalyntus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1069		500	123239	121488
Tuari 126171 wood ds	Tuart (Fucalyntus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1070		500	123240	121489
Tuari 126172 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1071		500	123241	121490
Tuari 126173 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1072		500	123242	121491
Tuari 126174 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1073		500	123243	121492
Tuari 126175 wood ds	Luart (Fucalyntus gomphocephala) woodlands and t	orests of Priority 3	Critically Endangered	1	TuartWld1074		500	123244	121493
Tuari 126176 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1075		500	123245	121494
Tuari 126177 wood ds	Tuart (Fucalyptus gomphocephala) woodlands and t	orests of Priority 3	Critically Endangered	1	TuartWld1076		500	123246	121495
Tuari 126178 wood ds	Tuart (Eucalyptus gomphocephala) woodlands and f	orests of Priority 3	Critically Endangered	1	TuartWld1077		500	123247	121496

OCC_UNI QUE	COM_ID	COM_NAME	STATE_CATG	COMM_CATG	S_ID_COUNT	FIRST_S_ID	LAST_S_ID	BUFFER	BDY_ID	ORIG_FID
126179	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1078		500	123248	121497
126180	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1079		500	123249	121498
126181	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1080		500	123250	121499
126182	Tuart woodlan ds	Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered	1	TuartWld1081		500	123251	121500
112554	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld06836		200	109553	21749
116589	Banksia WL SCP	Region	Priority 3	Endangered	1	BanksiaWld10871		200	113588	25780
116604	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10886		200	113603	25795
116620	Banksia WL SCP	Ranksia Dominated Woodlands of the Swan Coastal Plain IRRA	Priority 3	Endangered	1	BanksiaWld10902		200	113619	25811
116623	Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered	1	BanksiaWld10905		200	113622	25814
3118	SCP25	Southern Eucalyptus gomphocephala-Agonis flexuosa woodlands	Priority 3		1	SEW4		200	0	617
3119	SCP25	Southern Eucalyptus gomphocephala-Agonis flexuosa woodlands	Priority 3		1	SEW5		200	0	618

APPENDIX 6 Flora Species List

SPECIES LIST - M70/656 Abercrombie Road, Postans

ORCHIDACEAE

GYMNOSPERMS IRIDACEAE

*Freesia alba x leichtlinii
CYCADACEAE
*Gladiolus caryophyllaceus

Macrozamia riedlei *Moraea flaccida

MONOCOTYLEDONS

ANARTHRIACEAE Caladenia flava
Lyginia barbata Caladenia latifolia
Microtis media

ASPARAGACEAE
*Asparagus asparagoides

*Microtis media
Pterostylis vittata

Chamaescilla corymbosa

Dichopogon capillipes

Lomandra hermaphrodita

Lomandra caespitosa

Lomandra maritima

Lomandra suaveolens

Sowerbaea laxiflora

POACEAE

*Avena fatua

*Briza maxima

*Cenchrus setaceus

*Ehrharta calycina

*Lagurus ovatus

Thysanotus patersonii *Lagurus ovatus
Thysanotus sparteus *Lolium perenne

ASPHODELACEAE RESTIONACEAE

*Trachyandra divaricata Desmocladus flexuosus

COLCHICACEAE XANTHORRHOEACEAE

Burchardia congesta Xanthorrhoea preissii

CYPERACEAE DICOTYLEDONS

Chaetospora curvifolia

Lepidosperma leptostachyum AIZOACEAE

Lepidosperma pubisquameum *Carpobrotus edulis

Lepidosperma scabrum

Mesomelaena pseudostygiaAMARANTHACEAESchoenus grandiflorusPtilotus drummondiiSchoenus latitans/clandestinusPtilotus polystachyus

HAEMODORACEAE ARALIACEAE

Anigozanthos manglesii Trachymene pilosa

Conostylis aculeata subsp. aculeata

ASTERACEAE

HEMEROCALLIDACEAE *Arctotheca calendula
Corynotheca micrantha *Hypochaeris glabra
Dianella revoluta var. divaricata Podolepis gracilis

Tricoryne elatior Senecio condylus

Senecio pinnatifolius *Sonchus oleraceus *Urospermum picroides

*Ursinia anthemoides

BRASSICACEAE

*Raphanus raphanistrum

CARYOPHYLLACEAE

*Cerastium glomeratum

*Petrorhagia dubia

CASUARINACEAE

Allocasuarina fraseriana

Allocasuarina humilis

CRASSULACEAE

Crassula colorata *Crassula glomerata

DILLENIACEAE

Hibbertia hypericoides Hibbertia subvaginata

Hibbertia vaginata

DROSERACEAE

Drosera erythrorhiza Drosera glanduligera

Drosera stolonifera

ERICACEAE

Leucopogon propinquus

EUPHORBIACEAE *Euphorbia peplus *Euphorbia terracina

FABACEAE

Acacia pulchella Acacia rostellifera Acacia xanthina Daviesia triflora

Gompholobium tomentosum Hardenbergia comptoniana

Hovea pungens

Isotropis cuneifolia Jacksonia furcellata Kennedia prostrata *Lupinus cosentinii *Melilotus indicus *Trifolium campestre

FUMARIACEAE

*Fumaria capreolata

GERANIACEAE

*Erodium moschatum

MYRTACEAE

Eucalyptus gomphocephala Eucalyptus marginata

OROBANCHACEAE

*Parentucellia latifolia

*Parentucellia viscosa

OXALIDACEAE

*Oxalis pes-caprae

PHYLLANTHACEAE Phyllanthus calycinus

PRIMULACEAE

*Lysimachia arvensis

PROTEACEAE

Banksia grandis Banksia dallanneyi Banksia ilicifolia Banksia menziesii Banksia sessilis

Banksia attenuata

Conospermum triplinervium

Grevillea preissii Grevillea vestita Hakea lissocarpha

RANUNCULACEAE

Clematis linearifolia

RHAMNACEAE

Spyridium globulosum

RUBIACEAE

*Galium murale

Opercularia vaginata

SCROPHULARIACEAE

*Dischisma arenarium

SOLANCAEAE

*Solanum nigrum

VALERIANACEAE

*Centranthus macrosiphon

VIOLACEAE

Hybanthus calycinus

APPENDIX 7 Quadrat Data

50 386971 E 6434111 N

Vegetation: Acacia rostellifera Closed Heath over weeds

Condition: Good

Soil Type: Orange-brown sand with some surface limestone

Landform: Flat

Date: 13.9.20

Recorder: Paul van der Moezel



SPECIES	HEIGHT (m)	COVER (%)
Xanthorrhoea preissii	1.7	1
Acacia rostellifera	1.5	75
Acacia pulchella	0.8	2
*Ehrharta calycina	0.7	50
*Avena fatua	0.5	<1
Leucopogon propinquus	0.4	<1
Macrozamia riedlei	0.4	<1
*Briza maxima	0.3	20
*Lagurus ovatus	0.2	10
*Lysimachia arvensis	0.2	1
*Raphanus raphanistrum	0.2	<1
Conostylis aculeata	0.2	<1
*Centranthus macrosiphon	0.1	5
*Cerastium glomeratum	0.1	1
*Urospermum picroides	0.1	<1
*Sonchus oleraceus	0.1	<1
*Euphorbia peplus	<0.1	1
*Galium murale	<0.1	<1
*Hypochaeris glabra	Flat	1

SPECIES	HEIGHT (m)	COVER (%)
Hardenbergia comptoniana	Climber	<1
Clematis linearifolia	Climber	<1

^{*} introduced species

50 386911 E 6434193N

Vegetation: Eucalyptus gomphocephala Low Open Woodland over Banksia

attenuata/Allocasuarina fraseriana Low Open Woodland over

Acacia pulchella/Xanthorrhoea preissii Open Low Heath

Condition: Good

Soil Type: Orange-brown sand

Landform: Gentle slope down to the south

Date: 13.9.20

Recorder: Paul van der Moezel



SPECIES	HEIGHT (m)	COVER (%)
Eucalyptus gomphocephala	10	5
Banksia attenuata	2.2	2
Acacia pulchella	1	20
Xanthorrhoea preissii	1	5
Macrozamia riedlei	0.9	1
*Ehrharta calycina	0.8	25
*Gladiolus caryophyllaceus	0.6	<1
*Euphorbia terracina	0.4	<1
Conostylis aculeata	0.3	4
Desmocladus flexuosus	0.3	1
Sowerbaea laxiflora	0.3	<1
*Briza maxima	0.2	5
Hibbertia subvaginata	0.2	<1
*Euphorbia peplus	0.1	2
*Ursinia anthemoides	0.1	1
Hybanthus calycinus	0.1	<1

SPECIES	HEIGHT (m)	COVER (%)
*Sonchus oleraceus	0.1	<1
*Urospermum picroides	0.1	<1
*Carpobrotus edulis	0.1	<1
*Lagurus ovatus	0.1	<1
*Petrorhagia dubia	0.1	<1
*Lysimachia arvensis	0.1	<1
*Trifolium campestre	0.1	<1
*Crassula glomerata	<0.1	<1
*Dischisma capitatum	<0.1	<1
Crassula colorata	<0.1	<1
*Hypochaeris glabra	Flat	1
Hardenbergia comptoniana	Climber	<1

^{*} introduced species

50 387141 E 6434206 N

Vegetation: Eucalyptus marginata/Banksia attenuata Low Woodland over

Xanthorrhoea preissii Open Low Heath

Condition: Very Good

Soil Type: Orange-brown sand

Landform: Gentle slope down to the south

Date: 13.9.20

Recorder: Paul van der Moezel



Quadrat (10 x 10m)

SPECIES	HEIGHT (m)	COVER (%)
Eucalyptus marginata	8	5
Banksia attenuata	2.5	10
Xanthorrhoea preissii	1.1	20
Macrozamia riedlei	1	1
*Ehrharta calycina	8.0	10
*Gladiolus caryophyllaceus	0.7	<1
Leucopogon propinquus	0.4	1
Lyginia barbata	0.4	1
Sowerbaea laxiflora	0.4	<1
Burchardia congesta	0.4	<1
Lepidosperma pubisquameum	0.4	<1
Conostylis aculeata	0.3	5
Chamaescilla corymbosa	0.3	<1
Drosera stolonifera	0.3	<1
Dianella revoluta var. divaricata	0.3	<1
*Briza maxima	0.2	5
*Ursinia anthemoides	0.2	1
*Ehrharta longiflora	0.2	1

*Trifolium campestre	0.1	10
Caladenia flava	0.1	<1
*Lysimachia arvensis	0.1	<1
*Parentucellia viscosa	0.1	<1
*Petrorhagia dubia	<0.1	1
Crassula colorata	<0.1	<1
*Hypochaeris glabra	Flat	1
Drosera erythrorhiza	Flat	1
Hardenbergia comptoniana	Climber	2

^{*} introduced species

50 387150 E 6434420 N

Vegetation: Acacia rostellifera Tall Open Scrub over weeds

Condition: Good

Soil Type: Orange-brown sand with some surface limestone

Landform: Sloping down to the east

Date: 13.9.20

Recorder: Paul van der Moezel



SPECIES	HEIGHT (m)	COVER (%)
Acacia rostellifera	2	50
Xanthorrhoea preissii	1.6	1
Macrozamia riedlei	1.1	1
Banksia sessilis	0.6	<1
*Ehrharta calycina	0.5	10
Grevillea vestita	0.5	4
Dianella revoluta var. divaricata	0.4	1
Conostylis aculeata	0.3	5
*Sonchus oleraceus	0.3	<1
*Ehrharta longiflora	0.2	20
*Briza maxima	0.2	10
*Euphorbia terracina	0.2	<1
*Parentucellia viscosa	0.2	<1
*Euphorbia peplus	0.1	5
*Petrorhagia dubia	0.1	1
*Urospermum picroides	0.1	1
*Trifolium campestre	0.1	<1
*Cerastium glomeratum	0.1	<1
*Galium murale	<0.1	5

SPECIES	HEIGHT (m)	COVER (%)
*Lysimachia arvensis	<0.1	1
*Hypochaeris glabra	Flat	1
Thysanotus patersonii	Climber	<1
Hardenbergia comptoniana	Climber	<1

^{*} introduced species

50 387115 E 6434517 N

Vegetation: Eucalyptus marginata/Banksia attenuata Low Open Woodland over

Xanthorrhoea preissii Open Low Heath

Condition: Good

Soil Type: Orange-brown sand

Landform: Flat

Date: 13.9.20

Recorder: Paul van der Moezel



SPECIES	HEIGHT (m)	COVER (%)
Eucalyptus marginata	8	10
Banksia attenuata	4	2
Xanthorrhoea preissii	1.5	20
Macrozamia riedlei	1.1	1
Dianella revoluta var. divaricata	0.5	<1
*Ehrharta calycina	0.4	20
*Gladiolus caryophyllaceus	0.4	<1
Conostylis aculeata	0.3	1
Burchardia congesta	0.3	<1
*Lolium perenne	0.3	<1
Drosera stolonifera	0.2	<1
*Trifolium campestre	0.1	20
*Lysimachia arvensis	0.1	2
*Urospermum picroides	0.1	<1
Caladenia flava	0.1	<1
*Crassula glomerata	<0.1	<1
Crassula colorata	<0.1	<1
*Hypochaeris glabra	Flat	1

SPECIES	HEIGHT (m)	COVER (%)
Drosera erythrorhiza	Flat	<1
Hardenbergia comptoniana	Climber	<1

^{*} introduced species

50 386885 E 6434350 N

Vegetation: Eucalyptus gomphocephala Low Open Woodland over Banksia

attenuata Low Open Woodland over Grevillea vestita/Xanthorrhoea

preissii Open Low Heath

Condition: Good

Soil Type: Orange-brown sand

Landform: Flat

Date: 13.9.20

Recorder: Paul van der Moezel



SPECIES	HEIGHT (m)	COVER (%)
Eucalyptus gomphocephala	8	10
Banksia attenuata	1.9	2
Xanthorrhoea preissii	1.8	5
Grevillea vestita	1.5	20
Macrozamia riedlei	1	1
*Ehrharta calycina	0.8	10
*Gladiolus caryophyllaceus	0.8	<1
Hibbertia subvaginata	0.6	<1
Acacia pulchella	0.4	<1
Burchardia congesta	0.4	<1
*Ehrharta longiflora	0.3	10
Conostylis aculeata	0.3	10
*Lagurus ovatus	0.3	5
*Trachyandra divaricata	0.3	2
*Briza maxima	0.2	20
*Urospermum picroides	0.2	1

SPECIES	HEIGHT (m)	COVER (%)
*Cerastium glomeratum	0.2	1
*Euphorbia terracina	0.2	<1
*Trifolium campestre	0.1	10
*Melilotus indicus	0.1	5
*Lysimachia arvensis	0.1	1
Kennedia prostrata	0.1	<1
*Euphorbia peplus	0.1	<1
*Romulea rosea	0.1	<1
*Hypochaeris glabra	Flat	2
*Asparagus asparagoides	Climber	<1
Hardenbergia comptoniana	Climber	<1

^{*} introduced species