

City of Bunbury

Forrest Park Ecological Survey

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Executive Summary

Natural Area Consulting Management Services (Natural Area) was commissioned by the City of Bunbury (the City) to undertake ecological surveys within Forrest Park, Bunbury. Ecological surveys included a basic flora and fauna survey, as well as targeted searches for Western Ringtail Possum and black cockatoos. Findings from this survey will inform relevant stakeholders and environmental approvals associated with the proposed upgrading and future development of facilities at Forrest Park.

The surveys undertaken aimed to determine:

- the extent and boundaries of vegetation type and condition
- flora species (native and introduced) present
- the location of declared rare or priority flora and or ecological communities
- the location of individual tree species and the mapping of habitat trees (DBH >500 mm)
- fauna species (native and introduced) present
- evidence of fauna presence through indicators such as tracks, scats, dens, warrens, and calls
- targeted survey for Western Ringtail Possums and Black Cockatoos.

The basic flora and vegetation survey confirmed:

- a total of 23 flora species from seven families
- a total of seven native and 16 introduced flora species
- no threatened or priority species were identified
- no threatened or priority ecological communities were present within the survey area
- two vegetation types, cleared parkland of maintained turf, including sporting oval and associated sporting buildings and Parkland of Agonis flexuosa (Peppermint) and Eucalyptus gomphocephala (Tuart) over maintained grassed areas
- vegetation condition across the entire site is Completely Degraded with no native middle or understorey present.

The fauna survey confirmed:

- a total of 12 vertebrate fauna species, eight bird species, one mammal, one reptile, and two invertebrates
- the presence of wood boring larvae, Ghost Moth (Hepialidae) were present within four *Agonis* flexuosa trees and adversely affecting their health
- one conservation significant species, the threatened Forest Red-tailed Black Cockatoo (3 individuals)
 recorded within a Tuart tree
- no evidence of nesting or foraging by black cockatoos was observed during the survey
- a total of 138 potential habitat trees which meet the size requirements of a Diameter at Breast Height (DBH) of >500 mm were recorded. Of these, 39 are preferred habitat tree species for threatened black cockatoos (Eucalyptus gomphocephala, Eucalyptus marginata etc.)
- of the habitat trees recorded, two exhibited hollows which have the potential to provide nesting habitat for black cockatoos, with eight trees containing hollows which are not a sufficient size for black cockatoos
- the survey area contains approximately 2.45 ha of *Agonis flexuosa* habitat for the Western Ringtail Possum, with the habitat comprising of trees over managed turf areas

• no individuals of the Western Ringtail Possum, scats or dreys were observed during the survey, although one tree shown signs of scratch marks from the presence of possums.

The proposed development is in the planning phase, with the clearing envelope not yet determined. As such, it is assumed that the entire Forrest Park will be cleared. The potential clearing of Forrest Park has been assessed against the ten clearing principles and is suggested to be at variance with two of these principles. Due to the presence of habitat for the Western Ringtail Possum and threatened black cockatoos it is recommended to discuss any proposed actions with the Department of Agriculture, Water and Environment (DAWE) as referral may be required.

Natural Area has the following additional recommendations to aid in reducing any potential environmental impacts to the site:

- Apply local protection methods to important individual trees including the retention of mature habitat trees (DBH >500 mm) where possible, particularly those with hollows which provide nesting for all bird species.
- Native habitat trees (*Eucalyptus gomphocephala* and *Agonis flexuosa*) including both alive and dead trees, with DBH >500mm and hollows of any size, should be prioritised for retention.
- Habitat trees (DBH >500mm) should be retained where possible. If they are proposed to be removed, these should be replaced with native species representative of the area, including Eucalyptus gomphocephala and Agonis flexuosa.
- If clearing is to occur, prioritise the retention of Western Ringtail Possum habitat (Figure 8), with clearing of non-native trees preferable with the development of areas which contain no native species prioritised to mitigate impact to threaten fauna habitat for both the Western Ringtail Possum and black cockatoos.
- If clearing of trees is to occur it is recommended to be conducted outside of peak breeding season (spring) when avian species may utilise trees as potential nesting sites.

Contents

Execut	tive Sur	nmary	3
Conte	nts		5
1.0	Introd	luction	7
1.1	Loc	ation	7
1.2	Sco	pe	7
1.3	Obj	ective	7
2.0	Site C	haracteristics	9
2.1	Reg	gional Context	9
2.2	Clin	nate	9
2.3	Top	ography and Soils	9
2.4	Veg	getation Complex	11
2.5	Ter	ure and Current Land Use	11
2.6	Fau	na Habitat	11
3.0	Meth	odology	12
3.1	Des	ktop and Literature Review	12
3.2	On-	ground Flora Methodology	12
3	.2.1	Vegetation Type	13
3	.2.2	Vegetation Condition	13
3.3	On-	ground Fauna Methodology	14
3.4	Lim	itations	15
4.0	Result	ts	16
4.1	Flo	ra Desktop Survey	16
4.2	Fau	na Desktop Survey	18
4.3	Flo	ra On-ground Survey	20
4	.3.1	Flora Species	20
4	.3.2	Vegetation Types	21
4	.3.3	Vegetation Condition	21
4	.3.4	Threatened and Priority Ecological Communities	21
4.4	Fau	na On-ground Survey	23
4.5	Fau	na Habitat	25
4	.5.1	Western Ringtail Possum	25
4	.5.2	Black Cockatoo	27

5.0	Recon	nmendations and Conclusion	31
5.1	Flor	a and Vegetation	31
5.2	Sign	nificant Flora	31
5.3	Thre	eatened and Priority Ecological Communities	31
5.4	Fau	na	31
5.5	Sign	nificant Fauna	31
5.	5.1	Black Cockatoo Habitat	
5.	5.2	Possum Habitat	35
5.6	Asse	essment Against Clearing Principles	37
5.7		ommendations	
6.0	Refere	ences	41
Appen	dix 1:	NatureMap	43
Appen	dix 2:	PMST	59
Appen	dix 3:	Conservation Codes	78
Appen	dix 4:	Flora Species List	80
Appen	dix 5:	Habitat Tree Locations	81

1.0 Introduction

Natural Area Consulting Management Services (Natural Area) was commissioned by the City of Bunbury (the City) to undertake an ecological survey at Forrest Park, Bunbury. This included a basic flora, vegetation, and fauna survey, including a targeted survey for threatened Western Ringtail Possum (*Pseudocheirus occidentalis*) and black cockatoos. Survey outcomes will inform the relevant stakeholders and environmental approvals associated with the proposed upgrade and development of facilities at Forrest Park.

1.1 Location

Forrest Park is located in the City of Bunbury, within the suburb of Carey Park. It is bounded by Forrest Avenue to the north, Kelly Street to the east and Blair Street to the west (Figure 1). It covers an area of approximately 8.7 ha consisting mostly of cleared parkland and sporting ovals with both remnant and planted trees. The survey area occurs outside of an environmentally sensitive area (Department of Water, Environment and Regulation 2021).

1.2 Scope

Natural Area's scope of works include:

- desktop assessment to determine environmental values and likelihood of conservation significant flora, fauna or habitat occurring within the survey area
- a basic flora survey to identify species present, existing vegetation types and conditions, occurrence
 of conservation significant flora and/or Threatened and Priority Ecological Communities (TECs, PECs)
- a basic fauna survey to identify any potential significant fauna habitat and record any opportunistic observations or evidence of presence of fauna within the survey area
- targeted surveys for the Western Ringtail Possum and Black Cockatoos
- provide all spatial/mapping data collected
- report outcomes of survey.

1.3 Objective

The main objective of the ecological surveys at Forrest Park was to collect sufficient data to accurately inform stakeholders and relevant environmental approvals, including but not limited to a Native Vegetation Clearing Permit under the *Environmental Protection Act 1986*.



2.0 Site Characteristics

Site characteristics play an important role in determining the flora and fauna assemblages of a specific area. Desktop research from online databases and literature reviews help to acquire contextual information such as climate, topography, and regional context of the survey site. The various site characteristics of Forrest Park are outlined in this section.

2.1 Regional Context

According to the Interim Biographical Regionalisation of Australia (IBRA) descriptions, Bunbury is located within the Swan Coastal Plain region. The Swan Coastal Plain comprises two major divisions, the Swan Coastal Plain 1 -Dandaragan Plateau and Swan Coastal Plain 2 -Perth Coastal Plain (Mitchell, Williams and Desmond, 2002), with the survey area situated in the latter. This area is described as a low-lying coastal plain with sands of colluvial and aeolian origin, as well as alluvial river flats and coastal limestone. The region is dominated by Banksia and/or Jarrah Woodland over sandy soils associated with the dune systems, with Paperbark (Melaleuca) in swampy/damp areas and Jarrah Woodland to the east where the Swan Coastal Plain rises (Mitchell, Williams & Desmond, 2002).

2.2 Climate

The climate experienced in the area is Mediterranean, with dry, hot summers and cool, wet winters. According to the Bureau of Meteorology (2021); Bunbury WA (Site Number 009965), the region has an average:

- rainfall of 718.4 mm annually, with rain falling predominantly between May and August
- maximum temperatures ranging from 17.3 °C in winter to 30 °C in summer, with a maximum recorded temperature of 40.8 °C
- minimum temperatures ranging from 7.1 °C in winter to 15.9 °C in summer, with a minimum recorded temperature of -3 °C
- predominant wind directions include morning easterlies and westerly sea breezes in the afternoons, with an average wind speed of 17.9 km/h and gusts of more than 100 km/h.

2.3 Topography and Soils

The site is relatively flat at 2 m Australian Height Datum (AHD), with a gentle rise to 4 m AHD just outside the southern and eastern boundaries of the survey area. One soil type is present (Spearwood S4a Phase); this is described as a flat to gently undulating sand plain with deep, pale and sometimes bleached sands with yellow-brown subsoils (Department of Primary Industries and Regional Development, 2021b) (Figure 2).



2.4 Vegetation Complex

One vegetation complex was identified within the survey area from the desktop review, namely the Vasse Complex. Described by Heddle et al (1980), the Vasse Complex is a mixture of closed-scrub of *Melaleuca* spp. fringing open-forests and woodlands of Tuart, Jarrah and Marri. Other species included *Melaleuca* rhaphiophylla, M. preissiana, Acacia saligna and Casuarina obesa. Halosarcia sp. (syn. Arthrocnemum) and Salicornia spp. along with other samphire species grow extensively in areas subject to inundation, which includes the Peel Inlet.

2.5 Tenure and Current Land Use

Forest Park is currently zoned as a Public Open Space according to the City's Local Planning Scheme No. 8, currently serving as a recreational space for public use as well as hosting various sporting events on its grounds (City of Bunbury, 2021). Primarily being a multi-use sporting space for soccer and cricket, it contains supporting infrastructure such carparks and change rooms.

2.6 Fauna Habitat

There is potential for the three threatened black cockatoos and their habitat to occur on site including, the Carnaby's Cockatoo (*Calyptorhynchus latirostris*) listed as endangered under the *Environment Protection and Biodiversity Conservation Act (EPBC) Act 1999* (Cwlth), the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksia naso*) and the Baudin's Black Cockatoo (*Calyptorhynchus baudinii*) listed as vulnerable; all are listed as threatened under the *Biodiversity Conservation Act 2016* (WA). Western Ringtail Possums (*Pseudocheirus occidentalis*), which also have the potential to occur on site, are listed as threatened under the *Biodiversity Conservation Act 2016* (WA) and as Critically Endangered under the *EPBC Act 1999* (Cwlth).

According to NationalMap, the Forrest Park survey area is located within a Carnaby's Cockatoo Unconfirmed Breeding Area within the Swan Coastal Plain and Jarrah Forrest IBRA Region (DBCA 2021d). Within close proximity of the site, NationalMap identified the following:

- approximately 1.7 km to the west is a Black Cockatoo Roosting Site Buffered (DBCA 2021e)
- approximately 235 m north is a Carnaby's Cockatoo Area requiring investigating as feeding habitat in the Swan Coastal Plain (SCP) IBRA Region (DBCA 2021f)
- approximately 280 m north is an area rated as high for Western Ringtail Possum habitat suitability (DBCA 2021g).

3.0 Methodology

3.1 Desktop and Literature Review

Desktop surveys were undertaken to determine:

- likely native and non-native flora and fauna species present
- current extent of native vegetation
- general floristic community types
- likely presence of threatened or priority flora and fauna species
- likely presence of any threatened or priority ecological communities.

The following databases were accessed to obtain relevant information:

- NatureMap (Department of Biodiversity, Conservation and Attractions, 2021b) (Appendix 1)
- Protected Matters Search Tool (Department of Agriculture, Water and the Environment, 2021),
 (Appendix 2)
- Threatened Flora and Fauna Database Search (Department of Biodiversity Conservation and Attractions. 2021c)
- FloraBase (Department of Biodiversity, Conservation and Attractions, 2021a).

3.2 On-ground Flora Methodology

Natural Area personnel, Sharon Hynes surveyed the site on 12 March 2021, with key GPS data recorded using Mappt software on a handheld Samsung tablet. Field activities included:

- walking the site and identifying flora species present, including targeting declared rare and priority species indicated as potentially present during desktop assessments
- assessing vegetation condition across the site
- using a GPS to map locations of significant flora species and boundaries of differing vegetation types and condition
- determining the presence of any further threatened or priority listed flora species and/or ecological communities listed under the *Biodiversity and Conservation Act 2016* (WA) and/or the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth).

The basic flora and vegetation survey was carried out in accordance with *EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority, 2016). Samples were collected and any unfamiliar species were recorded and photographed to enable later identification.

3.2.1 Vegetation Type

The vegetation type was determined using the structural classes described in *Bush Forever Volume 2* (Government of Western Australia, 2000), and records dominant over, middle and understorey species (Table 1).

Table 1: Vegetation structural classes

Life Form/Height	Canopy Percentage Cover					
Class	100 – 70%	70 – 30%	30 – 10%	10 – 2 %		
Trees over 30 m	Tall closed forest	Tall open forest	Tall woodland	Tall open woodland		
Trees 10 – 30 m	Closed forest	Open forest	Woodland	Open woodland		
Trees under 10 m	Low closed forest	Low open forest	Low woodland	Low open woodland		
Tree Mallee	Closed tree mallee	Tree mallee	Open tree mallee	Very open tree mallee		
Shrub Mallee	Closed shrub mallee	Shrub mallee	Open shrub mallee	Very open shrub mallee		
Shrubs over 2 m	Closed tall scrub	Tall open scrub	Tall shrubland	Tall open shrubland		
Shrubs 1 – 2 m	Closed heath	Open heath	Shrubland	Open shrubland		
Shrubs under 1 m	Closed low heath	Open low heath	Low shrubland	Low open shrubland		
Grasses	Closed grassland	Grassland	Open grassland	Very open grassland		
Herbs	Closed herbland	Herbland	Open herbland	Very open herbland		
Sedges	Closed sedgeland	Sedgeland	Open sedgeland	Very open sedgeland		

(Source: Government of Western Australia, 2000)

3.2.2 Vegetation Condition

Vegetation condition was assessed using the rating scale attributed to Keighery in *Bush Forever Volume 2* (Table 2) (Government of Western Australia, 2000).

Table 2: Vegetation condition ratings

Category		Description			
1	Pristine	Pristine or nearly so, no obvious signs of disturbance.			
2	Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are			
		non-aggressive species.			
3	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.			
4	Good	Vegetation structure significantly altered by very obvious signs of multiple			
		disturbances. Retains basic vegetation structure or ability to regenerate it. For			
		example, disturbance to vegetation structure caused by very frequent fires, the			

Category		Description				
		presence of some very aggressive weeds at high density, partial clearing, dieback				
		and grazing.				
5	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.				
6	Completely	The structure of the vegetation is no longer intact, and the area is completely or				
	Degraded	almost completely without native species. These areas are often described as				
		'parkland cleared' with the flora comprising weed or crop species with isolated				
		native trees or shrubs.				

(Source: Government of Western Australia, 2000)

3.3 On-ground Fauna Methodology

A basic fauna survey was undertaken in conjunction with other survey activities. The on-ground fauna survey was completed in accordance with a Basic Fauna Survey as outlined in the *Environmental Protection*Authority (EPA) Technical Guidance, Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA, 2020). The fauna survey included recording opportunistic sightings of fauna species while traversing the survey area along with recording evidence of their presence in the form of:

- scats
- tracks
- diggings
- burrows and dens
- calls.

Targeted surveys were conducted for the presence of suitable habitat for the Western Ringtail Possum (*Pseudocheirus occidentalis*) and the three threatened black cockatoos, with methodology including the following:

- The target survey for Western Ringtail Possums recorded:
 - locations of suitable habitat trees (Agonis flexuosa)
 - presence of dreys and/or scats
 - other presence indicators.
- The targeted Black Cockatoo habitat survey recorded:
 - locations of habitat trees with a diameter at breast height (DBH) of > 500 mm which have the potential to provide habitat in the form of foraging, roosting or hollows for threatened black cockatoos
 - recording of the species of the habitat trees if they contain hollows
 - recording direct sighting of birds within the survey area including the presence of foraging in the form of chewed nuts
 - a photograph of each habitat tree and its canopy.

3.4 Limitations

Several limitations associated with both desktop and on-ground flora and fauna surveys exist, including:

- survey was conducted outside of the optimal time of year for flora surveys in the south-west region,
 with those species present at the time of the survey recorded
- database searches provide an indication of what flora species may be present within the site, with on ground surveys required to confirm those present
- information on flora species provided on some databases include out-of-date species names, meaning that names need to be checked for currency
- plant species flower at different times and are not always able to be identified
- on-ground surveys indicate species present at the time of the assessment, with species flowering at different times not always able to be identified
- not all species flower every year
- the differing databases are reliant on information submitted via various reporting mechanisms, so all records of a particular species or ecological community within a specified area may not be complete
- some fauna species are highly mobile and may utilise the site as part of their range but may not be present within the site at the time of the survey
- certain fauna species are shy or difficult to observe and may not be observed even though they are present on site.

Despite these limitations, Natural Area estimates that 80 – 90% of flora species within the survey area were identified.

4.0 Results

4.1 Flora Desktop Survey

A review of NatureMap identified a total of 532 flora species which could potentially occur within a 5km radius of the survey site including:

- 334 dicotyledons
- two gymnosperms
- 195 monocots
- one fern.

4.1.1 Significant Flora

A review of NatureMap indicated 15 conservation significant flora species listed under the *Biodiversity Conservation Act 2016* (WA), potentially occurring within 5 km of the survey site (Department of Biodiversity, Conservation and Attractions, 2021a). A review of the Protected Matters Search Tool (PMST) indicated that 14 significant flora species listed under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act*) (Cwlth) have the potential to occur within a 5 km radius of the survey site (Department of the Environment and Energy, 2021). A review of the DBCA's threatened and priority flora database indicated 17 conservation significant species have been previously recorded within a 5 km buffer of the survey site (DBCA 2021c).

Of the 29 conservation significant species potentially found in the area (Table 3), it is highly unlikely that these species are present within the site, due to the site being a heavily modified ecosystem with high anthropogenic impacts (i.e., regular mowing and turf management) throughout. Conservation code descriptions are provided in Appendix 3.

Table 3: Threatened and Priority flora species listed by NatureMap and PMST

Species Name	Cons. Code	NatureMap	PMST	DBCA
Acacia flagelliformis	P4	Х		Х
Acacia semitrullata	P4	Х		
Andersonia gracilis	EN		Х	
Aponogeton hexatepalus	P4	Х		Х
Austrostipa bronwenae	T/EN	Х	Х	Х
Austrostipa jacobsiana	T/CR	Х	Х	Х
Banksia nivea subsp. uliginosa	EN		Х	
Caladenia huegelii	EN		Х	
Caladenia speciosa	P4	Х		Х
Carex tereticaulis	Р3			Х
Diuris drummondii	T/VU	Х	Х	Х
Diuris micrantha	VU		Х	

Species Name	Cons. Code	NatureMap	PMST	DBCA
Diuris purdiei	EN		Х	
Drakaea elastica	EN		Х	
Drakaea micrantha	VU		Х	
Eleocharis keigheryi	VU		Х	
Eucalyptus rudis subsp. cratyantha	P4	Х		Х
Lambertia echinata subsp. occidentalis	EN		Х	
Lasiopetalum membranaceum	P3	Х		Х
Microtis quadrata	P4			Х
Platysace ramosissima	Р3	Х		Х
Puccinellia vassica	P1	Х		Х
Pultenaea skinneri	P4	Х		Х
Schoenus benthamii	P3	Х		Х
Stylidium longitubum	P4			Х
Synaphea sp. Fairbridge Farm	CR		Х	
Synaphea sp. Serpentine	CR		Х	
Thelymitra variegata	P2	Х		Х
Verticordia attenuata	Р3	Х		Х

4.1.2 Threatened Ecological Communities

A review of the PMST report indicated that there are three listed Threatened Ecological Communities that could potentially occur within 5 km of the site (Table 4). As Forrest Park is parkland cleared, the TEC's identified through the desktop review are considered unlikely to occur due to the degraded nature of the site and lack of native middle and understorey.

 Table 4: Potential Threatened Ecological Communities within the site

Name	Status	Presence
Banksia Woodlands of the Swan Coastal Plain		Community unlikely to occur
ecological community	Endangered	within area due to lack on
ecological community		Banksia species present
		Community unlikely to occur
Clay Pans of the Swan Coastal Plain	Critically Endangered	within area due to
		unsuitable habitat
Tuart (Eucalyptus gomphocephala) Woodlands and		Community has the
Forests of the Swan Coastal Plain ecological	Critically Endangered	possibility to occur within
C	Critically Endangered	area due to presence of
community		Tuarts

4.2 Fauna Desktop Survey

A desktop survey of online databases indicated the potential for 50 conservation significant fauna species to occur within 5 km of the survey area (Table 5). NatureMap indicated 41 conservation significant species listed under the *Biodiversity Conservation Act 2016* (WA) as potentially occurring within a 5 km radius of Forrest Park (Department of Biodiversity, Conservation and Attractions, 2021b) (Appendix 1). The Protected Matters Search Tool (PMST) (Department of Agriculture, Water and the Environment, 2021) indicated 15 threatened species listed under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* (Cwlth) as potentially occurring within a 5 km radius of the site (Appendix 2). A review of the DBCA's threatened and priority fauna database indicated 27 conservation significant species have been previously recorded within a 5 km buffer of the survey site.

Of the 50 conservation significant fauna species potentially found in the area, it is considered that the habitat within Forrest Park may be suitable for five species highlighted green, (Table 5).

Table 5: Threatened and Priority flora species listed by NatureMap, PMST, and DBCA

<u> </u>	<u> </u>			
Species Name	Cons. Code	NatureMap	PMST	DBCA
Bird				
Ardenna carneipes	Т	Х		
Arenaria interpres	IA	Х		
Botaurus poiciloptilus	EN		Х	
Calidris acuminata	IA	Х		Х
Calidris alba	IA	Х		
Calidris canutus	EN/IA	Χ	Х	Х
Calidris ferruginea	CR	Х	Х	Х
Calidris ruficollis	IA	Х		Х
Calidris tenuirostris	Т	Х		Х
Calyptorhynchus banksii naso	T/VU	Х	Х	Х
Calyptorhynchus baudinii	EN	Х	Х	Х
Calyptorhynchus latirostris	EN	Х	Х	Х
Calyptorhynchus sp.	Т	Х		Х
Charadrius leschenaultii	T	Х		Х
Falco hypoleucos	VU		X	
Falco peregrinus	S	Χ		Х
Hydroprogne caspia	IA	Х		
Ixobrychus flavicollis australis	P2			Χ
Limosa lapponica menzbieri	CR	Х	Х	Х

Species Name	Cons. Code	NatureMap	PMST	DBCA
Limosa limosa	IA	Х		Х
Numenius madagascariensis	CR	Х	Х	Х
Numenius phaeopus	IA	Х		
Oceanites oceanicus	IA	Х		
Onychoprion anaethetus	IA	Х		
Oxyura australis	P4	Х		Х
Pachyptila turtur subantarctica	VU		Х	
Pandion cristatus	IA	Х		
Plegadis falcinellus	IA	Х		Х
Pluvialis fulva	IA	Х		
Pluvialis squatarola	IA	Х		
Psophodes nigrogularis nigrogularis	Т	Х		
Rostratula australis	EN		Х	
Sterna hirundo	IA	Х		Х
Sternula nereis nereis	VU		Х	
Thalasseus bergii	IA	Х		Х
Thinornis rubricollis	P4	Х		
Tringa brevipes	P4	Х		
Tringa glareola	IA	Х		
Tringa nebularia	IA	Х		Х
Tringa stagnatilis	IA	Х		Х
Xenus cinereus	IA	Х		
Invertebrate				
ldiosoma sigillatum	Р3	Х		Х
Mammal				
Dasyurus geoffroii	VU		Х	
Hydromys chrysogaster	P4	Х		
Isoodon fusciventer	P4	Х		Х
Notamacropus irma	P4	Х		Х
Phascogale tapoatafa wambenger	S	Х		Х
Pseudocheirus occidentalis	CR	Х	X	Х
Setonix brachyurus	VU		Х	

Species Name	Cons. Code	NatureMap	PMST	DBCA
Reptile				
Ctenotus ora	Р3			Х

4.3 Flora On-ground Survey

4.3.1 Flora Species

As the survey area consists of mainly cleared parkland, including sporting ovals, cricket nets and associated buildings, native flora diversity is low with majority of the site consisting of maintained turf with remnant and planted trees. The survey confirmed the presence of 23 flora species from nine families, of which seven are native and 16 introduced species (weeds). No threatened or priority species were recorded during the 2021 survey. Examples of the species observed are shown in Figure 3 and the complete species list is provided in Appendix 4.

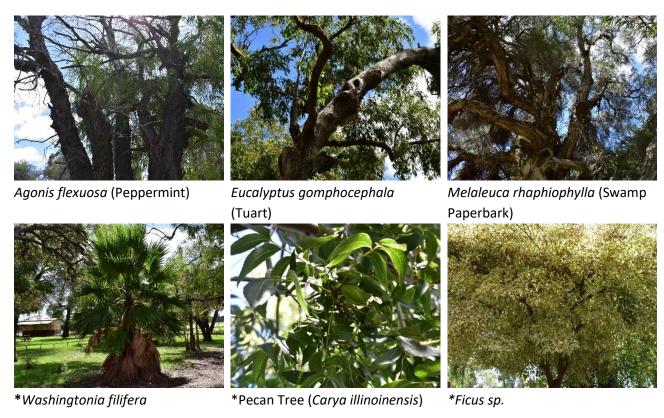


Figure 3: Species observed during the 2021 survey. *Denotes introduced species

4.3.2 Vegetation Types

Two vegetation types were recorded within the survey area of Forrest Park, these include:

- Cleared parkland of maintained turf, including sporting oval and associated sporting buildings,
- Parkland of Agonis flexuosa (Peppermint) and Eucalyptus gomphocephala (Tuart) over maintained grassed areas (Figures 4 and 5).



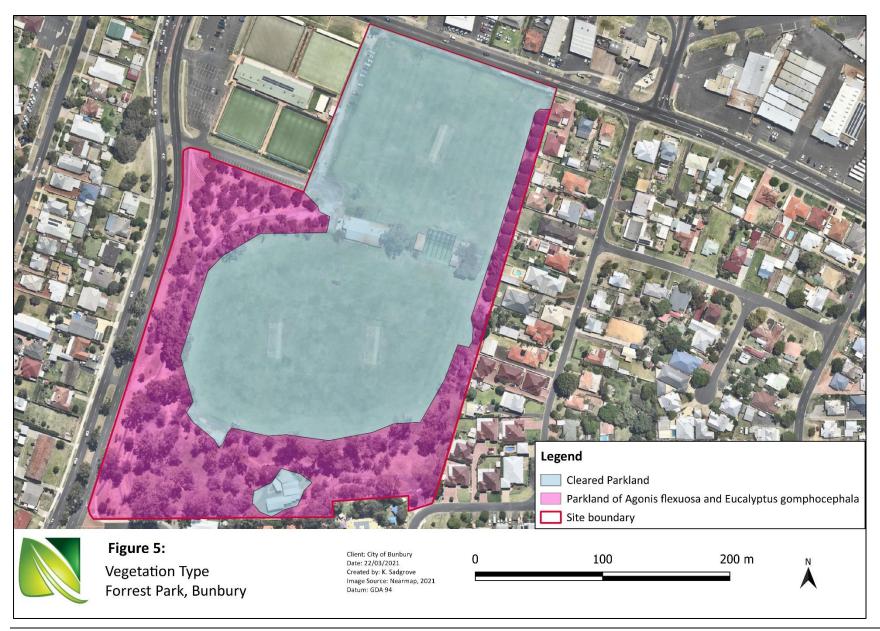
Figure 4: Example of the Parkland of Agonis flexuosa and Tuart within Forrest Park.

4.3.3 Vegetation Condition

Vegetation condition across the entire site was classified as Completely Degraded due to the lack of native understorey species with only maintained lawn present under the existing trees. No native middle or understorey species were present within the site with the exception of one shrub of *Rhagodia baccata* (Berry Saltbush) which was growing off the ground and within the trunk of a Tuart tree.

4.3.4 Threatened and Priority Ecological Communities

Due to the Completely Degraded condition of the survey site and the lack of a native middle and understorey the area does not form part of a Threatened Ecological Community (TEC) or Priority Ecological Community (PEC). The only potential TEC indicated by the desktop searches that could occur, based on remnant native species present would be the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community. However, due to the Completely Degraded condition of the site and the lack of middle and understory species the area does not meet the TEC requirements.



4.4 Fauna On-ground Survey

A total of 12 vertebrate fauna species were recorded including eight bird species, one mammal, one reptile, and two invertebrates. One conservation significant species, comprising of three individuals of the threatened Forest Red-tailed Black Cockatoo were recorded within a Tuart on the western boundary of the survey area. Also present within several trees were signs of wood boring larvae, which were identified as Ghost Moth larvae (Hepialidae) (Department of Primary Industries and Regional Development, 2021a). Four *Agonis flexuosa* trees showed evidence of these larvae (Figure 6), all of which were observed to be in poor health. No other species of tree showed evidence of being affected. Examples of the fauna observed during the survey are shown in Figure 7, with a complete fauna list provided in Table 6.

Table 6: Fauna observations within the Forrest Park survey area. *Denotes introduced species.

Family	Scientific Name	Common Name
Birds		
Meliphagidae	Anthochaera carunculata	Red Wattlebird
Cacatuidae	Cacatua roseicapilla	Galah
Cacatuidae	Calyptorhynchus banksii	Forest Red-tailed Black Cockatoo
Cracticidae	Cracticus tibicen	Australian Magpie
Monarchidae	Grallina cyanoleuca	Magpie-Lark
Columbidae	Phaps chalcoptera	Common Bronzewing
Psittacidae	Platycercus zonarius	Twenty-eight Parrot
Rhipiduridae	Rhipidura leucophrys	Willie Wagtail
Mammal		
Canidae	Canis familiaris familiaris	*Domestic Dog
Reptile		
Scincidae	Cryptoblepharus buchananii	Snake-eyed Skink
Invertebrate		
Apidae	Anthochaera carunculata	*European Bee
Hepialidae		Ghost Moth larvae



Evidence of the presence Ghost Moth larvae

Figure 6: Factors affecting tree health within Forrest Park



Figure 7: Examples of the fauna species observed during the 2021 survey

banksia)

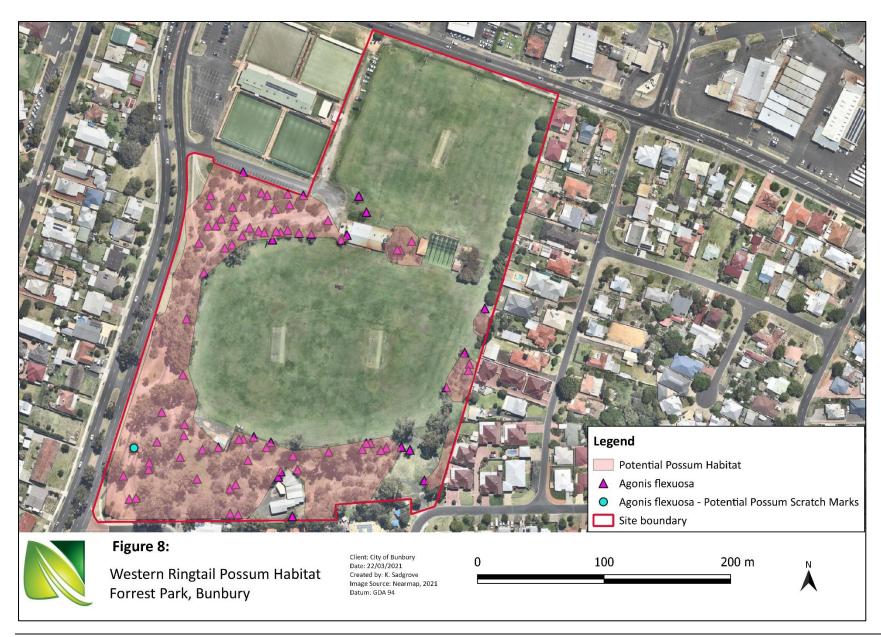
4.5 Fauna Habitat

Forrest Park provides habitat for both the Western Ringtail Possum and threatened black cockatoos which is discussed in the following sections.

4.5.1 Western Ringtail Possum

The Western Ringtail Possum is an arboreal mammal that is endemic to the south-west of Western Australia. Populations are often associated with *Agonis flexuosa* Woodlands, with this flora species being a known food resource (Department of Parks and Wildlife, 2014). Several *Agonis flexuosa* were recorded within the site, although no direct observation of the Western Ringtail Possum was recorded during the 2021 survey.

One Agonis flexuosa showed signs of scratch marks on the truck indicating potential presence of possums within the site (Figure 8). The survey area contains approximately 2.45 ha of Agonis flexuosa habitat with trees at different stages of maturity, with the habitat comprising of trees over managed turf areas (Figure 8). The habitat is mostly continuous around the site although there are several sections where Agonis flexuosa is absent, with these areas dominated by introduced tree species. Due to the highly disturbed and modified nature of the parkland, it is more likely that Western Ringtail Possums may utilise the site transiently for foraging or movement rather than having a resident population.



4.5.2 Black Cockatoo

A total of 138 potential habitat trees (DBH >500 mm) were observed within the site (Figure 10). Of which 39 trees are suitable species which have the potential to provide habitat in the form of roosting, foraging, and nesting for black cockatoos. While the other 99 trees onsite meet the size requirements for a cockatoo habitat tree, these species are not preferred habitat trees for black cockatoos. Preferred tree species include Tuart, Jarrah and Marri and introduced Eucalypts, with black cockatoos unlikely to use other introduced species or Peppermints for roosting or nesting.

During the 2021 survey, three Forest Red-tailed Black Cockatoos were observed within a Tuart tree. However, no signs of nesting or foraging were observed. Of the habitat trees recorded only two had hollows which have the potential to provide nesting habitat for black cockatoos due to the size and the direction of the hole opening, while eight trees contained hollows which are not a sufficient size for cockatoos but provide habitat for other species (Table 7). These smaller hollows can have the potential to become suitable for black cockatoos in the future. It was noted during the survey that most of the Jarrah (*Eucalyptus marginata*) present were in poor health with the crown of the trees reduced in size. Example tree hollows are shown in Figure 9 and the recorded habitat trees are summarised in Table 7. Habitat tree locations are shown in Figures 10, with trees with hollows shown in Figure 11 (Appendix 5).



Small hollows, not considered suitable for Cockatoos



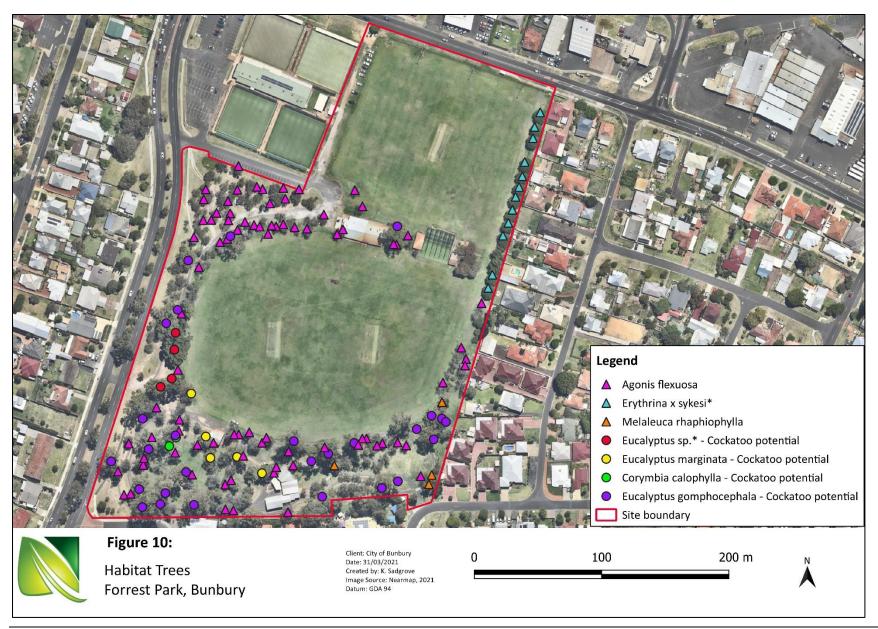
Black Cockatoo potential hollows (close-up photo), although one of the two hollows had Galah feathers around the entrance indicating potential use by Galahs

Figure 9: Examples of hollows present within the trees at Forrest Park.

Table 7: Habitat trees within Forrest Park, *denotes introduced species

Habitat Tree Species	Number of trees habitat trees (DBH >500mm)	Hollows – Cockatoo Potential (no. of trees)	Small Hollows (no. of trees)
Agonis flexuosa (Peppermint)	83	-	-
Corymbia calophylla (Marri)	2	-	-
Erythrina x sykesii*	12	-	-
Eucalyptus gomphocephala (Tuart)	28	2	8
Eucalyptus marginata (Jarrah)	5	-	-
Eucalyptus sp. *#	4	-	-
Melaleuca rhaphiophylla (Swamp Paperbark)	4	-	-
Total	138	2	8

[#]Eucalupt species which are not native to the South West region





5.0 Recommendations and Conclusion

5.1 Flora and Vegetation

Natural Area's 2021 survey recorded 23 flora species from seven families, of which 16 (69.6%) were introduced and seven (30.4%) were native species. Two vegetation types were determined within the survey site, Cleared areas of maintained turf and Parkland of *Agonis flexuosa* and *Eucalyptus gomphocephala*. Vegetation condition was classified as Completely Degraded due to the lack of native middle and understorey species and the maintained lawn present under the existing trees, which are a combination of introduced and native species.

5.2 Significant Flora

No significant flora was recorded during the Autumn 2021 survey. Due to the survey taking place outside of the optimal time of year (spring) the potential presence of some conservation significant flora cannot be ruled out (e.g., orchid species). Although, the presence of significant flora is considered highly unlikely, due to the degraded nature of the site and the site consisting of managed turf areas.

5.3 Threatened and Priority Ecological Communities

No priority or threatened ecological communities (TEC) were recorded during the 2021 survey due to the completely degraded nature of the site and the lack of vegetation strata layers to meet the requirements of potential TEC's identified through desktop searches.

5.4 Fauna

The 2021 survey confirmed the presence of 12 vertebrate fauna species including eight bird species, one mammal, one reptile, and two invertebrates. One conservation significant species, the threatened Forest Red-tailed Black Cockatoo (three individuals) was recorded within a Tuart on the western boundary of the survey area. Ghost Moth larvae (Hepialidae) were also identified within the survey area which were observed to be having a negative impact on the health of affected trees, which was noted to only occur on *Agonis flexuosa*. As Forrest Park is utilised for various recreational activities and sporting events, with roads and urban development surrounding the site and a highly modified vegetation structure and composition, shy and cryptic fauna species would most likely have emigrated from the area due to noise and light disturbance and the close proximity to urban activities.

5.5 Significant Fauna

Potential habitat for threatened Black Cockatoos and Western Ringtail Possums is present within Forrest Park and is discussed in sections 5.5.1 and 5.5.2, respectively.

5.5.1 Black Cockatoo Habitat

A total of 138 habitat trees (DBH > 500mm) were recorded within Forrest Park, of which 39 trees are suitable/preferred habitat tree species, which have the potential to provide habitat in the form of roosting, foraging, and nesting for black cockatoos. While the other 99 trees onsite meet the size requirements for a cockatoo habitat tree, these species are not preferred habitat trees for black cockatoos and are comprised of introduced species or Peppermints.

Of the 39 black cockatoo habitat trees recorded only two had hollows with the potential to provide nesting habitat for black cockatoos due to the size and the direction of the hole opening. Eight trees contained smaller hollows that are not a sufficient size for cockatoos but provide habitat for other species, these hollows do have the potential to become suitable for black cockatoos in the future. No observations of nesting or foraging were observed during the 2021 survey. An assessment of the site characteristics have been made against the black cockatoo referral guideline and are described in Table 8.

As the total proposed clearing area is unknown, the entire site has been assessed for impacts. As there is more than 1 ha of foraging habitat for black cockatoos, and 39 roosting trees with two containing hollows of suitable size for black cockatoos, if this entire area is to be cleared a referral under the EPBC Act is recommended. To mitigate impacts to cockatoo habitat the best area to develop would be to the west of the current club house/change rooms where the current car park is located, as there are no cockatoo habitat trees in this area. A pre-referral meeting can be undertaken to discuss the proposal under the EPBC Act and determine what is required to be included in the submission to the Department of Agriculture, Water and the Environment.

Table 8: Referral guidelines for the three threatened black cockatoos

Guidelines	Comments
High risk of significant impacts: referral recommended	 Clearing of any known nesting tree Clearing or degradation of any part of a vegetation community known to contain breeding habitat Clearing of more than 1 ha of quality foraging habitat. Clearing or degradation (including pruning the top canopy) of a known night roosting site Creating a gap of greater than 4 km between patches of black cockatoo habitat (breeding, foraging or roosting). The Forrest Park survey area contains more than 1 ha of black cockatoo of rooging was observed during Natural Area's 2021 A total of 138 habitat trees (DBH > 500mm) were recorded with Forrest Park, of which 39 trees are suitable/preferred habitat tree species which have the potential to provide habitat tree species which have the potential to provide habitat trees for black cockatoos. While the other 99 trees onsite meet the size requirements for a cockatoo habitat tree, these species are not preferred habitat trees for black cockatoos and are comprised of introduced species. Of the habitat trees recorded two had hollows which have the potential to provide nesting habitat for black cockatoos due to the size and the direction of the hole opening. Eight trees contained hollows which are not a sufficient size for cockatoos but provide habitat for other species, these hollows can have the potential to become suitable in the future for cockatoos. The Forrest Park survey area contains more than 1 ha of black cockatoo foraging habitat for black cockatoos Forrest Park occurs within a Carnaby's Cockatoo Unconfirmed Breeding Areas within the Swan Coastal Plain and Jarrah Forrest IBRA Region (DBCA 2021d) with no confirmed roosting or breeding sites listed as occurring within the site. No evidence of foraging was observed during the March 2021 survey. The site occurs within a highly modified urban area with limited native vegetation present. Clearing of vegetation would not create a gap of greater than 4 km betwee
Uncertainty: referral recommended or contact the department	 Degradation (such as through altered hydrology or fire regimes) of more than 1 ha of foraging habitat. Significance will depend on the level Vegetation condition within the survey area is Completely Degraded with potential future disturbances unlikely to further degrade the vegetation condition. The Forrest Park survey area contains more than 1 ha of foraging habitat although du to the lack of nuts, poor health of existing trees and the presence of smaller sized trees, condition is considered to be poor.

Guidelines		Comments
	 and extent of degradation and the quality of the habitat. Clearing or disturbance in areas surrounding black cockatoo breeding, foraging or night roosting habitat that has the potential to degrade habitat through introduction of invasive species, edge effects, hydrological changes, increased human visitation or fire. Actions that do not directly affect the listed species but that have the potential for indirect impacts such as increasing competitors for nest hollows. Actions with the potential to introduce known plant diseases such as Phytophthora spp. to an area where the pathogen was not previously known. 	 Current land use as a recreational sports oval and park presents existing disturbances and anthropogenic influences including frequent human visitation, hydrological influences through parkland irrigation and edge effects including weed introduction from surrounding urban areas. Proposed clearing is within an urban area which has previously been extensively cleared for housing with common urban avian species present within the site. Nesting competition would currently exist and is not expected to be increased by the proposed works. As the site is in a Parkland cleared state the habitat within the site is already degraded with a highly modified vegetation structure. The proposed clearing is not expected to introduce plant diseases into the area if hygiene and machinery hygiene is maintained during development works including potential clearing.
Low risk of significant impacts: referral may not be required	 Actions that do not affect black cockatoo habitat or individuals. Actions whose impacts occur outside the modelled distribution of the three black cockatoos. 	 Actions are expected to have an effect on black cockatoos as individuals were observed during the 2021 survey and the site occurs within a Carnaby's Cockatoo Unconfirmed Breeding Areas within the Swan Coastal Plain and Jarrah Forrest IBRA Region (DBCA 2021d). Forrest Park survey area could potentially provide roosting, and low quality and limited foraging habitat for black cockatoos and is likely to be used transiently.

5.5.2 Possum Habitat

No direct observations of the Western Ringtail Possum were recorded during the 2021 survey, with one *Agonis flexuosa* (Peppermint) showing signs of scratch marks on the trunk indicating the presence of possums within the site. Approximately 2.45 ha of Forrest Park contains *Agonis flexuosa* trees with different stages of maturity, which has the potential to provide habitat. As there is a consistent number and coverage of *Agonis flexuosa* within the vegetated area surrounding the sporting oval this acts as a corridor of habitat for the Western Ringtail Possum. As there were no signs of dreys or possums during the survey it likely that the site is used transiently rather than supporting a resident population. Recorded opportunistic sightings of the Western Ringtail Possum has occurred within the vicinity of the site with the closest, approximately 300 m to the south east according to the DBCA database (DBCA 2021c).

According to the EPBC Act policy statement 3.10, Significant impact guidelines for the vulnerable western ringtail possum (Pseudocheirus occidentalis) in the southern Swan Coastal Plain, Western Australia, Forrest Park is located within Supporting Habitat (Area 3) (Department of the Environment, Water, Heritage, and the Arts 2009). As the total proposed clearing area is unknown, a Significant Impact Assessment for the entire site was undertaken and outlined in Table 9. As Forrest Park contains 2.45 ha of potential possum habitat, this exceeds the minimum threshold level (0.5 ha) and may be deemed a controlled action and referral to DAWE is recommended.

Table 9: Significant Impact Assessment Criteria for Area 3- Supporting Habitat

Actions with Potential Significant Impacts	Comment	
Clearing in a remnant habitat patch that is greater than 0.5 ha in size	 Forrest Park contains approximately 2.45 ha of Agonis flexuosa habitat with trees at different stages of maturity. The habitat is comprised of trees over managed turf areas. The vegetation condition of the site is Completely Degraded due to the lack of middle and understory species. Portions of the park do not contain suitable habitat and is comprised of managed lawns and introduced tree species. While Forrest Park exceeds the minimum remnant habitat patch threshold level (0.5 ha), its current land use as a recreation park and lack of middle and understorey flora reduces the habitat potential. Fauna is more likely to utilise the site transiently for foraging and movement rather than establishing a resident population. 	
Clearing of more than 50 % of a remnant habitat patch that is between 0.1 and 0.5 ha in size	Forrest Park contains more than 0.5 ha of possum habitat in the form of <i>Agonis flexuosa</i> over maintained turf.	
Fragmentation of existing habitat linkages	 If clearing of the entire area is to take place it is considered that fragmentation of the existing habitat linkages would occur as the current habitat would 	

Actions with Potential Significant Impacts	Comment
	provide continuous vegetation which allows for the
	movement of possums within Forrest Park.
	 Surrounding land use of Forrest Park is urban housing,
	with previous clearing causing fragmentation of
	potential habitat.

5.6 Assessment Against Clearing Principles

An assessment of information obtained during the 2021 survey has been made against the Western Australian clearing principles. It is suggested that the clearing application may be at variance with two (Principle B and E) of the ten clearing principles (Department of Environment and Regulation, 2014) (Table 10). As the total proposed clearing area is unknown, the entire site has been assessed against the ten clearing principles. If future planning involves clearing that triggers an EPBC Act referral, assessment may be undertaken under the bilateral agreement for both state and commonwealth agencies to assess the project under a single process.

5.7 Recommendations

Natural Area has the following recommendations to aid in reducing any potential environmental impacts to the site:

- Apply local protection methods to important individual trees including the retention of mature habitat trees (DBH >500 mm) where possible particularly those containing hollows which provide nesting for all bird species.
- Native habitat trees (*Eucalyptus gomphocephala* and *Agonis flexuosa*) including both alive and dead trees, with DBH >500mm with hollows of any size, should be prioritised for retention.
- Habitat trees (DBH >500mm) should be retained where possible. If they are proposed to be removed, these should be replaced with native species representative of the area, including Eucalyptus gomphocephala and Agonis flexuosa.
- If clearing is to occur, prioritise the retention of Western Ringtail Possum habitat (Figure 8), with clearing of non-native trees preferable with the development of areas which contain no native species prioritised to mitigate impact to threaten fauna habitat for both the Western Ringtail Possum and black cockatoos.
- If clearing of trees is to occur it is recommended to be conducted outside of peak breeding season (spring) when avian species may utilise trees as potential nesting sites.

Table 10: Assessment against clearing principles

Clea	aring Principle	Comment
Α	Native vegetation should not be cleared if it comprises a high level of biological diversity.	 The proposed area to be cleared is not likely to be at variance with this principle: A total of 23 flora species from nine families, of which seven are native (30.4%) and 16 (69.6%) are introduced. No significant flora was identified within the site during the March 2021 survey. The survey area consists of mainly cleared parkland, including sporting ovals, cricket nets and associated buildings, native flora diversity is low with majority of the site consisting of maintained turf with planted trees. Two vegetation types present, Cleared Parkland consisting of maintained turf, including sporting oval and associated sporting buildings and Parkland of Agonis flexuosa (Peppermint) and Eucalyptus gomphocephala (Tuart) over maintained grassed areas. Vegetation condition across the entire site was Completely Degraded due to the lack of native species and the maintained lawn present under the existing trees.
В	Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	 The proposed area to be cleared is likely to be at variance with this principle: Forrest Park provides habitat for threatened black cockatoos and the Western Ringtail Possum. The site contains approximately 2.45 ha of <i>Agonis flexuosa</i> habitat with trees at varying stages of maturity habitat comprising of trees over managed turf areas. The habitat provided is mostly continuous around the site although there are several sections where <i>Agonis flexuosa</i> is absent and these areas are dominated by introduced species. No individuals, scats or dreys of the Western Ringtail Possum were recorded during the 2021 survey although one <i>Agonis flexuosa</i> tree showed signs of scratch marks on the trunk indicating the presence of possums within the site. A total of 138 potential habitat trees (DBH >500 mm) for black cockatoos were observed within the site, of which 39 trees are suitable species which have the potential to provide habitat in the form of roosting, foraging and nesting for black cockatoos. While the other 99 trees onsite meet the size requirements for a cockatoo habitat tree, these species are not preferred habitat species. Two habitat trees had hollows which have the potential to provide nesting habitat for black cockatoos due to the size and the direction of the hole opening, while eight trees contained hollows which are not a

	association with, an environment associated with a watercourse or wetland.	
F	Native vegetation should not be cleared if it is growing in, or in	The proposed area to be cleared is not at variance with this principle as Forrest Park is not associated with a watercourse or wetland.
		housing and roads. The site is situated within the Vasse Complex of the Swan Coastal Plain with 34.84% (4656.67 ha) of Pre-European vegetation remaining within this complex.
		 Land use surrounding Forrest Park has been extensively cleared for urban development consisting of
	has been extensively cleared.	the site is Completely Degraded with no middle or understorey present.
	of native vegetation in an area that	at varying states of maturity over maintained lawns within a parkland setting. Vegetation condition within
	cleared if it is significant as a remnant	 Forrest Park contains remnant Agonis flexuosa vegetation (approximately 2.45 ha) which consists of trees
	maintenance of a threatened ecological community. Native vegetation should not be	The proposed area to be cleared is likely to be at variance with this principle:
	cleared if it comprises the whole or a part of, or is necessary for the	 No threatened or priority ecological communities were identified as occurring within the survey area.
D	Native vegetation should not be	The proposed area to be cleared is not at variance with this principle:
		maintained turf areas the presence of significant flora within the site is considered unlikely.
	flora.	 Due to the Completely Degraded nature of the site with the vegetation consisting of trees over heavily
	for the continued existence of, rare	conducted at the optimal time of year (spring) for the south west region.
_	cleared if it includes, or is necessary	 No rare or priority flora was recorded during the March 20201 survey, although the survey was not
<u> </u>	Native vegetation should not be	The proposed area to be cleared is not likely to be at variance with this principle:
		 During the 2021 three Forest Red-tailed Black Cockatoos were observed within a Tuart tree, no signs of nesting or foraging were observed during 2021 survey.
		become suitable in the future.
		sufficient size for cockatoos but provide habitat for other species. These hollows have the potential to

G	Native Vegetation should not be	The proposed area to be cleared is not likely to be at variance with this principle as it is not expected to cause
	cleared if the clearing of the	further land degradation, with the area to be cleared around existing sporting fields and associated building within
	vegetation is likely to cause	a highly modified parkland environment.
	appreciable land degradation.	
Н	Native vegetation should not be	The proposed area to be cleared is not likely to be at variance with this principle:
	cleared if the clearing of the	 The proposed clearing area is located within an existing parkland which is surrounded by urban
	vegetation is likely to have an impact	development and roads. Clearing is not expected to have an impact on the surrounding area.
	on the environmental values of any	 Forrest park is located approximately 900m to the east of the closest conservation reserve, Big Swamp
	adjacent or nearby conservation	Reserve
	area.	
I	Native vegetation should not be	The proposed area to be cleared is not likely to be at variance with this principle:
	cleared if the clearing of the	 No surface water courses were identified during the 2021 survey.
	vegetation is likely to cause	 The proposed clearing is not expected to impact underground water with the surrounding area already
	deterioration in the quality of surface	subjected to clearing and housing development.
	or underground water.	
J	Native vegetation should not be	The proposed area to be cleared is not likely to be at variance with this principle as Forrest Park occurs in an urban
	cleared if clearing the vegetation is	area which has been previously cleared and developed with the proposed clearing not expected to change or
	likely to cause, or exacerbate, the	exacerbate the incidence of flooding.
	incidence of flooding.	

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Appendix 1: NatureMap



NatureMap Species Report

Created By Guest user on 04/03/2021

Current Names Only Yes
Core Datasets Only Yes

Method 'By Circle'

Centre 115° 38' 51" E,33° 20' 35" S

Buffer 5km

Group By Species Group

Species Group	Species	Records
Alga	20	27
Amphibian	9	249
Bird	189	8267
Bryopsid (Moss)	12	18
Dicotyledon	334	583
Fish	61	93
Fungus	3	9
Gymnosperm	2	2
Hepatic (Liverwort)	1	1
Invertebrate	63	192
Lichen	14	15
Mammal	27	1180
Monocotyledon	195	343
Pteridophyte (Fern)	1	1
Reptile	33	163
TOTAL	964	11143

		Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Alga					
1.	35909	Amansia pinnatifida			
2.	26586	Caulocystis uvifera			
3.	26607	Chaetomorpha aerea			
4.	26663	Cladurus elatus			
5.	26666	Cliftonaea pectinata			
6.	26667	Codiophyllum flabelliforme			
7.	26720	Cystophora grevillei			
8.	26854	Gigartina disticha			
9.	26877	Grateloupia filicina			
10.	27090	Myriodesma quercifolium			
11.	27126	Petalonia fascia			
12.	27131	Phacelocarpus alatus			
13.	27151	Platythalia angustifolia			
14.	27195	Pterocladia lucida			
15.	27238	Sargassum distichum			
16.	27249	Sargassum linearifolium			
17.	35911	Scytosiphon Iomentaria			
18.	27327	Thamnoclonium dichotomum			
19.	27345	Turbinaria gracilis			
20.	35260	Ulva compressa			
Amphibian					
21.	25398	Crinia georgiana (Quacking Frog)			
22.		Crinia glauerti (Clicking Frog)			
23.		Crinia insignifera (Squelching Froglet)			
24.		Geocrinia leai (Ticking Frog)			
25.	25410	Heleioporus eyrei (Moaning Frog)			
26.		Limnodynastes dorsalis (Western Banjo Frog)			
27.	25378	Litoria adelaidensis (Slender Tree Frog)			
28.	25388	Litoria moorei (Motorbike Frog)			
29.		Pseudophryne guentheri (Crawling Toadlet)			
Bird					
30.	24260	Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill)			
31.	24261	Acanthiza chrysorrhoa (Yellow-rumped Thornbill)			
32.	24262	Acanthiza inornata (Western Thornbill)			

NatureMap is a collaborative project of the Department of Biodiversity, Conservation and Attractions and the Western Australian Museum.

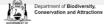






33.	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To 0 Area
		Acanthorhynchus superciliosus (Western Spinebill)			
34.	25535	Accipiter cirrocephalus (Collared Sparrowhawk)			
35.	25536	Accipiter fasciatus (Brown Goshawk)			
36.	25755	Acrocephalus australis (Australian Reed Warbler)			
37.	41323	Actitis hypoleucos (Common Sandpiper)		IA	
38.	24310	Anas castanea (Chestnut Teal)			
39.	24312	Anas gracilis (Grey Teal)			
40.		Anas platyrhynchos (Mallard)			
41.		Anas platyrhynchos subsp. domesticus			
42.	24315	Anas rhynchotis (Australasian Shoveler)			
43.		Anas superciliosa (Pacific Black Duck)			
44.		Anhinga novaehollandiae (Australasian Darter)			
45.		Anthochaera carunculata (Red Wattlebird)			
46.	24562	Anthochaera lunulata (Western Little Wattlebird)			
47.	24285	Aquila audax (Wedge-tailed Eagle)			
48.	25558	Ardea ibis (Cattle Egret)			
49.	41324	Ardea modesta (great egret, white egret)			
50.	24340	Ardea novaehollandiae (White-faced Heron)			
51.	24341	Ardea pacifica (White-necked Heron)			
52.	41326	Ardenna carneipes (Flesh-footed Shearwater, Fleshy-footed Shearwater)		Т	
53.	25736	Arenaria interpres (Ruddy Turnstone)		IA	
54.		Artamus cinereus (Black-faced Woodswallow)		<i>II</i> (
55.		Artamus cyanopterus (Dusky Woodswallow)			
56.	∠4318	Aythya australis (Hardhead)			
57.		Barnardius zonarius			
58.		Biziura lobata (Musk Duck)			
59.	24359	Burhinus grallarius (Bush Stone-curlew)			
60.	25714	Cacatua pastinator (Western Long-billed Corella)			
61.	25716	Cacatua sanguinea (Little Corella)			
62.	25598	Cacomantis flabelliformis (Fan-tailed Cuckoo)			
63.	42307	Cacomantis pallidus (Pallid Cuckoo)			
64.	24779	Calidris acuminata (Sharp-tailed Sandpiper)		IA	
65.	24780	Calidris alba (Sanderling)		IA	
66.		Calidris canutus (Red Knot, knot)		IA	
67.		Calidris ferruginea (Curlew Sandpiper)		Т	
68.		Calidris ruficollis (Red-necked Stint)		IA	
69.		Calidris tenuirostris (Great Knot)		T	
				1	
70.		Calyptorhynchus banksii (Red-tailed Black-Cockatoo)		_	
71.		Calyptorhynchus banksii subsp. naso (Forest Red-tailed Black Cockatoo)		Т	
72.	24733	Calyptorhynchus baudinii (Baudin's Cockatoo, White-tailed Long-billed Black Cockatoo)		Т	
73.	24734	Calyptorhynchus latirostris (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo)		Т	
74.	48400	Calyptorhynchus sp. (white-tailed black cockatoo)			
				Т	
75.				T T	
75. 76	25575	Charadrius leschenaultii (Greater Sand Plover)		T T	
76.	25575 24377	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover)			
76. 77.	25575 24377	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck)			
76. 77. 78.	25575 24377 24321	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae			
76. 77. 78. 79.	25575 24377 24321 24432	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo)			
76. 77. 78. 79. 80.	25575 24377 24321 24432	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae			
76. 77. 78. 79.	25575 24377 24321 24432 24288	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo)			
76. 77. 78. 79. 80.	25575 24377 24321 24432 24288 24774	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier)			
76. 77. 78. 79. 80.	25575 24377 24321 24432 24288 24774 25675	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt)	Y		
76. 77. 78. 79. 80. 81.	25575 24377 24321 24432 24288 24774 25675 24399	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush)	Y		
76. 77. 78. 79. 80. 81. 82.	25575 24377 24321 24432 24288 24774 25675 24399 25568	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon)	Y		
76. 77. 78. 79. 80. 81. 82. 83. 84.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven)	Y		
76. 77. 78. 79. 80. 81. 82. 83. 84. 85.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven)	Y		
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird)	Y		
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie)	Y		
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird)	Y		
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan)			
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra)	Y	Т	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901 25618	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra) Diomedea exulans (Wandering Albatross)		T	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901 25618	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra)		Т	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901 25618	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra) Diomedea exulans (Wandering Albatross)		T	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901 25618	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra) Diomedea exulans (Wandering Albatross)		T	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901 25618	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra) Diomedea exulans (Wandering Albatross) Egretta garzetta		T	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901 25618 30836	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra) Diomedea exulans (Wandering Albatross) Egretta garzetta Egretta novaehollandiae Elanus axillaris		T	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 25596 24322 30901 25618 30836	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra) Diomedea exulans (Wandering Albatross) Egretta garzetta Egretta novaehollandiae Elanus axillaris Elseyornis melanops (Black-fronted Dotterel)		T	
76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95.	25575 24377 24321 24432 24288 24774 25675 24399 25568 25592 24417 24420 25595 24322 30901 25618 30836	Charadrius leschenaultii (Greater Sand Plover) Charadrius ruficapillus (Red-capped Plover) Chenonetta jubata (Australian Wood Duck, Wood Duck) Chroicocephalus novaehollandiae Chrysococcyx lucidus subsp. plagosus (Shining Bronze Cuckoo) Circus approximans (Swamp Harrier) Cladorhynchus leucocephalus (Banded Stilt) Colluricincla harmonica (Grey Shrike-thrush) Columba livia (Domestic Pigeon) Coracina novaehollandiae (Black-faced Cuckoo-shrike) Corvus coronoides (Australian Raven) Corvus coronoides subsp. perplexus (Australian Raven) Cracticus nigrogularis (Pied Butcherbird) Cracticus tibicen (Australian Magpie) Cracticus torquatus (Grey Butcherbird) Cygnus atratus (Black Swan) Dacelo novaeguineae (Laughing Kookaburra) Diomedea exulans (Wandering Albatross) Egretta garzetta Egretta novaehollandiae Elanus axillaris		T	

NatureMap is a collaborative project of the Department of Biodiversity, Conservation and Attractions and the Western Australian Museum







	Name ID	Species Name	Natura	lised	Conservation Code	¹ Endemic To Query Area
101.	24567	Epthianura albifrons (White-fronted Chat)				
102.	24813	Eudyptes chrysocome subsp. filholi (Rockhopper Penguin)				Υ
103.	25622	Falco cenchroides (Australian Kestrel, Nankeen Kestrel)				
104.	25623	Falco longipennis (Australian Hobby)				
105.		Falco peregrinus (Peregrine Falcon)			S	
106.		Fulica atra (Eurasian Coot)				
107.		Fulica atra subsp. australis (Eurasian Coot)				
108.		Gallinula tenebrosa (Dusky Moorhen)				
109.		Gallinula tenebrosa subsp. tenebrosa (Dusky Moorhen)				
110.		Gallirallus philippensis (Buff-banded Rail)				
111. 112.		Gerygone fusca (Western Gerygone)				
113.		Grallina cyanoleuca (Magpie-lark) Haematopus longirostris (Pied Oystercatcher)				
114.		Haliaeetus leucogaster (White-bellied Sea-Eagle)				
115.		Haliastur sphenurus (Whistling Kite)				
116.		Halobaena caerulea (Blue Petrel)				
117.		Hieraaetus morphnoides (Little Eagle)				
118.	25734	Himantopus himantopus (Black-winged Stilt)				
119.	24491	Hirundo neoxena (Welcome Swallow)				
120.	48587	Hydroprogne caspia (Caspian Tern)			IA	
121.	25638	Larus pacificus (Pacific Gull)				
122.	25661	Lichmera indistincta (Brown Honeyeater)				
123.	30932	Limosa lapponica (Bar-tailed Godwit)			IA	
124.	25741	Limosa limosa (Black-tailed Godwit)			IA	
125.		Macronectes giganteus (Southern Giant Petrel)			IA	
126.		Malacorhynchus membranaceus (Pink-eared Duck)				
127.		Malurus splendens (Splendid Fairy-wren)				
128.		Megalurus gramineus (Little Grassbird)				
129.		Melithreptus brevirostris (Brown-headed Honeyeater)				
130.	24598	Merops ornatus (Rainbow Bee-eater)				
131. 132.	48008	Microcarbo melanoleucos Morus serrator (Australasian Gannet)				
133.		Neophema elegans (Elegant Parrot)				
134.		Neophema petrophila (Rock Parrot)				
135.		Numenius madagascariensis (Eastern Curlew)			Т	
136.		Numenius phaeopus (Whimbrel)			IA	
137.		Nycticorax caledonicus (Rufous Night Heron)				
138.		Oceanites oceanicus (Wilson's Storm-petrel)			IA	
139.	24407	Ocyphaps lophotes (Crested Pigeon)				
140.	41347	Onychoprion anaethetus (Bridled Tern)			IA	
141.	24328	Oxyura australis (Blue-billed Duck)			P4	
142.	25680	Pachycephala rufiventris (Rufous Whistler)				
143.	24692	Pachyptila belcheri (Slender-billed Prion)				
144.	24693	Pachyptila desolata (Antarctic Prion)				
145.	25707	Pachyptila salvini (Salvin's Prion)				
146.		Pandion cristatus (Osprey, Eastern Osprey)			IA	
147.		Pardalotus punctatus (Spotted Pardalote)				
148.		Pardalotus striatus (Striated Pardalote)				
149. 150		Passer domesticus (House Sparrow)	Y			
150. 151		Passer montanus (Eurasian Tree Sparrow) Pelecanoides urinatrix subsp. exsul (Common Diving Petrel)	Y			
151. 152.		Pelecanoides urinatrix subsp. exsui (Common Diving Petrei) Pelecanus conspicillatus (Australian Pelican)				
153.		Petrochelidon nigricans (Tree Martin)				
154.		Petroica boodang (Scarlet Robin)				
155.		Phalacrocorax carbo (Great Cormorant)				
156.		Phalacrocorax carbo subsp. novaehollandiae (Great Cormorant)				
157.		Phalacrocorax fuscescens (Black-faced Cormorant)				
158.		Phalacrocorax melanoleucos (Little Pied Cormorant)				
159.	24667	Phalacrocorax sulcirostris (Little Black Cormorant)				
160.	25699	Phalacrocorax varius (Pied Cormorant)				
161.	24668	Phalacrocorax varius subsp. hypoleucos (Pied Cormorant)				
162.		Phaps chalcoptera (Common Bronzewing)				
163.		Phaps elegans (Brush Bronzewing)				
164.		Phylidonyris niger (White-cheeked Honeyeater)				
165.		Phylidonyris novaehollandiae (New Holland Honeyeater)				
166.		Platalea flavipes (Yellow-billed Spoonbill)				
167.		Platalea regia (Royal Spoonbill)				
168.		Platycercus icteratis (Western Rosella)				
169. 170.		Platycercus spurius (Red-capped Parrot) Platycercus zonarius (Australian Ringneck, Ring-necked Parrot)				
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	Name ID	Species Name	Naturalised	Conservation Code	'Endemic To Qι Area
171.		Plegadis falcinellus (Glossy Ibis)		IA	
172.		Pluvialis fulva (Pacific Golden Plover)		IA	
173.		Pluvialis squatarola (Grey Plover)		IA	
174.		Podargus strigoides (Tawny Frogmouth)			
175.	25704	Podiceps cristatus (Great Crested Grebe)			
176.	24681	Poliocephalus poliocephalus (Hoary-headed Grebe)			
177.	25722	Polytelis anthopeplus (Regent Parrot)			
178.	25731	Porphyrio porphyrio (Purple Swamphen)			
179.	24771	Porzana tabuensis (Spotless Crake)			
180.	24388	Psophodes nigrogularis subsp. nigrogularis (Western Whipbird (western heath))		T	
181.	24702	Pterodroma brevirostris (Kerguelen Petrel)			
182.	24703	Pterodroma lessonii (White-headed Petrel)			
183.		Pterodroma macroptera subsp. macoptera			
184.	25711	Pterodroma mollis (Soft-plumaged Petrel)			
185.		Puffinus assimilis subsp. assimilis (Little Shearwater)			
186.		Purpureicephalus spurius			
187.	24776	Recurvirostra novaehollandiae (Red-necked Avocet)			
188.		Rhipidura albiscapa (Grey Fantail)			
189.					
190.		Rhipidura leucophrys (Willie Wagtail) Rhipidura rufiventris (Northern Fantail)			
191.		Sericornis frontalis (White-browed Scrubwren)			
192.		Smicrornis brevirostris (Weebill)			
193.		Sterna bergii (Crested Tern)			
194.		Sterna hirundo (Common Tern)		IA	
195.		Sternula nereis (Fairy Tern)			
196.	24329	Stictonetta naevosa (Freckled Duck)			
197.	25655	Stipiturus malachurus (Southern Emu-wren)			
198.	24554	Stipiturus malachurus subsp. westernensis (Southern Emu-wren)			
199.	25597	Strepera versicolor (Grey Currawong)			
200.	25589	Streptopelia chinensis (Spotted Turtle-Dove)	Υ		
201.	25590	Streptopelia senegalensis (Laughing Turtle-Dove)	Υ		
202.		Tachybaptus novaehollandiae (Australasian Grebe, Black-throated Grebe)			
203.		Tadorna tadornoides (Australian Shelduck, Mountain Duck)			
204.		Thalassarche carteri (Indian Yellow-nosed Albatross)		Т	
205.		Thalassarche melanophris (Black-browed Albatross)		T	
206.		Thalasseus bergii (Crested Tern)		IA	
207.		Thinornis rubricollis (Hooded Plover, Hooded Dotterel) Theolis are a principallia (Stray policed this)		P4	
208.		Threskiornis spinicollis (Straw-necked Ibis)			
209.		Todiramphus sanctus (Sacred Kingfisher)			
210.		Trichoglossus haematodus (Rainbow Lorikeet)			
211.		Trichoglossus haematodus subsp. moluccanus (Rainbow Lorikeet)	Υ		
212.		Tringa brevipes (Grey-tailed Tattler)		P4	
213.	24806	Tringa glareola (Wood Sandpiper)		IA	
214.	24808	Tringa nebularia (Common Greenshank, greenshank)		IA	
215.	24809	Tringa stagnatilis (Marsh Sandpiper, little greenshank)		IA	
216.	24386	Vanellus tricolor (Banded Lapwing)			
217.	41351	Xenus cinereus (Terek Sandpiper)		IA	
218.	25765	Zosterops lateralis (Grey-breasted White-eye, Silvereye)			
yopsid (N					
219.		Barbula calycina			
220.		Campylopus introflexus	Υ		
221.	32345	Didymodon australasiae			
222.	32346	Didymodon torquatus			
223.	32367	Fissidens megalotis			
224.	32369	Fissidens tenellus			
225.	32380	Gemmabryum pachythecum			
226.		Racopilum cuspidigerum var. convolutaceum			
227.		Rosulabryum albolimbatum			
228.		Rosulabryum billarderii			
229.		Syntrichia antarctica			
230.		Thuidium sparsum var. hastatum			
cotyledon		**************************************			
231.	3207	Acacia alata (Winged Wattle)			
232.	15466	Acacia applanata			
233.		Acacia cyclops (Coastal Wattle)			
234.		Acacia flagelliformis		P4	
235.		Acacia incurva			
236.		Acacia iteaphylla	Υ		
237.	17861	Acacia longifolia	Υ		



I	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Qu Area
238.	3442	Acacia microbotrya (Manna Wattle, Kalyang)			
239.	17860	Acacia podalyriifolia	Υ		
240.	3502	Acacia pulchella (Prickly Moses)			
241.	15481	Acacia pulchella var. glaberrima			
242.		Acacia saligna (Orange Wattle, Kudjong)			
243.		Acacia semitrullata		P4	
244.		Acacia stenoptera (Narrow Winged Wattle)			
245.		Acacia tetragonocarpa			
246.		Adenanthos meisneri			
247.		Adenanthos obovatus (Basket Flower)			
248.		Adriana quadripartita (Bitter Bush)			
249.		Aizoon pubescens	Υ		
250.		Allocasuarina humilis (Dwarf Sheoak)			
251.		Alyxia buxifolia (Dysentery Bush)			
252.		Amperea ericoides			
253.		Angianthus preissianus			
254.		Anthocercis littorea (Yellow Tailflower)			
255.		Apium graveolens (Wild Celery)	Υ		
256.		Apium prostratum subsp. prostratum var. prostratum (Sea Celery)			
257.		Araujia sericifera	Υ		
258.	7839	Arctotheca populifolia (Dune Arctotheca, Beach Pumpkin, Coast Capeweed, Beach	Υ		
250	00050	Daisy)			
259.		Astartea affinis (West-coast Astartea)			
260.		Astartea pulchella			
261.		Asteridea pulverulenta (Common Bristle Daisy)			
262.		Astroloma ciliatum (Candle Cranberry)			
263.		Astroloma pallidum (Kick Bush)			
264.		Atriplex cinerea (Grey Saltbush)	V		
265.		Atriplex hortensis (Garden Orache)	Υ		
266.		Atriplex isatidea (Coast Saltbush)			
267.		Avicennia marina (White Mangrove)			
268.		Avicennia marina subsp. marina Parkaia attanuata (Claudas Parkaia Piara)			
269.		Banksia attenuata (Slender Banksia, Piara)			
270.		Banksia ilicifolia (Holly-leaved Banksia)			
271.		Banksia littoralis (Swamp Banksia, Pungura)			
272.		Bellardia viscosa	Y		
273.		Berkheya rigida (African Thistle, Hamelin Thistle)	Υ		
274.		Boronia dichotoma			
275.		Boronia spathulata (Boronia)			
276.		Bossiaea angustifolia			
277. 278.		Bossiaea aquifolium subsp. aquifolium			
279.		Bossiaea eriocarpa (Common Brown Pea)			
		Brachyscome iberidifolia	V		
280.		Brassica x juncea (Indian Mustard)	Y		
281.		Cakile maritima (Sea Rocket)			
282.		Callitriche stagnalis (Common Starwort)	Υ		
283.		Calothamnus lateralis			
284.		Calveopoplus eligandrus			
285.		Calycopeplus oligandrus Calytrix flavoscops (Summer Starflower)			
286.		Calytrix flavescens (Summer Starflower)	V		
287.		Campsis radicans Cappythe glabella forma acquarings	Υ		
288.		Cassytha glabella forma casuarinae			
289.		Cassytha racemosa (Dodder Laurel) Changodium album (Est Hon)	V		
290.		Chenopodium album (Fat Hen) Chenopodium alaucum (Glaucous Goosefoot)	Y		
291.		Chenopodium glaucum (Glaucous Goosefoot) Chenopodium murale (Nettle-leaf Goosefoot)			
292.		Cherizama cordatum	Υ		
293. 294.		Chorizema cordatum Cichorium intubus (Chicons)	V		
294. 295.		Cichorium intybus (Chicory)	Υ		
295. 296.		Comesperma flavum Comesperma virgatum (Milkwort)			
296.		Conostephium pendulum (Pearl Flower)			
297. 298.					
		Convolvulus angustissimus subsp. angustissimus Convolvulus angustissimus (Field Bindwaed)	V		
299.		Convolvulus arvensis (Field Bindweed)	Y		
300.		Conyza sumatrensis Corrigiola literalia (Stranwort)	Y		
301. 302		Corrigiola litoralis (Strapwort) Cotula cotuloidas (Smooth Cotula)	Υ		
302.		Cotula cotuloides (Smooth Cotula)	Υ		
303.		Costula turbinata (Funnel Weed)	Y		
304. 305.		Craspedia sp. Yalgorup National Park (G.J. Keighery 14449)			
JUJ.	13334	Craspedia variabilis	Υ		
306.	2126	Crassula alata			



	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
307.	3137	Crassula colorata (Dense Stonecrop)			Alou
308.	15706	Crassula natans var. minus	Υ		
309.	29054	Crepis foetida subsp. foetida (Stinking Hawksbeard)	Υ		
310.		Cryptandra arbutiflora var. tubulosa			
311.		Cucumis sp. Bunbury (G. Brayshaw s.n. 26/2/91)	Y		Υ
312.		Cuscuta campestris (Golden dodder)	Y		
313. 314.		Cuscuta epithymum (Lesser Dodder, Greater Dodder)	Y		
314.		Dampiera coronata (Wedge-leaved Dampiera) Dampiera linearis (Common Dampiera)			
316.		Dampiera pedunculata			
317.		Daviesia angulata			
318.		Daviesia decurrens subsp. decurrens			
319.	3832	Daviesia physodes			
320.	3835	Daviesia preissii			
321.	4454	Diplolaena dampieri (Southern Diplolaena)			
322.	3012	Diplotaxis tenuifolia (Sand Rocket)	Υ		
323.	3867	Dipogon lignosus (Dolichos Pea)	Y		
324.	7961	Dittrichia graveolens (Stinkwort)	Υ		
325.		Drosera drummondii			
326.		Drosera gigantea (Giant Sundew)			
327.		Drosera indumenta Drosera pallida (Pala Painhaw)			
328. 329.		Drosera pallida (Pale Rainbow) Drosera rosulata			
329.		Drosera stolonifera (Leafy Sundew)			
331.		Drosera stolonilera (Leary Sundew) Drosera tubaestylis			
332.		Dysphania ambrosioides (Mexican Tea)	Υ		
333.		Dysphania multifida (Scented Goosefoot)	Y		
334.	33480	Dysphania pumilio (Clammy Goosefoot)			
335.	17175	Eremophila glabra subsp. albicans			
336.	4336	Erodium moschatum (Musky Crowfoot)	Υ		
337.	5659	Eucalyptus gomphocephala (Tuart, Duart)			
338.	5708	Eucalyptus marginata (Jarrah, Djara)			
339.		Eucalyptus rudis subsp. cratyantha		P4	
340.		Euchiton sphaericus	.,		
341.		Euphorbia paralias (Sea Spurge)	Y		
342. 343.		Eutaxia virgata Exocarpos sparteus (Broom Ballart, Djuk)			
344.		Foeniculum vulgare (Fennel)	Υ		
345.		Frankenia pauciflora (Seaheath)	,		
346.		Fumaria capreolata (Whiteflower Fumitory)	Υ		
347.	20475	Gastrolobium capitatum			
348.	19190	Gastrolobium cuneatum			
349.	20473	Gastrolobium ebracteolatum			
350.	20512	Gastrolobium praemorsum			
351.		Gazania linearis	Y		
352.		Genista linifolia (Flaxleaf Broom)	Y		
353.		Glebionis segetum	Y		
354. 355.		Gompholobium shuttleworthii Gompholobium tomentosum (Hairy Vellow Pea)			
355. 356.		Gompholobium tomentosum (Hairy Yellow Pea) Goodenia eatoniana			
357.		Goodenia micrantha			
358.		Goodenia pulchella subsp. Coastal Plain A (M. Hislop 634)			
359.		Gratiola pubescens			
360.	2066	Grevillea pilulifera (Woolly-flowered Grevillea)			
361.	2122	Grevillea wilsonii (Native Fuchsia)			
362.	2216	Hakea varia (Variable-leaved Hakea)			
363.		Hardenbergia comptoniana (Native Wisteria)			
364.		Helianthus annuus (Sunflower, Common Sunflower)	Υ		
365.		Helianthus debilis subsp. cucumerifolius	Y		
366.		Hemiandra pungens (Snakebush)			
367. 368		Hemiphora bartlingii (Woolly Dragon) Hibbertia amplevicaulis			
368. 369.		Hibbertia amplexicaulis Hibbertia cuneiformis (Cutleaf Hibbertia)			
370.		Hibbertia diamesogenos			
371.		Hibbertia hypericoides (Yellow Buttercups)			
372.		Hibbertia hypericoides subsp. hypericoides			
373.		Hibbertia racemosa (Stalked Guinea Flower)			
374.	5172	Hibbertia stellaris (Orange Stars)			
375.	5173	Hibbertia subvaginata			
376.	5176	Hibbertia vaginata			
			Departmen	t of Biodiversity,	WESTERN

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	Name ID	Species Name	Naturalised	Conservation Code	'Endemic To Q Area
377.		Homalosciadium homalocarpum			
378.		Hovea trisperma (Common Hovea)			
379.		Hybanthus calycinus (Wild Violet)			
380.		Hybanthus floribundus			
381.		Hybanthus floribundus subsp. floribundus			
382.		Hydrocotyle alata			
383.		Hydrocotyle blepharocarpa Lindracotyle hoporiognia	V		
384.		Hydrocotyle bonariensis	Υ		
385.		Hydrocotyle pilifera var. glabrata			
386. 387.		Hypocalymma angustifolium (White Myrtle, Kudjid)			
388.		Hypocalymma angustifolium subsp. Swan Coastal Plain (G.J. Keighery 16777) Hypocalymma robustum (Swan River Myrtle)			
389.		Hypochaeris glabra (Smooth Catsear)	Υ		
390.		Hypochaeris radicata (Flat Weed, Cats-ear)	Y		
391.		Ipomoea indica (Morning Glory)	Y		
392.		Jacksonia furcellata (Grey Stinkwood)	•		
393.		Jacksonia horrida			
394.		Jacksonia spinosa			
395.		Kennedia prostrata (Scarlet Runner)			
396.		Kunzea ericifolia (Spearwood, Pondil)			
397.		Kunzea glabrescens (Spearwood)			
398.		Kunzea micrantha subsp. micrantha			
399.		Labichea punctata (Lance-leaved Cassia)			
400.		Lactuca serriola (Prickly Lettuce)	Υ		
401.		Lasiopetalum membranaceum		P3	
402.		Lathyrus tingitanus (Tangier Pea)	Υ		
403.		Lawrencia spicata			
404.		Lechenaultia expansa			
405.		Lechenaultia floribunda (Free-flowering Leschenaultia)			
406.	6880	Leonotis leonurus (Lion's Ear)	Υ		
407.		Lepidium didymum	Υ		
408.		Leucophyta brownii			
409.	6374	Leucopogon conostephioides			
410.	6425	Leucopogon oxycedrus			
411.	6428	Leucopogon pendulus			
412.	6434	Leucopogon polymorphus			
413.	6436	Leucopogon propinquus			
414.	6440	Leucopogon racemulosus			
415.	7677	Levenhookia stipitata (Common Stylewort)			
416.	4363	Linum trigynum (French Flax)	Υ		
417.	36160	Liparophyllum capitatum			
418.	36180	Liparophyllum latifolium			
419.	9289	Lobelia anceps (Angled Lobelia)			
420.	7408	Lobelia tenuior (Slender Lobelia)			
421.	3048	Lobularia maritima (Sweet Alyssum)	Υ		
422.	4059	Lotus angustissimus (Narrowleaf Trefoil)	Υ		
423.	8564	Lotus subbiflorus	Υ		
424.		Lupinus angustifolius (Narrowleaf Lupin)	Υ		
425.	4067	Lupinus luteus (Yellow Lupin)	Υ		
426.		Lysimachia arvensis (Pimpernel)	Υ		
427.		Lysinema pentapetalum			
428.		Lythrum hyssopifolia (Lesser Loosestrife)	Υ		
429.		Malva arborea (Tree Mallow)	Υ		
430.	4075	Medicago littoralis (Strand Medic)	Y		
431.		Medicago polymorpha (Burr Medic)	Y		
432.		Melaleuca incana subsp. incana			
433.		Melaleuca lateritia (Robin Redbreast Bush)			
434.		Melaleuca microphylla			
435.		Melaleuca osullivanii			
436.		Melaleuca pauciflora			
437.		Melaleuca preissiana (Moonah)	.,		
438.		Melaleuca quinquenervia	Υ		
439.		Melaleuca rhaphiophylla (Swamp Paperbark)			
440.		Melaleuca systena Melaleuca taratifalia (Panhari)			
441.		Melaleuca teretifolia (Banbar)			
442.		Melaleuca thymoides	V		
443.		Melianthus major	Y		
444. 445.		Melilotus indicus Melilotus siculus	Y		
		Monoculus monstrosus	Y		
446.			ĭ		



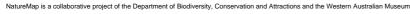
	Name ID	Species Name	Naturalised	Conservation Code	Endemic To Q Area
447.	37440	Monopsis debilis var. depressa	Υ		
448.	4666	Monotaxis occidentalis			
449.	16896	Muehlenbeckia complexa	Υ		Υ
450.	7289	Myoporum caprarioides (Slender Myoporum)			
451.	6189	Myriophyllum crispatum			
452.	2401	Nuytsia floribunda (Christmas Tree, Mudja)			
453.		Oenothera drummondii subsp. drummondii	Υ		
454.		Oenothera mollissima	Y		
455.		Olearia axillaris (Coastal Daisybush)	'		
456.		Olearia elaeophila			
457.		Orianthera serpyllifolia subsp. angustifolia			
458.		Ornduffia albiflora			
459.	36181	Ornduffia parnassifolia			
460.	4113	Ornithopus compressus (Yellow Serradella)	Υ		
461.	7122	Orobanche minor (Lesser Broomrape)	Υ		
462.	5225	Passiflora filamentosa	Υ		
463.	6244	Pastinaca sativa (Wild Parsnip)	Υ		
464.	4343	Pelargonium capitatum (Rose Pelargonium)	Υ		
465.		Pelargonium littorale			
466.		Pericalymma ellipticum (Swamp Teatree)			
467.		Pericalymma ellipticum var. ellipticum			
468.		Persicaria prostrata Retrophilo linearia (Rivia Mana)			
469.		Petrophile linearis (Pixie Mops)			
470.		Petrorhagia dubia	Y		
471.	18529	Philotheca spicata (Pepper and Salt)			
472.		Phyllangium divergens			
473.	4675	Phyllanthus calycinus (False Boronia)			
474.	31275	Physalis hederifolia (Sticky Cape Gooseberry)	Υ		Υ
475.	2408	Pilostyles hamiltonii			
476.	11402	Pimelea imbricata var. piligera			
477.		Pimelea lanata			
478.		Pimelea rosea subsp. rosea			
479.					
		Pithocarpa cordata			
480.		Plantago lanceolata (Ribwort Plantain)	Y		
481.		Platysace compressa (Tapeworm Plant)			
482.	6253	Platysace filiformis			
483.	11132	Platysace ramosissima		P3	
484.	4524	Platytheca galioides			
485.	8179	Podolepis nutans (Nodding Podolepis)			
486.	8188	Pogonolepis stricta			
487.	2905	Polycarpon tetraphyllum (Fourleaf Allseed)	Υ		
488.	15856	Ptilotus sericostachyus subsp. sericostachyus			
489.	4181	Pultenaea reticulata			
490.	4183	Pultenaea skinneri (Skinner's Pea)		P4	
491.		Retama raetam	Υ		
492.		Rhagodia baccata subsp. baccata	•		
		•	V		
493.		Ricinus communis (Castor Oil Plant)	Y		
494.		Rorippa nasturtium-aquaticum (Watercress)	Y		
495.		Rumex crispus (Curled Dock)	Y		
496.		Rumex vesicarius (Ruby Dock)	Υ		
497.	2908	Sagina maritima	Υ		
498.	48433	Salicornia blackiana			
499.	6483	Samolus junceus			
500.	6484	Samolus repens (Creeping Brookweed)			
501.	14107	Samolus repens var. paucifolius			
502.		Scaevola calliptera			
503.		Scaevola lanceolata (Long-leaved Scaevola)			
504.		Schenkia australis			
			Υ		
505.		Schinus terebinthifolia	Y		
506.		Schoenolaena juncea			
507.		Senecio multicaulis subsp. multicaulis			
508.		Senecio pinnatifolius			
509.	8225	Siloxerus humifusus (Procumbent Siloxerus)			
510.	8227	Silybum marianum (Variegated Thistle)	Υ		
511.	7005	Solanum elaeagnifolium (White Horse Nettle, Silverleaf Nightshade)	Υ		
512.		Solanum nigrum (Black Berry Nightshade)	Υ		
513.		Soleirolia soleirolii (Babys Tears)	Y		
514.		Soliva sessilis (Jo-jo, Onehunga Weed)	Y		
515.		Sonchus oleraceus (Common Sowthistle)	Y		
		Spyridium globulosum (Basket Bush)	'		
516.					



	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
517.	6930	Stachys arvensis (Staggerweed)	Υ		
518.	4733	Stackhousia monogyna			
519.		Stellaria media (Chickweed)	Υ		
520.		Stirlingia latifolia (Blueboy)			
521.		Stylidium androsaceum			
522. 523.		Stylidium brunonianum (Pink Fountain Triggerplant) Stylidium calcaratum (Book Triggerplant)			
524.		Stylidium dichotomum (Pins-and-needles)			
525.		Stylidium junceum (Reed Triggerplant)			
526.		Stylidium piliferum (Common Butterfly Triggerplant)			
527.	7798	Stylidium schoenoides (Cow Kicks)			
528.		Stylidium sp.			
529.	7806	Stylidium utricularioides (Pink Fan Triggerplant)			
530.	6476	Styphelia tenuiflora (Common Pinheath)			
531.	2639	Suaeda australis (Seablite)			
532.		Taraxacum khatoonae	Υ		
533.		Tecticornia halocnemoides (Shrubby Samphire)			
534.		Tecticornia indica subsp. bidens			
535. 536.		Tetratheca hirsuta (Black Eyed Susan) Tetratheca hirsuta subsp. viminea			
537.		Thomasia grandiflora (Large Flowered Thomasia)			
538.		Trachymene pilosa (Native Parsnip)			
539.		Trifolium arvense (Hare's Foot Clover)	Υ		
540.		Trifolium campestre var. campestre (Hop Clover)	Υ		
541.	4293	Trifolium cernuum (Drooping Flower Clover)	Υ		
542.	17759	Trifolium fragiferum var. fragiferum	Υ		
543.	4298	Trifolium hirtum (Rose Clover)	Υ		
544.		Trifolium sp.			
545.		Trifolium subterraneum (Subterranean Clover)	Υ		
546.		Tripterococcus brunonis (Winged Stackhousia)			
547. 548.		Trithuria bibracteata	V		
549.		Ursinia anthemoides (Ursinia) Utricularia menziesii (Redcoats)	Υ		
550.		Vellereophyton dealbatum (White Cudweed)	Υ		
551.		Verbascum virgatum (Twiggy Mullein)	Y		
552.		Verbena litoralis	Υ		Υ
553.	19511	Verbena officinalis	Υ		
554.	7108	Veronica arvensis (Wall Speedwell)	Υ		
555.	12392	Verticordia attenuata		P3	
556.		Vicia hirsuta (Hairy Vetch)	Υ		
557.		Vicia sativa (Common Vetch)	Y		
558. 559.		Vicia sativa subsp. nigra	Υ		
560.		Wahlenbergia preissii Waitzia suaveolens (Fragrant Waitzia)			
561.		Wilsonia backhousei (Narrow-leaf Wilsonia)			
562.		Wilsonia humilis (Silky Wilsonia)			
563.		Xanthosia huegelii			
564.	2331	Xylomelum occidentale (Woody Pear, Djandin)			
Fish					
565.		Acentrogobius bifrenatus			
566.		Aetapcus maculatus			
567.		Aldrichetta forsteri			
568.		Anoplocapros lenticularis			
569.		Aracana aurita			
570.		Arenigobius bifrenatus			
571.		Arripis truttacea			
572.		Asymbolus submaculatus Atherinecema elegate			
573.		Atterinosoma elongata			
574. 575.		Aulohalaelurus labiosus Auxis thazard			
576.		Carcharhinus sp.			
577.		Chelidonichthys kumu			
578.		Cleidopus gloriamaris			
579.		Dactylophora nigricans			
580.		Diodon nicthemerus			
581.		Diodon sp.			
582.		Echeneis naucrates			
583.		Eubalichthys sp.			
584. 585.		Euleptorhamphus viridis Furgaleus macki			
		•	Department	of Biodiversity,	WESTERN AUSTRALIA
NatureMap is a collabor	ative project of t	the Department of Biodiversity, Conservation and Attractions and the Western Australian Museum.	Conservation Conservation		AUSTRALIA



N	ame ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
586.		Galeorhinus galeus			
587.	34030	Geotria australis (Pouched Lamprey)		P3	
588.		Gonorynchus greyi			
589.		Gymnapistes marmoratus			
590.		Gymnothorax woodwardi			
591.		Hemipristis elongata			
592.		Heterodontus portusjacksoni			
593.		Hippocampus sp.			
594.		Hyperlophus vittatus			
595.		Hyporhamphus melanochir			
596.		Ichthyscopus barbatus			
597.		Lagocephalus sceleratus			
598.		Makaira indica			
599.		Meuschenia freycineti			
600.		Mugil cephalus			
601. 602.		Myliobatis sp.			
603.		Nelusetta ayraudi Omegophora armilla			
604.		Ophisurus serpens			
605.		Ophthalmolepis lineolatus			
606.		Parazanclistius hutchinsi			
607.		Phyllopteryx taeniolatus			
608.		Platycephalus speculator			
609.		Prionace glauca			
610.		Pristiophorus nudipinnis			
611.		Pseudogobius olorum			
612.		Pterygotrigla polyommata			
613.		Scomber australasicus			
614.		Sillago fraseri (invalid)			Υ
615.		Sphyraena obtusata			
616.		Squalus megalops			
617.		Squatina australis			
618.		Stigmatopora argus			
619.		Thyrsites atun			
620.		Trachinotus baillonii			
621.		Trachurus novaezelandiae			
622.		Trichiurus lepturus			
623.		Trichiurus sp.			
624.		Trygonoptera mucosa			
625.		Urolophus sp.			
Fungus					
626.	46074	Boletellus ananiceps			
627.		Phytophthora cinnamomi			
628.	45895	Ustilago avenae			
Gymnosperm					
629.	85	Macrozamia riedlei (Zamia, Djiridji)			
630.		Podocarpus drouynianus (Wild Plum, Kula)			
Hamatia (Liver					
Hepatic (Liver	wort)	Oranha landa lla sociilitta an			
631.		Cephaloziella exiliflora			
Invertebrate					
632.		Allothereua maculata			
633.		Aname mainae			
634.		Aname tepperi			
635.		Ancylidae sp.			
636.		Argiope protensa			
637.		Arkys walckenaeri			
638.		Artoria linnaei			
639.		Artoriopsis expolita			
640.		Austracantha minax			
641.		Backobourkia brounii			
642.		Backobourkia heroine			
643.		Baiami volucripes			
644. 645.		Caenidae sp. Carabidae sp.			
646.		Carabidae sp. Celaenia excavata			
647.		Cercophonius sulcatus			
648.		Chironominae sp.			
649.		Corixidae sp.			
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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Qu Area
650.		Cormocephalus hartmeyeri			
651.		Cryptoerithus quobba			
652.		Cyclosa trilobata			
653.		Cyrtophora parnasia			
654.		Dingosa serrata			
655.		Dytiscidae sp.			
656.		Ecnomidae sp.			
657.		Erigone prominens			
658.		Eriophora biapicata			
659.		Gripopterygidae sp.			
660.		Hydrophilidae sp.			
661.		Hydropsychidae sp.			
662.	48935	Idiosoma sigillatum (Swan Coastal Plain shield-backed trapdoor spider)		P3	
663.		Isopeda leishmanni			
664.		Lampona cylindrata			
665.		Lampona punctigera			
666.		Latrodectus hasseltii			
667.		Leptoceridae sp.			
668.		Leptophlebiidae sp.			
669.		Missulena granulosa			
670.		Missulena hoggi			
671.		Missulena occatoria			
672.		Mituliodon tarantulinus			
673.		Mitzoruga insularis			
674.		Nephila edulis			
675.		Nicodamus mainae			
676.		Nunciella aspera			
677.		Oligochaeta sp.			
678.		Orthocladiinae sp.			
679.		Palaemonidae sp.			
680.		Parastacidae sp.			
681.		Pholcus phalangioides			
682.		Platorish gelorup			
683.		Simuliidae sp.			
684.					
		Staphylinidae sp.			
685.		Steatoda capensis			
686.		Steatoda grossa			
687.		Synsphyronus magnus			
688.		Tamopsis distinguenda			
689.		Tanypodinae sp.			
690.		Tasmanicosa leuckartii			
691.		Veliidae sp.			
692.		Venator immansueta			
693.		Venatrix pullastra		_	
694.	34113	Westralunio carteri (Carter's Freshwater Mussel)		Т	
ichen.					
695.	27629	Caloplaca erythrosticta			
		• •			
696.		Candelariella xanthostigmoides			
697.		Flavoparmelia ferax			
698.	41286	Flavoparmelia virensica			
699.	27775	Heterodermia japonica			
700.	27787	Hypogymnia subphysodes			
701.		Jackelixia elixii			
702.		Parmotrema reticulatum			
702.		Physia stellaris			
705.					
70.4	28223	Ramalina celastri subsp. ovalis			
704.		Ramalina inflata subsp. australis			
705.					
705. 706.		Teloschistes chrysophthalmus			
705.		Teloschistes chrysophthalmus Trapeliopsis flexuosa			
705. 706.	28065				
705. 706. 707. 708.	28065	Trapeliopsis flexuosa			
705. 706. 707. 708.	28065 28087	Trapeliopsis flexuosa Usnea inermis			
705. 706. 707. 708.	28065 28087	Trapeliopsis flexuosa		S	
705. 706. 707. 708.	28065 28087 24208	Trapeliopsis flexuosa Usnea inermis		S T	
705. 706. 707. 708. flammal 709.	28065 28087 24208 24209	Trapeliopsis flexuosa Usnea inermis Arctocephalus forsteri (New Zealand Fur Seal, long-nosed fur-seal)			
705. 706. 707. 708. //ammal 709. 710.	28065 28087 24208 24209 24044	Trapeliopsis flexuosa Usnea inermis Arctocephalus forsteri (New Zealand Fur Seal, long-nosed fur-seal) Arctocephalus tropicalis (Subantarctic fur-seal) Balaenoptera acutorostrata (Dwarf Minke Whale)	٧		
705. 706. 707. 708. //ammal 709. 710. 711. 712.	28065 28087 24208 24209 24044 24251	Trapeliopsis flexuosa Usnea inermis Arctocephalus forsteri (New Zealand Fur Seal, long-nosed fur-seal) Arctocephalus tropicalis (Subantarctic fur-seal) Balaenoptera acutorostrata (Dwarf Minke Whale) Bos taurus (European Cattle)	Y		
705. 706. 707. 708. Jammal 709. 710. 711. 712. 713.	28065 28087 24208 24209 24044 24251 24086	Trapeliopsis flexuosa Usnea inermis Arctocephalus forsteri (New Zealand Fur Seal, long-nosed fur-seal) Arctocephalus tropicalis (Subantarctic fur-seal) Balaenoptera acutorostrata (Dwarf Minke Whale) Bos taurus (European Cattle) Cercartetus concinnus (Western Pygmy-possum, Mundarda)	Y	Т	
705. 706. 707. 708. Mammal 709. 710. 711. 712. 713. 714.	28065 28087 24208 24209 24044 24251 24086 24043	Trapeliopsis flexuosa Usnea inermis Arctocephalus forsteri (New Zealand Fur Seal, long-nosed fur-seal) Arctocephalus tropicalis (Subantarctic fur-seal) Balaenoptera acutorostrata (Dwarf Minke Whale) Bos taurus (European Cattle) Cercartetus concinnus (Western Pygmy-possum, Mundarda) Eubalaena australis (Southern Right Whale)	Y	Т	
705. 706. 707. 708. Vlammal 709. 710. 711. 712.	28065 28087 24208 24209 24044 24251 24086 24043 24215	Trapeliopsis flexuosa Usnea inermis Arctocephalus forsteri (New Zealand Fur Seal, long-nosed fur-seal) Arctocephalus tropicalis (Subantarctic fur-seal) Balaenoptera acutorostrata (Dwarf Minke Whale) Bos taurus (European Cattle) Cercartetus concinnus (Western Pygmy-possum, Mundarda)	Y	Т	



	Name ID	Species Name	Naturalised	Conservation Code	Endemic To Quer Area
717.		Lobodon carcinophaga			
718.	24132	Macropus fuliginosus (Western Grey Kangaroo)			
719.		Mesoplodon bowdoini (Andrew's Beaked Whale)			
720.	24078	Mesoplodon grayi (Gray's Beaked Whale)			
721.	24081	Mesoplodon mirus (True's Beaked Whale)			
722.	24210	Neophoca cinerea (Australian Sea-lion)		T	
723.	48022	Notamacropus irma (Western Brush Wallaby)		P4	
724.	24085	Oryctolagus cuniculus (Rabbit)	Υ		
725.	48070	Phascogale tapoatafa subsp. wambenger (South-western Brush-tailed Phascogale,		c	
		Wambenger)		S	
726.	24073	Physeter macrocephalus (Sperm Whale)		T	
727.	24166	Pseudocheirus occidentalis (Western Ringtail Possum, ngwayir)		T	
728.	24243	Rattus fuscipes (Western Bush Rat)			
729.	24245	Rattus rattus (Black Rat)	Υ		
730.		Stenella coeruleoalba (Striped Dophin)			
731.		Stenella longirostris (Spinner Dolphin)		P4	
732.		Sus scrofa (Pig)	Υ		
733.		Trichosurus vulpecula (Common Brushtail Possum)			
734.		Tursiops aduncus (Indo-Pacific Bottlenose Dolphin)			
735.		Tursiops truncatus (Bottlenose Dolphin) Tursiops truncatus (Bottlenose Dolphin)			
733.	24009	Tursiops truticatus (Bottlenose Bolphilit)			
nocotyle	don				
736.	1208	Acanthocarpus preissii			
737.	23501	Agrostocrinum scabrum subsp. scabrum			
738.		Aira caryophyllea (Silvery Hairgrass)	Υ		
739.		Ammophila arenaria subsp. arenaria	Υ		
740.		Amphibolis antarctica (Sea Nymph)			
741.		Anigozanthos humilis subsp. humilis			
742.		Anigozanthos manglesii subsp. manglesii			
743.		Anigozanthos manglesii var. x angustifolius			
744.		Anigozanthos viridis (Green Kangaroo Paw, Kurulbardang)			
745.		Anthoxanthum odoratum (Sweet Vernal Grass)	Υ		
746.			'		
		Appelia cyperoides Approach by Approach (Stalland Water Ribbana)		D4	
747.		Aponogeton hexatepalus (Stalked Water Ribbons)		P4	
748.		Asparagus asparagoides (Bridal Creeper)	Y		
749.		Asparagus declinatus	Y		
750.		Asparagus plumosus	Y	_	
751.		Austrostipa bronwenae		Т	
752.		Austrostipa campylachne			
753.	17234	Austrostipa compressa			
754.	38481	Austrostipa jacobsiana		Т	
755.	17253	Austrostipa semibarbata			
756.	231	Avellinia michelii	Υ		
757.	233	Avena barbata (Bearded Oat)	Υ		
758.	235	Avena sativa (Common Oat)	Υ		
759.	743	Baumea juncea (Bare Twigrush)			
760.	749	Bolboschoenus caldwellii (Marsh Club-rush)			
761.	244	Briza maxima (Blowfly Grass)	Υ		
762.		Briza minor (Shivery Grass)	Υ		
763.		Bromus catharticus (Prairie Grass)	Y		
764.		Bromus diandrus (Great Brome)	Y		
765.		Burchardia congesta			
766.		Burchardia multiflora (Dwarf Burchardia)			
767.		Caesia micrantha (Pale Grass Lily)			
767. 768.		Caesia micrantna (Pale Grass Lily) Caesia occidentalis			
769.		Caladenia attingens subsp. attingens			
770.		Caladenia chapmanii			
771.		Caladenia flava (Cowslip Orchid)			
772.		Caladenia hirta (Sugar Candy Orchid)			
773.		Caladenia hirta subsp. hirta			
774.	1605	Caladenia marginata (White Fairy Orchid)			
775.	15371	Caladenia nana subsp. nana			
776.	15503	Caladenia paludosa			
777.	18026	Caladenia pendens subsp. pendens			
778.	13862	Caladenia speciosa		P4	
779.		Calectasia narragara			
780.		Carex divisa (Divided Sedge)	Υ		
781.		Cartonema philydroides			
782.		Cenchrus spinifex (Spiny Burrgrass)	Υ		
		Centrolepis aristata (Pointed Centrolepis)			
783		Commonopio unitidia (i cinica Controlopio)			
783. 784.		Centrolepis drummondiana			



	Name ID	Species Name	Naturalised	Conservation Code	Endemic To Q Area
785.		Centrolepis polygyna (Wiry Centrolepis)			
786.		Chaetanthus aristatus			
787.		Chamaescilla corymbosa (Blue Squill)			
788.		Chloris gayana (Rhodes Grass)	Y		
789.		Conostylis aculeata (Prickly Conostylis)			
790.		Conostylis aculeata subsp. aculeata			
791.		Conostylis aculeata subsp. gracilis			
792.		Cortaderia selloana subsp. selloana	Y		
793.		Corynotheca micrantha var. micrantha			
794.		Cyanicula gemmata			
795.		Cyathochaeta avenacea			
796.		Cyperus congestus (Dense Flat-sedge)	Y		
797.		Cyperus laevigatus	Y		
798.		Cyperus tenuiflorus (Scaly Sedge)	Y		
799.		Cyrtostylis huegelii			
800.		Dasypogon bromeliifolius (Pineapple Bush)			
801.		Desmocladus fasciculatus			
802.		Dichopogon capillipes		_	
803.		Diuris drummondii (Tall Donkey Orchid)		T	
804.		Diuris filifolia (Cat's Face Orchid)			
805.		Drakaea glyptodon (King-in-his-carriage)			
806.		Drakaea livida			
807.		Ehrharta calycina (Perennial Veldt Grass)	Y		
808.		Ehrharta longiflora (Annual Veldt Grass)	Y		
809.		Eleocharis acuta (Common Spikerush)			
810.		Elythranthera brunonis (Purple Enamel Orchid)			
811.		Elythranthera emarginata (Pink Enamel Orchid)			
812.		Empodisma gracillimum			
813.		Eragrostis curvula (African Lovegrass)	Y		
814.		Eriochilus dilatatus (White Bunny Orchid)			
815.		Eriochilus dilatatus subsp. dilatatus			
816.		Eriochilus dilatatus subsp. multiflorus			
817.		Eriochilus scaber subsp. scaber			
818.		Festuca arundinacea (Tall Fescue)	Y		
819.		Ficinia nodosa (Knotted Club Rush)			
820.		Gahnia trifida (Coast Saw-sedge)			
821.		Gladiolus undulatus (Wild Gladiolus)	Y		
822.		Gloriosa superba	Y		Y
823.		Haemodorum simplex			
824.		Hemarthria uncinata var. uncinata			
825.		Holcus lanatus (Yorkshire Fog)	Y		
826.		Hypolaena exsulca			
827.		Hypolaena fastigiata			
828.		Hypolaena pubescens			
829.		Isolepis cernua var. cernua			
830.		Isolepis cernua var. setiformis			
831.		Isolepis cyperoides			
832.		Isolepis marginata (Coarse Club-rush)			
833.		Isolepis oldfieldiana			
834.		Johnsonia acaulis			
835.		Juncus bufonius (Toad Rush)	Y		
836.		Juncus capitatus (Capitate Rush)	Υ		
837.		Juncus kraussii subsp. australiensis			
838.		Lachnagrostis plebeia			
839.		Lepidosperma angustatum			
840.		Lepidosperma longitudinale (Pithy Sword-sedge)			
841.		Lepidosperma pubisquameum			
842.		Lepidosperma sp. Blackwood (R. Davis 7696)			
843.		Lepidosperma sp. Margaret River (B.J. Lepschi 1841)			
844.		Lepidosperma squamatum			
845.		Leptocarpus coangustatus			
846.		Leptocarpus denmarkicus			
847.		Leptocarpus scoparius			
848.		Leptocarpus trisepalus			
849.		Leucojum aestivum (Snowflake)	Υ		
850.		Lolium perenne (Perennial Ryegrass)	Υ		
851.	478	Lolium rigidum (Wimmera Ryegrass)	Υ		
852.		Lolium sp.			
853.		Lomandra caespitosa (Tufted Mat Rush)			
854.		Lomandra hermaphrodita			







	Name ID	Species Name	Naturalised	Conservation Code	Endemic To Area
855.		Lomandra nigricans			
856.	1236	Lomandra odora (Tiered Matrush)			
857.	1239	Lomandra preissii			
858.	1240	Lomandra purpurea (Purple Mat Rush)			
859.	1246	Lomandra suaveolens			
860.	1092	Loxocarya cinerea			
861.	1097	Lyginia barbata			
862.	18049	Lyginia imberbis			
863.	1656	Lyperanthus serratus (Rattle Beak Orchid)			
864.	14985	Melinis repens	Υ		
865.	957	Mesomelaena tetragona (Semaphore Sedge)			
866.	485	Microlaena stipoides (Weeping Grass)			
867.		Microtis media (Tall Mignonette Orchid)			
868.		Microtis media subsp. media			
869.		Moraea flaccida (One-leaf Cape Tulip)	Υ		
870.		Narcissus tazetta subsp. italicus	Y		
871.		Nothoscordum gracile	Y		
872.		Ottelia ovalifolia subsp. ovalifolia	ī		
			Υ		
873. 974		Panicum capillare (Witchgrass) Patersonia eccidentalis (Purple Flag Koma)	Y		
874. 075		Patersonia occidentalis (Purple Flag, Koma)			
875.		Pauridia occidentalis var. quadriloba			
876.		Phalaris angusta	Y		
877.		Phlebocarya ciliata			
878.		Poa poiformis (Coastal Poa)			
879.		Polypogon tenellus			
880.	122	Posidonia angustifolia			
881.	110	Potamogeton drummondii			
882.	15424	Praecoxanthus aphyllus			
883.	1674	Prasophyllum giganteum (Bronze Leek Orchid)			
884.	1680	Prasophyllum parvifolium (Autumn Leek Orchid)			
885.	44084	Prasophyllum sp. early (G. Brockman GBB 1626)			
886.	1685	Pterostylis angusta			
887.	15426	Pterostylis aspera			
888.	44723	Pterostylis glebosa			
889.		Pterostylis pyramidalis (Snail Orchid)			
890.		Pterostylis rogersii (Curled-tongue Shell Orchid)			
891.		Pterostylis sp.			
892.	10998	Pterostylis turfosa (Bird Orchid)			
893.		Pterostylis vittata (Banded Greenhood)			
894.		Puccinellia vassica		P1	
895.		Pyrorchis nigricans (Red beaks, Elephants ears)		''	
896.		Romulea flava var. minor	Υ		
897.		Romulea obscura	Y		
897. 898.		Romulea rosea (Guildford Grass)	·		
		, ,	Y		
899.		Rytidosperma occidentale			
900.		Schoenoplectus pungens (Sharpleaf Rush)			
901.		Schoenus asperocarpus (Poison Sedge)		_	
902.		Schoenus benthamii		P3	
903.		Schoenus laevigatus			
904.		Schoenus plumosus			
905.	1011	Schoenus rigens			
906.	1013	Schoenus sculptus (Gimlet Bog-rush)			
907.	1312	Sowerbaea laxiflora (Purple Tassels)			
908.	625	Spinifex longifolius (Beach Spinifex)			
909.	635	Sporobolus virginicus (Marine Couch)			
910.	1036	Tetraria octandra			
911.	1717	Thelymitra variegata (Queen of Sheba)		P2	
912.	1318	Thysanotus arbuscula			
913.		Thysanotus arenarius			
914.		Thysanotus sparteus			
915.		Thysanotus tenellus			
916.		Thysanotus thyrsoideus			
917.		Trachyandra divaricata	Υ		
918.		Tribonanthes australis (Southern Tiurndin)			
919.					
		Tribonanthes brachypetala (Nodding Tiurndin) Tribonanthes longingtala (Pranching Tiurndin)			
920.		Tribonanthes longipetala (Branching Tiurndin)			
921.		Triglochin mucronata			
922.		Triglochin nana			
923.		Triglochin striata			
924.		Vulpia bromoides (Squirrel Tail Fescue)	Υ		

NatureMap is a collaborative project of the Department of Biodiversity, Conservation and Attractions and the Western Australian Museu





	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
925.	724	Vulpia myuros (Rat's Tail Fescue)	Υ		
926.	1566	Watsonia marginata	Υ		
927.	18108	Watsonia meriana var. bulbillifera	Y		
928.	18118	Watsonia meriana var. meriana	Υ		
929.	1251	Xanthorrhoea brunonis			
930.	1049	Zantedeschia aethiopica (Arum Lily)	Υ		
Pteridophy	yte (Fern)				
931.	6	Selaginella gracillima (Tiny Clubmoss)			
Reptile					
932.	12368	Acritoscincus trilineatus (Western Three-lined Skink)			
933.		Aprasia repens (Sand-plain Worm-lizard)			
934.		Caretta caretta (Loggerhead Turtle)		Т	
935.		Christinus marmoratus (Marbled Gecko)		'	
936.		Cryptoblepharus buchananii			
937.		Ctenotus australis			
938.		Ctenotus impar			
939.		Ctenotus labillardieri			
940.		Ctenotus ora (Coastal Plains Skink)		P3	
941.		Egernia kingii (King's Skink)		13	
942.		Egernia napoleonis			
943.		Elapognathus coronatus (Crowned Snake)			
944.		Hemiergis gracilipes (skink)			
945.		Hemiergis quadrilineata			
946.		Hydrophis major (Olive-headed seasnake, greater seasnake)			
947.		Hydrophis ornatus (Ornate Reef Seasnake, Sea Snake)			
948.		Hydrophis platurus (Yellow-bellied Seasnake)			
949.		Lerista distinguenda			
950.		Lerista elegans			
951.		Lialis burtonis			
952.	42413	Lissolepis luctuosa (Western Swamp Skink)			
953.		Menetia greyii			
954.		Morethia lineoocellata			
955.		Natator depressus (Flatback Turtle)		Т	
956.		Neelaps bimaculatus (Black-naped Snake)			
957.		Notechis scutatus (Tiger Snake)			
958.		Parasuta gouldii			
959.		Parasuta nigriceps			
960.		Pogona minor (Dwarf Bearded Dragon)			
961.		Pogona minor subsp. minor (Dwarf Bearded Dragon)			
962.		Pseudonaja affinis subsp. affinis (Dugite)			
963.		Simoselaps bertholdi (Jan's Banded Snake)			
964.		Tiliqua rugosa			

Conservation Codes

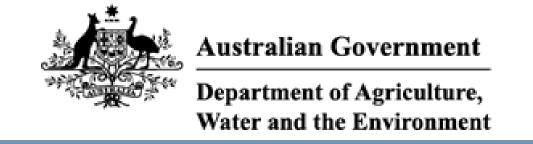
1 - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority
2 - Priority
3 - Priority
4 - Priority
5 - Priority
5 - Priority
5

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 2: PMST



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: 18/02/21 17:28:04

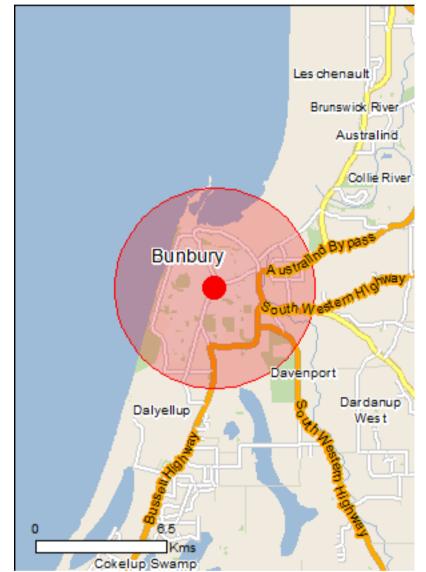
<u>Summary</u>

Details

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

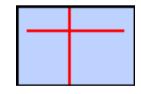
Caveat

Acknowledgements



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

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 <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	3
Listed Threatened Species:	58
Listed Migratory Species:	44

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 <u>permit</u> 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:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	69
Whales and Other Cetaceans:	13
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:	None
Regional Forest Agreements:	None
Invasive Species:	28
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities

For threatened ecological communities where the distriplans, State vegetation maps, remote sensing imagery community distributions are less well known, existing vegetation maps.	and other sources. Where	threatened ecological
Name	Status	Type of Presence
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area
Clay Pans of the Swan Coastal Plain	Critically 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 known to occur within area
Calyptorhynchus banksii naso		
Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area
Calyptorhynchus baudinii		
Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	Breeding known to occur within area
Calyptorhynchus latirostris 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>	Finaless states	On a since an experience in 1999 (
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

[Resource Information]

Name	Status	Type of Presence
		to occur within area
<u>Diomedea exulans</u>		
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
Falco hypoleucos		
Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
Halobaena caerulea		
Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat 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
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica		
Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
Phoebetria fusca		
Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Pterodroma mollis		
Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may 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 carteri	\/loonable	Canadian facilian or valetad
Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related
	Litarigerea	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

Name	Status	Type of Presence
Fish		
Nannatherina balstoni Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat 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 within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat known to occur within area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat may occur within area
Other		
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area
Plants		
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area
Austrostipa bronwenae [87808]	Endangered	Species or species habitat known to occur within area
Austrostipa jacobsiana [87809]	Critically Endangered	Species or species habitat known to occur within area
Banksia nivea subsp. uliginosa Swamp Honeypot [82766]	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
Diuris drummondii Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat known to occur within area
<u>Diuris micrantha</u> Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area
<u>Diuris purdiei</u> Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
<u>Drakaea elastica</u>) ₁
Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area
<u>Drakaea micrantha</u>		
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
Lambertia echinata subsp. occidentalis Western Prickly Honeysuckle [64528]	Endangered	Species or species habitat may occur within area
Synaphea sp. Fairbridge Farm (D. Papenfus 696) Selena's Synaphea [82881]	Critically Endangered	Species or species habitat likely to occur within area
Synaphea sp. Serpentine (G.R. Brand 103) [86879]	Critically Endangered	Species or species habitat may occur within area
Reptiles		
Caretta caretta		
Loggerhead Turtle [1763] Chelonia mydas	Endangered	Foraging, feeding or related behaviour known to occur within area
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely 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 known to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
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	the EDBC Act - Threatened	[Resource Information]
* Species is listed under a different scientific name on Name	Threatened	Type of Presence
Migratory Marine Birds	Tilloutoriou	Type of Frederice
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]		Species or species habitat likely to occur within area
<u>Diomedea amsterdamensis</u> Amsterdam Albatross [64405]	Endangered	Species or species

Name	Threatened	Type of Presence
		habitat may occur within
Diomedea dabbenena		area
Tristan Albatross [66471]	Endangered	Species or species habitat
		may occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related
	vaniorabio	behaviour likely to occur
Diamadaa ayulana		within area
<u>Diomedea exulans</u> Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related
vvariaomig / libatrood [00220]	vaniorabio	behaviour likely to occur
Diamenda confordi		within area
<u>Diomedea sanfordi</u> Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related
Notificiti Noyal Albatioss [04450]	Lindangered	behaviour likely to occur
		within area
<u>Hydroprogne caspia</u> Caspian Tern [808]		Foraging, feeding or related
Caspian Tem [600]		behaviour known to occur
		within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat
Southern Glant-Fetter, Southern Glant Fetter [1000]	Endangered	Species or species habitat may occur within area
		•
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat
Northern Clarit Fetter [1001]	valiterable	may occur within area
		•
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related
Bhalea Tem [62646]		behaviour likely to occur
Dhochatria fusca		within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat
		may occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related
		behaviour may occur within
Thalassarche cauta		area
Shy Albatross [89224]	Endangered	Foraging, feeding or related
		behaviour likely to occur
Thalassarche impavida		within area
Campbell Albatross, Campbell Black-browed Albatross	Vulnerable	Species or species habitat
[64459]		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
Migratory Marine Species		
Balaena glacialis australis Southern Dight Whole [7550]		Dragding known to coour
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
		mory to occur within area
Caperea marginata		
Pygmy Right Whale [39]		Species or species habitat may occur within
		may Joodi Willin

Name	Threatened	Type of Presence
		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
vvinte chark, Creat vvinte chark [0++70]	Valiforable	known to occur within area
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related
		behaviour known to occur within area
Chelonia mydas		within area
Green Turtle [1765]	Vulnerable	Foraging, feeding or related
		behaviour known to occur
		within area
Dermochelys coriacea		D P P P
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Lagenorhynchus obscurus		within area
Dusky Dolphin [43]		Species or species habitat
Buoky Bolphin [10]		may occur within area
		-
Manta alfredi		
Reef Manta Ray, Coastal Manta Ray, Inshore Manta		Species or species habitat
Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		may occur within area
Manta birostris		
Giant Manta Ray, Chevron Manta Ray, Pacific Manta		Species or species habitat
Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		may occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Congregation or
		aggregation known to occur within area
Natator depressus		Within area
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related
		behaviour known to occur
Oroinus oros		within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat
ranci viriale, Orea [40]		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
Migratory Wetlands Species		
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
		known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat
		known to occur within area
Calidrie forruginos		
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat
	ontioally Ellicallyciec	known to occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat
		may occur within

Name	Threatened	Type of Presence
		area
<u>Limosa lapponica</u>		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to 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

Curlew Sandpiper [856]

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.

Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.			
Name			
Commonwealth Land -			
Defence - BUNBURY TRAINING DEPOT			
Listed Marine Species		[Resource Information]	
* Species is listed under a different scientific name	on the FPBC Act - Threa		
Name	Threatened	Type of Presence	
Birds	Timodionod	1)	
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	
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 known to occur within area	
<u>Calidris canutus</u>			
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	
Calidris ferruginea			

Critically Endangered

Species or species habitat

known to occur

Name	Threatened	Type of Presence
		within area
<u>Calidris melanotos</u>		
Pectoral Sandpiper [858]		Species or species habitat
		may occur within area
Catharacta skua		
Great Skua [59472]		Species or species habitat
		may occur within area
Diomedea amsterdamensis	Finday ways d	On saise an energies habitet
Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
		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
Council Royal Albatioss [00221]	Valiforable	behaviour likely to occur
		within area
<u>Diomedea exulans</u>		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related
		behaviour likely to occur
Diomedea sanfordi		within area
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related
Troiting in Troy at 7 thouse to 1 100]	Endangoroa	behaviour likely to occur
		within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat
		known to occur within area
Halobaena caerulea		
Blue Petrel [1059]	Vulnerable	Species or species habitat
		may occur within area
Limosa lapponica Den teile di Controit [0.44]		On a sing on an asing babitat
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
		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
Northern Clarit Fetter [1001]	Vulliciable	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 habitat
		known to occur within area
Pachyptila turtur		
Fairy Prion [1066]		Species or species habitat
		likely to occur within area
Dandian halicatus		
Pandion haliaetus Opprov [052]		Chasias ar anasias babiles
Osprey [952]		Species or species habitat known to occur within area
		MIOWIT TO OCCUP WILLIIII AIRA
Phoebetria fusca		
Sooty Albatross [1075]	Vulnerable	Species or species habitat
		may occur within area

Name	Threatened	Type of Presence
Pterodroma mollis		
Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Puffinus assimilis		
Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater		Species or species habitat
[1043]		likely to occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Sterna anaethetus		
Bridled Tern [814]		Foraging, feeding or related behaviour likely to occur within area
Sterna caspia Caspian Torn [50467]		Foreging fooding or related
Caspian Tern [59467]		Foraging, feeding or related behaviour known to occur within area
<u>Thalassarche carteri</u> Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related
		behaviour may occur within area
Thalassarche cauta Shy Albatross [80224]	Endangered	Forgaina fooding or related
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross	Vulnerable	Species or species habitat
[64459]	vuirierable	may occur within area
<u>Thalassarche melanophris</u>		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche steadi</u>		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis		
Hooded Plover [59510]		Species or species habitat known to occur 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
Campichthys galei		
Gale's Pipefish [66191]		Species or species habitat may occur within area
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus angustus		
Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
Hippocampus breviceps		
Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Hippocampus subelongatus		
West Australian Seahorse [66722]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-bac Pipefish [66243]	ek	Species or species habitat may occur within area
<u>Lissocampus caudalis</u> Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat
<u>Lissocampus fatiloquus</u> Prophet's Pipefish [66250]		may occur within area Species or species habitat
Lissocampus runa		may occur within area
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
zenymeda i ipenen, zeny medaea i ipenen [eeze i]		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 [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammals		

Name	Threatened	Type of Presence
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]	Endangered	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	Breeding likely to 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	Type of Presence
Mammals		
Balaenoptera acutorostrata		
Minke Whale [33]		Species or species habitat may 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
Delphinus delphis		
Common Dophin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis		
Southern Right Whale [40] <u>Grampus griseus</u>	Endangered	Breeding known to occur within area
Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Stenella attenuata		
Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area

Name	Status	Type of Presence
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

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		
Anas platyrhynchos		
Mallard [974]		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
Mammals		
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
Feral deer		
Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Mus musculus		
House Mouse [120]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Oryctolagus cuniculus Rabbit, European Rabbit [128]		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
Sus scrofa Pig [6]		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		
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643] Asparagus asparagoides		Species or species habitat likely to occur within area
Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Asparagus declinatus Bridal Veil, Bridal Veil Creeper, Pale Berry Asparagus Fern, Asparagus Fern, South African Creeper [66908]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		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
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax Broom [2800]	1	Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Olea europaea Olive, Common Olive [9160]		Species or species habitat may 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
Solanum elaeagnifolium Silver Nightshade, Silver-leaved Nightshade, White Horse Nettle, Silver-leaf Nightshade, Tomato Weed, White Nightshade, Bull-nettle,		Species or species habitat likely to occur within area

Prairie-berry, Satansbos, Silver-leaf Bitter-apple, Silverleaf-nettle, Trompillo [12323]

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 gualifications 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

-33.34287 115.64792

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.

Appendix 3: Conservation Codes

Western Australia

Conservation Code	Name	Description
Т	Threatened	Flora or fauna that is rare or likely to become extinct, ranked according to their level of threat using IUCN Red List criteria (Schedules 1-3 of the Wildlife Conservation (Specially Protected Fauna)
		Notice or the Wildlife Conservation (Rare Flora) Notice)
CR	Critically endangered	Species considered to be facing an extremely high risk of extinction within the wild in the immediate future
EN	Endangered	Species considered to be facing a very high risk of extinction in the wild in the near future
VU	Vulnerable	Species considered to be facing a high risk of extinction in the wild in the medium-term future
EX	Extinct Species	Species where 'there is no reasonable doubt that the last member of the species has died (Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice or the Wildlife Conservation (Rare Flora) Notice)
EW	Extinct in the Wild	Species that are known to only survive in cultivation, in captivity, or as a naturalised population well outside its past range; and it has not been recorded in its known or expected habitat at appropriate seasons anywhere in its past range, despite surveys over a timeframe appropriate to its life cycle and form
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 (Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice)
CD	Conservation Dependent	Species of special conservation interest (conservation dependent fauna) being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened (Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice)
OS	Specially Protected	Fauna otherwise in need of special protection to ensure their conservation (Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice)
Р	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 orde of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or

Conservation Code	Name	Description
		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.
		Poorly known species – Species that are known from one or a few
		locations (generally five or less) which are potentially at risk. All
P1	Priority One	occurrences are either very small or on lands not managed for
		conservation, such as road verges, urban areas, farmland, active mineral
		lease and under threat of habitat destruction or degradation.
		Poorly known species – Species that are known from one or a few
		locations (generally five or less), some of which are on lands managed
2	Priority Two	primarily for nature conservation, such as national parks, conservation
		parks, nature reserves, State forest, vacant Crown land, water reserves and similar.
		Poorly known species – Species that are known from several locations,
		and the species does not appear to be under imminent threat, or from
3	Priority Three	few but widespread locations with either large population size or
		significant remaining areas of apparently suitable habitat, much of it not under imminent threat
4	Priority Four	Rare or near threatened and other species in need of monitoring.

(Source: Department of Biodiversity, Conservation and Attractions, 2021a)

Commonwealth

Category	Description
Critically Endangered	Species facing an extremely high risk of extinction in the wild in the
	immediate future
Endangered	Species facing a very high risk of extinction in the wild in the near future
Vulnerable	Species facing a high risk of extinction in the wild in the medium term

(Source: Department of Agriculture, Water, and the Environment, 2021b)

Appendix 4: Flora Species List

Family	Species Name	Common Name
Amaryllidaceae	Agapanthus sp.*	
Myrtaceae	Agonis flexuosa	Peppermint
Myrtaceae	Callistemon citrinus 'Kings Park Special'*	Bottlebrush
Juglandaceae	Carya illinoinensis*	Pecan Tree
Myrtaceae	Corymbia calophylla	Marri
Cyperaceae	Cyperus congestus*	Dense Flat-sedge
Fabaceae	Erythrina x sykesii*	Coral Tree
Myrtaceae	Eucalyptus accedens	Powderbark Wandoo
Myrtaceae	Eucalyptus erythrocorys*	Illyarrie
Myrtaceae	Eucalyptus gomphocephala	Tuart
Myrtaceae	Eucalyptus marginata	Jarrah
Myrtaceae	Eucalyptus petiolaris*	
Myrtaceae	Eucalyptus sp.* (rough bark)	
Myrtaceae	Eucalyptus sp.* (smooth bark)	
Moraceae	Ficus sp.*	
Myrtaceae	Melaleuca rhaphiophylla	Swamp Paperbark
Moraceae	Morus alba*	Mulberry tree
Arecaceae	Phoenix dactylifera*	Date Palm
Plantaginaceae	Plantago lanceolata*	Ribwort Plantain
Amaranthaceae	Rhagodia baccata	Berry Saltbush
Anacardiaceae	Schinus molle*	
Anacardiaceae	Schinus terebinthifolia*	Japanese Pepper
Arecaceae	Washingtonia filifera*	

Appendix 5: Habitat Tree Locations

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Agonis flexuosa Peppermint 374058.0336 6309911.095 Agonis flexuosa Peppermint Poor Health-Borer 373976.0437 6309695.617 Agonis flexuosa Peppermint 374038.6570 6309927.678 Agonis flexuosa Peppermint 374040.2103 6309935.433 Agonis flexuosa Peppermint 374021.1604 6309837.964 Agonis flexuosa Peppermint 374190.0378 6309892.028 Agonis flexuosa Peppermint 374065.9681 6309953.752 Agonis flexuosa Peppermint Borer 374208.9977 6309710.258 Agonis flexuosa Peppermint 374001.5851 6309764.158 6309764.158 Agonis flexuosa Peppermint 374190.8981 6309736.704 6309922.214 Agonis flexuosa Peppermint 374101.1434 6309936.566 6309936.566 Agonis flexuosa Peppermint 373997.9251 6309740.815 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint	Agonis flexuosa	Peppermint		374065.1521	6309903.639		
Agonis flexuosa Peppermint Poor Health- Borer 373976.0437 6309695.617 Agonis flexuosa Peppermint 374038.6570 6309927.678 Agonis flexuosa Peppermint 374040.2103 6309927.678 Agonis flexuosa Peppermint 374021.1604 6309837.964 Agonis flexuosa Peppermint 374190.0378 6309892.028 Agonis flexuosa Peppermint 374065.9681 6309953.752 Agonis flexuosa Peppermint Borer 374208.9977 6309710.258 Agonis flexuosa Peppermint 374001.5851 6309764.158 Agonis flexuosa Peppermint 374103.2449 6309922.214 Agonis flexuosa Peppermint 374190.8981 6309764.158 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374919.8981 6309736.704 Agonis flexuosa Peppermint 374078.1161 63099740.815 Agonis flexuosa Peppermint 374078.1161 63099740.815 Agonis flexuosa <	Agonis flexuosa	Peppermint		374108.8405	6309718.649		
Agonis flexuosa Peppermint 374038.6570 6309927.678 Agonis flexuosa Peppermint 374040.2103 6309935.433 Agonis flexuosa Peppermint 374021.1604 6309837.964 Agonis flexuosa Peppermint 374190.0378 6309892.028 Agonis flexuosa Peppermint 374065.9681 6309953.752 Agonis flexuosa Peppermint Borer 374208.9977 6309710.258 Agonis flexuosa Peppermint 374001.5851 6309764.158 Agonis flexuosa Peppermint 374163.2449 6309922.214 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374979.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 63099740.815 Agonis flexuosa Peppermint 374078.1161 6309989.495 Agonis flexuosa Peppermint 374077.0371 6309892.495 Agonis flexuosa Peppermint 374077	Agonis flexuosa	Peppermint		374058.0336	6309911.095		
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Agonis flexuosa Peppermint 374021.1604 6309837.964 Agonis flexuosa Peppermint 374190.0378 6309832.028 Agonis flexuosa Peppermint 374065.9681 6309953.752 Agonis flexuosa Peppermint Borer 374208.9977 6309710.258 Agonis flexuosa Peppermint 374001.5851 6309764.158 Agonis flexuosa Peppermint 374163.2449 6309922.214 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374101.1434 6309936.566 Agonis flexuosa Peppermint 374078.1161 6309907.40.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374187.6912 6309882.495 Agonis flexuosa Peppermint 374107.0775 6309907.989 Agonis flexuosa Peppermint 374104.0775 6309907.989 Agonis flexuosa Peppermint 3741	Agonis flexuosa	Peppermint		374038.6570	6309927.678		
Agonis flexuosa Peppermint 374190.0378 6309892.028 Agonis flexuosa Peppermint 374065.9681 6309953.752 Agonis flexuosa Peppermint Borer 374208.9977 6309710.258 Agonis flexuosa Peppermint 374001.5851 6309764.158 Agonis flexuosa Peppermint 374163.2449 6309922.214 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374101.1434 6309936.566 Agonis flexuosa Peppermint 373997.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374187.6912 6309882.495 Agonis flexuosa Peppermint 374057.0371 6309980.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.	Agonis flexuosa	Peppermint		374040.2103	6309935.433		
Agonis flexuosa Peppermint 374065.9681 6309953.752 Agonis flexuosa Peppermint Borer 374208.9977 6309710.258 Agonis flexuosa Peppermint 374001.5851 6309764.158 Agonis flexuosa Peppermint 374163.2449 6309922.214 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374101.1434 6309936.566 Agonis flexuosa Peppermint 373997.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374187.6912 6309884.165 Agonis flexuosa Peppermint 374107.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.6888 6309903.669 Agonis flexuosa Peppermint 374084.	Agonis flexuosa	Peppermint		374021.1604	6309837.964		
Agonis flexuosa Peppermint Borer 374208.9977 6309710.258 Agonis flexuosa Peppermint 374001.5851 6309710.258 Agonis flexuosa Peppermint 374163.2449 6309922.214 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374101.1434 6309936.566 Agonis flexuosa Peppermint 373997.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374187.6912 6309884.165 Agonis flexuosa Peppermint 374187.6912 6309892.495 Agonis flexuosa Peppermint 374101.0775 63099896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374084.3932 6309703.669 Agonis flexuosa Peppermint 374084.3932 630973.6.440 Agonis flexuosa Peppermint 37408	Agonis flexuosa	Peppermint		374190.0378	6309892.028		
Agonis flexuosa Peppermint 374001.5851 6309764.158 Agonis flexuosa Peppermint 374163.2449 6309922.214 Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374101.1434 6309936.566 Agonis flexuosa Peppermint 373997.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374055.6442 6309684.165 Agonis flexuosa Peppermint 374057.0371 6309892.495 Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374085.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374084.3932 6	Agonis flexuosa	Peppermint		374065.9681	6309953.752		
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Agonis flexuosa Peppermint 374190.8981 6309736.704 Agonis flexuosa Peppermint 374101.1434 6309936.566 Agonis flexuosa Peppermint 373997.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374055.6442 6309684.165 Agonis flexuosa Peppermint 374187.6912 6309892.495 Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 37402.6888 6309928.106 Agonis flexuosa Peppermint 374084.3932 6309703.669 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374001.5851	6309764.158		
Agonis flexuosa Peppermint 374101.1434 6309936.566 Agonis flexuosa Peppermint 373997.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374055.6442 6309684.165 Agonis flexuosa Peppermint 374187.6912 6309892.495 Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 37402.6888 6309928.106 Agonis flexuosa Peppermint 374084.3932 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374163.2449	6309922.214		
Agonis flexuosa Peppermint 373997.9251 6309740.815 Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374055.6442 6309684.165 Agonis flexuosa Peppermint 374187.6912 6309892.495 Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 37402.6888 6309928.106 Agonis flexuosa Peppermint 374055.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374190.8981	6309736.704		
Agonis flexuosa Peppermint 374078.1161 6309907.442 Agonis flexuosa Peppermint 374055.6442 6309684.165 Agonis flexuosa Peppermint 374187.6912 6309892.495 Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374084.3932 6309703.669 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374101.1434	6309936.566		
Agonis flexuosa Peppermint 374055.6442 6309684.165 Agonis flexuosa Peppermint 374187.6912 6309892.495 Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 37402.6888 6309928.106 Agonis flexuosa Peppermint 374084.3932 6309703.669 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		373997.9251	6309740.815		
Agonis flexuosa Peppermint 374187.6912 6309892.495 Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374055.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374078.1161	6309907.442		
Agonis flexuosa Peppermint 374057.0371 6309896.514 Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374055.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374055.6442	6309684.165		
Agonis flexuosa Peppermint 374101.0775 6309907.989 Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374055.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374187.6912	6309892.495		
Agonis flexuosa Peppermint 374104.7924 6309681.915 Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374055.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374057.0371	6309896.514		
Agonis flexuosa Peppermint 374102.6888 6309928.106 Agonis flexuosa Peppermint 374055.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374101.0775	6309907.989		
Agonis flexuosa Peppermint 374055.4846 6309703.669 Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374104.7924	6309681.915		
Agonis flexuosa Peppermint 374084.3932 6309736.440 Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374102.6888	6309928.106		
Agonis flexuosa Peppermint 374048.6888 6309916.968	Agonis flexuosa	Peppermint		374055.4846	6309703.669		
	Agonis flexuosa	Peppermint		374084.3932	6309736.440		
Agonis flexuosa Peppermint 374060.0896 6309707.114	Agonis flexuosa	Peppermint		374048.6888	6309916.968		
	Agonis flexuosa	Peppermint		374060.0896	6309707.114		

Species	Common Name	Comments	Loca	ation
Species	Common Name	Comments	Eastings	Northings
Agonis flexuosa	Peppermint	Borer	374113.4215	6309935.514
Agonis flexuosa	Peppermint		374197.6374	6309734.400
Agonis flexuosa	Peppermint		374095.4825	6309906.270
Agonis flexuosa	Peppermint		374244.5972	6309802.256
Agonis flexuosa	Peppermint		374046.3211	6309736.443
Agonis flexuosa	Peppermint		374082.5945	6309906.227
Agonis flexuosa	Peppermint		374256.7922	6309846.116
Agonis flexuosa	Peppermint		374226.4555	6309783.819
Agonis flexuosa	Peppermint		374166.3918	6309739.803
Agonis flexuosa	Peppermint		374084.8336	6309935.671
Agonis flexuosa	Peppermint	potential scratch marks	373979.7324	6309735.951
Agonis flexuosa	Peppermint		374030.9601	6309897.977
Agonis flexuosa	Peppermint		374178.9856	6309736.053
Agonis flexuosa	Peppermint		374087.8054	6309740.429
Agonis flexuosa	Peppermint		374119.6894	6309904.627
Agonis flexuosa	Peppermint		374240.8607	6309811.246
Agonis flexuosa	Peppermint		374163.1465	6309739.792
Agonis flexuosa	Peppermint		374157.2765	6309934.840
Agonis flexuosa	Peppermint		374105.2644	6309729.692
Agonis flexuosa	Peppermint		374199.0253	6309899.258
Agonis flexuosa	Peppermint		374019.5598	6309754.576
Agonis flexuosa	Peppermint		374061.9274	6309683.346
Agonis flexuosa	Peppermint		373991.7099	6309724.396
Agonis flexuosa	Peppermint		374051.3902	6309893.987
Agonis flexuosa	Peppermint		374019.1116	6309745.843
Agonis flexuosa	Peppermint		374065.0556	6309935.103
Agonis flexuosa	Peppermint		374080.3787	6309937.476
Agonis flexuosa	Peppermint		374159.9964	6309734.844
Agonis flexuosa	Peppermint		374147.9076	6309904.092
Agonis flexuosa	Peppermint		374057.6188	6309926.216
Agonis flexuosa	Peppermint		373971.2798	6309714.005

Species	Common Name	Comments		ition
Species	Common Name	Comments	Eastings	Northings
Agonis flexuosa	Peppermint		374038.2143	6309911.303
Agonis flexuosa	Peppermint		374044.5471	6309911.479
Agonis flexuosa	Peppermint		374069.6396	6309726.278
Agonis flexuosa	Peppermint		374093.7164	6309712.986
Agonis flexuosa	Peppermint		374132.9336	6309915.701
Agonis flexuosa	Peppermint		374033.6735	6309734.726
Agonis flexuosa	Peppermint		374091.9450	6309907.125
Agonis flexuosa	Peppermint		374095.6265	6309717.298
Agonis flexuosa	Peppermint		374243.8204	6309797.183
Agonis flexuosa	Peppermint	Dead - bee hive present	374089.0979	6309900.472
Agonis flexuosa	Peppermint		374074.3935	6309744.697
Agonis flexuosa	Peppermint		374133.5274	6309732.885
Agonis flexuosa	Peppermint		374071.0318	6309909.866
Agonis flexuosa	Peppermint		374018.3327	6309793.790
Agonis flexuosa	Peppermint		374066.1141	6309743.036
Agonis flexuosa	Peppermint		374143.3713	6309900.151
Agonis flexuosa	Peppermint		374062.4959	6309742.896
Agonis flexuosa	Peppermint		373981.3074	6309696.400
Agonis flexuosa	Peppermint	Borers	374110.0639	6309905.682
Agonis flexuosa	Peppermint		374090.6284	6309924.408
Agonis flexuosa	Peppermint		374034.8549	6309874.421
Agonis flexuosa	Peppermint		374016.2137	6309728.691
Agonis flexuosa	Peppermint		374174.7340	6309734.227
Erythrina x sykesii	Coral Tree		374261.9743	6309858.018
Erythrina x sykesii	Coral Tree		374298.4390	6309984.474
Erythrina x sykesii	Coral Tree		374283.5156	6309929.582
Erythrina x sykesii	Coral Tree		374277.8194	6309909.194
Erythrina x sykesii	Coral Tree		374302.8156	6309995.93
Erythrina x sykesii	Coral Tree		374265.2720	6309868.435
Erythrina x sykesii	Coral Tree		374273.5811	6309899.106
Erythrina x sykesii	Coral Tree		374297.1480	6309975.729

Species	Common Name	Comments	Loca	Location		
Species	Common Name	Comments	Eastings	Northings		
Erythrina x sykesii	Coral Tree		374286.2548	6309937.352		
Erythrina x sykesii	Coral Tree		374280.9951	6309919.392		
Erythrina x sykesii	Coral Tree		374288.7671	6309945.771		
Erythrina x sykesii	Coral Tree		374290.6815	6309956.978		
Eucalyptus sp.*			374016.5514	6309822.809		
Eucalyptus sp.*			374013.4912	6309786.925		
Eucalyptus sp.*			374004.7438	6309780.444		
Eucalyptus sp.*			374015.6616	6309809.627		
Eucalyptus marginata	Jarrah	Poor health - Dying	374028.7801	6309775.103		
Eucalyptus marginata	Jarrah		374064.8139	6309725.408		
Eucalyptus marginata	Jarrah		374040.2650	6309741.396		
Eucalyptus marginata	Jarrah		374084.3597	6309712.585		
Eucalyptus marginata	Jarrah		374043.8534	6309724.608		
Corymbia calophylla	Marri		374016.8704	6309740.595		
Corymbia calophylla	Marri		374011.5593	6309733.848		
Melaleuca rhaphiophylla	Swamp Paperbark		374217.6291	6309711.240		
Melaleuca rhaphiophylla	Swamp Paperbark		374225.7517	6309768.310		
Melaleuca rhaphiophylla	Swamp Paperbark		374141.2019	6309718.635		
Melaleuca rhaphiophylla	Swamp Paperbark		374215.4153	6309703.881		
Eucalyptus gomphocephala	Tuart		374225.5748	6309755.480		
Eucalyptus gomphocephala	Tuart	Small hollows	373995.3625	6309731.495		
Eucalyptus gomphocephala	Tuart		374009.1826	6309830.323		
Eucalyptus gomphocephala	Tuart		374026.4246	6309879.561		
Eucalyptus gomphocephala	Tuart		374131.6583	6309694.159		
Eucalyptus gomphocephala	Tuart	Small hollows	374109.3718	6309737.821		
Eucalyptus gomphocephala	Tuart		374205.8658	6309747.211		
Eucalyptus gomphocephala	Tuart		374030.9756	6309687.758		
Eucalyptus gomphocephala	Tuart		374178.5044	6309700.979		
Eucalyptus gomphocephala	Tuart		374217.4942	6309757.736		
Eucalyptus gomphocephala	Tuart		374004.5045	6309688.377		
Eucalyptus gomphocephala	Tuart		374059.5670	6309898.752		

Species	Common Name	Comments	Location	
Species	Common Name		Eastings	Northings
Eucalyptus gomphocephala	Tuart		374008.5125	6309696.940
Eucalyptus gomphocephala	Tuart	Small hollows	373965.9342	6309721.918
Eucalyptus gomphocephala	Tuart	Hollows - Dead	374228.8232	6309752.851
Eucalyptus gomphocephala	Tuart	Small hollows	374136.4320	6309727.891
Eucalyptus gomphocephala	Tuart	Small hollows	374123.0896	6309722.003
Eucalyptus gomphocephala	Tuart	Small hollows	374156.7945	6309736.293
Eucalyptus gomphocephala	Tuart		374191.0753	6309706.205
Eucalyptus gomphocephala	Tuart		374018.1891	6309840.876
Eucalyptus gomphocephala	Tuart	Small hollows	373995.3625	6309731.495
Eucalyptus gomphocephala	Tuart		374190.5997	6309906.448
Eucalyptus gomphocephala	Tuart		373990.3994	6309685.958
Eucalyptus gomphocephala	Tuart	Small hollows	373987.9385	6309700.027
Eucalyptus gomphocephala	Tuart	Two Hollows	374024.7746	6309713.489
Eucalyptus gomphocephala	Tuart		373990.6207	6309755.381
Eucalyptus gomphocephala	Tuart		374219.2955	6309739.154
Eucalyptus gomphocephala	Tuart	Dead	374016.3806	6309742.266