



Natural Area
CONSULTING MANAGEMENT SERVICES

NEWest Alliance Flora and Vegetation Survey – Access Track

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Executive Summary

Natural Area Consulting Management Services (Natural Area) was contracted by NEWest Alliance to undertake an additional flora and vegetation survey and a black cockatoo habitat assessment for an access track for the Urban Quarter stockpile. Survey outcomes are to provide information relating to environmental values within the site to inform clearing permit applications.

The survey aimed to determine:

- flora and fauna species present (native and non-native)
- the extent and boundaries of vegetation type and condition
- the location of declared rare or priority flora, fauna and/or ecological communities
- the location of habitat trees and whether they have hollows suitable for threatened black cockatoos.

The flora and vegetation survey within site confirmed:

- a total of 140 flora species, 43 (41%) introduced (weeds) and 61 (59%) native species
- three vegetation types were determined within the survey area, *Acacia saligna* Open Shrubland, Open *Banksia* spp. Woodland and *Banksia sessilis* Shrubland
- Vegetation condition ranged from Very Good to Completely Degraded. The majority of the site was in Completely Degraded condition due to most of the survey area occurring on an existing vehicle track and along an old farming fence line.
- no threatened or priority flora was identified during the survey
- no priority or threatened ecological communities (TEC) were recorded.

The fauna survey within the site confirmed:

- a total of eight fauna species were recorded within the survey area, including five bird species and one species of invertebrate, mammal, and reptile
- Evidence of feeding by threatened black cockatoos was observed on *Banksia attenuata* cones at eight locations which were clustered together
- no black cockatoos individuals were observed during survey activities
- no habitat trees with a diameter at breast height (DBH) of >500 mm were present within the survey boundary.

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 is not likely to be at variance with any of the ten clearing principles. Due to the small size of the site (0.52 ha), its classification as mostly Completely Degraded, the proposed clearing occurring along an existing vehicle track, and surrounding vegetation providing foraging habitat of better quality for black cockatoos, clearing impacts would not be considered environmentally significant and a referral is not considered warranted.

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1.0 Introduction

Natural Area Consulting Management Services (Natural Area) was contracted by NEWest Alliance to undertake an additional flora and vegetation survey and a black cockatoo habitat assessment for an access track for the Urban Quarter stockpile. Survey outcomes are to provide information relating to environmental values within the site to inform clearing permit applications.

1.1 Location

The survey site is located south of Beonaddy Road, within the suburb of Eglinton, WA. The site covers approximately 0.52 ha and occurs along an existing farm track and fire break (Figure 1). The survey site is located within an environmentally sensitive area (Department of Water and Environment and Regulation 2021).

1.2 Scope

Activities undertaken by Natural Area included

- detailed flora and vegetation survey determining the extent of vegetation condition and type, also recording a flora list and the presence of any threatened or priority species
- basic fauna survey, recording any opportunistic sightings and evidence of fauna presence
- cockatoo habitat tree assessment, recording sightings of black cockatoos, evidence of feeding presence of hollows and location of habitat trees (diameter at breast height (DBH) >500 mm)
- recording the presence of any Threatened Ecological Communities (TEC) or Priority Ecological Communities (PEC) within the site boundary
- presence and likelihood of Dieback (*Phytophthora cinnamomi*) within the site
- identified and presence of any declared weeds and /or Weeds of National Significance (WoNS)
- reporting outcomes of assessment activities.

1.3 Objectives

The objective of this survey is to collect sufficient data to adequately support a clearing permit to be submitted to the Department of Water and Environmental Regulation under the Environmental Protection (Native Vegetation) Regulations 2004.



Figure 1:
Site Location
Access Track -
Urban Quarter
Stockpile



Client: NEWest Alliance
Date: 8/10/2021
Created by: [Redacted]
Image Source: Nearmap 2021
Datum: GDA 94



2.0 Site Characteristics

The characteristics of a site have a strong bearing on the flora, vegetation, fauna, and ecological communities present. Key characteristics of the access track assessment are outlined in this section.

2.1 Regional Context

According to Interim Biogeographical Regionalisation of Australia (IBRA) descriptions, the survey site is located within the Swan Coastal Plain (SWA 02). 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 site situated in the latter. This area is described as a low-lying coastal plain with sandy soils 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, Tuart (*Eucalyptus gomphocephala*) Woodlands on limestone and 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); Perth Airport WA (site number 009021) the area has:

- average rainfall of 760.4 mm pa, with rain falling predominantly between June and August
- average maximum temperature ranging from 18.0 °C in winter to 31.9 °C in summer, with a maximum recorded temperature of 46.7 °C
- average minimum temperatures ranging from 8.1 °C in winter to 17.5 °C in summer, with a minimum recorded temperature of -1.3 °C.

2.3 Topography and Soils

According to the Natural Resource Info (NRInfo) data maintained by the Department Primary Industries and Regional Development (DPIRD, 2021) four soil types are present onsite, Quindalup South Oldest Dune Phase, Spearwood Sand Phase, Karrakatta Sand Yellow Phase, and Karrakatta Shallow Soils Phase (Department of Primary Industries and Regional Development, 2021) (Figure 2, Table 1). The site ranges from 12 m AHD (Australian Height Datum) at the northern end of the site and rises to 44 m in the south (Figure 2).

Table 1: Soil types within Urban Quarter

Name	Code	Description
Quindalup South Oldest Dune Phase	211Qu__Q1	Dunes or remnants with low relief. Calcareous sands have organic staining to about 30 cm, overlying pale brown sand with definite cementation below 1 m.
Spearwood Sand Phase	211Sp_Sp	Irregular banks of karst depressions. Some limestone outcrops. Shallow brown sands. <i>Banksia</i> spp. woodland with emergent <i>Eucalyptus gomphocephala</i> and <i>Eucalyptus marginata</i> ; dense shrub layer.
Karrakatta Sand Yellow Phase	211Sp_Ky	Low hilly to gently undulating terrain. Yellow sand over limestone at 1-2 m. <i>Banksia</i> spp. woodland with scattered emergent <i>Eucalyptus gomphocephala</i> and <i>Eucalyptus marginata</i> and a dense shrub layer.
Karrakatta Shallow Soils Phase	211Sp_Kls	Low hills and ridges. Bare limestone or shallow siliceous or calcareous sand over limestone. Dense low shrub dominated by <i>Dryandra sessilis</i> , <i>Melaleuca huegelii</i> and species of <i>Grevillea</i> .

Source: Department of Primary Industries and Regional Development (DPIRD) 2021

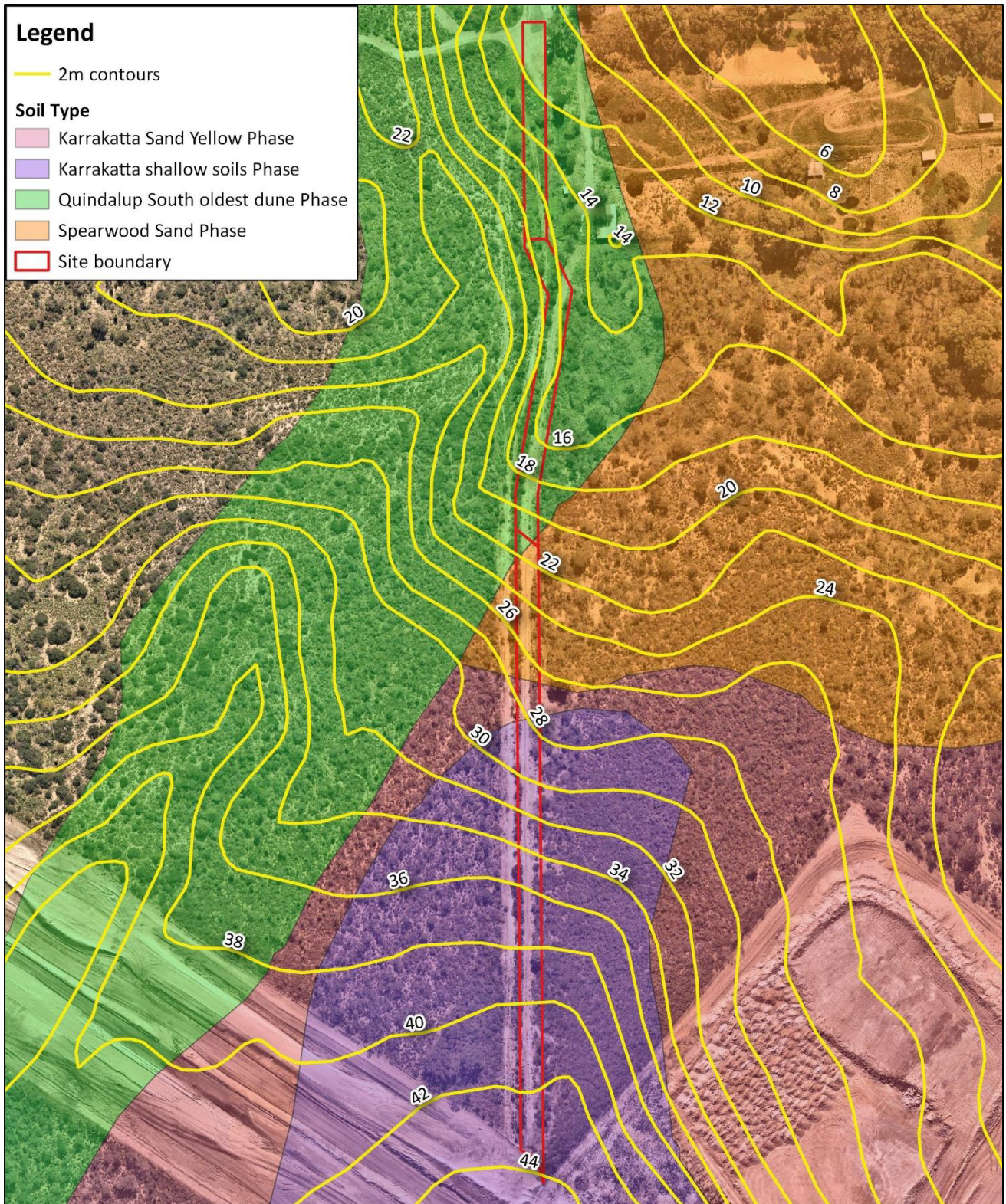
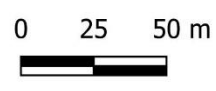


Figure 2:
 Soil Type and Topography
 Access track - Urban Quarter
 Stockpile



Client: NEWest Alliance
 Date: 22/10/2021
 Created by: [REDACTED]
 Image Source: Nearmap 2021
 Datum: GDA 94



2.4 Vegetation Complex

One vegetation complex exists within the site boundary, the Cottesloe Complex Central and South. This vegetation complex contains heaths occurring on granite outcrops with areas of deep sands containing Tuart (*Eucalyptus gomphocephala*) Woodlands and Tuart-Jarrah-Marri open forests (Hedde *et al.*, 1980). The Cottesloe Central and Southern Complex has many similar understory species as its Northern counterpart; however, with its deeper sands it is distinguished with a dominance of Tuart trees (Hedde *et al.*, 1980). The pre-European extent of this vegetation complex remaining is (Government of Western Australia, 2019):

- 32.16% within the Swan Coastal Plain
- 41.65% within the local government area of the City of Wanneroo.

2.5 Hydrology

Two geomorphic wetlands are located outside the survey site, although within close proximity to the site (DBCA 2021a):

- Beonaddy Swamp (ID 8016) has a management category of resource enhancement wetland, and is located 365 m to the east of the survey site
- Pippidiny Swamp (ID 8012) has a management category of conservation wetland and is located approximately 540 m north of the survey site.

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 *EPBC Act 1999* (Cth), 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). According to the information available on NationalMap the survey site occurs within the following areas:

- Carnaby's Cockatoo Confirmed Breeding Areas within the Swan Coastal Plain and Jarrah Forest IBRA Regions (DBCA 2021b)
- Carnaby's Cockatoo Unconfirmed Breeding Areas within the Swan Coastal Plain and Jarrah Forest IBRA Regions (DBCA 2021c)
- immediately adjacent to vegetation which is classified as Carnaby's Cockatoo Areas requiring investigation as feeding habitat in the Swan Coastal Plain (SCP) IBRA Region (DBCA 2021d)
- Carnaby's Cockatoo Confirmed Roost Sites Buffered 6 km (DBCA 2021e)
- Carnaby's Cockatoo Unconfirmed Roost Sites Buffered 6 km (DBCA 2021f).

3.0 Methodology

3.1 Desktop and Literature Review

The desktop survey included reviewing online databases to gather contextual knowledge and determine preliminary site characteristics including:

- 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, 2021g) (Appendix 1)
- Protected Matters Search Tool (Department of the Agriculture, Water and Environment, 2021) (Appendix 2)
- FloraBase (Department of Biodiversity, Conservation and Attractions, 2021h).

Conservation code definitions for the State and Commonwealth are provided in Appendix 3.

3.2 On-ground Flora Survey

Natural Area ecologists Kylie Sadgrove and Taryn Brebner undertook the survey on the 1st and 15th October 2021, with key data recorded using Mappt software on a handheld tablet. Monitoring activities included:

- Installation of a total of three transect lines, one per vegetation type along the entire length of the survey alignment vegetation, recording height and coverage of species intersecting the transect. Transect lines were installed rather than 10 x 10 m quadrats due to the linear nature of the vegetation within the survey area.
- Identification of flora species present by walking the site, including targeting declared rare and priority species indicated as potentially present during desktop assessments.
- Assessing boundaries of vegetation type and condition extent across the site.
- 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* (Cth).

The flora and vegetation survey was conducted in accordance with *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority, 2016), and included a desktop review of literature and databases. Samples were collected, or photographs taken of unfamiliar species 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. A tablet equipped with GPS mapping software (Mappt) was used to mark the change in vegetation type across the site. A description of the various structural classes is provided in Table 2.

Table 2: Vegetation structural classes

Life Form/Height Class	Canopy Percentage Cover			
	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 *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (Table 3) (Environmental Protection Authority, 2016). A tablet equipped with GPS mapping software (Mappt) was used to mark the vegetation condition across the site. Table 3 provides a description of the rating scale.

Table 3: Vegetation condition ratings

Category	Description
1 Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.
2 Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
3 Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
4 Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds, 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.

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

Source: EPA, 2016

3.3 On-ground Fauna Survey

A basic fauna survey was undertaken in conjunction with other survey activities. The 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). A basic survey is defined as a low-intensity survey, which gathers broad fauna and habitat information including opportunistic fauna observations (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, dens and warrens
- runnels (vegetative tunnels)
- calls.

habitat trees with a diameter at breast height (DBH) of greater than 500 mm which has sufficient size and opening direction to provide suitable habitat in the form of foraging, roosting or nesting for black cockatoos. Evidence of foraging by black cockatoos was also recorded within the site boundary.

3.4 Limitations

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

- on-ground surveys indicate species present at the time of the assessment, with species flowering at different times not always able to be identified
- 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, difficult to observe or active at different times of the day and may not be observed even though they are present on site.

4.0 Flora Survey Results

4.1 Desktop Survey

NatureMap identified a total of 409 flora species which could potentially occur within a 5 km radius of the survey area including:

- 298 dicotyledons
- one gymnosperm
- 109 monocotyledons
- one fern.

A desktop survey of online databases indicated the potential for a total of 15 conservation significant species to occur within 5 km of the survey area (Table 4). NatureMap indicated 10 conservation significant flora species listed under the *Biodiversity Conservation Act 2016* (WA), as potentially occurring within 5 km radius of the site (Department of Biodiversity Conservation and Attractions, 2021g) (Appendix 1). A review of the Protected Matters Search Tool (PMST) indicated five significant flora species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) as potentially occurring within a 5 km radius of the site (Appendix 2) (Department of Agriculture, Water, and the Environment, 2021).

Of the conservation significant species potentially found in the area, it was determined that the site conditions (soil type, drainage, location) may be suitable for nine (highlighted green) of these species (Table 4). Conservation code descriptions are provided in Appendix 3.

Table 4: Threatened and Priority flora species listed by NatureMap, and PMST

Species Name	Cons. Code	NatureMap	PMST
<i>Acacia benthamii</i>	P2	X	
<i>Andersonia gracilis</i>	EN		X
<i>Conostylis pauciflora</i> subsp. <i>pauciflora</i>	P4	X	
<i>Conostylis pauciflora</i> subsp. <i>euryrhipis</i>	P4	X	
<i>Diuris micrantha</i>	VU		X
<i>Drakaea elastica</i>	EN		X
<i>Eleocharis keigheryi</i>	VU		X
<i>Eucalyptus argutifolia</i>	VU		X
<i>Hibbertia leptotheca</i>	P3	X	
<i>Hibbertia leptotheca</i> (syn. <i>Hibbertia spicata</i> subsp. <i>leptotheca</i>)	P3	X	
<i>Lepidium pseudotasmanicum</i>	P4	X	
<i>Leucopogon maritimus</i>	P1	X	
<i>Leucopogon</i> sp. <i>Yanchep</i>	P3	X	
<i>Sphaerolobium calcicola</i>	P3	X	

Species Name	Cons. Code	NatureMap	PMST
<i>Stylidium maritimum</i>	P3	X	

4.1.1 Threatened and Priority Ecological Communities

A review of the PMST report identified four listed Threatened Ecological Communities that could potentially occur within 5 km of the site (Table 5).

Table 5: Potential Threatened Ecological Communities within the survey area

Name	Status	Presence
Aquatic Root Mat Community in Caves of the Swan Coastal Plain	Endangered	Community known to occur within area
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area
Sedgelands in Holocene dune swales of the southern Swan Coastal Plain	Endangered	Community known to occur within area
Tuart (<i>Eucalyptus gomphocephala</i>) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area

Source: Department of Agriculture, Water, and the Environment, 2021

4.2 Flora Survey Results

4.2.1 Flora

A total of 104 flora species (taxa) were recorded from 40 families during the field survey, including 43 introduced (weeds) and 61 native species. Examples of native flora species are shown in Figure 3 and weed species in Figure 4. A complete flora species list is provided in Appendix 5.

One declared pest was identified within the survey site, One-leaf Cape Tulip (*Morea flaccida*), which at the time of the survey was flowering. This declared pest was present across the site at a low coverage rate of <5%. Declared pests are listed on the Western Australian Organism List (WAOL) under the *Biosecurity and Agriculture Management Act 2007* (WA). This classification requires the landowner/land manager to control the population to limit damage as a result of the presence of these species (Department of Primary Industries and Regional Development, 2021a).



Podotheca gnaphalioides (Golden Long-heads)



Hybanthus calycinus (Wild Violet)



Daviesia divaricata (Marno)



Banksia sessilis (Parrot Bush)



Phyllanthus calycinus (False Boronia)



Sporidium globulosum (Basket Bush)

Figure 3: Examples of native flora species recorded



Rose Pelargonium (**Pelargonium capitatum*)



* One-leaf Cape Tulip (*Morea flaccida*) Declared Pest



**Schinus terebinthifolia*





Hottentot Fig (**Carpobrotus edulis*)

Figure 4: Examples of introduced flora species recorded

4.2.2 Vegetation Types

Three vegetation types were recorded within the survey area, which are described in Table 6 and shown in Figure 5.

Table 6: Vegetation type within the survey area

Vegetation Type	Description	Photograph
<i>Acacia saligna</i> Open Shrubland	Open shrubland of <i>Acacia saligna</i> over an understorey of introduced grasses and herbs particularly <i>Pelargonium capitatum</i> .	 <p>A photograph showing a landscape of open shrubland. The foreground and middle ground are dominated by dense, green grasses and various shrubs. In the background, there are several trees with dark, thin trunks and green foliage. The sky is overcast and grey.</p>
Open <i>Banksia</i> spp. Woodland	An open woodland of <i>Banksia attenuata</i> and <i>Banksia menziesii</i> trees over a middle storey of <i>Banksia sessilis</i> and <i>Hakea trifurcata</i> shrubs and an understorey of mixed introduced grasses and herbs.	 <p>A photograph of an open woodland. A dirt track or path runs through the center of the frame. The vegetation consists of scattered trees and shrubs, including several prominent <i>Banksia</i> trees with their characteristic spiky leaves. The ground is sandy and covered with sparse grasses and small plants. The sky is bright blue with a few white clouds.</p>

Banksia sessilis Shrubland

Shrubland of *Banksia sessilis* over an understorey of mixed introduced grasses and herbs.



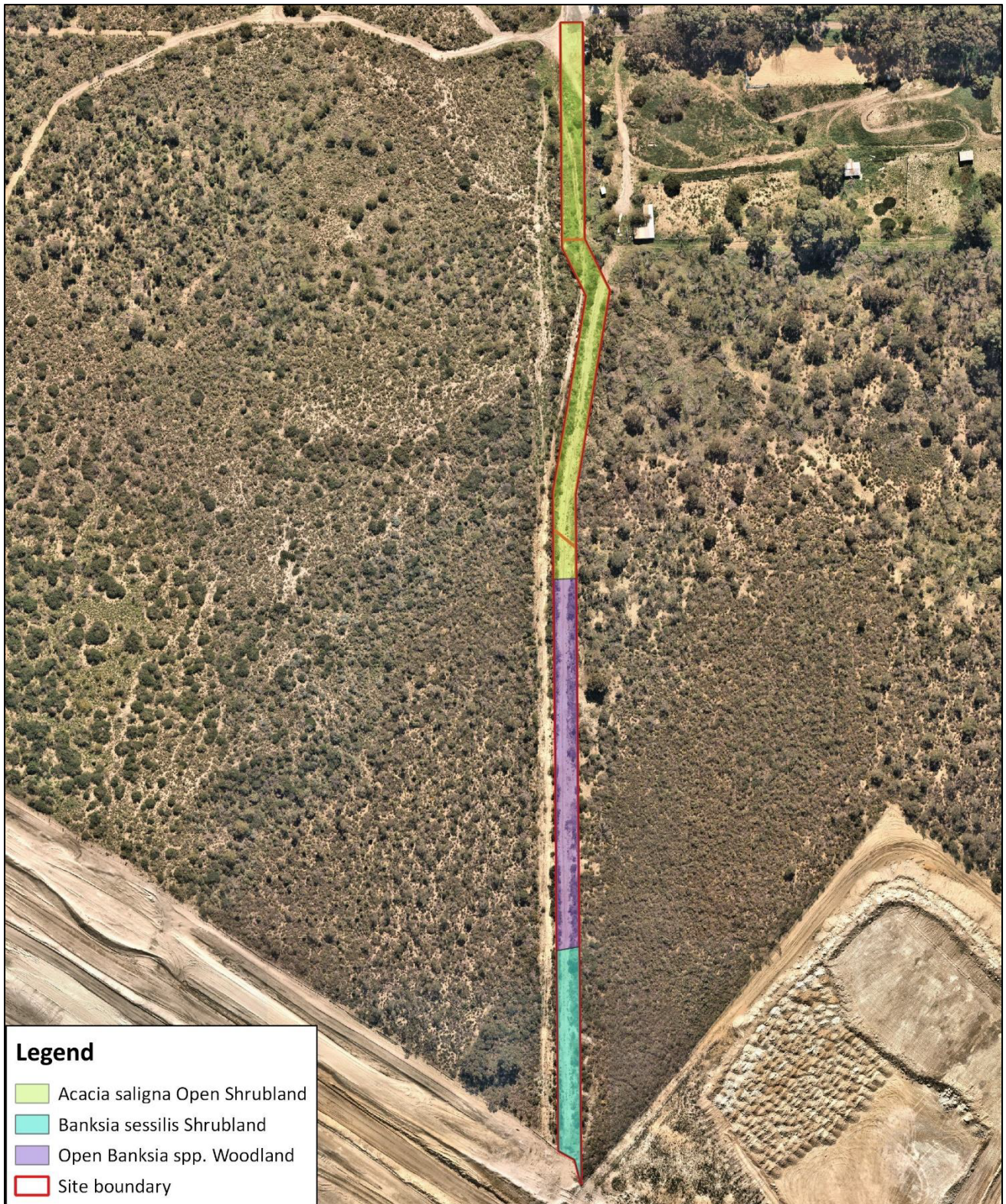


Figure 5:
Vegetation Types
Access track - Urban
Quarter Stockpile

0 25 50 m

Client: NEWest Alliance
Date: 25/10/2021
Created by: [REDACTED]
Image Source: Nearmap 2021
Datum: GDA 94



4.2.3 Vegetation Condition

Vegetation condition on site ranged from Completely Degraded to Very Good, with the majority classified as Completely Degraded (Table 7, Figure 6 and 7). The survey site occurs along an existing vehicle track and along a farm fence line which would have been subjected to previous clearing. It was observed during the survey that the vegetation outside the survey boundary was in Excellent condition.

Table 7: Vegetation condition within the survey area

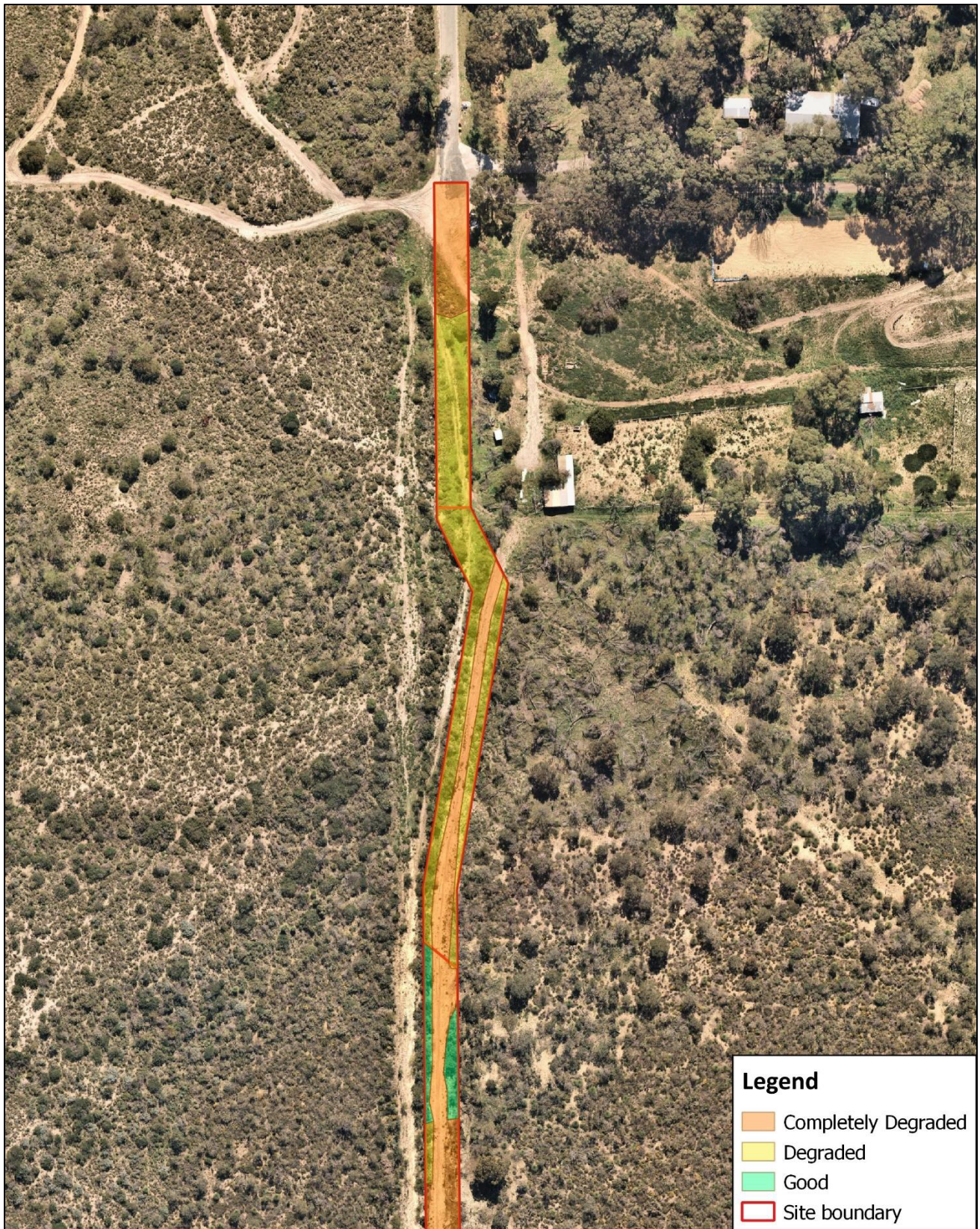
Vegetation Condition	Pristine	Excellent	Very Good	Good	Degraded	Completely Degraded	Total
Area (ha)	0	0	0.02	0.066	0.167	0.262	0.515
Area (%)	0	0	3.8	12.9	32.5	50.8	100

4.2.4 Threatened and Priority Communities

No threatened or priority ecological communities were found on site during the 2021 survey. The two likely TEC indicated by the desktop search that could potentially occur is the Banksia Woodlands of the Swan Coastal Plain ecological community and Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community. However, due to the lack of native species present including those that comprise the Tuart Woodlands floristic community within the survey site boundary and the degraded nature of the site and its occurrence between two vehicle tracks and along an old fence line, it is not considered to be part of these TEC's. Mature Tuart (*Eucalyptus gomphocephala*) were observed to occur outside of the survey boundary.

4.2.5 Phytophthora Dieback

An assessment of the Urban Quarter stockpile area was undertaken in May 2020 with no Phytophthora Dieback infestations observed during this assessment and within the entire project area of the Yanchep Rail Extension (Glevan Consulting, 2020). Visual assessment of the area during the flora and vegetation survey showed no signs of species potentially affected with Dieback with no death of susceptible species recorded.

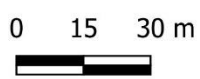


Legend

- Completely Degraded
- Degraded
- Good
- Site boundary

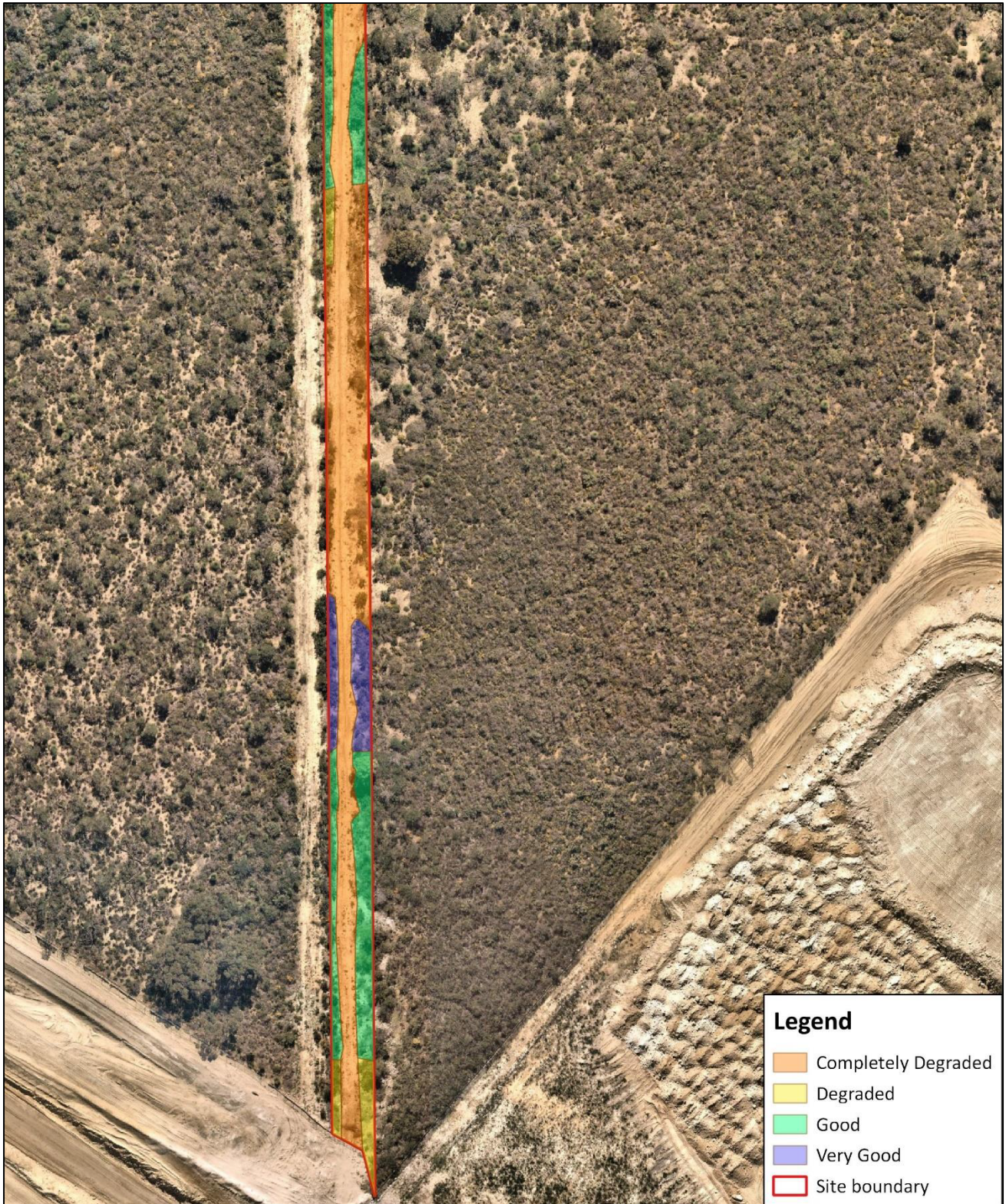


Figure 6:
Vegetation Condition
Access track - Urban Quarter
Stockpile



Client: NEWest Alliance
Date: 25/10/2021
Created by: [Redacted]
Image Source: Nearmap 2021
Datum: GDA 94





Legend

- Completely Degraded
- Degraded
- Good
- Very Good
- Site boundary



Figure 7:
Vegetation Condition
Access track - Urban
Quarter Stockpile

0 15 30 m

Client: NEWest Alliance
Date: 25/10/2021
Created by: [REDACTED]
Image Source: Nearmap 2021
Datum: GDA 94



5.0 Fauna Survey Results

5.1 Desktop Survey

A desktop survey of online databases indicated the potential for a total of 43 conservation significant fauna species to occur within 5 km of the survey area (Table 8). NatureMap indicated 25 conservation significant species listed under the *Biodiversity Conservation Act 2016* (WA) as potentially occurring within a 5 km radius of the site (Department of Biodiversity Conservation and Attractions, 2021g) (Appendix 1). The Protected Matters Search Tool (PMST) indicated 22 threatened species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) as potentially occurring within a 5 km radius of the site (Department of Agriculture, Water and the Environment, 2021) (Appendix 2).

Both abiotic (soil, climate) as well as biotic (food resources, predator pressure) will determine the suitability of habitats for specific fauna assemblages, based on their ecological requirements. Evaluating the site locality, existing conditions and known home ranges. Natural Area determined that the six species (highlighted green in Table 8) have the potential to be present within the survey site.

Table 8: Threatened and Priority fauna species listed by NatureMap, PMST and DBCA

Species Name	Cons. Code	NatureMap	PMST
<i>Anous tenuirostris melanops</i> (Australian Lesser Noddy)	T/VU	X	X
<i>Apus pacificus</i>	IA	X	
<i>Arenaria interpres</i>	IA	X	
<i>Bettongia penicillata ogilbyi</i> (Woylie, Brush-tailed Bettong)	T	X	
<i>Calidris acuminata</i>	IA	X	
<i>Calidris canutus</i> (Red Knot)	IA/EN	X	X
<i>Calidris ferruginea</i> (Curlew Sandpiper)	T/CR	X	X
<i>Calidris ruficollis</i>	IA	X	
<i>Calidris subminuta</i>	IA	X	
<i>Calidris tenuirostris</i>	T	X	
<i>Calyptorhynchus banksii naso</i> (Forest Red-tailed Black-Cockatoo)	VU		X
<i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo)	T/EN	X	X
<i>Calyptorhynchus sp.</i>	T	X	
<i>Dasyurus geoffroii</i> (Chuditch, Western Quoll)	T	X	
<i>Diomedea amsterdamensis</i> (Amsterdam Albatross)	EN		X
<i>Diomedea epomophora</i> (Southern Royal Albatross)	VU		X
<i>Diomedea exulans</i> (Wandering Albatross)	VU		X
<i>Diomedea sanfordi</i> (Northern Royal Albatross)	EN		X

Species Name	Cons. Code	NatureMap	PMST
<i>Falco peregrinus</i>	S	X	
<i>Hydromys chrysogaster</i> (Water-rat, Rakali)	P4	X	
<i>Isoodon fusciventer</i> (Quenda, Southwestern brown bandicoot)	P4	X	
<i>Leipoa ocellata</i> (Malleefowl)	VU		X
<i>Limosa lapponica</i>	IA	X	
<i>Limosa lapponica menzbieri</i> (Northern Siberian Bar-tailed Godwit)	CR		X
<i>Macronectes giganteus</i> (Southern Giant-Petrel)	EN		X
<i>Macronectes halli</i> (Northern Giant Petrel)	VU		X
<i>Neelaps calonotos</i> (Black-striped Snake, black-striped burrowing snake)	P3	X	
<i>Notamacropus irma</i> (Western Brush Wallaby)	P4	X	
<i>Numenius madagascariensis</i> (Eastern Curlew)	CR		X
<i>Oxyura australis</i>	P4	X	
<i>Pachyptila turtur subantarctica</i> (Fairy Prion)	VU		X
<i>Pandion cristatus</i>	IA	X	
<i>Phoebastria fusca</i> (Sooty Albatross)	VU		X
<i>Pluvialis squatarola</i>	IA	X	
<i>Rostratula australis</i> (Australian Painted Snipe)	EN		X
<i>Sternula nereis nereis</i> (Australian Fairy Tern)	VU		X
<i>Thalasseus bergii</i>	IA	X	
<i>Thalassarche cauta</i> (Shy Albatross)	EN		X
<i>Thalassarche impavida</i> (Campbell Albatross)	VU		X
<i>Thalassarche melanophris</i> (Black-browed Albatross)	VU		X
<i>Thalassarche steadi</i> (White-capped Albatross)	VU		X
<i>Tringa nebularia</i>	IA	X	
<i>Tyto novaehollandiae novaehollandiae</i>	P3	X	

5.2 Fauna Survey Results

A total of eight fauna species were recorded within the survey area, including five bird species and one species of invertebrate, mammal, and reptile (Table 9). Of the species observed two are introduced, the Laughing Kookaburra (*Dacelo novaeguineae*) and the European Honey Bee (*Apis mellifera*). Evidence of feeding by black cockatoos was observed on *Banksia attenuata* cones within the southern portion of the site at eight locations although these were clustered together in one location (Figure 8 and 9). No black

cockatoos individuals were observed during survey activities. No habitat trees with a diameter at breast height (DBH) of >500 mm were present within the survey boundary.

Table 9: Fauna observations within the site boundary. * Denotes introduced species

Family	Species Name	Common Name
Bird		
Meliphagidae	<i>Anthochaera lunulata</i>	Western Wattlebird
Corvidae	<i>Corvus coronoides</i>	Australian Raven
Alcedinidae	* <i>Dacelo novaeguineae</i>	Laughing Kookaburra
Cacatuidae	<i>Eolophus roseicapilla</i>	Galah
Meliphagidae	<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater
Invertebrate		
Apidae	* <i>Apis mellifera</i>	European Bee (hive in rubbish)
Mammal		
Macropodinae	<i>Macropus fuliginosus melanops</i>	Western Grey Kangaroo (tracks)
Reptile		
Scincidae	<i>Tiliqua rugosa rugosa</i>	Bobtail



Figure 8: Evidence of feeding by black cockatoos on *Banksia attenuata* cones



Figure 9:
Black Cockatoo
Feeding Evidence



Client: NEWest Alliance
Date: 25/10/2021
Created by: [REDACTED]
Image Source: Nearmap 2021
Datum: GDA 94



6.0 Implications of Results

6.1 Flora and Vegetation

Natural Area's 2021 survey of the access track to the Urban Quarter stockpile recorded 104 flora species (taxa) from 40 families, including 43 (41%) introduced (weeds) and 61 (59%) native species. Three vegetation types were determined within the survey area, *Acacia saligna* Open Shrubland, Open *Banksia* spp. Woodland and *Banksia sessilis* Shrubland. Vegetation condition ranged from Very Good to Completely Degraded. Majority of the site was in Completely Degraded condition due to most of the survey area occurring on an existing vehicle track and along an old farming fence line.

Dieback assessment of the Urban Quarter stockpile area recorded no *Phytophthora* Dieback infestations and within the entire project area of the Yanchep Rail Extension. Visual assessment of the area during the flora and vegetation survey showed no signs of species potentially affected with Dieback with no death of susceptible species recorded.

6.2 Significant Flora

No threatened or priority flora species were identified during the 2021 flora survey. Due to the mostly degraded nature of the site and majority of the area comprising of vehicle tracks, it is not expected to contain significant flora within the site boundary.

6.3 Threatened Ecological Communities

No priority or threatened ecological communities (PEC or TEC) were recorded during the 2021 survey. Due to the lack of native species present including those that comprise the Tuart Woodlands and *Banksia* Woodlands floristic communities, the small and degraded nature of the site and its occurrence between two vehicle tracks and along an old fence line, means it does not meet condition or size requirements to be classified as these TECs.

6.4 Fauna and Fauna Habitat

A total of eight fauna species were recorded within the survey area, including five bird, one invertebrate, one mammal, and one reptile species. Evidence of feeding by threatened black cockatoos was observed on *Banksia attenuata* cones within the southern portion of the site at eight locations. No black cockatoo individuals were observed during survey activities. However, due to the small, degraded nature of the area foraging habitat for black cockatoo is minimal with higher value foraging sources available in adjacent vegetation. No habitat trees with a DBH of >500 mm were present within the survey boundary.

6.5 Assessment Against Clearing Principles

An assessment of information obtained during the 2021 survey has been made against the Western Australian 10 clearing principles. It is suggested that the clearing application is not likely to be at variance with any of the ten clearing principles (Table 10). Due to the small and degraded nature of the site, proposed clearing occurring along an existing vehicle track and the surrounding vegetation providing better quality foraging habitat for black cockatoos, clearing impacts would not be considered environmentally significant and referral is not warranted.

Table 10: Assessment against clearing principles

Clearing Principle	Comment
<p>A Native vegetation should not be cleared if it comprises a high level of biological diversity.</p>	<p>The proposed area to be cleared is not likely to be at variance with this principle:</p> <ul style="list-style-type: none"> ▪ A total of 104 flora species (taxa) from 40 families, including 43 (41%) introduced (weeds) and 61 (59%) native species were recorded during the 2021 survey ▪ Vegetation condition ranged from Very good to Completely Degraded with the majority of the site in Completely Degraded condition (50.8%). ▪ No conservation significant flora was identified within the proposed clearing area. ▪ Three vegetation types were recorded within the survey area, <i>Acacia saligna</i> Open Shrubland, Open <i>Banksia spp.</i> Woodland and <i>Banksia sessilis</i> Shrubland.
<p>B 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.</p>	<p>The proposed area to be cleared is not likely to be at variance with this principle:</p> <ul style="list-style-type: none"> ▪ According to NationalMap the survey area occurs within the following areas: <ul style="list-style-type: none"> – Carnaby’s Cockatoo Confirmed Breeding Areas within the Swan Coastal Plan and Jarrah Forest IBRA Regions – Carnaby’s Cockatoo Unconfirmed Breeding Areas within the Swan Coastal Plan and Jarrah Forest IBRA Regions – immediately adjacent to vegetation which is classified as Carnaby’s Cockatoo Areas requiring investigation as feeding habitat in the Swan Coastal Plain (SCP) IBRA Region – Carnaby’s Cockatoo Confirmed Roost Sites Buffered 6 km – Carnaby’s Cockatoo Unconfirmed Roost Sites Buffered 6 km ▪ No black cockatoos individuals were observed during survey activities ▪ Evidence of feeding by black cockatoos was observed on <i>Banksia attenuata</i> cones within the southern portion of the site at eight locations. However, this area was small, situated between previously cleared tracks and an old farm fence line and had limited foraging potential ▪ No habitat trees with a diameter at breast height (DBH) of >500 mm were present within the survey boundary and no trees with hollows were present

Clearing Principle	Comment
	<ul style="list-style-type: none"> ▪ Vegetation adjacent to the proposed clearing area is to remain and is comprised of foraging species by threatened black cockatoos in better quality than what is present within the survey site.
<p>C Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.</p>	<p>The proposed area to be cleared is not likely to be at variance with this principle:</p> <ul style="list-style-type: none"> ▪ during the October 2021 survey no significant flora was observed within the survey site ▪ due to the mostly degraded nature of the site and the majority of the area comprising of vehicle tracks it is not expected to contain significant flora within the site boundary.
<p>D Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.</p>	<p>The proposed area to be cleared is not considered to be at variance with this principle:</p> <ul style="list-style-type: none"> ▪ No threatened or priority ecological communities were identified during the 2021 survey due to the survey area occurring along an old farm fence line which would have been previously clear and between two existing vehicle tracks.
<p>E Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.</p>	<p>The proposed area to be cleared is not likely to be at variance with this principle:</p> <ul style="list-style-type: none"> ▪ The proposed clearing area occurs along an existing and maintained vehicle track. Native vegetation adjacent to the proposed clearing area is to be maintained and in a better condition (Excellent) than that present within the clearing area.
<p>F Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.</p>	<p>The proposed area to be cleared is not likely to be at variance with this principle.</p> <ul style="list-style-type: none"> ▪ The survey site does not occur within a watercourse or wetland. ▪ Two geomorphic wetlands are located within close proximity of the site, 365 m to the east and 540m to the north. Clearing activities are not expected to impact these wetlands as the survey site is mostly comprised of an existing vehicle track.
<p>G Native Vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</p>	<p>The proposed area to be cleared is not likely to be at variance with this principle as it is not expected to cause further land degradation as the majority of the proposed clearing occurs on an existing vehicle track.</p>
<p>H Native vegetation should not be cleared if the clearing of the</p>	<p>The proposed area to be cleared is not likely to be at variance with this principle.</p> <ul style="list-style-type: none"> ▪ The proposed area for clearing occurs along an existing vehicle access track which is mostly in Completely Degraded condition which is to enable vehicle access to the rail development construction site.

Clearing Principle	Comment
<p>vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.</p>	<ul style="list-style-type: none"> ▪ The proposed clearing area is located within an area zoned as Primary Regional Roads although it is located near the Yanchep National Park. Clearing is not expected to impact the National Park.
<p>I Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.</p>	<p>The area to be cleared is not likely to be at variance with this principle as no surface water courses were identified during the 2021 survey.</p>
<p>J Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.</p>	<p>The area to be cleared is not likely to be at variance with this principle:</p> <ul style="list-style-type: none"> ▪ The area proposed to be cleared is located along an existing vehicle track and adjacent to ongoing rail construction works and is not expected to change or exacerbate the incidence of flooding.

7.0 References

Bureau of Meteorology. (2021). *Climate and Weather Statistics – Perth Airport ID 009021*. Retrieved from: http://www.bom.gov.au/climate/averages/tables/cw_009965.shtml.

Department of Agriculture, Water, and the Environment. (2021). *Protected Matters Search Tool*. Retrieved from <http://www.environment.gov.au/epbc/pmst/>.

Department of Biodiversity, Conservation and Attractions. (2019). *Threatened and Priority Fauna List*. Retrieved from <https://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-animals>

Department of Biodiversity, Conservation and Attractions (2021a). *Geomorphic Wetlands, Swan Coastal Plain (DBCA-019)*. Retrieved from <https://nationalmap.gov.au/>

Department of Biodiversity, Conservation and Attractions (2021b). *Carnaby's Cockatoo Confirmed Breeding Areas within the Swan Coastal Plan and Jarrah Forest IBRA Regions (DBCA-054)*. Retrieved from <https://nationalmap.gov.au/>

Department of Biodiversity, Conservation and Attractions (2021c). *Carnaby's Cockatoo Unconfirmed Breeding Areas within the Swan Coastal Plan and Jarrah Forest IBRA Regions (DBCA-055)*. Retrieved from <https://nationalmap.gov.au/>

Department of Biodiversity, Conservation and Attractions (2021d). *Carnaby's Cockatoo Areas requiring investigation as feeding habitat in the Swan Coastal Plain (SCP) IBRA Region (DBCA-057)*. Retrieved from <https://nationalmap.gov.au/>

Department of Biodiversity, Conservation and Attractions (2021e). *Carnaby's Cockatoo Confirmed Roost Sites Buffered 6 km (DBCA-050)*. Retrieved from <https://nationalmap.gov.au/>

Department of Biodiversity, Conservation and Attractions (2021f). *Carnaby's Cockatoo Unconfirmed Roost Sites Buffered 6 km (DBCA-051)*. Retrieved from <https://nationalmap.gov.au/>

Department of Biodiversity, Conservation and Attractions. (2021g). *NatureMap*. Retrieved from <http://naturemap.dpaw.wa.gov.au/default.aspx>.

Department of Biodiversity, Conservation and Attractions. (2021h). *FloraBase – The Western Australian Flora*. Retrieved from <https://florabase.dpaw.wa.gov.au/>.

Department of Biodiversity, Conservation and Attractions. (2020i). *Conservation Codes*. Retrieved from <https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/Conservation%20code%20definitions.pdf>.

Department of Water and Environment and Regulation. (2021). *Clearing Regulations – Environmentally Sensitive Areas*, retrieved from: <https://nationalmap.gov.au/>.

Department of Primary Industries and Regional Development. (2021). *NRInfo for Western Australia: map application*. Retrieved from <https://www.agric.wa.gov.au/resource-assessment/nrinfo-western-australia>.

Department of Primary Industries and Regional Development, (2021a), *Declared plant requirements*. Retrieved from: <https://www.agric.wa.gov.au/declared-plants/declared-plant-requirements>

Environmental Protection Authority. (2016). *Technical Guidance: Flora and Vegetation survey for Environmental Impact Assessment*. Retrieved from http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf.

Environmental Protection Authority. (2020). *Technical Guidance: Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment*. Retrieved from https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA-Technical-Guidance-Vertebrate-Fauna-Surveys.pdf.

Glevan Consulting. (2020). *Urban Quarter Stockpile Phytophthora Dieback occurrence assessment – Version 2.0- YRE-GC-EN-RPT-00001*. Unpublished report for NEWest Alliance.

Government of Western Australian. (2000). *Bush Forever* (Vol. 2). Perth, W.A: Department of Environmental Protection.

Government of Western Australia. (2019). *2018 South West Vegetation Complex Statistics. Current as of March 2019*, WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>

Hedde, E., Loneragan, O., and Havel, J. (1980). *Vegetation Complexes of the Darling System Western Australia*. In *Atlas of Natural Resources - Darling System, Western Australia* (pp. 37 - 72), Department of Conservation and Environment, Western Australia.

Mitchell, Williams & Desmond. (2002). *Swan Coastal Plain 2 (SWA2 – Swan Coastal Plain Subregion)*, retrieved from: https://www.dpaw.wa.gov.au/images/documents/about/science/projects/waaudit/swan_coastal_plain02_p606-623.pdf.

Appendix 1: NatureMap Report 5 km

NatureMap Species Report

Created By Guest user on 08/10/2021

Current Names Only Yes
Core Datasets Only Yes
Method 'By Circle'
Centre 115° 41' 00" E, 31° 35' 20" S
Buffer 5km
Group By Species Group

Species Group	Species	Records
Alga	42	49
Amphibian	4	49
Bird	168	2253
Bryopsid (Moss)	5	6
Dicotyledon	298	724
Fish	6	18
Fungus	15	23
Gymnosperm	1	6
Invertebrate	37	508
Mammal	20	135
Monocotyledon	109	213
Pteridophyte (Fern)	1	1
Reptile	37	366
Slime Mould	2	2
TOTAL	745	4353

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
Alga				
1.	26471 <i>Anthamion armatum</i>			
2.	26475 <i>Anthamion hanovioides</i>			
3.	26486 <i>Asparagopsis taxiformis</i>			
4.	48503 <i>Betaphycus speciosus</i>			
5.	26511 <i>Bornetia binderiana</i>			
6.	26562 <i>Caulerpa fergusonii</i>			
7.	26570 <i>Caulerpa obscura</i>			
8.	46993 <i>Caulerpa taxifolia</i> var. <i>distichophylla</i>			
9.	26600 <i>Ceramium pusillum</i>			
10.	26621 <i>Champia zostericola</i>			
11.	26665 <i>Clavicolonium ovatum</i>			
12.	26672 <i>Codium galeatum</i>			
13.	26752 <i>Dasyclonium incisum</i>			
14.	26761 <i>Dictyomenia harveyana</i>			
15.	26762 <i>Dictyomenia sonderi</i>			
16.	26763 <i>Dictyomenia tridens</i>			
17.	26767 <i>Dictyopteris plagiogramma</i>			
18.	26850 <i>Gelinaria ulvoidea</i>			
19.	26876 <i>Gracilaria verrucosa</i>			
20.	26884 <i>Griffithsia ovalis</i>			
21.	26915 <i>Hennedya crispa</i>			
22.	26919 <i>Herposiphonia rostrata</i>			
23.	26922 <i>Herposiphonia versicolor</i>			
24.	26942 <i>Hirsutithalia loricata</i>			
25.	26960 <i>Hymenocladia chondricola</i>			
26.	35898 <i>Hypnea musciformis</i>			
27.	26971 <i>Hypnea ramentacea</i>			
28.	26998 <i>Laurencia brongniartii</i>			
29.	27011 <i>Lenormandia latifolia</i>			
30.	27015 <i>Leptosomia rosea</i>			
31.	27044 <i>Lobospira bicuspidata</i>			
32.	27108 <i>Osmundaria spiralis</i>			
33.	27126 <i>Petalonia fascia</i>			
34.	27149 <i>Platysiphonia mutabilis</i>			
35.	27155 <i>Plocamium cartilagineum</i>			
36.	27156 <i>Plocamium mertensii</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
37.	27173 <i>Polysiphonia decipiens</i>			
38.	27190 <i>Protokuetzingia australasica</i>			
39.	27238 <i>Sargassum distichum</i>			
40.	35911 <i>Scytosiphon lomentaria</i>			
41.	48423 <i>Stauromenia lacerata</i>			
42.	27347 <i>Tylotus obtusatus</i>			
Amphibian				
43.	25410 <i>Heleioporus eyrei</i> (Moaning Frog)			
44.	25415 <i>Limnodynastes dorsalis</i> (Western Banjo Frog)			
45.	25378 <i>Litoria adelaidensis</i> (Slender Tree Frog)			
46.	25388 <i>Litoria moorei</i> (Motorbike Frog)			
Bird				
47.	24260 <i>Acanthiza apicalis</i> (Broad-tailed Thornbill, Inland Thornbill)			
48.	24261 <i>Acanthiza chrysorrhoa</i> (Yellow-rumped Thornbill)			
49.	24262 <i>Acanthiza inornata</i> (Western Thornbill)			
50.	24560 <i>Acanthorhynchus superciliosus</i> (Western Spinebill)			
51.	25535 <i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)			
52.	25536 <i>Accipiter fasciatus</i> (Brown Goshawk)			
53.	25755 <i>Acrocephalus australis</i> (Australian Reed Warbler)			
54.	24831 <i>Acrocephalus australis</i> subsp. <i>gouldi</i> (Australian Reed Warbler)			
55.	25544 <i>Aegotheles cristatus</i> (Australian Owlet-nightjar)			
56.	24310 <i>Anas castanea</i> (Chestnut Teal)			
57.	24312 <i>Anas gracilis</i> (Grey Teal)			
58.	24313 <i>Anas platyrhynchos</i> (Mallard)			
59.	24315 <i>Anas rhynchotis</i> (Australasian Shoveler)			
60.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
61.	47414 <i>Anhinga novaehollandiae</i> (Australasian Darter)			
62.	24506 <i>Anous tenuirostris</i> subsp. <i>melanops</i> (Australian Lesser Noddy)		T	
63.	24561 <i>Anthochaera carunculata</i> (Red Wattlebird)			
64.	24562 <i>Anthochaera lunulata</i> (Western Little Wattlebird)			
65.	24599 <i>Anthus australis</i> subsp. <i>australis</i> (Australian Pipit)			
66.	25554 <i>Apus pacificus</i> (Fork-tailed Swift, Pacific Swift)		IA	
67.	24285 <i>Aquila audax</i> (Wedge-tailed Eagle)			
68.	41324 <i>Ardea modesta</i> (great egret, white egret)			
69.	24340 <i>Ardea novaehollandiae</i> (White-faced Heron)			
70.	24341 <i>Ardea pacifica</i> (White-necked Heron)			
71.	25736 <i>Arenaria interpres</i> (Ruddy Turnstone)		IA	
72.	25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)			
73.	24353 <i>Artamus cyanopterus</i> (Dusky Woodswallow)			
74.	24356 <i>Artamus personatus</i> (Masked Woodswallow)			
75.	24318 <i>Aythya australis</i> (Hardhead)			
76.	<i>Barnardius zonarius</i>			
77.	24319 <i>Biziura lobata</i> (Musk Duck)			
78.	25714 <i>Cacatua pastinator</i> (Western Long-billed Corella)			
79.	25715 <i>Cacatua roseicapilla</i> (Galah)			
80.	25716 <i>Cacatua sanguinea</i> (Little Corella)			
81.	24729 <i>Cacatua tenuirostris</i> (Eastern Long-billed Corella)	Y		
82.	25598 <i>Cacomantis flabelliformis</i> (Fan-tailed Cuckoo)			
83.	42307 <i>Cacomantis pallidus</i> (Pallid Cuckoo)			
84.	24779 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
85.	25738 <i>Calidris canutus</i> (Red Knot, knot)		IA	
86.	24784 <i>Calidris ferruginea</i> (Curlew Sandpiper)		T	
87.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
88.	24789 <i>Calidris subminuta</i> (Long-toed Stint)		IA	
89.	24790 <i>Calidris tenuirostris</i> (Great Knot)		T	
90.	24734 <i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo)		T	
91.	48400 <i>Calyptorhynchus</i> sp. (white-tailed black cockatoo)		T	
92.	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
93.	24321 <i>Chenonetta jubata</i> (Australian Wood Duck, Wood Duck)			
94.	47909 <i>Cheramoeca leucosterna</i> (White-backed Swallow)			
95.	<i>Chroicocephalus novaehollandiae</i>			
96.	24288 <i>Circus approximans</i> (Swamp Harrier)			
97.	24289 <i>Circus assimilis</i> (Spotted Harrier)			
98.	24774 <i>Cladorhynchus leucocephalus</i> (Banded Stilt)			
99.	25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
100.	24399 <i>Columba livia</i> (Domestic Pigeon)	Y		
101.	25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
102.	25592 <i>Corvus coronoides</i> (Australian Raven)			

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103.	24671 <i>Coturnix pectoralis</i> (Stubble Quail)			
104.	24420 <i>Cracticus nigrogularis</i> (Pied Butcherbird)			
105.	25595 <i>Cracticus tibicen</i> (Australian Magpie)			
106.	25596 <i>Cracticus torquatus</i> (Grey Butcherbird)			
107.	24322 <i>Cygnus atratus</i> (Black Swan)			
108.	30901 <i>Dacelo novaeguineae</i> (Laughing Kookaburra)	Y		
109.	25673 <i>Daphoenositta chrysoptera</i> (Varied Sittella)			
110.	25607 <i>Dicaeum hirundinaceum</i> (Mistletoebird)			
111.	24470 <i>Dromaius novaehollandiae</i> (Emu)			
112.	<i>Egretta garzetta</i>			
113.	<i>Egretta novaehollandiae</i>			
114.	<i>Elanus axillaris</i>			
115.	24290 <i>Elanus caeruleus</i> subsp. <i>axillaris</i> (Australian Black-shouldered Kite)			
116.	47937 <i>Euseyornis melanops</i> (Black-fronted Dotterel)			
117.	<i>Eolophus roseicapillus</i>			
118.	24652 <i>Eopsaltria georgiana</i> (White-breasted Robin)			
119.	24567 <i>Epthianura albifrons</i> (White-fronted Chat)			
120.	24379 <i>Erythronyctes alba</i> (Red-kneed Dotterel)			
121.	25621 <i>Falco berigora</i> (Brown Falcon)			
122.	24471 <i>Falco berigora</i> subsp. <i>berigora</i> (Brown Falcon)			
123.	25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
124.	25623 <i>Falco longipennis</i> (Australian Hobby)			
125.	25624 <i>Falco peregrinus</i> (Peregrine Falcon)		S	
126.	25727 <i>Fulica atra</i> (Eurasian Coot)			
127.	24761 <i>Fulica atra</i> subsp. <i>australis</i> (Eurasian Coot)			
128.	25729 <i>Gallinula tenebrosa</i> (Dusky Moorhen)			
129.	24763 <i>Gallinula tenebrosa</i> subsp. <i>tenebrosa</i> (Dusky Moorhen)			
130.	42314 <i>Gavialis virescens</i> (Singing Honeyeater)			
131.	25530 <i>Gerygone fusca</i> (Western Gerygone)			
132.	24271 <i>Gerygone fusca</i> subsp. <i>fusca</i> (Western Gerygone)			
133.	47962 <i>Glyciphila melanops</i> (Tawny-crowned Honeyeater)			
134.	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
135.	24487 <i>Haematopus longirostris</i> (Pied Oystercatcher)			
136.	24295 <i>Haliastur sphenurus</i> (Whistling Kite)			
137.	24689 <i>Halobaena caerulea</i> (Blue Petrel)			
138.	47965 <i>Hieraaetus morphnoides</i> (Little Eagle)			
139.	25734 <i>Himantopus himantopus</i> (Black-winged Stilt)			
140.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
141.	24367 <i>Lalage tricolor</i> (White-winged Triller)			
142.	24511 <i>Larus novaehollandiae</i> subsp. <i>novaehollandiae</i> (Silver Gull)			
143.	25638 <i>Larus pacificus</i> (Pacific Gull)			
144.	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			
145.	24582 <i>Lichmera indistincta</i> subsp. <i>indistincta</i> (Brown Honeyeater)			
146.	30932 <i>Limosa lapponica</i> (Bar-tailed Godwit)		IA	
147.	24326 <i>Malacorhynchus membranaceus</i> (Pink-eared Duck)			
148.	25651 <i>Malurus lamberti</i> (Variegated Fairy-wren)			
149.	25652 <i>Malurus leucopterus</i> (White-winged Fairy-wren)			
150.	24549 <i>Malurus leucopterus</i> subsp. <i>leuconotus</i> (White-winged Fairy-wren)			
151.	25654 <i>Malurus splendens</i> (Splendid Fairy-wren)			
152.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
153.	25758 <i>Megalurus gramineus</i> (Little Grassbird)			
154.	24838 <i>Megalurus gramineus</i> subsp. <i>gramineus</i> (Little Grassbird)			
155.	24598 <i>Merops ornatus</i> (Rainbow Bee-eater)			
156.	<i>Microcarbo melanoleucos</i>			
157.	24738 <i>Neophema elegans</i> (Elegant Parrot)			
158.	25564 <i>Nycticorax caledonicus</i> (Rufous Night Heron)			
159.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
160.	24328 <i>Oxyura australis</i> (Blue-billed Duck)		P4	
161.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
162.	48591 <i>Pandion cristatus</i> (Osprey, Eastern Osprey)		IA	
163.	25681 <i>Pardalotus punctatus</i> (Spotted Pardalote)			
164.	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			
165.	24630 <i>Pardalotus striatus</i> subsp. <i>westraliensis</i> (Striated Pardalote)			
166.	24648 <i>Pelecanus conspicillatus</i> (Australian Pelican)			
167.	48060 <i>Petrochelidon ariel</i> (Fairy Martin)			
168.	48061 <i>Petrochelidon nigricans</i> (Tree Martin)			
169.	48066 <i>Petroica boodang</i> (Scarlet Robin)			
170.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
171.	25698 <i>Phalacrocorax melanoleucos</i> (Little Pied Cormorant)			
172.	24666 <i>Phalacrocorax melanoleucos</i> subsp. <i>melanoleucos</i> (Little Pied Cormorant)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
173.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
174.	25699 <i>Phalacrocorax varius</i> (Pied Cormorant)			
175.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
176.	25587 <i>Phaps elegans</i> (Brush Bronzewing)			
177.	48071 <i>Phylidonyris niger</i> (White-cheeked Honeyeater)			
178.	24596 <i>Phylidonyris novaehollandiae</i> (New Holland Honeyeater)			
179.	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
180.	25721 <i>Platycercus zonarius</i> (Australian Ringneck, Ring-necked Parrot)			
181.	24383 <i>Pluvialis squatarola</i> (Grey Plover)		IA	
182.	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
183.	24679 <i>Podargus strigoides</i> subsp. <i>brachypterus</i> (Tawny Frogmouth)			
184.	25704 <i>Podiceps cristatus</i> (Great Crested Grebe)			
185.	24681 <i>Poliiocephalus poliocephalus</i> (Hoary-headed Grebe)			
186.	25731 <i>Porphyrio porphyrio</i> (Purple Swamphen)			
187.	24767 <i>Porphyrio porphyrio</i> subsp. <i>bellus</i> (Purple Swamphen)			
188.	24770 <i>Porzana pusilla</i> subsp. <i>palustris</i> (Baillon's Crake)			
189.	24771 <i>Porzana tabuensis</i> (Spotless Crake)			
190.	24702 <i>Pterodroma brevirostris</i> (Kerguelen Petrel)			
191.	<i>Purpureicephalus spurius</i>			
192.	24776 <i>Recurvirostra novaehollandiae</i> (Red-necked Avocet)			
193.	48096 <i>Rhipidura albiscapa</i> (Grey Fantail)			
194.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
195.	24454 <i>Rhipidura leucophrys</i> subsp. <i>leucophrys</i> (Willie Wagtail)			
196.	25534 <i>Sericornis frontalis</i> (White-browed Scrubwren)			
197.	30948 <i>Smicronis brevirostris</i> (Weebill)			
198.	24522 <i>Sterna bergii</i> (Crested Tern)			
199.	25589 <i>Streptopelia chinensis</i> (Spotted Turtle-Dove)	Y		
200.	25590 <i>Streptopelia senegalensis</i> (Laughing Turtle-Dove)	Y		
201.	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
202.	24682 <i>Tachybaptus novaehollandiae</i> subsp. <i>novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
203.	24331 <i>Tadorna tadornoides</i> (Australian Shelduck, Mountain Duck)			
204.	48597 <i>Thalasseus bergii</i> (Crested Tern)		IA	
205.	24845 <i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
206.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
207.	48141 <i>Tribonyx ventralis</i> (Black-tailed Native-hen)			
208.	25723 <i>Trichoglossus haematodus</i> (Rainbow Lorikeet)			
209.	24808 <i>Tringa nebularia</i> (Common Greenshank, greenshank)		IA	
210.	24851 <i>Turnix velox</i> (Little Button-quail)			
211.	24855 <i>Tyto novaehollandiae</i> subsp. <i>novaehollandiae</i> (Masked Owl (southwest))		P3	
212.	25577 <i>Vanellus miles</i> (Masked Lapwing)			
213.	24386 <i>Vanellus tricolor</i> (Banded Lapwing)			
214.	25765 <i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereye)			

Bryopsid (Moss)

215.	32346 <i>Didymodon torquatus</i>			
216.	32380 <i>Gemmabryum pachythecum</i>			
217.	32384 <i>Gigaspermum repens</i>			
218.	32480 <i>Racopilum cuspidigerum</i> var. <i>convolutaceum</i>			
219.	32486 <i>Thuidium sparsum</i> var. <i>hastatum</i>			

Dicotyledon

220.	15430 <i>Acacia alata</i> var. <i>tetrantha</i>			
221.	15466 <i>Acacia applanata</i>			
222.	15470 <i>Acacia barbinervis</i> subsp. <i>borealis</i>			
223.	3237 <i>Acacia benthamii</i>		P2	
224.	3282 <i>Acacia cyclops</i> (Coastal Wattle)			
225.	3374 <i>Acacia huegelii</i>			
226.	3409 <i>Acacia lasiocarpa</i> (Panjang)			
227.	3502 <i>Acacia pulchella</i> (Prickly Moses)			
228.	15481 <i>Acacia pulchella</i> var. <i>glaberima</i>			
229.	15482 <i>Acacia pulchella</i> var. <i>goadbyi</i>			
230.	3525 <i>Acacia rostellifera</i> (Summer-scented Wattle)			
231.	3527 <i>Acacia saligna</i> (Orange Wattle, Kudjong)			
232.	3541 <i>Acacia sessilis</i>			
233.	3557 <i>Acacia stenoptera</i> (Narrow Winged Wattle)			
234.	3584 <i>Acacia truncata</i>			
235.	3604 <i>Acacia xanthina</i> (White-stemmed Wattle)			
236.	1728 <i>Allocasuarina fraseriana</i> (Sheoak, Kondil)			
237.	1732 <i>Allocasuarina humilis</i> (Dwarf Sheoak)			
238.	4906 <i>Alyogyne huegelii</i> (Lilac Hibiscus)			

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239.	6314 <i>Andersonia lehmanniana</i>			
240.	11471 <i>Andersonia lehmanniana</i> subsp. <i>lehmanniana</i>			
241.	11725 <i>Anthocercis ilicifolia</i> subsp. <i>ilicifolia</i>			
242.	6949 <i>Anthocercis littorea</i> (Yellow Tailflower)			
243.	3692 <i>Aotus procumbens</i>			
244.	20283 <i>Astartea scoparia</i> (Common Astartea)			
245.	7851 <i>Asteridea pulverulenta</i> (Common Bristle Daisy)			
246.	6331 <i>Astroloma microcalyx</i> (Native Cranberry)			
247.	6334 <i>Astroloma pallidum</i> (Kick Bush)			
248.	1800 <i>Banksia attenuata</i> (Slender Banksia, Piara)			
249.	1819 <i>Banksia grandis</i> (Bull Banksia, Pulgarla)			
250.	1834 <i>Banksia menziesii</i> (Firewood Banksia)			
251.	32076 <i>Banksia sessilis</i> (Parrot Bush, Pudjak)			
252.	32077 <i>Banksia sessilis</i> var. <i>cygnorum</i>			
253.	25788 <i>Billardiera fraseri</i> (Elegant Pronaya)			
254.	3710 <i>Bossiaea eriocarpa</i> (Common Brown Pea)			
255.	7867 <i>Brachyscome bellidioides</i>			
256.	7878 <i>Brachyscome iberidifolia</i>			
257.	5426 <i>Calothamnus quadrifidus</i> (One-sided Bottlebrush, Kwowdjard)			
258.	35816 <i>Calothamnus quadrifidus</i> subsp. <i>quadrifidus</i>			
259.	5429 <i>Calothamnus sanguineus</i> (Silky-leaved Blood flower, Pindak)			
260.	5439 <i>Calytrix angulata</i> (Yellow Starflower)			
261.	5458 <i>Calytrix flavescens</i> (Summer Starflower)			
262.	5476 <i>Calytrix sapphirina</i>			
263.	5479 <i>Calytrix strigosa</i>			
264.	7909 <i>Carduus pycnocephalus</i> (Slender Thistle)	Y		
265.	2795 <i>Carpobrotus edulis</i> (Hottentot Fig)	Y		
266.	2798 <i>Carpobrotus virescens</i> (Coastal Pigface, Kolboko, Bain)			
267.	2951 <i>Cassytha flava</i> (Dodder Laurel)			
268.	2957 <i>Cassytha racemosa</i> (Dodder Laurel)			
269.	11799 <i>Cassytha racemosa</i> forma <i>racemosa</i>			
270.	2889 <i>Cerastium glomeratum</i> (Mouse Ear Chickweed)	Y		
271.	5498 <i>Chamelaucium uncinatum</i> (Geraldton Wax)			
272.	10804 <i>Clematis linearifolia</i>			
273.	2929 <i>Clematis pubescens</i> (Common Clematis)			
274.	4552 <i>Comesperma confertum</i>			
275.	4554 <i>Comesperma flavum</i>			
276.	15516 <i>Conospermum canaliculatum</i> subsp. <i>canaliculatum</i>			
277.	15611 <i>Conospermum stoehadis</i> subsp. <i>stoehadis</i> (Common Smokebush)			
278.	1885 <i>Conospermum triplinervium</i> (Tree Smokebush)			
279.	6347 <i>Conostephium minus</i> (Pink-tipped Pearl flower)			
280.	6348 <i>Conostephium pendulum</i> (Pearl Flower)			
281.	6349 <i>Conostephium preissii</i>			
282.	20074 <i>Conyza sumatrensis</i>	Y		
283.	17104 <i>Corymbia calophylla</i> (Marri)			
284.	7943 <i>Cotula australis</i> (Common Cotula)			
285.	3137 <i>Crassula colorata</i> (Dense Stonecrop)			
286.	11709 <i>Crassula colorata</i> var. <i>acuminata</i>			
287.	4802 <i>Cryptandra mutila</i>			
288.	4809 <i>Cryptandra pungens</i>			
289.	25825 <i>Cucurbita pepo</i>	Y		
290.	7451 <i>Dampiera lavandulacea</i>			
291.	7454 <i>Dampiera linearis</i> (Common Dampiera)			
292.	6218 <i>Daucus glochidiatus</i> (Australian Carrot)			
293.	3805 <i>Daviesia decurrens</i> (Prickly Bitter-pea)			
294.	19747 <i>Daviesia decurrens</i> subsp. <i>decurrens</i>			
295.	3807 <i>Daviesia divaricata</i> (Marno)			
296.	18560 <i>Daviesia divaricata</i> subsp. <i>divaricata</i>			
297.	16585 <i>Daviesia nudiflora</i> subsp. <i>nudiflora</i>			
298.	3832 <i>Daviesia physodes</i>			
299.	3833 <i>Daviesia podophylla</i>			
300.	4453 <i>Diplolaena angustifolia</i> (Yanchep Rose)			
301.	7054 <i>Dischisma arenarium</i>	Y		
302.	48751 <i>Drosera drummondii</i>			
303.	3095 <i>Drosera erythrorhiza</i> (Red Ink Sundew)			
304.	3118 <i>Drosera pallida</i> (Pale Rainbow)			
305.	11570 <i>Epilobium billardioreanum</i> subsp. <i>billardioreanum</i> (Smooth Willow Herb)			
306.	11992 <i>Epilobium billardioreanum</i> subsp. <i>intermedium</i>			
307.	6132 <i>Epilobium ciliatum</i>	Y		
308.	6133 <i>Epilobium hirtigerum</i> (Hairy Willow Herb)			

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309.	14289 <i>Epilobium tetragonum</i> subsp. <i>tetragonum</i>	Y		
310.	13950 <i>Eremaea asterocarpa</i> subsp. <i>asterocarpa</i>			
311.	5540 <i>Eremaea fimbriata</i>			
312.	5541 <i>Eremaea pauciflora</i>			
313.	7215 <i>Eremophila glabra</i> (Tar Bush)			
314.	17175 <i>Eremophila glabra</i> subsp. <i>albicans</i>			
315.	4336 <i>Erodium moschatum</i> (Musky Crowfoot)	Y		
316.	6219 <i>Eryngium pinnatifidum</i> (Blue Devils)			
317.	5615 <i>Eucalyptus decipiens</i> (Limestone Marlock, Moit)			
318.	5649 <i>Eucalyptus foecunda</i> (Narrow-leaved Red Mallee)			
319.	5659 <i>Eucalyptus gomphocephala</i> (Tuart, Duart)			
320.	5708 <i>Eucalyptus marginata</i> (Jarrah, Djara)			
321.	13547 <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Jarrah)			
322.	13511 <i>Eucalyptus rudis</i> subsp. <i>rudis</i>			
323.	5790 <i>Eucalyptus todtiana</i> (Coastal Blackbutt)			
324.	1747 <i>Ficus carica</i> (Common Fig)	Y		
325.	20483 <i>Gastrolobium linearifolium</i>			
326.	33620 <i>Glischrocaryon angustifolium</i>			
327.	3945 <i>Gompholobium aristatum</i>			
328.	3950 <i>Gompholobium knightianum</i>			
329.	19295 <i>Gompholobium pungens</i>			
330.	11083 <i>Gompholobium scabrum</i>			
331.	3957 <i>Gompholobium tomentosum</i> (Hairy Yellow Pea)			
332.	6161 <i>Gonocarpus pithyoides</i>			
333.	15839 <i>Grevillea preissii</i> subsp. <i>preissii</i>			
334.	2119 <i>Grevillea vestita</i>			
335.	12824 <i>Grevillea vestita</i> subsp. <i>vestita</i>			
336.	2784 <i>Gyrostemon ramulosus</i> (Corkybark)			
337.	2146 <i>Hakea costata</i> (Ribbed Hakea)			
338.	2175 <i>Hakea lissocarpha</i> (Honey Bush)			
339.	2197 <i>Hakea prostrata</i> (Harsh Hakea)			
340.	2203 <i>Hakea ruscifolia</i> (Candle Hakea)			
341.	2214 <i>Hakea trifurcata</i> (Two-leaf Hakea)			
342.	2216 <i>Hakea varia</i> (Variable-leaved Hakea)			
343.	3961 <i>Hardenbergia comptoniana</i> (Native Wisteria)			
344.	3016 <i>Heliophila pusilla</i>	Y		
345.	16933 <i>Hemiandra glabra</i>			
346.	6839 <i>Hemiandra pungens</i> (Snakebush)			
347.	6871 <i>Hemigenia sericea</i> (Silky Hemigenia)			
348.	41020 <i>Hemiphora bartlingii</i> (Woolly Dragon)			
349.	5112 <i>Hibbertia aurea</i>			
350.	5135 <i>Hibbertia hypericoides</i> (Yellow Buttercups)			
351.	45534 <i>Hibbertia hypericoides</i> subsp. <i>hypericoides</i>			
352.	5162 <i>Hibbertia racemosa</i> (Stalked Guinea Flower)			
353.	11461 <i>Hibbertia spicata</i> subsp. <i>leptotheca</i>		P3	
354.	48381 <i>Hibbertia striata</i>			
355.	6222 <i>Homalosciadium homalocarpum</i>			
356.	3968 <i>Hovea trisperma</i> (Common Hovea)			
357.	12859 <i>Hovea trisperma</i> var. <i>trisperma</i>			
358.	5216 <i>Hybanthus calycinus</i> (Wild Violet)			
359.	12007 <i>Hybanthus floribundus</i> subsp. <i>floribundus</i>			
360.	6224 <i>Hydrocotyle blepharocarpa</i>			
361.	6232 <i>Hydrocotyle hispidula</i>			
362.	8086 <i>Hypochaeris glabra</i> (Smooth Catsear)	Y		
363.	9352 <i>Hypochaeris radicata</i> (Flat Weed, Cats-ear)	Y		
364.	3992 <i>Isotropis cuneifolia</i> (Granny Bonnets)			
365.	19700 <i>Isotropis cuneifolia</i> subsp. <i>cuneifolia</i>			
366.	14783 <i>Jacksonia calcicola</i>			
367.	4012 <i>Jacksonia furcellata</i> (Grey Stinkwood)			
368.	4029 <i>Jacksonia sternbergiana</i> (Stinkwood, Kapur)			
369.	4044 <i>Kennedia prostrata</i> (Scarlet Runner)			
370.	15498 <i>Kunzea glabrescens</i> (Spearwood)			
371.	29046 <i>Lactuca serriola</i> forma <i>serriola</i>	Y		
372.	18585 <i>Lagenophora huegelii</i>			
373.	7568 <i>Lechenaultia biloba</i> (Blue Leschenaultia)			
374.	7577 <i>Lechenaultia hirsuta</i> (Hairy Leschenaultia)			
375.	7580 <i>Lechenaultia linarioides</i> (Yellow Leschenaultia)			
376.	7586 <i>Lechenaultia stenosepala</i> (Narrow-sepaled Leschenaultia)			
377.	3042 <i>Lepidium pseudotasmanicum</i>		P4	
378.	2350 <i>Leptomeria pauciflora</i> (Sparse-flowered Currant Bush)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
379.	2352 <i>Leptomeria preissiana</i>			
380.	17852 <i>Leptorhynchos scaber</i> (Lanky Buttons)			
381.	5857 <i>Leptospermum spinescens</i>			
382.	6405 <i>Leucopogon insularis</i>			
383.	40801 <i>Leucopogon maritimus</i>		P1	
384.	6425 <i>Leucopogon oxycedrus</i>			
385.	6427 <i>Leucopogon parviflorus</i> (Coast Beard-heath)			
386.	6434 <i>Leucopogon polymorphus</i>			
387.	6436 <i>Leucopogon propinquus</i>			
388.	6440 <i>Leucopogon racemulosus</i>			
389.	19460 <i>Leucopogon</i> sp. <i>Yanchep</i> (M. Hislop 1986)		P3	
390.	4362 <i>Linum marginale</i> (Wild Flax)			
391.	7408 <i>Lobelia tenuior</i> (Slender Lobelia)			
392.	6515 <i>Logania vaginalis</i> (White Spray)			
393.	4066 <i>Lupinus cosentinii</i>	Y		
394.	34736 <i>Lysinema pentapetalum</i>			
395.	2838 <i>Macarthuria apetala</i>			
396.	3049 <i>Matthiola incana</i> (Common Stock)	Y		
397.	5887 <i>Melaleuca cardiophylla</i> (Tangling Melaleuca)			
398.	5920 <i>Melaleuca huegelii</i> (Chenille Honeymyrtle)			
399.	13271 <i>Melaleuca huegelii</i> subsp. <i>huegelii</i>			
400.	5959 <i>Melaleuca raphiophylla</i> (Swamp Paperbark)			
401.	18598 <i>Melaleuca systema</i>			
402.	5983 <i>Melaleuca trichophylla</i>			
403.	4085 <i>Melilotus indicus</i>	Y		
404.	15994 <i>Mentha x piperita</i> var. <i>citrata</i>	Y		
405.	8106 <i>Millotia tenuifolia</i> (Soft Millotia)			
406.	7289 <i>Myoporum caprarioides</i> (Slender Myoporum)			
407.	2401 <i>Nuytsia floribunda</i> (Christmas Tree, Mudja)			
408.	8127 <i>Olearia axillaris</i> (Coastal Daisybush)			
409.	8149 <i>Olearia rudis</i> (Rough Daisybush)			
410.	7348 <i>Opercularia hispidula</i> (Hispid Stinkweed)			
411.	18255 <i>Opercularia vaginata</i> (Dog Weed)			
412.	4356 <i>Oxalis pes-caprae</i> (Soursob)	Y		
413.	1762 <i>Parietaria debilis</i> (Pellitory)			
414.	5225 <i>Passiflora filamentosa</i>	Y		
415.	4343 <i>Pelargonium capitatum</i> (Rose Pelargonium)	Y		
416.	4346 <i>Pelargonium littorale</i>			
417.	13911 <i>Persicaria decipiens</i>			
418.	2258 <i>Persoonia comata</i>			
419.	2273 <i>Persoonia saccata</i> (Snottygobble)			
420.	20368 <i>Petrophile axillaris</i>			
421.	2286 <i>Petrophile brevifolia</i>			
422.	2299 <i>Petrophile linearis</i> (Pixie Mops)			
423.	2301 <i>Petrophile macrostachya</i>			
424.	2309 <i>Petrophile serruriae</i>			
425.	19825 <i>Petrorhagia dubia</i>	Y		
426.	16177 <i>Phyllangium paradoxum</i>			
427.	4675 <i>Phyllanthus calycinus</i> (False Boronia)			
428.	2793 <i>Phytolacca octandra</i> (Red Ink Plant)	Y		
429.	5232 <i>Pimelea argentea</i> (Silvery Leaved Pimelea)			
430.	5251 <i>Pimelea imbricata</i>			
431.	11402 <i>Pimelea imbricata</i> var. <i>piliger</i>			
432.	5254 <i>Pimelea leucantha</i>			
433.	5268 <i>Pimelea sulphurea</i> (Yellow Banjine)			
434.	8177 <i>Podolepis lessonii</i>			
435.	8183 <i>Podotheca chrysantha</i> (Yellow Podotheca)			
436.	8184 <i>Podotheca gnaphalioides</i> (Golden Long-heads)			
437.	2905 <i>Polycarpon tetraphyllum</i> (Fourleaf Allseed)	Y		
438.	4691 <i>Poranthera microphylla</i> (Small Poranthera)			
439.	8189 <i>Pseudognaphalium luteoalbum</i> (Jersey Cudweed)			
440.	2718 <i>Ptilotus drummondii</i> (Narrowleaf Mulla Mulla)			
441.	2751 <i>Ptilotus polystachyus</i> (Prince of Wales Feather)			
442.	40841 <i>Ptilotus stirlingii</i> subsp. <i>stirlingii</i>			
443.	4181 <i>Pultenaea reticulata</i>			
444.	2932 <i>Ranunculus colonorum</i> (Common Buttercup)			
445.	2933 <i>Ranunculus muricatus</i> (Sharp Buttercup)	Y		
446.	6012 <i>Regelia ciliata</i>			
447.	18547 <i>Rhadinothamnus anceps</i>			
448.	2578 <i>Rhagodia baccata</i> (Berry Saltbush)			

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449.	11341 <i>Rhagodia baccata</i> subsp. <i>baccata</i>			
450.	15035 <i>Rhodanthe corymbosa</i>			
451.	2967 <i>Romneya coulteri</i> (California Tree Poppy)	Y		
452.	2433 <i>Rumex crispus</i> (Curled Dock)	Y		
453.	2440 <i>Rumex pulcher</i> (Fiddle Dock)	Y		
454.	2906 <i>Sagina apetala</i> (Annual Pearlwort)	Y		
455.	2356 <i>Santalum acuminatum</i> (Quandong, Warrga)			
456.	7368 <i>Scabiosa atropurpurea</i> (Purple Pincushion)	Y		
457.	7603 <i>Scaevola canescens</i> (Grey Scaevola)			
458.	7606 <i>Scaevola crassifolia</i> (Thick-leaved Fan-flower)			
459.	13181 <i>Scaevola repens</i> var. <i>angustifolia</i>			
460.	13182 <i>Scaevola repens</i> var. <i>repens</i>			
461.	7647 <i>Scaevola thesioides</i>			
462.	13152 <i>Scaevola thesioides</i> subsp. <i>thesioides</i>			
463.	6033 <i>Scholtzia involucrata</i> (Spiked Scholtzia)			
464.	25884 <i>Senecio pinnatifolius</i> var. <i>latilobus</i>			
465.	8218 <i>Senecio ramosissimus</i> (Auricled Groundsel)			
466.	2909 <i>Silene gallica</i> (French Catchfly)	Y		
467.	6988 <i>Solanum americanum</i> (Glossy Nightshade)	Y		
468.	7022 <i>Solanum nigrum</i> (Black Berry Nightshade)	Y		
469.	7037 <i>Solanum symonii</i>			
470.	8231 <i>Sonchus oleraceus</i> (Common Sowthistle)	Y		
471.	20348 <i>Sphaerolobium calcicola</i>		P3	
472.	4828 <i>Spyridium globulosum</i> (Basket Bush)			
473.	9069 <i>Stackhousia huegelii</i>			
474.	4733 <i>Stackhousia monogyna</i>			
475.	9070 <i>Stackhousia pubescens</i> (Downy Stackhousia)			
476.	2918 <i>Stellaria media</i> (Chickweed)	Y		
477.	15066 <i>Stenanthemum notiale</i> subsp. <i>chamelum</i>			
478.	3080 <i>Stenopetalum robustum</i>			
479.	2316 <i>Stirlingia latifolia</i> (Blueboy)			
480.	30278 <i>Stylidium androsaceum</i>			
481.	7693 <i>Stylidium brunonianum</i> (Pink Fountain Triggerplant)			
482.	7694 <i>Stylidium bulbiferum</i> (Circus Triggerplant)			
483.	7696 <i>Stylidium calcaratum</i> (Book Triggerplant)			
484.	7709 <i>Stylidium crossocephalum</i> (Posy Triggerplant)			
485.	7710 <i>Stylidium cygnorum</i>			
486.	7713 <i>Stylidium dichotomum</i> (Pins-and-needles)			
487.	25801 <i>Stylidium hesperium</i>			
488.	13127 <i>Stylidium maritimum</i>		P3	
489.	25829 <i>Stylidium neurophyllum</i> (Coastal Plain Triggerplant)			
490.	25837 <i>Stylidium purpureum</i> (Purple Fountain Triggerplant)			
491.	7785 <i>Stylidium repens</i> (Matted Triggerplant)			
492.	20521 <i>Stylidium rigidulum</i>			
493.	7798 <i>Stylidium schoenoides</i> (Cow Kicks)			
494.	15532 <i>Synaphea spinulosa</i> subsp. <i>spinulosa</i>			
495.	4256 <i>Templetonia retusa</i> (Cockies Tongues)			
496.	2791 <i>Tersonia cyathiflora</i> (Button Creeper)			
497.	5105 <i>Thomasia triphylla</i>			
498.	19041 <i>Trachymene coerulea</i> subsp. <i>coerulea</i>			
499.	6280 <i>Trachymene pilosa</i> (Native Parsnip)			
500.	4292 <i>Trifolium campestre</i> (Hop Clover)	Y		
501.	4310 <i>Trifolium spumosum</i> (Bladder Clover)	Y		
502.	4737 <i>Tripterococcus brunonis</i> (Winged Stackhousia)			
503.	11665 <i>Trymalium ledifolium</i> var. <i>ledifolium</i>			
504.	33418 <i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i>			
505.	8255 <i>Ursinia anthemoides</i> (Ursinia)	Y		
506.	38388 <i>Ursinia anthemoides</i> subsp. <i>anthemoides</i>	Y		
507.	7125 <i>Utricularia australis</i>			
508.	7110 <i>Veronica distans</i>			
509.	12411 <i>Verticordia densiflora</i> var. <i>cespitosa</i>			
510.	6101 <i>Verticordia nitens</i> (Morrison Featherflower, Kodjeningara)			
511.	4325 <i>Viminaria juncea</i> (Swishbush, Koweda)			
512.	17042 <i>Vitis vinifera</i>	Y		
513.	7384 <i>Wahlenbergia capensis</i> (Cape Bluebell)	Y		
514.	13328 <i>Waitzia nitida</i>			
515.	8282 <i>Waitzia suaveolens</i> (Fragrant Waitzia)			
516.	6939 <i>Westringia dampieri</i>			
517.	44861 <i>Xerochrysum macranthum</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Fish				
518.	<i>Bostockia porosa</i>			
519.	<i>Cleidopus gloriamaris</i>			
520.	<i>Edelia vittata</i>			
521.	34028 <i>Galaxias occidentalis</i> (Western Minnow)			
522.	<i>Gambusia affinis</i>			
523.	<i>Girella tephraeops</i>			
Fungus				
524.	<i>Alternaria alternata</i>			Y
525.	<i>Calocera guepiniooides</i>			
526.	<i>Coltricia cinnamomea</i>			
527.	<i>Crepidotus nephrodes</i>			
528.	<i>Hexagonia vesparia</i>			
529.	44926 <i>Ileodictyon gracile</i>			
530.	38805 <i>Lentinellus pulvinulus</i>			
531.	49003 <i>Macrolepiota turbinata</i>			
532.	49073 <i>Peziza austrogeaster</i>			
533.	<i>Peziza badia</i>			
534.	<i>Peziza</i> sp.			
535.	38819 <i>Peziza vesiculosa</i>			
536.	48853 <i>Phaeotrametes decipiens</i>			
537.	44729 <i>Porostereum crassum</i>			
538.	<i>Tremella mesenterica</i>			
Gymnosperm				
539.	85 <i>Macrozamia riedlei</i> (<i>Zamia</i> , <i>Djiridji</i>)			
Invertebrate				
540.	<i>Acercella falcipes</i>			
541.	<i>Akamptogonus novarae</i>			
542.	<i>Amblyomma triguttatum</i>			
543.	<i>Aname mainae</i>			
544.	<i>Araneus cyphoxis</i>			
545.	<i>Arkys alticephala</i>			
546.	<i>Arkys walckenaeri</i>			
547.	<i>Australomimetes djuka</i>			
548.	<i>Austrochthonius australis</i>			
549.	33971 <i>Austroconops mcmillani</i> (<i>McMillan's biting midge</i> (Swan Coastal Plain), biting midge (southwest))		P2	
550.	<i>Baiami tegenarioides</i>			
551.	<i>Cercophonius granulosus</i>			
552.	<i>Cercophonius sulcatus</i>			
553.	<i>Cherax quinquecarinatus</i>			
554.	<i>Cormocephalus novaehollandiae</i>			
555.	<i>Cyclosa trilobata</i>			
556.	<i>Daphnia carinata</i>			
557.	<i>Dingosa serrata</i>			
558.	<i>Eriophora biapicata</i>			
559.	<i>Ethmostigmus rubripes</i>			
560.	48582 <i>Hurleya</i> sp. (WAM C23193) (<i>Crystal Cave Crangonyctoid</i> , cave shrimp)		T	Y
561.	48935 <i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)		P3	
562.	<i>Lampona cylindrata</i>			
563.	<i>Lampona yancheap</i>			
564.	<i>Lycosa godeffroyi</i>			
565.	<i>Missulena granulosa</i>			
566.	<i>Occiperipatooides gilesii</i>			
567.	<i>Oxidus gracilis</i>			
568.	<i>Pholcus phalangiooides</i>			
569.	<i>Pinkfloydia harveii</i>			
570.	<i>Prionosternum scutatatum</i>			
571.	<i>Protochelififer cavernarum</i>			
572.	33992 <i>Synemon gratiosa</i> (<i>Graceful Sunmoth</i>)		P4	
573.	<i>Tamopsis perthensis</i>			
574.	<i>Taphiassa robertsi</i>			
575.	<i>Urodacus novaehollandiae</i>			
576.	<i>Venator immansueta</i>			
Mammal				
577.	24162 <i>Bettongia penicillata</i> subsp. <i>ogilbyi</i> (<i>Woylie</i> , <i>Brush-tailed Bettong</i>)		T	
578.	24254 <i>Camelus dromedarius</i> (<i>Dromedary</i> , <i>Camel</i>)	Y		
579.	48920 <i>Canis familiaris</i> (<i>Dog</i> , <i>Dingo</i>)	Y		

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580.	24086 <i>Cercartetus concinnus</i> (Western Pygmy-possum, Mundarda)			
581.	24186 <i>Chalinolobus gouldii</i> (Gould's Wattled Bat)			
582.	24187 <i>Chalinolobus morio</i> (Chocolate Wattled Bat)			
583.	24092 <i>Dasyurus geoffroii</i> (Chuditch, Western Quoll)		T	
584.	24041 <i>Felis catus</i> (Cat)	Y		
585.	24215 <i>Hydromys chrysogaster</i> (Water-rat, Rakali)		P4	
586.	48588 <i>Isodon fusciventer</i> (Quenda, southwestern brown bandicoot)		P4	
587.	24132 <i>Macropus fuliginosus</i> (Western Grey Kangaroo)			
588.	24076 <i>Mesoplodon bowdoini</i> (Andrew's Beaked Whale)			
589.	24223 <i>Mus musculus</i> (House Mouse)	Y		
590.	48022 <i>Notamacropus irma</i> (Western Brush Wallaby)		P4	
591.	24243 <i>Rattus fuscipes</i> (Western Bush Rat)			
592.	24245 <i>Rattus rattus</i> (Black Rat)	Y		
593.	24108 <i>Sminthopsis crassicaudata</i> (Fat-tailed Dunnart)			
594.	24207 <i>Tachyglossus aculeatus</i> (Short-beaked Echidna)			
595.	24167 <i>Tarsipes rostratus</i> (Honey Possum, Noolbenger)			
596.	24040 <i>Vulpes vulpes</i> (Red Fox)	Y		

Monocotyledon

597.	1208 <i>Acanthocarpus preissii</i>			
598.	184 <i>Aira caryophylla</i> (Silvery Hairgrass)	Y		
599.	185 <i>Aira cupaniana</i> (Silvery Hairgrass)	Y		
600.	1056 <i>Alexgeorgea nitens</i>			
601.	1409 <i>Anigozanthos humilis</i> (Catspaw)			
602.	1411 <i>Anigozanthos manglesii</i> (Mangles Kangaroo Paw, Kurulbrang)			
603.	11261 <i>Anigozanthos manglesii</i> subsp. <i>manglesii</i>			
604.	1264 <i>Arnocrinum preissii</i>			
605.	226 <i>Arundo donax</i> (Giant Reed)	Y		
606.	1201 <i>Asparagus officinalis</i> (Asparagus)	Y		
607.	17234 <i>Austrostipa compressa</i>			
608.	17240 <i>Austrostipa flavescens</i>			
609.	743 <i>Baumea juncea</i> (Bare Twigrush)			
610.	244 <i>Briza maxima</i> (Blowfly Grass)	Y		
611.	253 <i>Bromus rubens</i> (Red Brome)	Y		
612.	1592 <i>Caladenia flava</i> (Cowslip Orchid)			
613.	15348 <i>Caladenia flava</i> subsp. <i>flava</i>			
614.	19309 <i>Calectasia narragara</i>			
615.	755 <i>Carex fascicularis</i> (Tassel Sedge)			
616.	43241 <i>Carex thecata</i>			
617.	13685 <i>Catapodium rigidum</i> (Rigid Fescue)	Y		
618.	760 <i>Caustis dioica</i>			
619.	1125 <i>Centrolepis drummondiana</i>			
620.	1418 <i>Conostylis aculeata</i> (Prickly Conostylis)			
621.	11826 <i>Conostylis aculeata</i> subsp. <i>aculeata</i>			
622.	1427 <i>Conostylis candicans</i> (Grey Cottonhead)			
623.	11438 <i>Conostylis candicans</i> subsp. <i>candicans</i>			
624.	1443 <i>Conostylis pauciflora</i> (Dawesville Conostylis)			
625.	11388 <i>Conostylis pauciflora</i> subsp. <i>euryrhipis</i>		P4	
626.	11657 <i>Conostylis pauciflora</i> subsp. <i>pauciflora</i>		P4	
627.	1454 <i>Conostylis setigera</i> (Bristly Cottonhead)			
628.	11597 <i>Conostylis setigera</i> subsp. <i>setigera</i>			
629.	11283 <i>Corynotheca micrantha</i> var. <i>micrantha</i>			
630.	783 <i>Cyperus congestus</i> (Dense Flat-sedge)	Y		
631.	816 <i>Cyperus tenuiflorus</i> (Scaly Sedge)	Y		
632.	17663 <i>Desmocladus asper</i>			
633.	16595 <i>Desmocladus flexuosus</i>			
634.	1259 <i>Dianella revoluta</i> (Blueberry Lily)			
635.	1287 <i>Dichopogon capillipes</i>			
636.	347 <i>Ehrharta calycina</i> (Perennial Veldt Grass)	Y		
637.	1643 <i>Elythranthera brunonis</i> (Purple Enamel Orchid)			
638.	1644 <i>Elythranthera emarginata</i> (Pink Enamel Orchid)			
639.	376 <i>Eragrostis curvula</i> (African Lovegrass)	Y		
640.	1646 <i>Eriochilus dilatatus</i> (White Bunny Orchid)			
641.	20216 <i>Ficinia nodosa</i> (Knotted Club Rush)			
642.	907 <i>Gahnia trifida</i> (Coast Saw-sedge)			
643.	1520 <i>Gladiolus caryophyllaceus</i> (Wild Gladiolus)	Y		
644.	1468 <i>Haemodorum laxum</i>			
645.	1475 <i>Haemodorum spicatum</i> (Mardja)			
646.	1070 <i>Hypolaena exsulca</i>			
647.	17841 <i>Hypolaena pubescens</i>			
648.	917 <i>Isolepis marginata</i> (Coarse Club-rush)			

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649.	1188 <i>Juncus pallidus</i> (Pale Rush)			
650.	16091 <i>Lachenalia bulbifera</i>	Y		
651.	28342 <i>Landoltia punctata</i> (Thin Duckweed)			
652.	11464 <i>Laxmannia sessiliflora</i> subsp. <i>australis</i>			
653.	1051 <i>Lemna disperma</i> (Duckweed)			
654.	18074 <i>Lepidobolus preissianus</i> subsp. <i>preissianus</i>			
655.	925 <i>Lepidosperma angustatum</i>			
656.	42742 <i>Lepidosperma calcicola</i>			
657.	932 <i>Lepidosperma effusum</i> (Spreading Sword-sedge)			
658.	933 <i>Lepidosperma gladiatum</i> (Coast Sword-sedge, Kerbin)			
659.	937 <i>Lepidosperma longitudinale</i> (Pithy Sword-sedge)			
660.	940 <i>Lepidosperma pubisquamium</i>			
661.	944 <i>Lepidosperma scabrum</i>			
662.	945 <i>Lepidosperma squamatum</i>			
663.	946 <i>Lepidosperma striatum</i>			
664.	476 <i>Lolium perenne</i> (Perennial Ryegrass)	Y		
665.	478 <i>Lolium rigidum</i> (Wimmera Ryegrass)	Y		
666.	1223 <i>Lomandra caespitosa</i> (Tufted Mat Rush)			
667.	1228 <i>Lomandra hermaphrodita</i>			
668.	1231 <i>Lomandra maritima</i>			
669.	14542 <i>Lomandra micrantha</i> subsp. <i>micrantha</i>			
670.	1239 <i>Lomandra preissii</i>			
671.	1246 <i>Lomandra suaveolens</i>			
672.	955 <i>Mesomelaena pseudostygia</i>			
673.	485 <i>Microlaena stipoides</i> (Weeping Grass)			
674.	11749 <i>Orthrosanthus laxus</i> var. <i>laxus</i> (Morning Iris)			
675.	532 <i>Paspalum urvillei</i> (Vasey Grass)	Y		
676.	1552 <i>Patersonia rudis</i> (Hairy Flag)			
677.	20460 <i>Pheladenia deformis</i>			
678.	1478 <i>Phlebocarya ciliata</i>			
679.	573 <i>Poa drummondiana</i> (Knotted Poa)			
680.	<i>Pterostylis</i> aff. <i>nana</i>			
681.	15426 <i>Pterostylis aspera</i>			
682.	1693 <i>Pterostylis recurva</i> (Jug Orchid)			
683.	12217 <i>Pterostylis sanguinea</i>			
684.	1698 <i>Pterostylis vittata</i> (Banded Greenhood)			
685.	48356 <i>Schoenoplectus tabernaemontani</i>			
686.	984 <i>Schoenus curvifolius</i>			
687.	992 <i>Schoenus grandiflorus</i> (Large Flowered Bogrush)			
688.	997 <i>Schoenus lanatus</i> (Woolly Bog-rush)			
689.	1002 <i>Schoenus nanus</i> (Tiny Bog Rush)			
690.	1026 <i>Schoenus unispiculatus</i>			
691.	1312 <i>Sowerbaea laxiflora</i> (Purple Tassels)			
692.	1260 <i>Styandra glauca</i> (Blind Grass)			
693.	1708 <i>Thelymitra fuscolutea</i> (Chestnut Sun Orchid)			
694.	1319 <i>Thysanotus arenarius</i>			
695.	1343 <i>Thysanotus patersonii</i>			
696.	1358 <i>Thysanotus triandrus</i>			
697.	1361 <i>Tricoryne elatior</i> (Yellow Autumn Lily)			
698.	1038 <i>Tricostularia neesii</i>			
699.	18587 <i>Triglochin nana</i>			
700.	152 <i>Triglochin trichophora</i>			
701.	708 <i>Triticum aestivum</i> (Wheat)	Y		
702.	724 <i>Vulpia myuros</i> (Rat's Tail Fescue)	Y		
703.	33101 <i>Vulpia myuros</i> forma <i>myuros</i>	Y		
704.	1398 <i>Wurmbea monantha</i>			
705.	1256 <i>Xanthorrhoea preissii</i> (Grass tree, Palga)			

Pteridophyte (Fern)

706. 45 *Pteris vittata* (Chinese Brake)

Reptile

707. 44629 *Anilius australis*
 708. 24991 *Aprasia repens* (Sand-plain Worm-lizard)
 709. 24980 *Christinus marmoratus* (Marbled Gecko)
 710. 30893 *Cryptoblepharus buchananii*
 711. 25020 *Cryptoblepharus plagiocephalus*
 712. 25027 *Ctenotus australis*
 713. 25039 *Ctenotus fallens*
 714. 25087 *Cyclodomorphus celatus* (Western Slender Blue-tongue)
 715. 30906 *Delma concinna* (Javelin Legless Lizard)

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
716.	24999 <i>Delma grayii</i>			
717.	25296 <i>Demansia psammophis</i> subsp. <i>reticulata</i> (Yellow-faced Whipsnake)			
718.	25096 <i>Egernia kingii</i> (King's Skink)			
719.	25100 <i>Egernia napoleonis</i>			
720.	25119 <i>Hemiergis quadrilineata</i>			
721.	25133 <i>Lerista elegans</i>			
722.	25148 <i>Lerista lineopunctulata</i>			
723.	25165 <i>Lerista praepedita</i>			
724.	25005 <i>Lialis burtonis</i>			
725.	25184 <i>Menetia greyii</i>			
726.	25240 <i>Morelia spilota</i> subsp. <i>imbricata</i> (Carpet Python)			
727.	25192 <i>Morethia obscura</i>			
728.	25249 <i>Neelaps calonotos</i> (Black-striped Snake, black-striped burrowing snake)		P3	
729.	25252 <i>Notechis scutatus</i> (Tiger Snake)			
730.	25253 <i>Parasuta gouldii</i>			
731.	25510 <i>Pogona minor</i> (Dwarf Bearded Dragon)			
732.	24907 <i>Pogona minor</i> subsp. <i>minor</i> (Dwarf Bearded Dragon)			
733.	25261 <i>Pseudechis australis</i> (Mulga Snake)			
734.	25511 <i>Pseudonaja affinis</i> (Dugite)			
735.	25259 <i>Pseudonaja affinis</i> subsp. <i>affinis</i> (Dugite)			
736.	25008 <i>Pygopus lepidopodus</i> (Common Scaly Foot)			
737.	25266 <i>Simoselaps bertholdi</i> (Jan's Banded Snake)			
738.	25518 <i>Strophurus spinigerus</i>			
739.	24942 <i>Strophurus spinigerus</i> subsp. <i>spinigerus</i>			
740.	25203 <i>Tiliqua occipitalis</i> (Western Bluetongue)			
741.	25519 <i>Tiliqua rugosa</i>			
742.	25204 <i>Tiliqua rugosa</i> subsp. <i>aspera</i>			
743.	25207 <i>Tiliqua rugosa</i> subsp. <i>rugosa</i>			
Slime Mould				
744.	39061 <i>Physarum bitectum</i>			
745.	39063 <i>Physarum cinereum</i>			

Conservation Codes

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

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

Appendix 2: PMST Report 5 km



EPBC Act Protected Matters Report

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

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

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

Report created: 08/10/21 15:42:48

[Summary](#)

[Details](#)

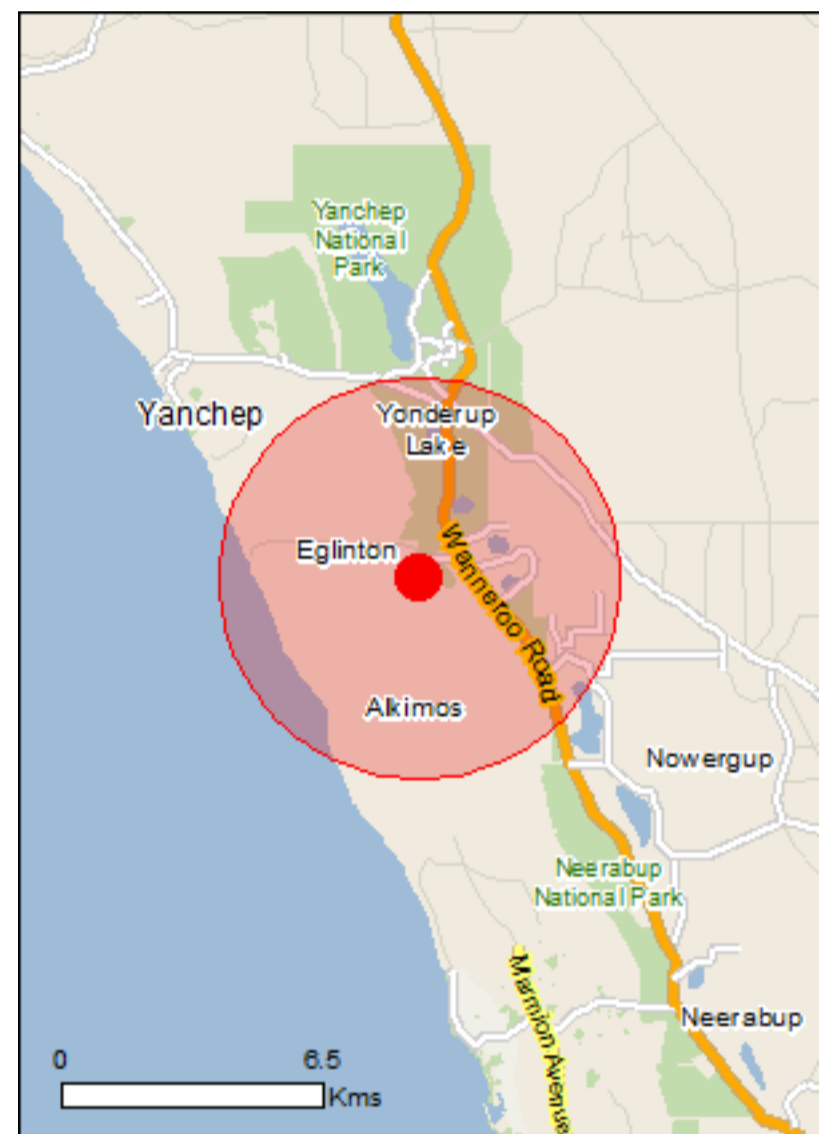
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

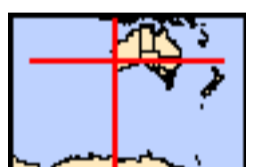
[Acknowledgements](#)



This map may contain data which are
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[Coordinates](#)

[Buffer: 5.0Km](#)



Summary

Matters of National Environmental Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	40
Listed Migratory Species:	43

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	66
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	2
Regional Forest Agreements:	None
Invasive Species:	33
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities

[[Resource Information](#)]

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

Name	Status	Type of Presence
Aquatic Root Mat Community in Caves of the Swan Coastal Plain	Endangered	Community known to occur within area
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area
Sedgelands in Holocene dune swales of the southern Swan Coastal Plain	Endangered	Community known 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
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat likely 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
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Name	Status	Type of Presence
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Phoebastria fusca Sooty Albatross [1075]	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 cauta Shy Albatross [89224]	Endangered	Species or species habitat may 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
Insects		
Hesperocolletes douglasi Douglas' Broad-headed Bee, Rottnest Bee [66734]	Critically Endangered	Species or species habitat may 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 likely to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area

Name	Status	Type of Presence
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Plants		
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area
Drakaea elastica Glossy-leaved Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat may occur within area
Eucalyptus argutifolia Yanchep Mallee, Wabbling Hill Mallee [24263]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat 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		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
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

Name	Threatened	Type of Presence
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Sterna dougallii Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may 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
Migratory Marine Species		
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Breeding known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
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

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

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

Name
Commonwealth Land -

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

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

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely 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 ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Larus novaehollandiae Silver Gull [810]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Foraging, feeding or related behaviour may occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
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 may occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phoebastria fusca Sooty Albatross [1075]	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, Flesh-footed Shearwater [1043]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
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 Tern [59467]		Foraging, feeding or related behaviour known to occur within area
Sterna dougallii Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may 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
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area
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
Choeroichthys suillus Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
Halicampus brocki Brock's Pipefish [66219]		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
Hippocampus subelongatus West Australian Seahorse [66722]		Species or species habitat may occur within area
Lissocampus fatiloquus Prophet's Pipefish [66250]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys meraculus Western Crested Pipefish [66259]		Species or species habitat may occur within area
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [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
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		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
Mammals		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptiles		
Aipysurus pooleorum Shark Bay Seasnake [66061]		Species or species habitat may occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur

Name	Threatened	Type of Presence within area
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may 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 Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat 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
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

State and Territory Reserves [\[Resource Information \]](#)

Name	State
Neerabup	WA
Yanchep	WA

Invasive Species [\[Resource Information \]](#)

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

Name	Status	Type of Presence
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Birds

Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
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Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
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Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
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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
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Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
--	--	--

Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
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Mammals

Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
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Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
--	--	--

Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
--	--	--

Funambulus pennantii Northern Palm Squirrel, Five-striped Palm Squirrel [129]		Species or species habitat likely to occur within area
--	--	--

Mus musculus House Mouse [120]		Species or species
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Name	Status	Type of Presence
Oryctolagus cuniculus		habitat likely to occur within area
Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus		
Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus		
Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes		
Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus aethiopicus		
Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus asparagoides		
Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Brachiaria mutica		
Para Grass [5879]		Species or species habitat may occur within area
Cenchrus ciliaris		
Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Chrysanthemoides monilifera		
Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera		
Boneseed [16905]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana		
Broom [67538]		Species or species habitat may occur within area
Lantana camara		
Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to 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 reichardtii		
Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta		
Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

Nationally Important Wetlands		[Resource Information]
Name		State
Loch McNess System		WA

Caveat

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

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-31.58889 115.68345

Acknowledgements

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

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

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

Please feel free to provide feedback via the [Contact Us](#) page.

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Appendix 3: Conservation Codes

Western Australia

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

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

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

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 Biodiversity, Conservation and Attractions, 2019)

Appendix 4: Transect Data

Quadrat No.: Transect 1
 Survey Date: 1 Oct 2021
 Personnel: TB KS
 Location: Access track
 Topography: Mid slope
 Aspect: North
 Slope: 1-5%
 Soil: Yellow Sand
 Gravel: 0%
 Rock: 0%
 Leaf Litter: 5%
 Bare Ground: 35%
 Drainage: Well
 Condition: Degraded to
 Completely Degraded



Notes: *Acacia saligna* Open Shrubland

Species	Cover (%)	Height (m)
* <i>Arctotheca calendula</i>	0.5	0.2
* <i>Brassica tournefortii</i>	1	0.5
* <i>Bromus diandrus</i>	10	0.3
* <i>Carpobrotus edulis</i>	5	0.2
* <i>Citrullus amarus</i>	0.1	0.1
* <i>Cynodon dactylon</i>	0.1	0.1
* <i>Disa bracteata</i>	0.1	0.2
* <i>Dischisma arenarium</i>	0.1	0.1
* <i>Ehrharta calycinus</i>	5	0.3
* <i>Erodium botrys</i>	0.1	0.1
* <i>Euphorbia peplus</i>	0.1	0.2
* <i>Euphorbia terracina</i>	0.3	0.4
* <i>Heliophila pusilla</i>	0.1	0.1
* <i>Hordeum leporinum</i>	0.2	0.2
* <i>Lactuca serriola</i>	0.1	0.2
* <i>Lagurus ovatus</i>	5	0.3

Species	Cover (%)	Height (m)
<i>*Leontodon rhagadioloides</i>	0.1	0.3
<i>*Lolium rigidum</i>	1	0.3
<i>*Malva parviflora</i>	0.1	0.2
<i>*Oxalis pes-caprae</i>	0.5	0.2
<i>*Pelargonium capitatum</i>	70	0.4
<i>*Schinus terebinthifolia</i>	0.5	0.5
<i>*Sonchus oleraceus</i>	0.1	0.1
<i>*Rumex hypogaeus</i>	0.1	0.1
<i>*Trifolium campestre</i>	0.2	0.2
<i>Acacia lasiocarpa</i>	0.1	0.3
<i>Acacia saligna</i>	50	3
<i>Acanthocarpus preissii</i>	1	0.5
<i>Austrostipa flavescens</i>	0.2	0.3
<i>Conostylis aculeata</i> subsp. <i>aculeata</i>	0.2	0.2
<i>Desmocladus flexuosus</i>	0.1	0.2
<i>Dianella revoluta</i>	0.3	0.4
<i>Ficinia nodosa</i>	0.3	0.5
<i>Gladiolus caryophyllaceus</i>	1	0.3
<i>Gompholobium tomentosum</i>	0.1	0.3
<i>Grevillea vestita</i>	3	0.5
<i>Hakea trifurcata</i>	0.5	1
<i>Hardenbergia comptoniana</i>	0.2	2
<i>Hybanthus calycinus</i>	0.1	0.2
<i>Jacksonia calcicola</i>	2	0.3
<i>Leucopogon parviflorus</i>	3	1.5
<i>Lomandra maritima</i>	3	0.2
<i>Machaerina juncea</i>	1	0.3
<i>Melaleuca systema</i>	2	0.3
<i>Olearia axillaris</i>	0.1	0.4
<i>Ptilotus polystachyus</i>	0.1	0.3
<i>Rhagodia baccata</i>	0.5	0.5
<i>Spyridium globulosum</i>	15	2

Species	Cover (%)	Height (m)
<i>Tricoryne elatior</i>	0.2	0.1

Note: *denotes introduced species.

Quadrat No.: Transect 2
 Survey Date: 1 Oct 2021
 Personnel: TB KS
 Location: Access track
 Topography: Mid slope
 Aspect: North
 Slope: 5-10%
 Soil: Yellow sand
 Gravel: 0%
 Rock: 0%
 Leaf Litter: 5%
 Bare Ground: 55% -
 vehicle
 track
 Drainage: Well
 Condition: Completely
 Degraded to
 Good



Notes: Open *Banksia* spp. Woodland

Species	Cover (%)	Height (m)
* <i>Arctotheca calendula</i>	0.5	0.2
* <i>Briza maxima</i>	2	0.3
* <i>Carpobrotus edulis</i>	5	0.3
* <i>Dischisma capitatum</i>	4	0.2
* <i>Ehrharta calycinus</i>	5	0.4
* <i>Erigeron sumatrensis</i>	0.1	0.2
* <i>Hypochaeris glabra</i>	1	0.2
* <i>Lupinus angustifolius</i>	0.1	0.3
* <i>Lysimachia arvensis</i>	0.1	0.2
* <i>Moraea flaccida</i>	5	0.4
* <i>Silene gallica</i>	0.2	0.2
* <i>Ursinia anthemoides</i>	0.5	0.2
* <i>Wahlenbergia capensis</i>	0.1	0.3
<i>Acacia pulchella</i>	5	0.4
<i>Acacia saligna</i>	10	3.5
<i>Anigozanthos humilis</i>	0.1	0.2

Species	Cover (%)	Height (m)
<i>Banksia attenuata</i>	40	3
<i>Banksia sessilis</i>	60	2
<i>Banksia menziesii</i>	3	0.5
<i>Calandrinia corrigioloides</i>	0.2	0.2
<i>Calothamnus quadrifidus</i>	2	0.5
<i>Conostylis aculeata</i>	1	0.2
<i>Corynotheca micrantha</i>	2	0.2
<i>Crassula alata</i>	0.2	0.1
<i>Desmocladus asper</i>	0.5	0.3
<i>Pelargonium capitatum</i>	20	0.3
<i>Gladiolus caryophyllaceus</i>	4	0.2
<i>Gompholobium tomentosum</i>	0.1	0.2
<i>Grevillea vestita</i>	10	0.5
<i>Hakea trifurcata</i>	40	2
<i>Hibbertia hypericoides</i>	5	0.5
<i>Hybanthus calycinus</i>	0.2	0.3
<i>Isolepis cernua</i> var. <i>setiformis</i>	0.1	0.1
<i>Jacksonia calcicola</i>	5	0.2
<i>Jacksonia furcellata</i>	40	4
<i>Laxmannia squarrosa</i>	0.1	0.1
<i>Lechenaultia linarioides</i>	0.1	0.2
<i>Macrozamia riedlei</i>	0.5	1
<i>Melaleuca systema</i>	2	0.5
<i>Mesomelaena pseudostygia</i>	0.1	0.3
<i>Caladenia flava</i>	0.1	0.1
<i>Petrophile linearis</i>	0.1	0.3
<i>Pimelea floribunda</i>	0.1	0.4
<i>Podotrochea gnaphalioides</i>	0.5	0.3
<i>Trachymene pilosa</i>	0.5	0.1
<i>Tricoryne elatior</i>	0.1	0.2

Quadrat No.: Transect 3
 Survey Date: 1 October
 Personnel: TB KS
 Location: Access track
 Topography: Mid slope
 Aspect: North
 Slope: 5-10%
 Soil: Yellow Sand
 Gravel: 0%
 Rock: 0%
 Leaf Litter: 5%
 Bare Ground: 60% -
 vehicle track
 Drainage: Well
 Condition: Completely
 Degraded to
 Very Good



Notes: *Banksia sessilis* Shrubland

Species	Cover (%)	Height (m)
* <i>Arctotheca calendula</i>	1	0.2
* <i>Avena barbata</i>	5	0.4
* <i>Brassica tournefortii</i>	0.2	0.3
* <i>Briza maxima</i>	0.2	0.2
* <i>Bromus diandrus</i>	0.2	0.3
* <i>Carpobrotus edulis</i>	5	0.2
* <i>Ehrharta longiflora</i>	1	0.4
* <i>Euphorbia peplus</i>	0.2	0.2
* <i>Euphorbia terracina</i>	0.5	0.3
* <i>Gladiolus caryophyllaceus</i>	0.2	0.3
* <i>Hypochaeris glabra</i>	0.2	0.2
* <i>Lagurus ovatus</i>	6	0.3
* <i>Lolium rigidum</i>	5	0.3
* <i>Lysimachia arvensis</i>	1	0.2
* <i>Melilotus indicus</i>	0.2	0.2
* <i>Pelargonium capitatum</i>	20	0.3
* <i>Petrorhagia dubia</i>	0.5	0.2

Species	Cover (%)	Height (m)
* <i>Rhamnaceae</i> sp.	5	2.5
* <i>Trifolium scabrum</i>	2	0.2
* <i>Trifolium campestre</i>	4	0.2
<i>Acacia pulchella</i>	10	0.5
<i>Acacia saligna</i>	0.1	3
<i>Acacia truncata</i>	0.1	0.3
<i>Acanthocarpus preissii</i>	1	0.2
<i>Austrostipa elegantissima</i>	0.2	0.2
<i>Austrostipa flavescens</i>	0.1	0.1
<i>Banksia sessilis</i>	45	2
<i>Calothamnus quadrifidus</i>	5	1
<i>Conospermum stoechadis</i>	0.1	0.5
<i>Conostylis aculeata</i>	3	0.2
<i>Conostylis aculeata</i> subsp. <i>aculeata</i>	0.1	0.2
<i>Daviesia divaricata</i>	1	1
<i>Desmocladius flexuosus</i>	0.1	0.2
<i>Dianella revoluta</i>	0.3	0.3
<i>Eucalyptus gomphocephala</i>	1	6
<i>Gastrolobium capitatum</i>	0.1	0.3
<i>Gompholobium tomentosum</i>	0.2	0.1
<i>Grevillea preissii</i>	2	0.5
<i>Hakea prostrata</i>	1	0.2
<i>Jacksonia calcicola</i>	1	0.2
<i>Lechenaultia linarioides</i>	0.2	0.3
<i>Leucopogon parviflorus</i>	1	0.5
<i>Lomandra maritima</i>	0.1	0.2
<i>Melaleuca systema</i>	0.1	0.5
<i>Melaleuca huegelii</i>	0.1	0.5
<i>Petrophile linearis</i>	0.1	0.2
<i>Phyllanthus calycinus</i>	0.1	0.3
<i>Pimelea floribunda</i>	0.1	0.3
<i>Podotheca gnaphalioides</i>	0.1	0.2

Species	Cover (%)	Height (m)
<i>Ptilotus polystachyus</i>	0.2	0.1
<i>Scaevola thesioides</i>	0.1	0.2
<i>Spyridium globulosum</i>	5	2
<i>Trachyandra divaricata</i>	0.2	0.2
<i>Tricoryne elatior</i>	0.1	0.2

Appendix 5: Species List

The complete flora list for the site is provided in the table below. *Denotes introduced species

Family	Scientific Name	Common Name
Asteraceae	* <i>Arctotheca calendula</i>	Cape Weed
Poaceae	* <i>Avena barbata</i>	Bearded Oat
Brassicaceae	* <i>Brassica tournefortii</i>	Mediterranean Turnip
Poaceae	* <i>Briza maxima</i>	Blowfly Grass
Poaceae	* <i>Bromus diandrus</i>	Great Brome
Aizoaceae	* <i>Carpobrotus edulis</i>	Hottentot Fig
Cucurbitaceae	* <i>Citrullus amarus</i>	
Crassulaceae	* <i>Crassula alata</i>	
Poaceae	* <i>Cynodon dactylon</i>	Couch
Orchidaceae	* <i>Disa bracteata</i>	
Scrophulariaceae	* <i>Dischisma arenarium</i>	
Scrophulariaceae	* <i>Dischisma capitatum</i>	Woolly-headed Dischisma
Poaceae	* <i>Ehrharta calycinus</i>	Perennial Veldt Grass
Poaceae	* <i>Ehrharta longiflora</i>	Annual Veldt Grass
Asteraceae	* <i>Erigeron sumatrensis</i>	
Geraniaceae	* <i>Erodium botrys</i>	Long Storksbill
Euphorbiaceae	* <i>Euphorbia peplus</i>	Petty Spurge
Euphorbiaceae	* <i>Euphorbia terracina</i>	Geraldton Carnation Weed
Iridaceae	* <i>Gladiolus caryophyllaceus</i>	Wild Gladiolus
Brassicaceae	* <i>Heliophila pusilla</i>	
Poaceae	* <i>Hordeum leporinum</i>	Barley Grass
Asteraceae	* <i>Hypochaeris glabra</i>	Smooth Cats-ear
Asteraceae	* <i>Lactuca serriola</i>	Prickly Lettuce
Poaceae	* <i>Lagurus ovatus</i>	Hare's Tail Grass
Asteraceae	* <i>Leontodon rhagadioloides</i>	Cretan Weed
Poaceae	* <i>Lolium rigidum</i>	Rye Grass
Fabaceae	* <i>Lupinus angustifolius</i>	Narrowleaf Lupin
Primulaceae	* <i>Lysimachia arvensis</i>	Pimpernel
Malvaceae	* <i>Malva parviflora</i>	Marshmallow

Family	Scientific Name	Common Name
Fabaceae	* <i>Melilotus indicus</i>	
Iridaceae	* <i>Moraea flaccida</i>	One-leaf Cape Tulip
Oxalidaceae	* <i>Oxalis pes-caprae</i>	Soursob
Geraniaceae	* <i>Pelargonium capitatum</i>	Rose Pelargonium
Caryophyllaceae	* <i>Petrorhagia dubia</i>	
Rhamnaceae	* <i>Rhamnaceae</i> sp.	
Polygonaceae	* <i>Rumex hypogaeus</i>	Doublegee
Anacardiaceae	* <i>Schinus terebinthifolia</i>	
Caryophyllaceae	* <i>Silene gallica</i>	French Catchfly
Asteraceae	* <i>Sonchus oleraceus</i>	Common Sowthistle
Asphodelaceae	* <i>Trachyandra divaricata</i>	
Fabaceae	* <i>Trifolium scabrum</i>	Rough Clover
Fabaceae	* <i>Trifolium campestre</i>	Hop Clover
Asteraceae	* <i>Ursinia anthemoides</i>	Ursinia
Campanulaceae	* <i>Wahlenbergia capensis</i>	Cape Bluebell
Fabaceae	<i>Acacia cyclops</i>	Coastal Wattle
Fabaceae	<i>Acacia lasiocarpa</i>	Panjang
Fabaceae	<i>Acacia pulchella</i>	Prickly Moses
Fabaceae	<i>Acacia saligna</i>	Orange Wattle
Fabaceae	<i>Acacia truncata</i>	
Asparagaceae	<i>Acanthocarpus preissii</i>	
Haemodoraceae	<i>Anigozanthos humilis</i>	Catspaw
Poaceae	<i>Austrostipa elegantissima</i>	
Poaceae	<i>Austrostipa flavescens</i>	
Proteaceae	<i>Banksia attenuata</i>	Slender Banksia
Proteaceae	<i>Banksia sessilis</i>	Parrot Bush
Proteaceae	<i>Banksia menziesii</i>	Firewood Banksia
Orchidaceae	<i>Caladenia flava</i>	Cowslip Orchid
Montiaceae	<i>Calandrinia corrigioloides</i>	Strap Purslane
Myrtaceae	<i>Calothamnus quadrifidus</i>	One-sided Bottlebrush
Proteaceae	<i>Conospermum stoechadis</i>	Common Smokebush
Haemodoraceae	<i>Conostylis aculeata</i>	Prickly Conostylis

Family	Scientific Name	Common Name
Haemodoraceae	<i>Conostylis aculeata</i> subsp. <i>aculeata</i>	
Hemerocallidaceae	<i>Corynotheca micrantha</i>	Hexagon Zigzag Lily
Fabaceae	<i>Daviesia divaricata</i>	Marno
Restionaceae	<i>Desmocladus asper</i>	
Restionaceae	<i>Desmocladus flexuosus</i>	
Hemerocallidaceae	<i>Dianella revoluta</i>	Blueberry Lily
Myrtaceae	<i>Eucalyptus gomphocephala</i>	Tuart
Cyperaceae	<i>Ficinia nodosa</i>	knotted Club Rush
Fabaceae	<i>Gastrolobium capitatum</i>	
Fabaceae	<i>Gompholobium tomentosum</i>	Hairy Yellow Pea
Proteaceae	<i>Grevillea vestita</i>	
Proteaceae	<i>Grevillea preissii</i>	
Proteaceae	<i>Hakea prostrata</i>	Harsh Hakea
Proteaceae	<i>Hakea trifurcata</i>	Two-leaf Hakea
Fabaceae	<i>Hardenbergia comptoniana</i>	Native Wisteria
Dilleniaceae	<i>Hibbertia hypericoides</i>	Yellow Buttercups
Violaceae	<i>Hybanthus calycinus</i>	Wild violet
Cyperaceae	<i>Isolepis</i> sp.	
Fabaceae	<i>Jacksonia calcicola</i>	
Fabaceae	<i>Jacksonia furcellata</i>	Grey Stinkwood
Asparagaceae	<i>Laxmannia squarrosa</i>	
Goodeniaceae	<i>Lechenaultia linarioides</i>	Yellow Leschenaultia
Cyperaceae	<i>Lepidosperma pubisquameum</i>	Oldham's Sword Sedge
Ericaceae	<i>Leucopogon parviflorus</i>	Coast Beard-heath
Asparagaceae	<i>Lomandra maritima</i>	
Cyperaceae	<i>Machaerina juncea</i>	Bare Twigrush
Zamiaceae	<i>Macrozamia riedlei</i>	Zamia
Myrtaceae	<i>Melaleuca systema</i>	
Myrtaceae	<i>Melaleuca huegelii</i>	Chenille Honeymyrtle
Cyperaceae	<i>Mesomelaena pseudostygia</i>	
Asteraceae	<i>Olearia axillaris</i>	Coastal Daisybush
Proteaceae	<i>Petrophile linearis</i>	Pixie Mops

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Phyllanthaceae	<i>Phyllanthus calycinus</i>	False Boronia
Thymelaeaceae	<i>Pimelea floribunda</i>	
Asteraceae	<i>Podotheca gnaphalioides</i>	Golden Long-heads
Amaranthaceae	<i>Ptilotus polystachyus</i>	Prince of Wales Feather
Chenopodiaceae	<i>Rhagodia baccata</i>	Berry Saltbush
Goodeniaceae	<i>Scaevola thesioides</i>	
Cyperaceae	<i>Schoenus pedicellatus</i>	Woolly Bog Rush
Rhamnaceae	<i>Spyridium globulosum</i>	Basket Bush
Araliaceae	<i>Trachymene pilosa</i>	Native Parsnip
Hemerocallidaceae	<i>Tricoryne elatior</i>	Yellow Autumn Lily
Xanthorrhoeaceae	<i>Xanthorrhoea preissii</i>	Grass tree