

Boral Quarries - Browns Creek, Orange Grove

Flora & Vegetation Reconnaissance Survey

Prepared for:

Boral Resources (WA)

December 2019

people
 planet
 professional

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Executive Summary

Boral Resources commissioned 360 Environmental Pty Ltd (360 Environmental) to undertake a Reconnaissance Flora and Vegetation Survey at Boral Quarries Browns Creek operations in Orange Grove. The Survey Area includes in part Lots 50 & 457 Stephen Street and Lot 453 Grant Street, Orange Grove. The survey was comprised of two areas (Sections A and B). The survey was conducted across three site visits – the first on 29 July 2019 (out of season), the second on 28 October 2019 (in season) and the third on 8th Nov. Boral increased the size of Section A between the first and second site visits.

The initial Survey Area covered 0.44 ha in Section A and 0.52 ha in Section B. In October Section A as increased to a total size of 1.02 ha. Both Sections were in the locality of Orange Grove, approximately 25 km south east of Perth CBD, Western Australia.

Key findings from the Reconnaissance flora and vegetation survey:

- A total of 39 flora taxa from 34 genera and 18 families were identified within the Survey Area
- No Threatened species listed under the Environment Protection and Biodiversity
 Conservation Act 1999 or gazetted as Threatened pursuant to the Biodiversity
 Conservation Regulations 2018 were recorded during the survey
- No Priority Flora were located during the field survey
- A pre-survey likelihood of occurrence assessment was undertaken for the 103 species of conservation significance with the potential to occur within the Survey Area and determined that 20 species of conservation significance were considered likely to occur within the Survey Area, however, it was determined post survey that the Survey Area is unlikely to support conservation significant flora species due to conditions of the site
 - A total of 12 introduced taxa were recorded during the survey. Three of these are listed as a Declared Pest under the *Biosecurity and Agriculture Management Act* 2007, with two species in Bridal Creeper (*Asparagus asparagoides) and Prickly Pear (*Opuntia stricta) being listed as a Weed of National Significance.
 - Two Vegetation Types were recorded within the Survey Area
 - The reconnaissance survey indicated that no Threatened Ecological Communities occur within the Survey Area.



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1 Introduction

1.1 The Project

Boral Resources commissioned 360 Environmental Pty Ltd (360 Environmental) to undertake a Reconnaissance Flora and Vegetation Survey at Boral Quarries Browns Creek operations in Orange Grove. The Survey Area includes in part Lots 50 & 457 Stephen Street and Lot 453 Grant Street, Orange Grove. The survey was comprised of two areas (Sections A and B). The survey was conducted across two site visits – the first on 29 July 2019 (out of season), the second on 28 October 2019 (in season) and the third on 8th November. Boral increased the size of Section A between the first and second site visits.

The initial Survey Area covered 0.44 ha in Section A and 0.52 ha in Section B. In October Section A as increased to a total size of 1.02 ha. The Survey Area (Figure 1) includes in part Lots 50 & 457 Stephen Street and Lot 453 Grant Street, Orange Grove.

360 Environmental understands that Boral is seeking approval to clear the Survey Area to create safer and more efficient access to a mining pit. Lots 50 Stephen Street and Lot 453 Grant Street are zoned Parks and Recreation. Lot 457 Stephen Street is zoned General Rural.

1.2 Objectives and Scope

The objective of the works is to provide environmental services to facilitate legal clearing of a proposed access road.

The scope included a desktop assessment and an out of season Reconnaissance Flora and Vegetation survey, inclusive of:

- A desktop assessment of relevant literature, databases and spatial datasets to determine the environmental values and any potential issues
- A reconnaissance survey using relevés
- Delineate and characterise the flora and the vegetation types present in the Survey Area
- Assess and map the vegetation condition in the Survey Area
- Production of maps, showing vegetation condition, vegetation communities and relevé locations
- An assessment of potential Black Cockatoo breeding trees.





Survey Area (0.95 ha)

Extended Survey Area (1.02 ha)



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Boral **Orange Grove**

Reconnaissance Flora and Vegetation Survey

Figure 1 Location of Survey Area







Clearing Permit Area



360 environmental

PROJECT ID DATE
3215 04/11/2019

HORIZONTAL DATUM AND PROJECTION
GDA 1994 MGA Zone 50

CREATED CHECKED APPROVED.
LF SH SH 0

Boral Resources (WA) (Quarry)
Lot 453 Stephen Street,
Orange Grove

NVCP: Area Permit Applicationy Figure 2
Clearing Permit Area



- LOCALITY MAP SOURCED FROM LANDGATE 2017
- OTHER DATA SOURCED LANDGATE 2018
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2018
(© Western Australian Land Information Authority 2017)



2 Background

2.1 Biophysical Environment

2.1.1 Climate

The closest long-term Bureau of Meteorology (BoM) weather station with a complete dataset is Gosnells City (9106), located approximately 3.8 km southwest of the Survey Area. The long-term mean minimum temperature for Gosnells City ranges from 8.8°C (July) to 18.7°C (February) (1991 to 2019) and the long-term mean maximum temperature ranges from 18.4°C (June) to 36.0°C (January) (1961 to 2019) (Figure 3) (Bureau of Meteorology, 2019). The long-term annual average rainfall is 811.0 millimetres (mm) (1961 to 2019) (Figure 3) (Bureau of Meteorology, 2019).

The Gosnells City weather station recorded 478.8 mm of rainfall in the 12 months prior to the first site visit (July 2018 to June 2019), which is 332.2 mm below to the long-term average of 311.0 mm (Bureau of Meteorology, 2019). In the three months prior to the survey (April 2019 to June 2019), 201.7 mm of rainfall was recorded, which is 98.0 mm below the long-term average of 308.7 mm for the same time period (1961 to 2019) (Bureau of Meteorology, 2019).

Between August and October (i.e. between the first and second site visits) the Gosnells City weather station recorded 148.3mm of rainfall, 102.2mm below the average rainfall for the area for those months.



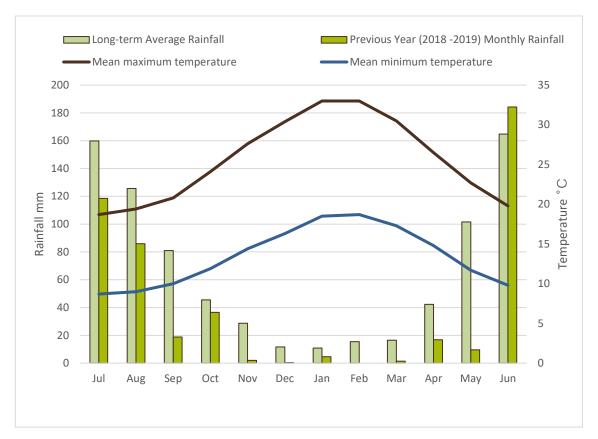


Figure 3: Long Term and Monthly Total Rainfall, Maximum and Minimum Temperatures for Gosnells City (9106) (Bureau of Meteorology, 2019)

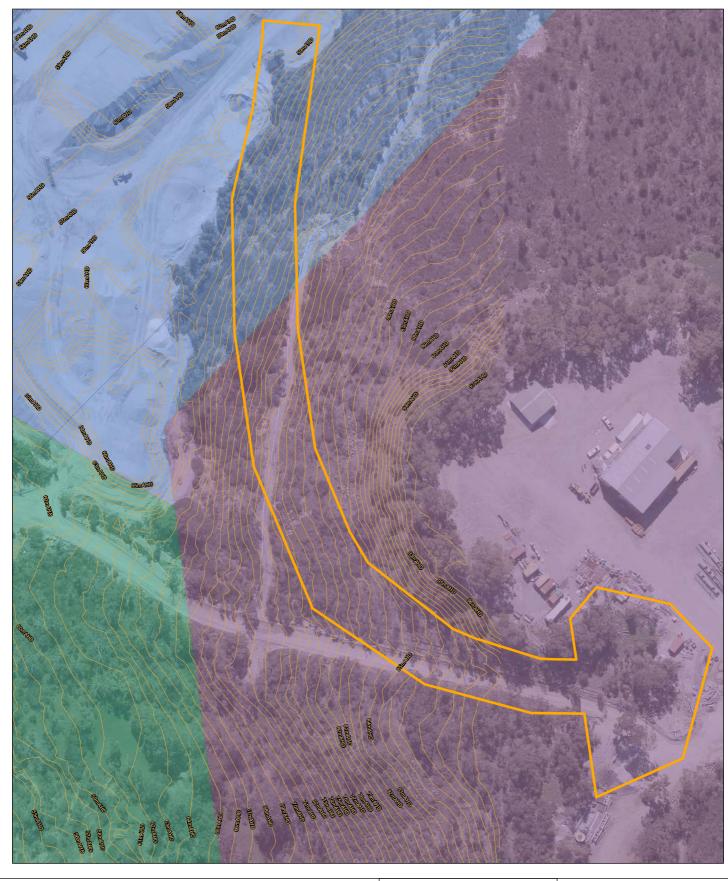
2.2 Biological Environment

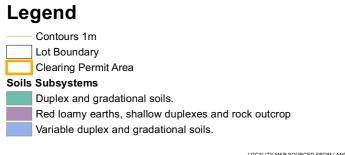
2.2.1 Interim Biogeographic Regionalisation of Australia

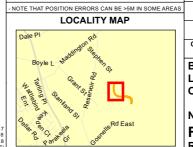
The Biogeographic Regionalisation of Australia (IBRA) divides Australia into 89 bioregions based on major biological and geographical/geological attributes. These bioregions are subdivided into 419 subregions, as part of a refinement of the IBRA framework. The study area is in the Northern Jarrah Forest (JAF01) subregion, part of the Jarrah Forest bioregion. This bioregion is characterised by Jarrah-Marri forest on laterite gravels and, in the eastern part, by woodlands of Wandoo - Marri on clayey soils. Eluvial and alluvial deposits support Agonis shrublands. In areas of Mesozoic sediments, Jarrah forests occur in a mosaic with a variety of species-rich shrublands (Williams and Mitchell, 2001).

2.2.2 Soil and Land Systems

Soil-landscape system mapping of Western Australia describes broad soil and landscape characteristics from regional to local scales. The Survey Area is within the Murray Valleys System which is described as the Western Darling Range from Avon Valley to Harvey. It is characterised as deeply incised valleys with red loamy earths, shallow duplexes and rock outcrop and Jarrah-marri-wandoo forest and woodland with mixed shrubland (Department of Agriculture and Food WA, 2012).







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Boral Resources (WA) (Quarry) Lot 453 Stephen Street, Orange Grove

NVCP: Area Permit Applicationy
Figure 4 Topography and
Regional Environmental Geology

SLIP ENABLER

- CHER DATA SOURCE

- AERIAL PHOTOGRAPHY SOURCE

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2.2.3 Hydrology and Wetlands

A review of GIS datasets has identified two minor, perennial streams (FID 8028 and 7712) occurring within the property boundary (Department of Water and Environmental Regulation, 2016), however, these do not occur within the Survey Area and will not be affected by the proposed clearing.

No geomorphic wetlands are mapped within the site (Department of Biodiversity Conservation and Attractions, 2017b). The closest wetland identified is a Multiple-Use Wetland (ID: 15768) located approximately 580m west of the site.

According to the 1990 EPA referral, surface water occurs in seasonal streamlines in valleys surrounding the site. The initial site and proposed 1990 study area were bounded to the north and south by two streamlines which flowed freely during winter. The northern streamline was intercepted by the initial quarry, its flow maintained by roadside drains, which directed it into silt-traps then into the main storage dam, or the old quarry reservoir (Environmental Protection Authority, 1990).

There are also two artificial water bodies within the property boundary, which are part of the quarry operations.

2.2.4 Broad Vegetation Types

Mapping of pre-European broad vegetation within Western Australia was completed on a broad scale (1:1,000,000) by (Beard, 1981). These vegetation units were later re-assessed by (Shepherd, Beeston and Hopkins, 2002) to account for clearing in the intensive land use zone, dividing some larger vegetation units into smaller units. This pre-European database contains a total of 819 vegetation types within Western Australia.

One broad vegetation type, West Darling 4, is mapped over the Survey Area. The vegetation type is described as a medium woodland comprising of marri and wandoo and its representation across the state, bioregion and local government authority as shown in Table 1.

Table 1: Broad Vegetation Types Within the Survey Area, the State and Regional Representation (Department of Biodiversity Conservation and Attractions, 2019a)

Vegetation Type	Pre-European Extent (HA)	Current Extent (ha)		maining (%)	Current Extent Managed in DBCA Lands (%)				
Vegetation Type in W	Vegetation Type in Western Australia								
West Darling 4	1,054,279.89	284,102.41		26.95	23.85				
Vegetation Type in N	lorthern Jarrah Fores	t IBRA sub-region							
West Darling 4	614,200.82	197,903.81		32.22	30.56				
Vegetation in City if Gosnells									
West Darling 4	1608.10	1317.22	1317.22		10.96				



Mapping by Heddle, Loneragan and Havel (1980) used landform-soil units determined by Churchward and McArthur (1978) and has identified one vegetation complex occurring within the Survey Area and is described below. The delineation of vegetation complexes is based on the concept of a series of plant communities forming regularly repeating complexes associated with a soil unit.

• Darling Scarp Complex: a mosaic of open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla, with some admixtures with Eucalyptus laeliae in the north (subhumid zone), with occasional Eucalyptus marginata subsp. elegantella (mainly in subhumid zone) and Corymbia haematoxylon in the south (humid zone) on deeper soils adjacent to outcrops, woodland of Eucalyptus wandoo (subhumid and semiarid zones), low woodland of Allocasuarina huegeliana on shallow soils over granite outcrops, closed heath of Myrtaceae-Proteaceae species and lithic complex on or near granite outcrops in all climate zones.

2.2.5 Conservation Areas and Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are declared to prevent degradation of important environmental values such as Threatened flora, Threatened Ecological Communities (TECs) or significant wetlands. Exemptions contained in the *Environmental Protection* (Clearing of Native vegetation) Regulations 2004 for low impact land clearing do not apply in ESAs and a clearing permit is required.

No ESAs are identified across the Survey Area. The closest ESA is located approximately 1.2 km m to the south of the Survey Area (Department of Water and Environmental Regulation, 2018).

The Survey Area is not mapped within any Regional Parks or DBCA Managed Lands, however, the vegetated land located to the north, east and south of the quarry boundary is identified as the Banyowla Regional Park (Department of Biodiversity Conservation and Attractions, 2017a). The Banyowla Regional Park contains several parcels of land which are managed by the DBCA.

The Survey Area is not mapped within any Bush Forever Areas (Department of Planning, 2014). The closest Bush Forever Area (BFS: 51) is mapped 1.7 km north, north-west from the Survey Area.

The site is not mapped with the Perth Regional Ecological Linkage (Perth Biodiversity Project, 2008), however, Linkage 34 occurs on the eastern boundary of the Quarry approximately 950 m to the east of the Survey Area.



3 Methods

3.1 Requirements for Flora and Vegetation Surveys

This survey has been carried out as per the EPA requirements for environmental surveying and reporting of flora and fauna surveys in Western Australia where relevant, and as documented in:

Western Australia

 Technical Guidance – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment (Environmental Protection Authority, 2016).

Federal

 Matters of National Environmental Significance impact guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999 (DoE, 2013).

3.2 Desktop Assessment

3.2.1 Database Searches

The following government databases were reviewed to provide background information on the flora and vegetation of the Survey Area:

- NatureMap (5 km radial search) (Department of Biodiversity Conservation and Attractions, 2019c)
- DEE Protected Matters Search Tool (5 km radial search) (Department of the Environment and Energy, 2019)
- Relevant biological surveys.

3.2.1.1 Likelihood of Occurrence

Threatened and Priority flora species returned from the database searches were assessed to determine the likely potential of them occurring within the Survey Area. The likelihood of occurrence assessment was based on the following criteria:

- **High** Previously recorded within Survey Area or within 5 km of the Survey Area and suitable habitat potentially occurs in the Survey Area
- Medium Previously recorded within 5 to 10 km of the Survey Area and/or suitable habitat potentially occurs in the Survey Area
- Low No suitable habitat appears to be present in the Survey Area.



3.3 Reconnaissance Flora and Vegetation Survey

3.3.1 Field Survey

The first field survey was conducted on the 29 of July 2019 by 360 Environmental Botanist Shenaye Hummerston (Flora licence number FB62000125). The survey covered Section A and Section B.

The survey included four relevés as well as vegetation mapping notes. Relevés are unbounded vegetation survey plots with information recorded at each relevé including landscape features, surface soil colour and texture, bare ground, litter cover, disturbance, fire age, aspect and vegetation condition. Each species of dominant plant at each relevé was recorded, including information on height and percentage cover.

Boral Resources slightly increased the proposed area of clearing at Section A (extended) from 0.96 ha to 1.02 ha. As such, 360 Environmental Botanist Tyler Hudson (Flora licence number FB62000172) revisited the site on 28 October 2019 Field maps were amended on site to capture vegetation types and condition within the extended survey area. Botanist Shenaye Hummerston (Flora licence number FB62000125) again visited the site on 8 November 2019 and assessed potential Black Cockatoo breeding trees within the survey area.

3.3.2 Taxonomy and Nomenclature

Where field identification of plant taxa was not possible, specimens were collected systematically for later identification utilising resources of the Western Australian Herbarium (WAH).

The finalised species list was checked against FloraBase (Department of Biodiversity Conservation and Attractions, 2019b) to determine the species' conservation status. Threatened and Priority Flora were verified against the EPBC Act listing of threatened species to determine Commonwealth listing. Introduced flora species were compared to the WONS list (Thorp and Lynch, 2000) and the DAFWA list to determine if any are listed as Declared (Department of Primary Industries and Regional Development, 2018).

3.3.3 Opportunistic Observation

Opportunistic searches were undertaken for perennial conservation significant flora likely to occur in the Survey Area based on database searches and vegetation communities present.

3.3.4 Potential Black Cockatoo breeding

Potential Black Cockatoo breeding trees were recorded onsite by measuring the circumference of each tree thought likely to be over 500mm DBH (or approximately 1.57m circumference) for Marri, Jarrah and Tuart and over 300mm DBH (or



approximately 0.94m circumference). Data and location information was recorded using Fulcrum and a hand-held GPS.



4 Results

4.1 Limitations and Constraints

Survey limitations and constraints of the flora and vegetation assessment are detailed in Table 2.

Table 2: Limitations and Constraints Associated with the Survey Area

Variable	Degree of Limitation	Impact on Survey Outcomes			
Access	No limitation	The Survey Area was accessed on foot. Focus was given to areas expected to be impacted and areas that may have species or ecological communities of conservation significance.			
Experience	No limitation	The personnel who executed the survey were practitioners suitably qualified in their respective fields:			
		 Field Staff: Shenaye Hummerston (Botanist) 			
		 Field Staff: Tyler Hudson (Botanist) 			
		 Flora Taxonomy: Shenaye Hummerston (Botanist) 			
		 Data Interpretation and Reporting: Shenaye Hummerston 			
		 Report Review: Narelle Whittington (Principal Botanist) 			
		 Report Review: Felicity Jones (Principal Consultant) 			
Timing, weather, season	Moderate limitation	The initial survey was conducted during July which is outside of the recommended flora survey period for the Southwest botanical province (spring, September - November) (Environmental Protection Authority, 2016). For the three months prior to the survey, the Gosnells weather station (closet to the Survey Area) recorded 210.7 mm of rainfall which is 98 mm below the long-term average rainfall for the same period.			
		No rainfall was recorded during the survey.			
		Flora composition changes with time, particularly seasonally as a result of changes in conditions such as rainfall. With the rainfall recorded significantly lower than expected for this period, flowering and germination of annuals within the survey area may have been delayed. Additional botanical surveys completed at different times of the year will often produce varying results.			



Variable	Degree of Limitation	Impact on Survey Outcomes
Scope: Life forms sampled	Minor limitation	An appropriate number of life forms were sampled in relation to the level of survey undertaken, however as the majority of the survey area was surveyed out of season, some species were not flowering and were unable to be identified.
Sources of information	No limitation	Relevant NatureMap and EPBC searches were undertaken for the Survey Area and are listed in Appendix A (excluding GPS coordinates).
Completeness	Minor limitation	Survey Area was sufficiently traversed according to the EPA guidelines Not all specimens were able to be identified with confidence to species level due to the survey being outside the flowering time for some species. However, all dominant species were identified to species level.

4.2 Desktop Assessment

The database searches identified 103 conservation significant flora species as potentially occurring within a 5 km radius of the Survey Area. Of these, 33 species are listed as Threatened and 70 are Priority. The Priority flora included, nine Priority 1 (P1), 11 Priority 2 (P2), 31 Priority 3 (P3) and 19 Priority 4 (P4) (Appendix A).

Based on the likelihood assessment of the 103 species occurring in the Survey Area 69 species have been identified as having a Low likelihood of occurrence, four species have a Medium likelihood of occurrence and 20 species have a High likelihood to occur in the Survey Area. Ten species do not have data available to determine likelihood of occurrence (Appendix B).

Two Priority Ecological Communities (PEC) and two TECs listed by the State are within a five km radius of the Survey Area, all of these communities are also listed as Threatened Ecological Communities (TEC) under the EPBC Act.

- Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region (Priority 3 [DBCA], Endangered [EPBC])
- Clay Pans of the Swan Coastal Plain, (Vulnerable [DBCA], Critically Endangered [EPBC])
- Corymbia calophylla Kingia australis woodlands on heavy soils of the Swan Coastal Plain (Critically Endangered [DBCA], Endangered [EPBC])
- Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community (Priority 3 [DBCA], Critically Endangered [EPBC]).



Prior to survey only one of the above listed TEC was considered likely to occur within the survey area based on the location, the soil types expected within the survey area and the Botanists experience of the area.

• Corymbia calophylla - Kingia australis woodlands on heavy soils of the Swan Coastal Plain, Endangered [EPBC].

4.3 Reconnaissance Flora & Vegetation Survey

4.3.1 Flora

A total of 39 flora species (including species, subspecies, varieties and forms) from 18 families and 34 genera were recorded in the Survey Area. The most commonly occurring families were Myrtaceae (eight taxa) and Proteaceae (five taxa). A complete flora species list is presented in Appendix C and each survey site sheet is provided in Appendix D.

Seven species could not be confidently identified to species level due to lack of identifying features such as flowering or fruiting parts and are not thought to represent significant species.

4.3.2 Flora of Conservation Significance

No Threatened or Priority flora species listed under the EPBC Act or gazetted as Declared Rare Flora (Threatened) pursuant to the *Biodiversity Conservation Regulations 2018* were recorded within the Survey Area during any site visit.

4.3.3 Introduced Flora

A total of 12 introduced species were recorded during the survey, representing approximately 28% of the total taxa. Of these introduced species, 2 introduced grasses could not be identified due to a lack of flowering, three species are listed as Declared Pest species under the *Biosecurity and Agriculture Management Act* 2007 (BAM Act). Of these declared pests, both Bridal Creeper (*Asparagus asparagoides) and Prickly Pear (*Opuntia stricta) are listed as a Weed of National Significance (WONS) (Department of Environment and Energy, 2018).

Table 3: Introduced Flora Recorded in the Survey Area

rable of miredaeout relatives and miredaeout for the								
Taxa	Common Name	BAM Act	WONS					
*Asparagus asparagoides	Bridal Creeper	Declared Pest – s22	WONS					
*Echium plantagineum	Paterson's Curse	Declared Pest - s22(2)	-					
*Eucalyptus camaldulensis	Red River Gum	Permitted – s11	-					
*Fumaria capreolata	Fumitory	Permitted – s11	-					
*Gladiolus caryophyllaceous	Pink Gladioli	Permitted - s11	-					



Taxa	Common Name	BAM Act	WONS
*Hypochaeris glabra	Smooth Cats-ear	Permitted – s11	-
*Sonchus oleraceus	Common Sowthistle	Permitted – s11	-
*Opuntia stricta	Prickly Pear	Declared Pest - s22(2) Restricted)	WONS
*Oxalis sp.	Wood Sorrel	Permitted – s11	-
*Oxalis glabra	Finger-leaf Oxalis	Permitted - s11	-
*Romulea rosea	Guildford Grass	Permitted - s11	-
*Watsonia ?meriana	Watsonia	Permitted - s11	-

4.3.4 Vegetation Types

Two vegetation types were recorded for the Survey Area (Table 4 and Figure 5). The data collected from each quadrat/relevé is presented in Appendix D. Section B of the Survey Area did not contain any native vegetation.

Table 4: Vegetation Types Recorded within the Survey Area

Vegetation Association Code and Description	Sites	Total Area (ha)	Total Area (%)	Representative Site Photograph
Cr: Closed shrubland of Calothamnus rupestris over an open grassland of Poaceae sp.	OG01 OG03 OG04	0.44	42.17	



Vegetation Association Code and Description	Sites	Total Area (ha)	Total Area (%)	Representative Site Photograph
CcBs: Open Woodland of Corymbia calophylla over shrubland of Banksia sessilis	OG02	0.25	24.68	
Cleared	N/A	0.34	33.14	N/A
Total		1.02		

4.3.5 Threatened and Priority Ecological Communities

Statistical analysis was not undertaken of the vegetation to determine if there are any TECs or PECs present. This was due to the scope of the project and the timing of the survey. None of the vegetation types recorded during the survey are considered representative of any TECs or PECs pursuant to the EPBC Act or the *Biodiversity Conservation Regulations 2018*.



Legend

Extended Survey Area Survey Area

Lot Boundary

VegetationTypesSurvey2

C, Historically cleared areas including tracks and existing extraction

CcBs, Open woodland of Corymbia calophylla over shrubland of Banksia sessilis.

Cr, Closed shrubland of Calothamnus rupestris over open grassland of Poacea spp.







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Boral Resources (WA) (Quarry) Lot 453 Stephen Street, **Orange Grove**

NVCP: Area Permit Applicationy

Figure 5 Vegetation Types



4.3.6 Vegetation Condition

Only Section A of the Survey Area contained remnant native vegetation. The entire area of Section B has been historically cleared and forms part of the current operational footprint for the Orange Grove Quarry.

The vegetation condition in Section A ranged from Very Good to Completely Degraded The areas considered to be Completely Degraded have been cleared and now consists of bare tracks along with small areas of scattered individual native plants with a high density of weed species.

The major disturbance throughout Section A is cleared tracks. In addition, a large portion appears to have been disturbed at some stage demonstrated by younger plants and lower density of native species as well as a high level of weed invasion. This is more so within the southern portion of Section A with *Eucalyptus camaldulensis (planted) being dominant. Historical aerials also show that the vegetation within the Survey Area and surrounding area has been previously cleared between 1983 and 1985.

The vegetation condition mapping is presented in Figure 6 and a summary of vegetation condition extent within the Survey Area is outlined in Table 5.

Table 5: Vegetation Condition Extent Within the Survey Area

Condition	Extent in Survey Area (HA)	Proportion in Survey Area (%)
Very Good	0.09	9.53
Good	0.16	16.14
Degraded	0.38	37.82
Completely Degraded	0.37	36.55
Total	1.02	100.0



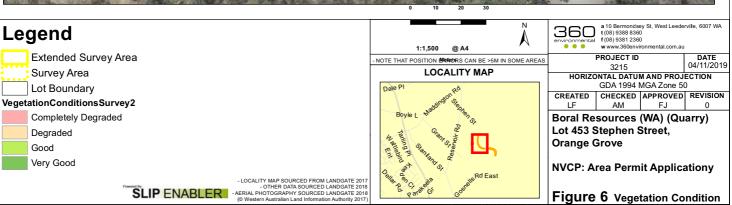


Figure 6 Vegetation Condition



4.4 Black Cockatoo Habitat Assessment

4.4.1 Desktop Assessment

The Survey Area occurs within the known distribution of the Carnaby's Black Cockatoo, the Forest Red-tailed Black Cockatoo and the Baudin's Black Cockatoo (DSEWPaC, 2012; DoEE, 2017).

4.4.2 Field Survey

No threatened Black Cockatoos were observed within the Survey Area.

4.4.3 Breeding Habitat

The field survey identified five Wandoo (*Eucalyptus wandoo*) trees with a DBH of greater than 300 mm in the Survey Area (Figure 7, Appendix E). These trees are considered to be potential Black Cockatoo breeding trees.

Only one of these trees had suitable hollows. The tree contained 3 hollows, 2 of which were considered a suitable size for Black cockatoo breeding (< 12 cm diameter opening). Although this tree sits within the marked Survey Area, the client indicated that as it lies uphill, it is unlikely to be impacted directly by the proposed clearing works.

No evidence of Black Cockatoo breeding, including observations of birds or chew marks around hollows, was observed within the Survey Area.

4.4.4 Foraging Habitat

No evidence of Black Cockatoo foraging was recorded within the Survey Area.

4.4.5 Roosting Habitat

No evidence of Black Cockatoo roosting was observed during the Survey.



Legend

Extended Survey Area Survey Area Lot Boundary

- Black Cockatoo Potential Breeding Trees with Hollows
- Black Cockatoo Potential Breeding Trees



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3215

HORIZONTAL DATUM AND PROJECTION
GDA 1994 MGA Zone 50

CREATED CHECKED APPROVED REVISION
LF AM FJ 0

Boral ResourcesLot 453 Stephen Street,
Orange Grove
3215AA Orange Grove Flora and
Vegetation Reconnaissance Survey
Draft Rev2

Figure 7 Black Cockatoo Potential Breeding Trees



5 Discussion

5.1 Flora and Vegetation

5.1.1 Flora of Conservation Significance

No Threatened species listed under the EPBC Act or gazetted as T/DRF (Threatened) pursuant to the *Biodiversity Conservation Regulations 2018* were recorded during the survey. No Priority species as listed by DBCA was recorded.

The review of the database searches identified 103 Threatened and Priority flora species as potentially occurring in the vicinity of the Survey Area. Of these potential Threatened species, 20 are considered to have a High Likelihood of occurrence, based on the habitat type present and known distribution, these are as follows:

- Acacia aphylla (T) is a divaricately branched, spinescent, glaucous shrub that ranges between 0.9-2.5 m high. It has yellow flowers between August and October. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 2.08km from the Survey Area
- Acacia oncinophylla subsp. patulifolia (P4) is a shrub ranging between 0.5 and 3m high. It has a distinctive feature of 'minni-ritchi' bark, with phyllodes 4-9cm long and 3-6mm wide. This shrub has yellow flowers between August and December. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 1.3km from the Survey Area
- Anthocercis gracilis (T) is an erect, spindly shrub growing 0.6m high. It has unusual yellow-green flowers from Sep to Oct. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 1.25km from the Survey Area
- Asteridea gracilis (P3) is an annual herb growing 0.15-0.35m high. Flowers are white
 to pink between September and December. The Survey Area contains suitable
 habitat and the nearest recorded location of this species is approximately 1.48km
 from the Survey Area
- Banksia kippistiana var. paenepeccata (P3) is an erect, prickly, lignotuberous shrub growing 0.3-1.2 m high. Flowers are yellow-cream in colour from October to November. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 4.32km from the Survey Area
- Beaufortia purpurea (P3) is an erect or spreading shrub between 0.3-1.5 m high. Flowers are red-purple between October and December or January to February. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 2.65km from the Survey Area
- Boronia tenuis (P4) is a procumbent or erect & slender shrub growing 0.1-0.5m high. Flowers are blue/pink-white between August and November. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 1.74km from the Survey Area



- Calothamnus graniticus subsp. leptophyllus (P4) is an erect, multi-stemmed shrub,
 1-2 m high. This one-sided bottlebrush has red flowers between June and August.
 The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 3.58km from the Survey Area
- Cyanicula ixioides subsp. ixioides (P4) This orchid is a tuberous, perennial, herb growing up to 0.15m high. It has yellow flowers between August and October. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 4.64km from the Survey Area
- Darwinia apiculata (T) is a densely branched low shrub growing to 0.5m in height.
 Flowers are green & yellow/red during October. The Survey Area contains suitable
 habitat and the nearest recorded location of this species is approximately 2.34km
 from the Survey Area
- Goodenia arthrotricha (T) is an erect perennial herb, to 0.4m high. It has blue flowers between October and November. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 2.75km from the Survey Area
- Halgania corymbosa (P3) is an erect shrub between 0.35 and 1m in height. It has blue-purple flowers between August and November. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 2.6km from the Survey Area
- *Hibbertia montana* (P4) is an erect, straggling or sprawling shrub approximately 0.1-0.7m high. It has yellow flowers between July and October. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 4.98km from the Survey Area
- *Pimelea rara* (P4) is a small shrub, 0.2-0.35m high with white flowers either in December or January. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 2.16km from the Survey Area
- *Pithocarpa corymbulosa* (P3) is an erect to scrambling perennial herb, 0.5-1m high. It has white flowers between January and April. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 3.43km from the Survey Area
- Senecio leucoglossus (P4) is an erect annual herb which grows to 1.3m high with white flowers between August and December. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 3.61km from the Survey Area
- Stylidium striatum (P4) is a rosetted perennial herb, 0.15-0.55m high. It has erect, oblanceolate to spathulate leaves 1.5-4cm long and 1.5-6mm wide. The scape is sparingly glandular on the axis of the inflorescence and glabrous below. With yellow racemose inflorescence between October and November. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 4.68km from the Survey Area



- Thelymitra magnifica (P1) The Crystal Brook Star orchid is a perennial herb which flowers in spring (Sept-Oct). It has dark brown flowers with golden yellow blotches or stripes and an orange column. It also has a cinnamon scent. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 3.07km from the Survey Area
- Thelymitra stellata (T) This rare Star Sun orchid is a perennial herb which flowers in late spring (Oct-Nov). It has brown flowers with golden yellow streaks and blotches and an orange column. It also has a sweet or cinnamon scent. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 3.16km from the Survey Area
- Thysanotus anceps (P3) is a Rhizomatous, leafless perennial herb which grows to 0.4m high. It has purple fringed flowers between October and December. The Survey Area contains suitable habitat and the nearest recorded location of this species is approximately 2.3km from the Survey Area.

The species listed above have been previously recorded within 5 km of the Survey Area. The species are known to occur in vegetation types on the Darling Scarp and many have been located near the quarry south of the Survey Area in similar habitat. Notwithstanding this, the Survey Area contains only 0.35 ha of vegetation that varies in condition from Very Good to Completely Degraded. Historical aerials show that the vegetation within the Survey Area and surrounding area has been previously cleared sometime between 1983 and 1985. It is also evident that existing vegetation has been subject to various disturbances that have impacted the diversity, density and community structure. These circumstances make it unlikely that any conservation significant species would occur.

5.1.2 Vegetation of Conservation Significance

The desktop assessment identified four federally listed Threatened Ecological Communities (TEC's) within a 5 km radius of the Survey Area. None of the vegetation types identified in the Survey Area are considered to represent the TECs identified in the desktop assessment. This is due to the absence of the typical dominant species of any of the communities and/or soil types.

5.1.3 Regional Representation

The DBCA has mapped native vegetation extent by vegetation complex on the Swan Coastal Plain. It is estimated that West Darling 4 has 26.29% native vegetation remaining based on the pre-European extent.

The EPA recognises vegetation complexes that are not well represented as being significant. Vegetation complexes which have 10 - 30% remaining may be considered regionally significant. Proposals that would affect a vegetation complex with 10% or less remaining are likely to be formally assessed by the EPA (Environmental Protection Authority, 2006).



The remaining extent of this vegetation community type is within the percentage range that indicates that the vegetation may be considered regionally significant. Given the small size of the proposed clearing area, however, and the condition of the vegetation, clearing the proposed 0.35 ha of vegetation is unlikely to have a high impact on the vegetation complex.



6 Conclusions and Recommendations

The majority of the flora and vegetation, survey was undertaken outside of the recommended seasonal and flowering period for the Southwest botanical province. The Survey Area was sufficiently traversed and as such the following conclusions can be drawn:

- A total of 39 flora taxa from 34 genera and 18 families were identified within the Survey Area
- No Threatened species listed under the EPBC Act or gazetted as T/DRF (Threatened) pursuant to the *Biodiversity Conservation Regulations 2018* were recorded during the survey. No Priority species as listed by DBCA were recorded
- A total of 12 introduced taxa were recorded during the survey. Three of these species (*Asparagus asparagoides, *Echium plantagineum and *Opuntia stricta) are listed as Declared Pests under the Biosecurity and Agriculture Management Act 2007. *Asparagus asparagoides and *Opuntia stricta are also considered a WONS
- Two vegetation types were mapped for the Survey Area
- Of these vegetation types none are likely to be representative of a TEC or PEC
- Five potential Black Cockatoo breeding trees were recorded within the Survey Area, including two suitable hollows with no signs of use.



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8 Limitations

This report is produced strictly in accordance with the scope of services set out in the contract or otherwise agreed in accordance with the contract. 360 Environmental makes no representations or warranties in relation to the nature and quality of soil and water other than the visual observation and analytical data in this report.

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Aspects of this report, including the opinions, conclusions and recommendations it contains, are based on the results of the investigation, sampling and testing set out in the contract and otherwise in accordance with normal practices and standards. The investigation, sampling and testing are designed to produce results that represent a reasonable interpretation of the general conditions of the site that is the subject of this report. However, due to the characteristics of the site, including natural variations in site conditions, the results of the investigation, sampling and testing may not accurately represent the actual state of the whole site at all points.

It is important to recognise that site conditions, including the extent and concentration of contaminants, can change with time. This is particularly relevant if this report, including the data, opinions, conclusions and recommendations it contains, are to be used a considerable time after it was prepared. In these circumstances, further investigation of the site may be necessary.

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APPENDIX A

Desktop Database Searches



NatureMap Species Report

Created By Guest user on 29/07/2019

Current Names Only Yes

Core Datasets Only Yes

Method 'By Circle'

Centre 116° 01' 47" E,32° 02' 32" S

Buffer 5km

Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	1220	9486
Other specially protected fauna	2	15
Priority 1	3	12
Priority 2	2	7
Priority 3	21	68
Priority 4	14	152
Protected under international agreement	3	3
Rare or likely to become extinct	19	460
TOTAL	1284	10203

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Quer Area
Rare or like	ely to bed	come extinct			
1.	•	Acacia aphylla (Leafless Rock Wattle)		Т	
2.	6309	Andersonia gracilis		Т	
3.	6946	Anthocercis gracilis (Slender Tailflower)		Т	
4.	32211	Banksia mimica (Summer Honeypot)		T	
5.	24162	Bettongia penicillata subsp. ogilbyi (Woylie, Brush-tailed Bettong)		Т	
6.	24731	Calyptorhynchus banksii subsp. naso (Forest Red-tailed Black Cockatoo)		T	
7.	24733	Calyptorhynchus baudinii (Baudin's Cockatoo, White-tailed Long-billed Black Cockatoo)		Т	
8.	24734	Calyptorhynchus latirostris (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo)		Т	
9.	48400	Calyptorhynchus sp. (white-tailed black cockatoo)		Т	
10.	13653	Calytrix breviseta subsp. breviseta		Т	
11.	13999	Conospermum undulatum		Т	
12.	5505	Darwinia apiculata (Scarp Darwinia)		Т	
13.	24092	Dasyurus geoffroii (Chuditch, Western Quoll)		T	
14.	17605	Eleocharis keigheryi		Т	
15.	7491	Goodenia arthrotricha		T	
16.	2107	Grevillea thelemanniana (Spider Net Grevillea)		T	
17.	942	Lepidosperma rostratum		T	
18.	10862	Thelymitra stellata (Star Orchid)		T	
19.	34113	Westralunio carteri (Carter's Freshwater Mussel)		T	
Protected	under inte	ernational agreement			
20.	41323	Actitis hypoleucos (Common Sandpiper)		IA	
21.	24806	Tringa glareola (Wood Sandpiper)		IA	
22.	24808	Tringa nebularia (Common Greenshank, greenshank)		IA	
Other spec	ially prot	tected fauna			
23.	25624	Falco peregrinus (Peregrine Falcon)		S	
24.	48070	Phascogale tapoatafa subsp. wambenger (South-western Brush-tailed Phascogale, Wambenger)		S	
Priority 1					
25.		Acacia lasiocarpa var. bracteolata long peduncle variant (G.J. Keighery 5026)		P1	
26.		Kawaniphila pachomai (Grey Vernal Katydid (southwest), cricket)		P1	
27.	20729	Thelymitra magnifica (Crystal Brook Star Orchid)		P1	
Priority 2					
28.	41732	Andersonia sp. Blepharifolia (F. & J. Hort 1919)		P2	
29.	48680	Paracaleana sp. Laterite (G. Brockman GBB 3571)		P2	

Priority 3

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







	Name ID	Species Name	Naturalised Cor	nservation Code	¹ Endemic To Qu Area
30.		Acacia horridula		P3	
31.		Acanthophis antarcticus (Southern Death Adder)		P3	
32.		Allocasuarina grevilleoides		P3	
33.		Asteridea gracilis		P3	
34.		Babingtonia urbana (Coastal Plain Babingtonia)		P3	
35.		Banksia kippistiana var. paenepeccata		P3	
36.		Banksia pteridifolia subsp. vernalis		P3	
37.		Beaufortia purpurea (Purple Beaufortia)		P3	
38.		Byblis gigantea (Rainbow Plant)		P3	
39.		Haemodorum Ioratum		P3	
40.		Halgania corymbosa		P3	
41.		Idiosoma sigillatum (Swan Coastal Plain shield-backed trapdoor spider)		P3	
42.		Isopogon drummondii		P3	
43.		Lasiopetalum glutinosum subsp. glutinosum		P3	
44.		Meionectes tenuifolia		P3	
45.		Myriophyllum echinatum		P3	
46.		Neelaps calonotos (Black-striped Snake, black-striped burrowing snake)		P3	
47.		Pithocarpa corymbulosa (Corymbose Pithocarpa)		P3	
48.		Schoenus pennisetis		P3	
49.		Stackhousia sp. Red-blotched corolla (A. Markey 911)		P3	
50.	1317	Thysanotus anceps		P3	
riority 4	1/121	Acacia ancinonhylla suhan natulifolia		D4	
51. 52.		Acacia oncinophylla subsp. patulifolia		P4	
		Boronia tenuis (Blue Boronia)		P4	
53.		Calothamnus accedens		P4	
54.		Calothamnus graniticus subsp. leptophyllus		P4	
55.		Cyanicula ixioides subsp. ixioides		P4	
56.		Drosera occidentalis (Western Sundew)		P4	
57.		Hydromys chrysogaster (Water-rat, Rakali)		P4	
58.		Isoodon fusciventer (Quenda, southwestern brown bandicoot)		P4	
59.		Lasiopetalum bracteatum (Helena Velvet Bush)		P4	
60.		Oxyura australis (Blue-billed Duck)		P4	
61.		Pimelea rara (Summer Pimelea)		P4	
62.		Senecio leucoglossus		P4	
63. 64.		Stylidium striatum (Fan-leaved Triggerplant) Verticordia lindleyi subsp. lindleyi		P4 P4	
				F-4	
on-conse		XON Acacia alata (Winged Wattle)			
66.		Acacia alata var. alata			
67.		Acacia applanata			
68.	13-00	ловоїв аррівнава			
00.	2222	Acceia barbinar ia			
00		Acacia barbinervis			
69.	3294	Acacia dentifera			
70.	3294 11926	Acacia dentifera Acacia drewiana subsp. drewiana			
70. 71.	3294 11926 11611	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa			
70. 71. 72.	3294 11926 11611 3410	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola			
70. 71. 72. 73.	3294 11926 11611 3410 3454	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle)			
70. 71. 72. 73. 74.	3294 11926 11611 3410 3454 3464	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata			
70. 71. 72. 73. 74. 75.	3294 11926 11611 3410 3454 3464 3502	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses)			
70. 71. 72. 73. 74. 75.	3294 11926 11611 3410 3454 3464 3502 15481	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima			
70. 71. 72. 73. 74. 75. 76. 77.	3294 11926 11611 3410 3454 3464 3502 15481	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella			
70. 71. 72. 73. 74. 75. 76. 77.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 30032	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 30032	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 30032 3541 3557	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 30032 3541 3557 3574	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82.	3294 11926 11611 3410 3454 3502 15481 15483 30033 30032 3541 3557 3574 3602	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia iteretifolia Acacia willdenowiana (Grass Wattle)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 30032 3541 3557 3574 3602 24559	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia iteretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84.	3294 11926 11611 3410 3454 3502 15481 15483 30033 30032 3541 3557 3574 3602 24559 24260	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85.	3294 11926 11611 3410 3454 3502 15481 15483 30033 30032 3541 3557 3574 3602 24559 24260 24261	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza chrysorrhoa (Yellow-rumped Thornbill)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87.	3294 11926 11611 3410 3454 3502 15481 15483 30033 3541 3557 3574 3602 24559 24260 24261 24262	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza inornata (Western Thornbill)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88.	3294 11926 11611 3410 3454 3502 15481 15483 30033 3541 3557 3574 3602 24559 24260 24261 24262 1205	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza inornata (Western Thornbill) Acanthiza inornata (Western Thornbill) Acanthocarpus canaliculatus			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 30032 3541 3557 3574 3602 24559 24260 24261 24262 1205 24560	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza inornata (Western Thornbill) Acanthocarpus canaliculatus Acanthorhynchus superciliosus (Western Spinebill)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 3541 3557 3574 3602 24559 24260 24261 24262 1205 24560 25535	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. saligna Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza inornata (Western Thornbill) Acanthocarpus canaliculatus Acanthorhynchus superciliosus (Western Spinebill) Accipiter cirrocephalus (Collared Sparrowhawk)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 3541 3557 3574 3602 24559 24260 24261 24262 1205 24560 25535 25536	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. lindleyi Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza inornata (Western Thornbill) Acanthocarpus canaliculatus Acanthorhynchus superciliosus (Western Spinebill) Accipiter cirrocephalus (Collared Sparrowhawk) Accipiter fasciatus (Brown Goshawk)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 3541 3557 3574 3602 24559 24260 24261 24262 1205 24560 25535 25536 42368	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia pulchella (Prickly Moses) Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. lindleyi Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza chrysorrhoa (Yellow-rumped Thornbill) Acanthiza inornata (Western Thornbill) Acanthocarpus canaliculatus Acanthorhynchus superciliosus (Western Spinebill) Accipiter cirrocephalus (Collared Sparrowhawk) Accipiter fasciatus (Brown Goshawk) Acritoscincus trilineatus (Western Three-lined Skink)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 3541 3557 3574 3602 24559 24260 24261 24262 1205 24560 25535 25536 42368 25755	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. lindleyi Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza chrysorrhoa (Yellow-rumped Thornbill) Acanthocarpus canaliculatus Acanthorhynchus superciliosus (Western Spinebill) Accipiter cirrocephalus (Collared Sparrowhawk) Acritoscincus trilineatus (Western Three-lined Skink) Acrocephalus australis (Australian Reed Warbler)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93.	3294 11926 11611 3410 3454 3502 15481 15483 30033 3541 3557 3574 3602 24559 24260 24261 24262 1205 24560 25535 25536 42368 25755 6205	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. lindleyi Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza chrysorrhoa (Yellow-rumped Thornbill) Acanthiza inornata (Western Thornbill) Acanthocarpus canaliculatus Acanthorhynchus superciliosus (Western Spinebill) Accipiter cirrocephalus (Collared Sparrowhawk) Acritoscincus trilineatus (Western Three-lined Skink) Acrocephalus australis (Australian Reed Warbler) Actinotus leucocephalus (Flannel Flower)			
70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92.	3294 11926 11611 3410 3454 3464 3502 15481 15483 30033 3032 3541 3557 3574 3602 24559 24260 24261 24262 1205 24560 25535 25536 42368 25755 6205 14970	Acacia dentifera Acacia drewiana subsp. drewiana Acacia lasiocarpa var. lasiocarpa Acacia lateriticola Acacia nervosa (Rib Wattle) Acacia obovata Acacia pulchella (Prickly Moses) Acacia pulchella var. glaberrima Acacia pulchella var. pulchella Acacia saligna subsp. lindleyi Acacia saligna subsp. lindleyi Acacia sessilis Acacia stenoptera (Narrow Winged Wattle) Acacia teretifolia Acacia willdenowiana (Grass Wattle) Acanthagenys rufogularis (Spiny-cheeked Honeyeater) Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill) Acanthiza chrysorrhoa (Yellow-rumped Thornbill) Acanthocarpus canaliculatus Acanthorhynchus superciliosus (Western Spinebill) Accipiter cirrocephalus (Collared Sparrowhawk) Acritoscincus trilineatus (Western Three-lined Skink) Acrocephalus australis (Australian Reed Warbler)			







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
97.	1791	Adenanthos obovatus (Basket Flower)			
98.	25	Adiantum aethiopicum (Common Maidenhair)			
99.		Aegotheles cristatus (Australian Owlet-nightjar)			
100.		Aeonium haworthii	Υ		
101.		Agave americana (Century Plant)	Y		
102.		Agrostis gigantea (Redtop Bent)	Y		
103. 104.		Agrostocrinum hirsutum Agrostocrinum scabrum (Blue Grass Lily)			
104.		Aira caryophyllea (Silvery Hairgrass)	Y		
106.		Aira cupaniana (Silvery Hairgrass)	Y		
107.		Allium ampeloprasum	Y		
108.		Allocasuarina fraseriana (Sheoak, Kondil)			
109.	1732	Allocasuarina humilis (Dwarf Sheoak)			
110.	1734	Allocasuarina microstachya			
111.	2648	Alternanthera denticulata (Lesser Joyweed)			
112.	38756	Amanita umbrinella			
113.	7820	Ambrosia artemisiifolia (Annual Ragweed, Bitterweed, Hay-feverweed, Hog-weed)	Υ		
114.		Amphipogon amphipogonoides			
115.		Amphipogon debilis			
116.		Amphipogon strictus (Greybeard Grass)			
117. 118.		Amphipogon turbinatus Amyema miquelii (Stalked Mistletoe)			
119.		Amyema preissii (Wireleaf Mistletoe)			
120.	2000	Aname mainae			
121.		Aname tepperi			
122.	1058	Anarthria gracilis			
123.	1059	Anarthria humilis			
124.	1060	Anarthria laevis			
125.	24310	Anas castanea (Chestnut Teal)			
126.	24312	Anas gracilis (Grey Teal)			
127.		Anas platyrhynchos subsp. domesticus			
128.		Anas rhynchotis (Australasian Shoveler)			
129.		Anas superciliosa (Pacific Black Duck)			
130.		Andersonia aristata (Rice Flower)			
131. 132.		Andersonia lehmanniana			
133.		Andersonia lehmanniana subsp. lehmanniana Angianthus preissianus			
134.		Anhinga novaehollandiae (Australasian Darter)			
135.		Anigozanthos bicolor subsp. bicolor			
136.		Anigozanthos humilis (Catspaw)			
137.		Anigozanthos humilis subsp. humilis			
138.	1411	Anigozanthos manglesii (Mangles Kangaroo Paw, Kurulbrang)			
139.	11261	Anigozanthos manglesii subsp. manglesii			
140.	29487	Anigozanthos manglesii var. x angustifolius			
141.	11566	Anigozanthos viridis subsp. viridis			
142.		Antaresia stimsoni subsp. stimsoni (Stimson's Python)			
143.		Anthochaera carunculata (Red Wattlebird)			
144.		Anthochaera lunulata (Western Little Wattlebird)			
145.		Anthotium junciforme Anthoxanthum odoratum (Sweet Vernal Grass)	V		
146. 147.		Antnoxantnum odoratum (Sweet Vernai Grass) Aphelia brizula	Y		
147.		Aphelia cyperoides			
149.		Aphelia sp. Albany (B.G. Briggs 596)			
150.		Aprasia repens (Sand-plain Worm-lizard)			
151.		Aquila audax (Wedge-tailed Eagle)			
152.		Arachnura higginsi			
153.		Araneus eburnus			
154.	7838	Arctotheca calendula (Cape Weed, African Marigold)	Υ		
155.		Ardea modesta (great egret, white egret)			
156.		Ardea pacifica (White-necked Heron)			
157.		Arnocrinum preissii			
158.		Artamus cinereus (Black-faced Woodswallow)			
159.		Artamus cyanopterus (Dusky Woodswallow)			
160.		Artamus personatus (Masked Woodswallow)	V		
404	28288	Artemisia arborescens (Silver Wormwood) Artoria linnaei	Y		
161. 162					
162.					
162. 163.	20350	Asadipus kunderang			
162.					







		Species Name	Naturalised	Conservation Code	Area
167.	6323	Astroloma ciliatum (Candle Cranberry)			
168.	6327	Astroloma foliosum (Candle Cranberry)			
169.	6328	Astroloma glaucescens			
170.	6334	Astroloma pallidum (Kick Bush)			
171.		Astroloma stomarrhena (Red Swamp Cranberry)			
172.		Astroloma xerophyllum			
	0339	• •			
173.		Austracantha minax			
174.		Austrostipa campylachne			
175.	17234	Austrostipa compressa			
176.	17245	Austrostipa mollis			
177.	17257	Austrostipa variabilis			
178.	231	Avellinia michelii	Υ		
179.	20013	Axonopus fissifolius	Υ		
180.		Aythya australis (Hardhead)	•		
181.		Babiana angustifolia	Υ		
		-	ī		
182.		Babingtonia camphorosmae (Camphor Myrtle)			
183.	45403	Babingtonia pelloeae (Pelloe's Babingtonia)			
184.		Backobourkia heroine			
185.	38976	Badhamia foliicola			
186.	1382	Baeometra uniflora	Υ		
187.	32682	Banksia armata var. armata			
188.		Banksia attenuata (Slender Banksia, Piara)			
189.		Banksia bipinnatifida subsp. bipinnatifida			
190.		Banksia dallanneyi (Couch Honeypot)			
191.		Banksia dallanneyi subsp. dallanneyi var. dallanneyi			
192.		Banksia dallanneyi subsp. dallanneyi var. mellicula			
193.	1819	Banksia grandis (Bull Banksia, Pulgarla)			
194.	1822	Banksia ilicifolia (Holly-leaved Banksia)			
195.	1823	Banksia incana			
196.	32214	Banksia kippistiana			
197.		Banksia littoralis (Swamp Banksia, Pungura)			
198.		Banksia menziesii (Firewood Banksia)			
		, ,			
199.		Banksia sessilis var. sessilis			
200.	12111	Banksia sphaerocarpa var. sphaerocarpa (Fox Banksia)			
201.	1852	Banksia telmatiaea (Swamp Fox Banksia)			
202.	32031	Banksia vestita (Summer Dryandra)			
203.	32315	Barbula calycina			
204.		Barnardius zonarius			
205.	32321	Bartramia breutelii			
206.		Bartramia pseudostricta			
207.		Baumea juncea (Bare Twigrush)			
208.		Baumea laxa			
209.		Baumea rubiginosa			
210.	5387	Beaufortia macrostemon (Darling Range Beaufortia)			
211.	5393	Beaufortia squarrosa (Sand Beaufortia, Sand Bottlebrush, Puno)			
212.	7046	Bellardia trixago (Bellardia)	Υ		
213.	48868	Bellardia viscosa	Υ		
214.		Billardiera floribunda (White-flowered Billardiera)	,		
215.		Billardiera fraseri (Elegant Pronaya)			
216.		Billardiera fusiformis (Australian Bluebell)			
217.		Biziura lobata (Musk Duck)			
218.	1417	Blancoa canescens (Winter Bell)			
219.	4413	Boronia crenulata (Aniseed Boronia)			
220.	11503	Boronia crenulata subsp. crenulata var. crenulata			
221.		Boronia crenulata subsp. viminea			
222.		Boronia cymosa (Granite Boronia)			
223.		Boronia dichotoma			
224.		Boronia ovata			
225.		Boronia ramosa			
226.	11381	Boronia ramosa subsp. anethifolia			
227.	11564	Boronia ramosa subsp. ramosa			
228.	1272	Borya scirpoidea			
229.		Borya sphaerocephala (Pincushions)			
230.		Bossiaea angustifolia			
231.		-			
		Bossiaea eriocarpa (Common Brown Pea)			
232.		Bossiaea ornata (Broad Leaved Brown Pea)			
233.		Brachypodium distachyon (False Brome)	Υ		
234.	7878	Brachyscome iberidifolia			
235.	42381	Brachyurophis semifasciatus (Southern Shovel-nosed Snake)			
236.	244	Briza maxima (Blowfly Grass)	Υ		
			1 Departme	nt of Biodiversity,	WESTE



	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
237.	245	Briza minor (Shivery Grass)	Υ		
238.	249	Bromus diandrus (Great Brome)	Υ		
239.		Bromus hordeaceus (Soft Brome)	Υ		
240.		Bulbine semibarbata (Leek Lily)			
241.		Burchardia bairdiae			
242. 243.		Burchardia congesta Burchardia multiflora (Dwarf Burchardia)			
244.		Cacatua galerita (Sulphur-crested Cockatoo)			
245.		Cacatua sanguinea (Little Corella)			
246.		Cacatua tenuirostris (Eastern Long-billed Corella)	Υ		
247.		Cacomantis flabelliformis (Fan-tailed Cuckoo)			
248.	42307	Cacomantis pallidus (Pallid Cuckoo)			
249.	1276	Caesia micrantha (Pale Grass Lily)			
250.	13853	Caladenia arrecta			
251.	44900	Caladenia denticulata subsp. rubella			
252.		Caladenia ferruginea (Rusty Spider Orchid)			
253.		Caladenia flava (Cowslip Orchid)			
254.		Caladenia flava subsp. flava			
255.		Caladenia longicauda subsp. clivicola			
256. 257.		Caladenia paludosa Caladenia reptans subsp. reptans			
257. 258.		Caladenia serotina Caladenia serotina			
259.		Calandrinia calyptrata (Pink Purslane)			
260.		Calectasia narragara			
261.		Callitriche stagnalis (Common Starwort)	Υ		
262.		Callitris acuminata (Dwarf Cypress)			
263.		Callitris pyramidalis (Swamp Cypress)			
264.	5411	Calothamnus hirsutus			
265.	5426	Calothamnus quadrifidus (One-sided Bottlebrush, Kwowdjard)			
266.	35816	Calothamnus quadrifidus subsp. quadrifidus			
267.		Calothamnus rupestris (Mouse Ears)			
268.		Calothamnus torulosus			
269.		Calyptorhynchus banksii (Red-tailed Black-Cockatoo)			
270.		Calytrix acutifolia			
271. 272.		Calytrix aurea Calytrix flavescens (Summer Starflower)			
273.		Calytrix navescens (Summer Stantower) Calytrix fraseri (Pink Summer Calytrix)			
274.		Calytrix glutinosa			
275.		Calytrix simplex subsp. suboppositifolia			
276.		Calytrix variabilis			
277.	19713	Campsis radicans	Υ		
278.	32461	Campylopus bicolor var. bicolor			
279.	32338	Campylopus introflexus	Υ		
280.	2951	Cassytha flava (Dodder Laurel)			
281.		Cassytha glabella (Tangled Dodder Laurel)			
282.		Cassytha glabella forma casuarinae			
283.		Cassytha pomiformis (Dodder Laurel)			
284.		Cassytha racemosa (Dodder Laurel)			
285. 286.		Cassytha racemosa forma pilosa Cassytha racemosa forma racemosa			
287.		Cenchrus setaceus (Fountain Grass)	Υ		
288.		Centaurium erythraea (Common Centaury)	Y		
289.		Centella asiatica			
290.	1120	Centrolepis alepyroides			
291.		Centrolepis aristata (Pointed Centrolepis)			
292.	1123	Centrolepis caespitosa			
293.	1125	Centrolepis drummondiana			
294.	43642	Centrolepis sp. Kalannie (B.J. Lepschi et al. BJL 3517)			
295.		Chaetanthus aristatus			
296.		Chalinolobus gouldii (Gould's Wattled Bat)			
297.		Chamaescilla corymbosa (Blue Squill)			
298.		Chamaescilla corymbosa var. corymbosa			
299.		Chamaescilla versicolor			
300. 301.		Chamelaucium uncinatum (Geraldton Wax) Cheilanthes austrotenuifolia			
301. 302.		Cheilanthes distans (Bristly Cloak Fern)			
303.		Cheiranthera preissiana			
304.		Chenonetta jubata (Australian Wood Duck, Wood Duck)			
305.		Cheramoeca leucosterna (White-backed Swallow)			
306.		Cherax cainii (Marron)			
			Department	of Biodiversity,	WESTERN







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
307.		Cherax destructor			riiou
308.		Cherax quinquecarinatus			
309.	17706	Chordifex sinuosus			
310.		Chorizandra enodis (Black Bristlerush)			
311.		Chorizema dicksonii (Yellow-eyed Flame Pea)			
312.	24980	Christinus marmoratus (Marbled Gecko)			
313. 314.	11000	Chroicocephalus novaehollandiae	V		
314. 315.		Chrysanthemoides monilifera subsp. monilifera Cicendia filiformis (Slender Cicendia)	Y		
316.		Circus approximans (Swamp Harrier)	1		
317.		Clematis pubescens (Common Clematis)			
318.		Coenagrionidae sp.			
319.	25675	Colluricincla harmonica (Grey Shrike-thrush)			
320.	24399	Columba livia (Domestic Pigeon)	Υ		
321.	4550	Comesperma calymega (Blue-spike Milkwort)			
322.	4551	Comesperma ciliatum			
323.		Comesperma virgatum (Milkwort)			
324.		Commersonia corniculata			
325.		Conospermum boreale subsp. boreale			
326.		Conospermum canaliculatum			
327. 328.		Conospermum huggelii (Slander Smekehush)			
328. 329.		Conospermum huegelii (Slender Smokebush) Conospermum stoechadis (Common Smokebush)			
330.		Conospermum stoechadis subsp. stoechadis (Common Smokebush)			
331.		Conostephium pendulum (Pearl Flower)			
332.		Conostephium preissii			
333.	11826	Conostylis aculeata subsp. aculeata			
334.	12109	Conostylis aculeata subsp. preissii			
335.	1420	Conostylis androstemma (Trumpets)			
336.	1423	Conostylis aurea (Golden Conostylis)			
337.		Conostylis caricina			
338.		Conostylis caricina subsp. caricina			
339.		Conostylis festucacea			
340.		Conostylis juncea			
341. 342.		Conostylis latens Conostylis serrulata			
343.		Conostylis setigera (Bristly Cottonhead)			
344.		Conostylis setigera subsp. setigera			
345.		Conostylis setosa (White Cottonhead)			
346.	5502	Conothamnus trinervis			
347.	7939	Conyza bonariensis (Flaxleaf Fleabane)	Υ		
348.	25568	Coracina novaehollandiae (Black-faced Cuckoo-shrike)			
349.		Corixidae sp.			
350.		Cormocephalus aurantiipes			
351.		Cormocephalus strigosus			
352.		Corrigiola litoralis (Strapwort)	Y		
353.		Cortaderia selloana subsp. selloana	Υ		
354. 355.		Corvus bennetti (Little Crow) Corvus coronoides (Australian Raven)			
356.		Corymbia calophylla (Marri)			
357.		Cotoneaster pannosus	Υ		
358.		Cracticus nigrogularis (Pied Butcherbird)			
359.		Cracticus tibicen (Australian Magpie)			
360.	24422	Cracticus tibicen subsp. dorsalis (White-backed Magpie)			
361.	25596	Cracticus torquatus (Grey Butcherbird)			
362.	13354	Craspedia variabilis			
363.		Crassula closiana			
364.		Crassula colorata var. colorata			
365.		Crassula exserta			
366.		Crassula tetragona subsp. robusta	Υ		
367. 369		Crenadactylus ocellatus subsp. ocellatus (Clawless Gecko) Cronis footida subsp. footida (Stinking Hawkshoard)	V		
368. 369.		Crepis foetida subsp. foetida (Stinking Hawksbeard) Cripia georgiana (Quacking Frog.)	Υ		
369. 370.		Crinia georgiana (Quacking Frog) Crinia glauerti (Clicking Frog)			
370. 371.		Crinia insignifera (Squelching Froglet)			
371.		Crinia pseudinsignifera (Bleating Froglet)			
373.		Cristonia biloba subsp. biloba			
374.		Croninia kingiana			
375.		Cryptandra arbutiflora var. arbutiflora			
376.	9076	Cryptandra myriantha			
			Department of Conservation	of Biodiversity, n and Attractions	WESTERN







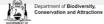
	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
377.	4809	Cryptandra pungens			
378.	30893	Cryptoblepharus buchananii			
379.		Ctenophorus adelaidensis (Southern Heath Dragon, Western Heath Dragon)			
380.		Ctenophorus ornatus (Ornate Crevice-Dragon)			
381. 382.		Ctenotus australis			
383.		Ctenotus fallens Ctenotus impar			
384.		Cyanicula gemmata			
385.		Cyanicula sericea			
386.		Cyathea cooperi	Υ		
387.		Cyathochaeta avenacea			
388.	17618	Cyathochaeta equitans			
389.	40661	Cycnogeton lineare			
390.	24322	Cygnus atratus (Black Swan)			
391.	285	Cynosurus echinatus (Rough Dogstail)	Υ		
392.		Cyperus brevifolius (Kyllinga Weed)	Υ		
393.		Cyperus congestus (Dense Flat-sedge)	Υ		
394.		Cyperus eragrostis (Umbrella Sedge)	Y		
395.		Cyperus papyrus	Y		
396. 397.		Cyperus tenellus (Tiny Flatsedge)	Y		
398.		Cyperus tenuiflorus (Scaly Sedge) Cyrtostylis huegelii	ĭ		
399.		Cytogonidium leptocarpoides			
400.		Dacelo novaeguineae (Laughing Kookaburra)	Υ		
401.		Dampiera alata (Winged-stem Dampiera)			
402.		Dampiera coronata (Wedge-leaved Dampiera)			
403.	7454	Dampiera linearis (Common Dampiera)			
404.	25673	Daphoenositta chrysoptera (Varied Sittella)			
405.	5508	Darwinia citriodora (Lemon-scented Darwinia)			
406.	5531	Darwinia thymoides			
407.		Darwinia thymoides subsp. thymoides			
408.		Dasypogon bromeliifolius (Pineapple Bush)			
409.		Dasypogon obliquifolius			
410. 411.		Daucus glochidiatus (Australian Carrot) Daviesia angulata			
412.		Daviesia angulata Daviesia cordata (Bookleaf)			
413.		Daviesia decurrens (Prickly Bitter-pea)			
414.		Daviesia decurrens subsp. decurrens			
415.		Daviesia divaricata subsp. divaricata			
416.	3815	Daviesia horrida (Prickly Bitter-pea)			
417.	16585	Daviesia nudiflora subsp. nudiflora			
418.	3832	Daviesia physodes			
419.	3834	Daviesia polyphylla			
420.	3839	Daviesia rhombifolia			
421.		Daviesia triflora			
422.		Delma grayii			
423.		Dennstaedtia davallioides	Υ		Υ
424.		Desmocladus asper			
425. 426.		Desmocladus fasciculatus Dianella revoluta (Blueberry Lily)			
427.		Dianella revoluta (Bideberry Elly) Dianella revoluta var. divaricata			
427.		Dicaeum hirundinaceum (Mistletoebird)			
429.		Dichopogon capillipes			
430.		Dichopogon preissii			
431.	32345	Didymodon australasiae			
432.	17838	Dielsia stenostachya			
433.	311	Digitaria ciliaris (Summer Grass)	Υ		
434.		Digitaria longiflora			
435.	320	Digitaria sanguinalis (Crab Grass)	Υ		
436.		Dingosa serrata			
437.	4500	Dinocambala ingens			
438.		Dioscorea hastifolia (Warrine, Wararn)			
420	24939	Diplodactylus polyophthalmus Diplodactylus pulcher			
439.	24040				
440.					
440. 441.	18589	Diplopeltis huegelii subsp. lehmannii	Υ		
440.	18589 3867		Y Y		
440. 441. 442.	18589 3867 19649	Diplopeltis huegelii subsp. lehmannii Dipogon lignosus (Dolichos Pea)			
440. 441. 442. 443.	18589 3867 19649 32347	Diplopeltis huegelii subsp. lehmannii Dipogon lignosus (Dolichos Pea) Disa bracteata			







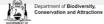
	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
447.		Diuris laxiflora (Bee Orchid)			
448.		Dodonaea ceratocarpa			
449. 450.		Dodonaea pinifolia			
450. 451.		Drakaea gracilis Dromaius novaehollandiae (Emu)			
452.		Drosera collina			
453.	48751	Drosera drummondii			
454.	3095	Drosera erythrorhiza (Red Ink Sundew)			
455.		Drosera gigantea (Giant Sundew)			
456.		Drosera glanduligera (Pimpernel Sundew)			
457. 458.		Drosera helodes Drosera heterophylla (Swamp Rainbow)			
459.		Drosera hirsuta			
460.		Drosera hyperostigma			
461.	3106	Drosera macrantha (Bridal Rainbow)			
462.		Drosera menziesii (Pink Rainbow)			
463.		Drosera microphylla (Golden Rainbow)			
464.		Drosera miniata (Orange Sundew)			
465. 466.		Drosera pallida (Pale Rainbow) Drosera platystigma (Black-eyed Sundew)			
467.		Drosera porrecta			
468.		Drosera pycnoblasta (Pearly Sundew)			
469.	8911	Drosera rosulata			
470.		Drosera sp. Branched styles (S.C. Coffey 193)			
471.		Drosera stolonifera (Leafy Sundew)			
472. 473.	33500	Dysphania ambrosioides (Mexican Tea) Dytiscidae sp	Υ		
473. 474.	32351	Dytiscidae sp. Eccremidium pulchellum			
475.		Echinochloa crus-galli	Υ		
476.		Echinochloa esculenta	Υ		
477.	6681	Echium plantagineum (Paterson's Curse)	Υ		
478.	25096	Egernia kingii (King's Skink)			
479.		Egretta novaehollandiae			
480. 481.	349	Ehrharta longiflora (Annual Veldt Grass) Elanus axillaris	Υ		
481.	822	Eleocharis acuta (Common Spikerush)			
483.		Eleusine indica (Crowsfoot Grass)	Υ		
484.	47937	Elseyornis melanops (Black-fronted Dotterel)			
485.	1643	Elythranthera brunonis (Purple Enamel Orchid)			
486.		Elythranthera emarginata (Pink Enamel Orchid)			
487. 488.		Entosthodon apophysatus Entosthodon productus			
489.	32334	Entosthodon productus Eolophus roseicapillus			
490.	24652	Eopsaltria georgiana (White-breasted Robin)			
491.		Eragrostis cilianensis (Stinkgrass)	Υ		
492.	379	Eragrostis elongata (Clustered Lovegrass)			
493.		Eremaea fimbriata			
494.		Eremaea pauciflora			
495. 496.		Eremaea pauciflora var. calyptra Eremaea pauciflora var. pauciflora			
496. 497.		Eriochilus dilatatus subsp. multiflorus			
498.		Eriochilus dilatatus subsp. undulatus			
499.		Eriochilus helonomos			
500.		Eriophora biapicata			
501.		Erodium botrys (Long Storksbill)	Υ		
502.		Eryngium pinnatifidum (Blue Devils)			
503. 504.		Eryngium pinnatifidum subsp. pinnatifidum Eucalyptus laeliae (Darling Range Ghost Gum)			
504. 505.		Eucalyptus lane-poolei (Salmon White Gum)			
506.		Eucalyptus marginata (Jarrah, Djara)			
507.		Eucalyptus marginata subsp. marginata (Jarrah)			
508.		Eucalyptus marginata subsp. thalassica (Blue-leaved Jarrah)			
509.		Eucalyptus rudis (Flooded Gum, Kulurda)			
510.		Eucalyptus todtiana (Coastal Blackbutt)			
511. 512.		Eucalyptus wandoo (Wandoo, Wondu) Eucalyptus wandoo subsp. wandoo			
513.		Euchilopsis linearis (Swamp Pea)			
514.		Eucyrtops latior			
515.	3880	Eutaxia virgata			
516.	25621	Falco berigora (Brown Falcon)	6.3		
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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
517.		Falco cenchroides (Australian Kestrel, Nankeen Kestrel)			
518.	24472	Falco cenchroides subsp. cenchroides (Australian Kestrel, Nankeen Kestrel)			
519.		Falco longipennis (Australian Hobby)			
520.		Fimbristylis velata			
521.		Fissidens megalotis			
522. 523.		Fissidens taylorii Fissidens taylorii var. taylorii			
523. 524.		Flavoparmelia rutidota			
525.		Freesia alba x leichtlinii	Y		
526.		Fulica atra (Eurasian Coot)			
527.		Fumaria muralis subsp. muralis	Υ		
528.	900	Gahnia aristata			
529.	902	Gahnia decomposita			
530.	907	Gahnia trifida (Coast Saw-sedge)			
531.	34028	Galaxias occidentalis (Western Minnow)			
532.		Galium divaricatum	Y		
533.		Gallinula tenebrosa (Dusky Moorhen)			
534.		Gallirallus philippensis subsp. mellori (Buff-banded Rail)			
535. 536.		Gastrolobium acutum Gastrolobium capitatum			
537.		Gastrolobium dilatatum			
538.		Gastrolobium linearifolium			
539.		Gastrolobium nervosum			
540.		Gastrolobium oxylobioides (Champion Bay Poison)			
541.	3923	Gastrolobium spathulatum (Poison Bush)			
542.	3924	Gastrolobium spinosum (Prickly Poison)			
543.	24959	Gehyra variegata			
544.	32374	Gemmabryum cheelii			
545.		Gemmabryum inaequale			
546.		Gemmabryum preissianum			
547.		Gemmabryum sullivanii			
548.		Genista linifolia (Flaxleaf Broom)	Υ		
549. 550.		Gerygone fusca (Western Gerygone) Gigaspermum repens			
551.		Gladiolus caryophyllaceus (Wild Gladiolus)	Y		
552.		Glischrocaryon aureum (Common Popflower)			
553.		Glyciphila melanops (Tawny-crowned Honeyeater)			
554.	6587	Gomphocarpus fruticosus (Narrowleaf Cottonbush)	Υ		
555.	11051	Gomphocarpus physocarpus	Υ		
556.	3945	Gompholobium aristatum			
557.		Gompholobium confertum			
558.		Gompholobium knightianum			
559.		Gompholobium marginatum			
560. 561.		Gompholobium polymorphum			
562.		Gompholobium preissii Gompholobium shuttleworthii			
563.		Gompholobium tomentosum (Hairy Yellow Pea)			
564.		Gonocarpus cordiger			
565.		Gonocarpus nodulosus			
566.		Goodenia coerulea			
567.	12520	Goodenia fasciculata			
568.		Goodenia micrantha			
569.		Goodenia pulchella subsp. Coastal Plain A (M. Hislop 634)			
570.		Grallina cyanoleuca (Magpie-lark)			
571.		Grevillea bipinnatifida (Fuchsia Grevillea)			
572. 573.		Grevillea bipinnatifida subsp. bipinnatifida Grevillea diversifolia subsp. diversifolia			
573. 574.		Grevillea endlicheriana (Spindly Grevillea)			
574. 575.		Grevillea manglesii subsp. manglesii			
576.		Grevillea pilulifera (Woolly-flowered Grevillea)			
577.		Grevillea preissii subsp. preissii			
578.	2080	Grevillea quercifolia (Oak-leaf Grevillea)			
579.	2101	Grevillea synapheae (Catkin Grevillea)			
580.	14421	Grevillea synapheae subsp. synapheae			
581.		Grevillea wilsonii (Native Fuchsia)			
582.		Haematopus longirostris (Pied Oystercatcher)			
583.		Haemodorum discolor			
584. 585.		Haemodorum laxum Haemodorum simplex			
585. 586.		Haemodorum simulans			
500.	1413	. Idomodoram dimaland	Department	of Biodiversity,	WESTERN







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
587.		Haemodorum sparsiflorum			
588.		Haemodorum spicatum (Mardja)			
589. 590.		Hakea amplexicaulis (Prickly Hakea) Hakea candolleana			
591.		Hakea ceratophylla (Horned Leaf Hakea)			
592.		Hakea conchifolia (Shell-leaved Hakea)			
593.	2152	Hakea cyclocarpa (Ramshorn)			
594.	2158	Hakea erinacea (Hedge-hog Hakea)			
595.		Hakea incrassata (Marble Hakea)			
596.		Hakea lissocarpha (Honey Bush)			
597. 598.		Hakea myrtoides (Myrtle Hakea) Hakea neospathulata			
599.		Hakea petiolaris (Sea Urchin Hakea)			
600.	16900	Hakea petiolaris subsp. petiolaris			
601.	2197	Hakea prostrata (Harsh Hakea)			
602.		Hakea ruscifolia (Candle Hakea)			
603.		Hakea stenocarpa (Narrow-fruited Hakea)			
604. 605.		Hakea sulcata (Furrowed Hakea) Hakea trifurcata (Two-leaf Hakea)			
606.		Hakea undulata (Wavy-leaved Hakea)			
607.		Hakea varia (Variable-leaved Hakea)			
608.		Haliastur sphenurus (Whistling Kite)			
609.		Hardenbergia comptoniana (Native Wisteria)			
610.		Heleioporus barycragus (Hooting Frog)			
611.		Heleioporus eyrei (Moaning Frog)	V		
612. 613.		Heliophila pusilla Hemiandra linearis (Speckled Snakebush)	Y		
614.		Hemiandra pungens (Snakebush)			
615.		Hemiergis initialis subsp. initialis			
616.	25119	Hemiergis quadrilineata			
617.	6856	Hemigenia incana (Silky Hemigenia)			
618.		Hemigenia pritzelii			
619.		Hemiphora bartlingii (Woolly Dragon)			
620. 621.		Hibbertia acerosa (Needle Leaved Guinea Flower) Hibbertia amplexicaulis			
622.		Hibbertia aurea			
623.	5114	Hibbertia commutata			
624.	20051	Hibbertia diamesogenos			
625.		Hibbertia glomerata subsp. darlingensis			
626.		Hibbertia huegelii			
627. 628.		Hibbertia hypericoides (Yellow Buttercups) Hibbertia hypericoides subsp. hypericoides			
629.		Hibbertia mylnei			
630.		Hibbertia ovata			
631.	5155	Hibbertia pilosa (Hairy Guinea Flower)			
632.	5169	Hibbertia serrata (Serrate Leaved Guinea Flower)			
633.		Hibbertia sp.			
634.		Hibbertia spicata			
635. 636.		Hibbertia spicata subsp. spicata Hibbertia striata			
637.		Hibbertia subvaginata			
638.		Hibbertia vaginata			
639.		Hieraaetus morphnoides (Little Eagle)			
640.		Himantopus himantopus (Black-winged Stilt)			
641.		Hirundo neoxena (Welcome Swallow)			
642. 643.		Holcus Ianatus (Yorkshire Fog) Homalosciadium homalocarpum	Y		
644.		Hordeum vulgare (Barley)	Υ		
645.		Hovea chorizemifolia (Holly-leaved Hovea)			
646.		Hovea pungens (Devil's Pins, Puyenak)			
647.		Hovea trisperma (Common Hovea)			
648.		Humulus Iupulus	Υ		
649.		Hyalosperma dominaum			
650. 651.		Hyalosperma demissum Hyalosperma simplex subsp. simplex			
652.		Hybanthus calycinus (Wild Violet)			
		, , , , , , , , , , , , , , , , , , , ,			
653.		Hybanthus floribundus			
653. 654.	5221	Hybanthus floribundus Hybanthus floribundus subsp. floribundus			
	5221 12007				







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
657.		Hyparrhenia hirta (Tambookie Grass)	Υ		
658.		Hypocalymma angustifolium (White Myrtle, Kudjid)			
659. 660.		Hypocalymma angustifolium subsp. Swan Coastal Plain (G.J. Keighery 16777) Hypocalymma robustum (Swan River Myrtle)			
661.		Hypochaeris glabra (Smooth Catsear)	Υ		
662.		Hypochaeris radicata (Flat Weed, Cats-ear)	Y		
663.	1070	Hypolaena exsulca			
664.	17841	Hypolaena pubescens			
665.		Idiommata blackwalli			
666.		Isolepis cernua var. setiformis			
667. 668.		Isolepis cyperoides Isolepis marginata (Coarse Club-rush)			
669.		Isolepis oldfieldiana			
670.		Isopeda leishmanni			
671.		Isopedella cana			
672.		Isopogon asper			
673.		Isopogon dubius (Pincushion Coneflower)			
674.		Isopogon sphaerocephalus (Drumstick Isopogon)			
675. 676.		Isotoma hypocrateriformis (Woodbridge Poison) Isotropis cuneifolia (Granny Bonnets)			
677.		Ixia paniculata	Υ		
678.		Ixia polystachya (Variable Ixia)	Y		
679.	8092	Ixiolaena viscosa (Sticky Ixiolaena)			
680.		Jacksonia alata			
681.		Jacksonia angulata			
682. 683.		Jacksonia furcellata (Grey Stinkwood) Jacksonia lehmannii			
684.		Jacksonia restioides			
685.		Jacksonia sternbergiana (Stinkwood, Kapur)			
686.		Johnsonia pubescens (Pipe Lily)			
687.	19632	Johnsonia pubescens subsp. pubescens			
688.	20454	Juncus acutus subsp. acutus	Υ		
689.		Juncus amabilis			
690. 691.		Juncus articulatus (Jointed Rush)	Y		
692.		Juncus bufonius (Toad Rush) Juncus caespiticius (Grassy Rush)	Y		
693.		Juncus capitatus (Capitate Rush)	Υ		
694.		Juncus microcephalus	Υ		
695.	1188	Juncus pallidus (Pale Rush)			
696.	1195	Juncus subsecundus (Finger Rush)			
697.	4000	Karaops ellenae			
698. 699.		Kennedia carinata Kennedia coccinea (Coral Vine)			
700.		Kennedia prostrata (Scarlet Runner)			
701.		Kennedia stirlingii (Bushy Kennedia)			
702.	7068	Kickxia spuria (Roundleaf Toadflax)	Υ		
703.	1221	Kingia australis (Kingia, Pulonok)			
704.		Kunzea glabrescens (Spearwood)			
705.		Kunzea micrantha subsp. micrantha			
706. 707.		Kunzea micrantha subsp. petiolata Labichea punctata (Lance-leaved Cassia)			
707.		Labyrinthomyces varius			
709.		Lactarius clarkeae			
710.	29046	Lactuca serriola forma serriola	Υ		
711.		Lagenophora huegelii			
712.		Lambertia multiflora var. darlingensis			
713.		Lathyrus tingitanus (Tangier Pea)	Y		
714. 715.		Lawrencia squamata	Y		
716.		Laxmannia grandiflora subsp. grandiflora			
717.		Laxmannia ramosa subsp. ramosa			
718.		Laxmannia sessiliflora subsp. australis			
719.		Laxmannia squarrosa			
720.		Lechenaultia biloba (Blue Leschenaultia)			
721.		Lechenaultia expansa			
722. 723.		Lechenaultia floribunda (Free-flowering Leschenaultia) Lepidobolus preissianus			
723. 724.		Lepidobolus preissianus subsp. preissianus			
725.		Lepidosperma apricola			
726.	930	Lepidosperma costale			
			Department	of Biodiversity,	MESTERN







	Name ID	Species Name	Naturalised	Conservation Code	Endemic To Qu Area
727.		Lepidosperma leptostachyum			
728. 729.		Lepidosperma longitudinale (Pithy Sword-sedge)			
729. 730.		Lepidosperma obtusum			
730.		Lepidosperma pubisquameum Lepidosperma resinosum			
731.	941	Lepidosperma resiriosum Lepidosperma sp.			
732.	201/11	Lepidosperma sp. Gosnells (A. Markey 1145)			
734.		Lepidosperma sp. P1 small head (M.D. Tindale 166A)			
735.		Lepidosperma squamatum			
736.		Lepidosperma tetraquetrum			
737.		Lepidosperma tuberculatum			
738.		Leporella fimbriata (Hare Orchid)			
739.		Leptocarpus canus (Hoary Twine-rush)			
740.		Leptocarpus coangustatus			
741.		Leptocarpus decipiens			
742.		Leptocarpus scariosus			
743.		Leptomeria cunninghamii			
744.		Leptospermum erubescens (Roadside Teatree)			
745.	5850	Leptospermum laevigatum (Coast Teatree)	Υ		
746.	1088	Lepyrodia macra (Large Scale Rush)			
747.	25131	Lerista distinguenda			
748.	25133	Lerista elegans			
749.		Leucopogon capitellatus			
750.	6374	Leucopogon conostephioides			
751.	6434	Leucopogon polymorphus			
752.	6436	Leucopogon propinquus			
753.	6439	Leucopogon pulchellus (Beard-heath)			
754.	28311	Leucopogon sp. Great Southern (R.S. Cowan A 586)			
755.	6444	Leucopogon sprengelioides			
756.	40803	Leucopogon squarrosus subsp. squarrosus			
757.	6447	Leucopogon strictus			
758.	6451	Leucopogon tenuis			
759.	7676	Levenhookia pusilla (Midget Stylewort)			
760.	7677	Levenhookia stipitata (Common Stylewort)			
761.	25005	Lialis burtonis			
762.		Libellulidae sp.			
763.	25659	Lichenostomus leucotis (White-eared Honeyeater)			
764.	25661	Lichmera indistincta (Brown Honeyeater)			
765.	25415	Limnodynastes dorsalis (Western Banjo Frog)			
766.	59	Lindsaea linearis (Screw Fern)			
767.	4362	Linum marginale (Wild Flax)			
768.		Linum trigynum (French Flax)	Υ		
769.		Litoria adelaidensis (Slender Tree Frog)			
770.		Lobelia anceps (Angled Lobelia)			
771.		Lobelia gibbosa (Tall Lobelia)			
772.		Lobelia rhombifolia (Tufted Lobelia)			
773.		Lobelia rhytidosperma (Wrinkled-seeded Lobelia)			
774.		Lolium multiflorum (Italian Ryegrass)	Υ		
775.		Lomandra brittanii			
776.		Lomandra caespitosa (Tufted Mat Rush)			
777.		Lomandra hermaphrodita			
778.		Lomandra integra			
779.		Lomandra micrantha (Small-flower Mat-rush)			
780.		Lomandra micrantha subsp. micrantha			
781.		Lomandra nigricans			
782.		Lomandra odora (Tiered Matrush)			
783.		Lomandra preissii			
784.		Lomandra sericea (Silky Mat Rush)			
785.		Lomandra spartea			
786.	1246	Londoirtinia isura			
787.	0504	Lotus subbiflorus	V		
788. 789.		Lotus subbilliorus Lotus uliginosus (Greater Lotus)	Y		
789. 790.		Loxocarya cinerea	Ť		
790. 791.					
		Lyginia barbata Lyginia imberbis			
		Lyperanthus serratus (Rattle Beak Orchid)			
792.	1000				
793.	2627F	Lyeimachia arveneie (Pimnernel)			
793. 794.		Lysinema pentanetalum	Y		
793.	34736	Lysimachia arvensis (Pimpernel) Lysinema pentapetalum Lythrum hyssopifolia (Lesser Loosestrife)	Y		



1979. 2009 Machinery Security (Carrish, Child)		Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
788 85 Macconcentrate (Control (
1907. 24.50						
1901						
2012						
1904. 17757			• , • , ,			
1901. 17795	803.					
805. 4479 Michicago polymorphia Burt Maindo; Y 807. 35209 Michialous alminikos subupi, armifanta (Y 808. 55209 Michialous alminikos subupi, armifanta (Y 809. 55209 Michialous alminikos (Polithe Richardes Bush) 810. 5522 Michialous alminikos (Polithe Richardes Bush) 811. 2027 Michialous alminikos (Polithe Richardes Bush) 812. 15207 Michialous aprivileopa (S 812. 15207 Michialous and privileopa (S 813. 15208 Michialous alminikos (Polithe Richardes Bush) 814. 5555 Michialous archiulo (Graech Informyrryttill) 815. 5556 Michialous archiulo (Graech Informyrryttill) 816. 5620 Michialous archiulo (Graech Informyrryttill) 817. 5557 Michialous archiulo (Graech Informyrryttill) 818. 47367 Michialous archiulo (Folotodi Richin) 819. 2020 Michialous archiulo (Folotodi Richin) 819. 2020 Michialous archiulo (Folotodi Richin) 819. 2021 Michialous archiulo (Folotodi Richin) 819. 2021 Michialous archiulo (Folotodi Richin) 820. 2020 Michialous archiulo (Folotodi Richin) 821. 2021 Michialous archiulo (Folotodi Richin) 822. 2020 Michialous archiulo (Folotodi Richin) 823. 2020 Michialous archiulo (Folotodi Richin) 824. 47367 Michialous archiulo (Folotodi Richin) 825. 2020 Michialous archiulo (Folotodi Richin) 826. 2020 Michialous archiulo (Folotodi Richin) 827. 2020 Michialous archiulo (Folotodi Richin) 828. 4800 Michialous archiulo (Folotodi Richin) 829. 4800 Michialous archiulo (Folotodi Richin) 820. 4801 Michialous archiulous (Folotodi Richin) 820. 4801 Michialous archiulous (Folotodi Richin) 821. 1526 Michialous archiulous (Folotodi Richin) 822. 4802 Michialous archiulous (Folotodi Richin) 823. 4801 Michialous archiulous (Folotodi Richin) 824. 4801 Michialous archiulous (Folotodi Richin) 825. 4804 Michialous archiulous (Folotodi Richin) 826. 4802 Michialous archiulous (Folotodi Richin) 827. 4802 Michialous archiulous (Folotodi Richin) 828. 4802 Michialous archiulous (Folotodi Richin) 829. 4804 Michialous archiulous (Folotodi Richin) 8305 Michialous archiulous (Folotodi Richin) 8406 Michialous archiulous (Folotodi Richin) 841 Mi	804.	17637	Marianthus candidus (White Marianthus)			
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812. 18324 Michieleus prancisera (Monath)			,			
813. SDEZ. Mobilesce a provision of Morarthy	811.	20297	Melaleuca osullivanii			
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815. 5930 Medialeus interpolyvia 817. 5937 Medialeus interpolyvia 817. 5937 Medialeus interpolyvia 818. 47997 Medialeus interpolyvia 819. 25636 Medialeus interpolyvia 200. 24557 Medialeus chluropsis (Versione William) 220. 24558 Medialeus interpolis (Versione William) 221. 22548 Medialeus (Versione (Versione William) 222. 24538 Mercone Responsible (Versione William) 223. 993 Mescone Responsible (Versione) 224. 955 Mescone Responsible (Versione) 225. 957 Mescone Responsible (Versione) 226. 958 Mercone Songolia 227. 858 Mercolean stopode (Version) Grass) 228. 485 Mercolean stopode (Version) Grass) 239. 1657 Mercolea state (Version) Grass) 240. 12751 Mercolea state (Version) Grass) 231. 12761 Mercolea state (Swarp Asproneite Orchid) 232. 12761 Mercolea state (Swarp Asproneite Orchid) 233. 14754 Mercolea state (Swarp Asproneite Orchid) 244. 14710 Mercolea state (Swarp Asproneite Orchid) 245.						
B16.						
817. 5987 Microbury visiones (Monary)						
818. 47007 Molarodysis curulina (Hondrid Robin)						
820. 2487 Melltreptus chloropsis (Western White-naped Honeyeater)						
821. 25184 Mercels grayii 822. 24898 Mercy Contable (Painthow Bee-eater) 823. 855 Mescomelenta practicitys 824. 955 Mescomelenta practicitys 825. 957 Mescomelenta practicitys 826. Microcardo metarholucos 827. 8687 Microcardo metarholucos 828. 485 Microlente sitpointes (Weeping Grass) 829. 1657 Microles alla (White Mignonete Orchid) 830. 34158 Microles alla (White Mignonete Orchid) 831. 1558 Microles format (Swamp Mignonete Orchid) 832. 12781 Microles media subap, denalifora 833. 15419 Microles media subap, denalifora 834. 1305 Millios media subap, denalifora 835. 14344 Milliosa binuticità war, lemifola (Soft Milliole) 836. 4007 Mirbolia granulosa 837. 4100 Mirbolia spinosa 838. Missularia occatoria 840. Microcay arsularia 841. 37440 Monogasis dehilis var, depressa Y 842. 1895 Morotaxia grandifora var, grandifora Y 843. 19177 Morotas effaccida (Cre	819.	25663	Melithreptus brevirostris (Brown-headed Honeyeater)			
822 24998 Meropno omatus (Paintow Ben-eater) 823 963 Mesomoleana gracilicops 824 955 Mesomoleana pracilicops 826 957 Mesomoleana terragena (Semaphore Sodge) 827 6897 Merocops korgifolia 828 485 Microban stipolicis (Wenjing Grass) 829 1857 Microba alba (Willia Milgonalta Orchid) 831 1658 Microbis atrais (Swamp Mignonelte Orchid) 832 12761 Microbis media subup, densilitora 833 1619 Microbis media subup, densilitora 834 8105 Millotia myocondiolia 835. 434 Millotia myocondiolia 835. 434 Millotia myocondiolia 837. 4400 Millotia sprinosa 497 Mirbellar narmulosa 838. 4910 Millotia sprinosa 498 Missulena cocatoria 841. 3740 Mirbellar sprinosa 49 842. 1019 Mirbellar sprinosa 49 843. 1917 Moreas discolad (One-leaf Cape Tulip) 4 844. 31017 Moreas discolad (One-leaf Cape Tulip) 4 845. 25192 Morethia obscurra 4 846. 3440 Mirbelia obscurra 4 847. 14187 Myriocaphalus occidentialis 4 848. 4496 Narcissus tazetta s	820.	24587	Melithreptus chloropsis (Western White-naped Honeyeater)			
823 953 Mesomeliaera gracilicegs 824. 855 Mesomeliaera parapriora (Samaphora Sodge) 825. 957 Mesomeliaera parapriora (Samaphora Sodge) 826. McCrocarbo melannolucucos 827. 887 Microcarbo melannolucucos 828. 485 McCrobarna stipolosia (Weaping Grass) 820. 1657 Microba abat William Miliponnete Orchid) 830. 34158 Microbia abata (Swamp Mignonete Orchid) 831. 1658 Microbia sabata (Swamp Mignonete Orchid) 832. 12761 Microbia media subap, amedia 833. 15419 Microbia media subap, media 834. 8105 Militalia menuficilia yari, tenuficilia (Soft Milicilia) 835. 14344 Militalia tenuficilia yari, tenuficilia (Soft Milicilia) 837. 4100 Mirbella spinosa 838. Missulena granulosa 849. Mirbella spinosa 841. 37440 Minopsis debilis var, depressa 842. 1985 Monotaxis grandiflora var, grandiflora 843. 41197 Microa Seticilia 844. 21197 Microa Seticilia 845. 4229 Minoria debecurre 846. 2229 Minoria debecurre 847. 41817 Miroaca seticilia 848. Anangonara vittata 849. 4496 Narcissus tezetta subsp. Italicus 850. 42498 Merchima depenatic (Repostra Parorio 851. 22248 Newachine depenatic (R						
824 955 Mesomelaeria startagoria (Semaphora Sadge) 825. 957 Mesomelaeria startagoria (Semaphora Sadge) 827. 6887 Microcaya Iongilole 828. 485 Microtana stapolida (Weaping Grass) 829. 1657 Microtia aba (Wheaping Grass) 830. 34158 Microtia aba (White Migronette Orchid) 831. 1658 Microtia aba (White Migronette Orchid) 832. 12761 Microtia areta (Swamp Migronette Orchid) 833. 15149 Microtia media subap, densilfora 834. 3105 Millotia myosodidolia 835. 14344 Millotia tramulosa 837. 4100 Mirbelia ramulosa 838. Missulena ocastoria 841. 37440 Monopais debilis ver. depressa 841. 37440 Monopais debilis ver. depressa 842. 19658 Monotaxis grandiflora ver. grandiflora 843. 19179 Moraea satiritia 844. 19177 Moraea satiritia debcura 845. 25192 Moratina debcura 846. 2423 Mis musculus (Folose Mouse) Y 847. 14187 Myriocaphalus occidentalis 848. 1427 Myriocaphalus occidentalis (Biok-r						
825. 957 Mesomeleens letragone (Semaphore Sedge)						
826. Microcarbo metanoleucos 827. 6897 Microcarbo stopición 828. 445 Microlaena atipicidas (Weeping Grass) 830. 34168 Microtia athorivida 831. 1658 Microtia athorivida 832. 12761 Microtia media subsp. densillora 833. 14519 Microtia media subsp. densillora 833. 14519 Microtia media subsp. densillora 834. 8105 Militotia myosocidirolia 837. 4100 Mirbelia prinosa 838. 4007 Mirbelia ramulosa 839. Missulena granulosa 839. Missulena cocatoria 841. 37440 Monopsis debilis var. depressa Y 842. 19555 Monodatis grandifora var. grandifora Y 843. 19179 Moraea flaccida (Ine-leaf Cape Tulip) Y 844. 19177 Moraea selicida Y 845. 25129 Moreatia obscura Y 846. 24223 Mis musaculus (House Mouse) Y 847. 4148 Myincipethalus cocidentalis Y 848. Nanoperca vittata Y 850. 24						
828. 485. Microlsana sitpoides (Weiping Grass) 829. 1657. Microis alba (White Mignonette Orchid) 831. 1658. Microis atlank (Swemp Mignonette Orchid) 832. 12761. Microis media subsp. media 833. 15419. Milloida myosodidiolia 834. 8105. Milloida myosodidiolia 835. 4097. Milloida sprincisa 836. 4097. Milloida sprincisa 837. 4100. Michelia sprincisa 838. Missulena gocatoria 840. Missulena gocatoria 841. 37440. Minopasia debilis var. depressa Y 842. 19555. Monopasia debilis var. depressa Y 843. 19179. Moropasia debilis var. depressa Y 844. 19555. Moropasia debilis var. depressa Y 844. 19179. Moropasia debilis var. depressa Y 843. 19179. Moropasia debilis var. depressa Y 844. 19177. Moraea estifolia Y <	826.					
1657 Microtis alba (White Mignonette Orchid)	827.	6897	Microcorys longifolia			
830. 34158 Microtis alboviridis 831. 1658 Microtis atriat (Swerry Mignorette Orchid) 832. 12761 Microtis medial subsp. densitifora 833. 15419 Microtis medial subsp. media 835. 14344 Millotia terutribia ver. terutribia (Soft Millotia) 835. 14344 Millotia terutribia ver. terutribia (Soft Millotia) 836. 4097 Mirbeita ramulosa 837. 4100 Mirbeita sprinosa 838. Missulena granulosa 838. Missulena granulosa 839. Missulena granulosa 839. Missulena granulosa 841. 37440 Monopsis debilis var. depressa Y 841. 37440 Monopsis debilis var. depressa Y 94. 9						
831. 1658 Microtis arteal (Swamp Mignonette Orchicl) 832. 12761 Microtis media subsp. densificra 834. 8105 Millotia mysocidifolia 835. 14344 Millotia denvirollai var. tenuliolia (Soft Millotia) 836. 4997 Mirbelia ajmosa 837. 4100 Mirbelia ajmosa 838. Missulena granulosa 839. Missulena occatoria 841. 37440 Monopais debilis var. depressa Y 842. 19555 Monotaxis grandiflora var. grandiflora 843. 19179 Moraea flaccida (One-leaf Cape Tulip) Y 844. 19177 Moraea seticilia Y 845. 25192 Morethia obscura Y 846. 24223 Mus musculus (House Mouse) Y 847. 14187 Myriccephatus oscidentalis 848. Nannoperce vittata Y 849. 44496 Narcissus tazetata subsp. fielicus Y 851. 25248 Neelaps birneculatus (Black-naped Snake) Y 853. 24738 Neophema eleigans (Eigeant Parrol)						
832. 12761 Microtis media subsp. densiflora						
833. 15419 Microtis media subsp. media 834. 8105 Millota mysocidifolia 335. 14344 Millota insurifolia var. tenulfolia (Soft Millotia) 336. 4097 Mirbelia sprinosa 837. 4100 Mirbelia sprinosa 338. Missulena occatoria 841. 37440 Monopsis debitis var. depressa Y 841. 37440 Monopsis debitis var. depressa Y 842. 19585 Monotaxis grandiflora var. grandiflora Y 843. 19179 Moraea seticula (One-leaf Cape Tulip) Y 844. 19177 Moraea seticula Socura Y 845. 25192 Morettia obscura Y 846. 24223 Mus musculus (House Mouse) Y 847. 114187 Myriocephalus cocidentalis 848. Narnopera vittata Y 849. 44496 Narcissus tazetta subsp. italicus Y 850. 44496 Narcissus tazetta subsp. tazetta Y 851. 25248 Neelaps bimaculatus (Black-naped Snake) 852. 25686 Neochmia temporalis (Red-browed Finch) Y 853. 24738 Neophema eliegans (Elegant Parnot) 854. 492 Neurachna alopecurolea (Foxt			· · · · · · · · · · · · · · · · · · ·			
835. 14344 Millotia tenuifolia var. tenuifolia (Soft Millotia) 836. 4097 Mirbelia ramulosa 837. 4100 Mirbelia spinosa 838. Missulena occatoria 840. Missulena jaranulosa 841. 37440 Monopsis debilis var. depressa Y 842. 19585 Monotaxis grandiflora var. grandiflora 843. 19179 Morea flaccida (One-leaf Cape Tulip) Y 844. 19177 Morea setifolia Y 845. 25192 Morethia obscura Y 846. 2423 Mus musculus (House Mouse) Y 847. 14187 Myriocephalus occidentalis Y 848. Nannoperca vittata Y 849. 44499 Narcissus tazetta subsp. Italicus Y 850. 44495 Narcissus tazetta subsp. Italicus Y 851. 25258 Neelaps bimaculeus (Black-naped Snake) 852. 25586 Neechmal temporalis (Red-throwed Finch) Y 853. 24738			·			
836. 4097 Mirbelia ramulosa 837. 4100 Mirbelia spinosa 838. Missulena granulosa 839. Missulena occatoria 840. Mizzorga insularis 841. 37440 Monopasis debilis var. depressa Y 842. 19586 Monotaxis grandillora var. grandillora Y 843. 19179 Moraea Satiolia Y 844. 19177 Moraea setiolia Y 845. 25192 Morethia obscura Y 846. 24223 Mus musculus (House Mouse) Y 847. 14187 Myriocephalus occidentalis 848. Nannopecra vitteta Y 849. 44498 Narcisus tazetta subsp. italicus Y 850. 44495 Narcisus tazetta subsp. italicus Y 851. 25248 Neelagas biranculust (Black-naped Snake) Y 852. 25668 Neochmia temporalis (Red-browed Finch) Y 853. 24738 Neophema elegans (Elegant Parrot) Y 854. 492 Neurachne alopecuroidea (Foxtail Mulga Gr	834.	8105	Millotia myosotidifolia			
837. 4100 Mirbelia spinosa 838. Missulena granulosa 839. Missulena occatoria 840. Mizoruga insularis 841. 37440 Monopsis debilis var. depressa Y 842. 19585 Monotaxis grandiflora var. grandiflora Y 843. 19179 Moraea setifolia Y 844. 19177 Moraea setifolia Y 845. 25192 Morethia obscura Y 847. 14187 Myriocephalus occidentalis Y 848. Nannoperca vittata Y 849. 44496 Narcissus tazetta subsp. italicus Y 850. 44495 Narcissus tazetta subsp. italicus Y 851. 25248 Neelaps bimaculatus (Black-naped Snake) Y 852. 25686 Neochmia temporalis (Ret-browed Finch) Y 853. 24738 Neophema elegans (Elegant Parrot) Y 854. 492 Neurachne alegans (Elegant Parrot) Y 857. 25252 Nitochchis scutatus (Tiger Snake) Notonectidae sp. 858. Notonectidae sp. Notonectidae sp. 859. 2401 Nutysiai floribunda (Christmas Tree, Mudja) Notonectidae sp. <td>835.</td> <td>14344</td> <td>Millotia tenuifolia var. tenuifolia (Soft Millotia)</td> <td></td> <td></td> <td></td>	835.	14344	Millotia tenuifolia var. tenuifolia (Soft Millotia)			
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864. 20052 Oenothera jamesii Y 865. 2367 Olax scalariformis		24407				
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866. 8127 Olearia axillaris (Coastal Daisybush)	866.	8127	Olearia axillaris (Coastal Daisybush)			



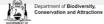




	Name ID	Species Name	Natural	lised Conservation Code	¹ Endemic To Qu Area
867.	8143	Olearia paucidentata (Autumn Scrub Daisy)			
868.		Oligochaeta sp.			
869.	18254	Opercularia apiciflora			
870.	7346	Opercularia echinocephala (Bristly Headed Stink Weed)			
871.	7348	Opercularia hispidula (Hispid Stinkweed)			
872.	18255	Opercularia vaginata (Dog Weed)			
873.	46207	Opuntia tomentosa	Υ		
874.	4113	Ornithopus compressus (Yellow Serradella)	Υ		
875.	7122	Orobanche minor (Lesser Broomrape)	Υ		
876.		Orthocladiinae sp.			
877.	11749	Orthrosanthus laxus var. laxus (Morning Iris)			
878.		Ottelia ovalifolia subsp. chrysobasis			
879.		Oxalis caprina	Υ		
880.		Oxalis corniculata (Yellow Wood Sorrel)	Y		
881.		Oxalis glabra	Y		
882.		-			
		Oxalis perennans			
883.		Oxalis pes-caprae (Soursob)	Y		
884.		Oxalis purpurea (Largeflower Wood Sorrel)	Y		
885.		Pachycephala rufiventris (Rufous Whistler)			
886.		Panicum capillare (Witchgrass)	Y		
887.	23483	Paracaleana brockmanii			
888.	1667	Paracaleana nigrita (Flying Duck Orchid)			
889.	20101	Paragonis grandiflora			
890.		Paralampona marangaroo			
891.	25253	Parasuta gouldii			
892.	25681	Pardalotus punctatus (Spotted Pardalote)			
893.		Pardalotus striatus (Striated Pardalote)			
894.		Parentucellia latifolia (Common Bartsia)	Υ		
895.		Paspalum dilatatum	Y		
896.			Y		
		Paspalum distichum (Water Couch)			
897.		Passiflora filamentosa	Υ		
898.		Patersonia babianoides			
899.		Patersonia juncea (Rush Leaved Patersonia)			
900.	1550	Patersonia occidentalis (Purple Flag, Koma)			
901.	30476	Patersonia occidentalis var. latifolia			
902.	30472	Patersonia occidentalis var. occidentalis			
903.	1551	Patersonia pygmaea (Pygmy Patersonia)			
904.	14433	Patersonia rudis subsp. rudis			
905.	11550	Patersonia umbrosa var. xanthina (Yellow Flags)			
906.	43765	Pauridia glabella var. glabella			
907.	43761	Pauridia occidentalis var. occidentalis			
908.	43762	Pauridia occidentalis var. quadriloba			
909.		Pelecanus conspicillatus (Australian Pelican)			
910.		Pentameris airoides subsp. airoides	Υ		
911.		·			
911.		Pericalymma ellinticum var ellinticum			
		Pericalymma ellipticum var. ellipticum Pericalymma ellipticum var. flyridum			
913.		Pericalymma ellipticum var. floridum			
914.		Persicaria decipiens			
915.		Persoonia angustiflora			
916.		Persoonia elliptica (Spreading Snottygobble)			
917.		Persoonia saccata (Snottygobble)			
918.	48060	Petrochelidon ariel (Fairy Martin)			
919.	48061	Petrochelidon nigricans (Tree Martin)			
920.	48066	Petroica boodang (Scarlet Robin)			
921.		Petroica goodenovii (Red-capped Robin)			
922.		Petrophile biloba (Granite Petrophile)			
923.		Petrophile juncifolia			
924.		Petrophile linearis (Pixie Mops)			
925.		Petrophile macrostachya			
926.		Petrophile seminuda			
927.		Petrophile striata			
928.		Petrorhagia dubia	Υ		
929.		Phalacrocorax carbo (Great Cormorant)			
930.	24667	Phalacrocorax sulcirostris (Little Black Cormorant)			
931.	25699	Phalacrocorax varius (Pied Cormorant)			
932.	547	Phalaris angusta	Υ		
933.	551	Phalaris minor (Lesser Canary Grass)	Υ		
		Phalaris paradoxa (Paradoxa Grass)	Υ		
934.	552	Thaiano paradoxa (Faradoxa Grado)			
		Phaps chalcoptera (Common Bronzewing)			



	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
937.		Pheladenia deformis			
938.		Philonotis australiensis			
939. 940.		Philotheca spicata (Pepper and Salt)			
940.		Philydrella drummondii Philydrella pygmaea (Butterfly Flowers)			
942.		Philydrella pygmaea subsp. pygmaea			
943.		Phlebia subceracea			
944.	1479	Phlebocarya filifolia			
945.		Phylidonyris niger (White-cheeked Honeyeater)			
946.		Phylidonyris novaehollandiae (New Holland Honeyeater)			
947. 948.		Phyllangium divergens Phyllangium divergens Phyllangium divergens			
949.		Phyllanthus calycinus (False Boronia) Phyllanthus scaber			
950.		Phyllanthus tenellus	Υ		
951.		Physalis peruviana (Cape Gooseberry)	Υ		
952.		Physidae sp.			
953.		Phytophthora cinnamomi			
954.		Pilostyles hamiltonii			
955.		Pimelea angustifolia (Narrow-leaved Pimelea)			
956. 957.		Pimelea ciliata (White Banjine) Pimelea ciliata subsp. ciliata			
958.		Pimelea imbricata var. piligera			
959.		Pimelea preissii			
960.	5264	Pimelea spectabilis (Bunjong)			
961.	12041	Pimelea suaveolens subsp. suaveolens			
962.		Pimelea sulphurea (Yellow Banjine)			
963.		Pimelea sylvestris			
964. 965.		Pithocarpa pulchella (Beautiful Pithocarpa) Pithocarpa pulchella var. melanostigma			
966.	10002	Planorbidae sp.			
967.	24841	Platalea flavipes (Yellow-billed Spoonbill)			
968.	25720	Platycercus icterotis (Western Rosella)			
969.	24745	Platycercus icterotis subsp. icterotis (Western Rosella)			
970.		Platycercus zonarius subsp. zonarius (Port Lincoln Parrot)			
971. 972.		Platysace compressa (Tapeworm Plant) Platysace filiformis			
973.		Platysace juncea			
974.		Platysace tenuissima			
975.	25007	Pletholax gracilis subsp. gracilis (Keeled Legless Lizard)			
976.	32478	Pleuridium nervosum var. nervosum			
977.		Poa annua (Winter Grass)	Υ		
978.		Poa drummondiana (Knotted Poa)			
979. 980.		Podargus strigoides (Tawny Frogmouth) Podargus strigoides subsp. brachypterus (Tawny Frogmouth)			
981.		Podiceps cristatus (Great Crested Grebe)			
982.		Podolepis gracilis (Slender Podolepis)			
983.		Podolepis lessonii			
984.	8182	Podotheca angustifolia (Sticky Longheads)			
985.		Podotheca chrysantha (Yellow Podotheca)			
986.		Podotheca gnaphalioides (Golden Long-heads)			
987. 988.		Pogona minor subsp. minor (Dwarf Bearded Dragon) Pogonolepis stricta			
989.		Poliocephalus poliocephalus (Hoary-headed Grebe)			
990.		Poltys laciniosus			
991.	8395	Polygala myrtifolia (Myrtleleaf Milkwort)	Υ		
992.	4578	Polygala virgata	Υ		
993.		Polygonarea repanda			Υ
994.		Polypogon tenellus			
995. 996.		Pomatostomus superciliosus (White-browed Babbler) Poranthera microphylla (Small Poranthera)			
990.		Porphyrio porphyrio (Purple Swamphen)			
998.		Porzana fluminea (Australian Spotted Crake)			
999.		Porzana tabuensis (Spotless Crake)			
1000.	1670	Prasophyllum drummondii (Swamp Leek Orchid)			
1001.		Prasophyllum elatum (Tall Leek Orchid)			
1002.		Prasophyllum fimbria (Fringed Leek Orchid)			
1003. 1004.		Prasophyllum giganteum (Bronze Leek Orchid) Prasophyllum gracile			
1004.		Prasophyllum hians (Yawning Leek Orchid)			
1006.		Prasophyllum parvifolium (Autumn Leek Orchid)			
		, , , , ,	Department	of Biodiversity,	WESTERN







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1007.	10853	Prasophyllum plumiforme			
1008.	43303	Protea repens	Υ		
1009.		Pseudonaja affinis subsp. affinis (Dugite)			
1010.		Pseudophryne guentheri (Crawling Toadlet)			
1011.		Psoralea pinnata (African Scurfpea)	Υ		
1012.		Pterochaeta paniculata			
1013.		Ptercoura accomulatus (Little Bod Elving fox)			
1014. 1015.		Pteropus scapulatus (Little Red Flying-fox) Pterostylis barbata (Bird Orchid)			
1016.		Pterostylis erubescens			
1017.		Pterostylis sanguinea			
1018.		Pterostylis vittata (Banded Greenhood)			
1019.		Ptilotus declinatus (Curved Mulla Mulla)			
1020.	2720	Ptilotus esquamatus			
1021.	2742	Ptilotus manglesii (Pom Poms, Mulamula)			
1022.	2751	Ptilotus polystachyus (Prince of Wales Feather)			
1023.	4172	Pultenaea ericifolia			
1024.		Purpureicephalus spurius			
1025.		Pygopus lepidopodus (Common Scaly Foot)			
1026.		Pyrorchis nigricans (Red beaks, Elephants ears)			
1027.		Quinetia urvillei	V		
1028. 1029.		Raphanus raphanistrum (Wild Radish) Rattus rattus (Black Rat)	Y		
1029.	24243	Raveniella cirrata	ĭ		
1030.	6012	Regelia ciliata			
1032.		Regelia inops			
1033.		Resupinatus subapplicatus			
1034.	48096	Rhipidura albiscapa (Grey Fantail)			
1035.	25614	Rhipidura leucophrys (Willie Wagtail)			
1036.	13300	Rhodanthe citrina			
1037.	13234	Rhodanthe manglesii			
1038.		Riccia multifida			
1039.		Ricinus communis (Castor Oil Plant)	Υ		
1040.		Rinzia crassifolia (Darling Range Rinzia)			
1041.		Romulea flava var. minor	Y		
1042. 1043.		Romulea rosea (Guildford Grass) Romulea rosea var. australis (Guildford Grass)	Y		
1044.		Rorippa nasturtium-aquaticum (Watercress)	Y		
1045.		Rostraria pumila	Y		
1046.		Rosulabryum billarderii			
1047.	20506	Rubus anglocandicans	Υ		
1048.	38836	Russula erumpens			
1049.	40431	Rytidosperma acerosum			
1050.	40430	Rytidosperma pilosum			
1051.		Rytidosperma setaceum			
1052.		Salvinia molesta (Salvinia)	Υ		
1053.		Santalum acuminatum (Quandong, Warnga)			
1054.		Scaevola calliptera Scaevola clandulifora (Visaid Hand flower)			
1055. 1056.		Scaevola glandulifera (Viscid Hand-flower) Scaevola lanceolata (Long-leaved Scaevola)			
1057.		Scaevola pilosa (Hairy Fan-flower)			
1058.		Scaevola platyphylla (Broad-leaved Fanflower)			
1059.		Scaevola repens var. repens			
1060.	6263	Schoenolaena juncea			
1061.	971	Schoenus andrewsii			
1062.	972	Schoenus armeria			
1063.		Schoenus asperocarpus (Poison Sedge)			
1064.		Schoenus bifidus			
1065.		Schoenus brevisetis			
1066.		Schoenus caespititius			
1067.		Schoonus afaliatus			
1068. 1069.		Schoenus efoliatus Schoenus grammatophyllus			
1069.		Schoenus nanus (Tiny Bog Rush)			
1070.		Schoenus odontocarpus			
1071.		Schoenus plumosus			
1073.		Schoenus rigens			
1074.		Schoenus sculptus (Gimlet Bog-rush)			
1075.	18164	Schoenus sp. smooth culms (K.R. Newbey 7823)			
1076.	1016	Schoenus subbarbatus (Bearded Bog-rush)			
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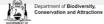
	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1077.	1018	Schoenus subfascicularis			
1078.	1026	Schoenus unispiculatus			
1079.		Schoenus variicellae			
1080.		Scotorepens balstoni (Inland Broad-nosed Bat)			
1081.		Senecio diaschides			
1082. 1083.		Senecio multicaulis subsp. multicaulis Sericornis frontalis (White-browed Scrubwren)			
1083.		Setaria palmifolia (Palm Grass)	Υ		
1085.		Setaria parviflora	Y		
1086.		Siloxerus filifolius			
1087.		Siloxerus multiflorus			
1088.	30948	Smicrornis brevirostris (Weebill)			
1089.	7020	Solanum linnaeanum (Apple of Sodom)	Υ		
1090.	7022	Solanum nigrum (Black Berry Nightshade)	Υ		
1091.	8231	Sonchus oleraceus (Common Sowthistle)	Υ		
1092.		Sorghum halepense (Johnson Grass)	Υ		
1093.		Sowerbaea laxiflora (Purple Tassels)			
1094.		Sparaxis bulbifera	Υ		
1095.		Sphaerolobium linophyllum			
1096.		Sphaerolobium macranthum Sphaerolobium modium			
1097. 1098.	4207	Sphaerolobium medium Sphaerotrichopus ramosus			
1098.	1700	Spiculaea ciliata (Elbow Orchid)			
1100.		Stachys arvensis (Staggerweed)	Υ		
1101.		Stachystemon vermicularis			
1102.		Stackhousia monogyna			
1103.	9070	Stackhousia pubescens (Downy Stackhousia)			
1104.	24645	Stagonopleura oculata (Red-eared Firetail)			
1105.	16197	Stenanthemum emarginatum			
1106.	13475	Stenanthemum humile			
1107.	19403	Stenopetalum gracile			
1108.		Stereum illudens			
1109.		Stictonetta naevosa (Freckled Duck)			
1110.		Stipiturus malachurus (Southern Emu-wren)			
1111. 1112.		Stirlingia latifolia (Blueboy) Strepera versicolor (Grey Currawong)			
1113.		Streptopelia chinensis (Spotted Turtle-Dove)	Υ		
1114.		Streptopelia senegalensis (Laughing Turtle-Dove)	Y		
1115.		Strophurus spinigerus subsp. inornatus	·		
1116.		Stylidium affine (Queen Triggerplant)			
1117.	7684	Stylidium amoenum (Lovely Triggerplant)			
1118.	17666	Stylidium amoenum var. amoenum			
1119.	30278	Stylidium androsaceum			
1120.	25831	Stylidium araeophyllum (Stilt Walker)			
1121.		Stylidium breviscapum (Boomerang Triggerplant)			
1122.		Stylidium brunonianum (Pink Fountain Triggerplant)			
1123.		Stylidium bulbiferum (Circus Triggerplant)			
1124.		Stylidium calcaratum (Book Triggerplant)			
1125. 1126.		Stylidium caricifolium (Milkmaids) Stylidium ciliatum (Golden Triggerplant)			
1120.		Stylidium dichotomum (Pins-and-needles)			
1128.		Stylidium diuroides (Donkey Triggerplant)			
1129.		Stylidium diuroides subsp. diuroides			
1130.		Stylidium divaricatum (Daddy-long-legs)			
1131.		Stylidium eriopodum			
1132.	7736	Stylidium hispidum (White Butterfly Triggerplant)			
1133.	7745	Stylidium junceum (Reed Triggerplant)			
1134.		Stylidium leptophyllum (Needle-leaved Triggerplant)			
1135.		Stylidium lineatum (Sunny Triggerplant)			
1136.		Stylidium perpusillum (Tiny Triggerplant)			
1137.		Stylidium petiolare (Horn Triggerplant)			
1138.		Stylidium pulchellum (Thumbelina Triggerplant)			
1139.		Stylidium pycnostachyum (Downy Triggerplant)			
1140. 1141.		Stylidium recurvum Stylidium repens (Matted Triggerplant)			
1141.	7785	Stylidium repens (Matted Triggerplant)			
	25806	Stylidium scariosum			
1142.		Stylidium scariosum Stylidium schoenoides (Cow Kicks)			
1142. 1143.		Stylidium schoenoides (Cow Kicks)			
1142.	7798				







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1147.		Stylidium xanthellum			
1148.		Stypandra glauca (Blind Grass)			
1149. 1150.	6476	Styphelia tenuiflora (Common Pinheath) Supunna funerea			
1151.		Supunna picta			
1152.	2321	Synaphea acutiloba (Granite Synaphea)			
1153.		Synaphea gracillima			
1154.	2325	Synaphea pinnata (Helena Synaphea)			
1155.	15532	Synaphea spinulosa subsp. spinulosa			
1156.		Synothele durokoppin			
1157.	25705	Tabanidae sp.			
1158. 1159.		Tachybaptus novaehollandiae (Australasian Grebe, Black-throated Grebe) Tadorna tadornoides (Australian Shelduck, Mountain Duck)			
1160.	24001	Tanypodinae sp.			
1161.	24167	Tarsipes rostratus (Honey Possum, Noolbenger)			
1162.		Tasmanicosa leuckartii			
1163.	20135	Taxandria linearifolia			
1164.	4251	Templetonia drummondii			
1165.		Tetrapterum cylindricum			
1166. 1167.		Tetraria capillaris (Hair Sedge) Tetraria octandra			
1167.		Tetraria octanida Tetraria sp. Jarrah Forest (R. Davis 7391)			
1169.		Tetrarrhena laevis (Forest Ricegrass)			
1170.		Tetratheca hirsuta (Black Eyed Susan)			
1171.	48342	Tetratheca hirsuta subsp. hirsuta			
1172.		Tetratheca nuda			
1173.		Tetratheca setigera			
1174.		Thelymitra antennifera (Vanilla Orchid)			
1175. 1176.		Thelymitra benthamiana (Leopard Orchid) Thelymitra crinita (Blue Lady Orchid)			
1177.		Thelymitra flexuosa (Twisted Sun Orchid)			
1178.		Thelymitra macrophylla			
1179.	20731	Thelymitra vulgaris			
1180.		Themeda triandra			
1181.		Thomasia foliosa			
1182.		Thomasia grandiflora (Large Flowered Thomasia)			
1183. 1184.		Thomasia macrocarpa (Large Fruited Thomasia) Threskiornis spinicollis (Straw-necked Ibis)			
1185.		Thysanotus arbuscula			
1186.		Thysanotus asper (Hairy Fringe Lily)			
1187.	1328	Thysanotus dichotomus (Branching Fringe Lily)			
1188.		Thysanotus manglesianus (Fringed Lily)			
1189.		Thysanotus multiflorus (Many-flowered Fringe Lily)			
1190.		Thysanotus patersonii			
1191. 1192.		Thysanotus scaber Thysanotus sp. Coastal plain (N.H. Brittan 66/63)			
1193.		Thysanotus sparteus			
1194.		Thysanotus tenellus			
1195.		Thysanotus thyrsoideus			
1196.		Thysanotus triandrus			
1197.		Tiliqua rugosa			
1198. 1199.		Tiliqua rugosa subsp. aspera			
1199. 1200.		Tiliqua rugosa subsp. rugosa Todiramphus sanctus (Sacred Kingfisher)			
1200.		Todiramphus sanctus (Sacred Kinglisher) Todiramphus sanctus subsp. sanctus (Sacred Kingfisher)			
1202.		Tolpis barbata (Yellow Hawkweed)	Υ		
1203.		Tortula recurvata			
1204.		Trachymene coerulea (Blue Lace Flower)			
1205.		Trachymene grandis Trachymene grandis			
1206.		Trachymene pilosa (Native Parsnip) Tramulias tramula			
1207. 1208.		Tremulina tremula Tribolium uniolae	Υ		
1208.		Tribonanthes australis (Southern Tiurndin)	I		
1210.		Tribonanthes brachypetala (Nodding Tiurndin)			
1211.		Tribonanthes longipetala (Branching Tiurndin)			
1212.		Tribonyx ventralis (Black-tailed Native-hen)			
1213.		Trichocline spathulata (Native Gerbera)			
1214. 1215.		Trichoglossus haematodus (Rainbow Lorikeet) Trichoglossus haematodus (Rainbow Like)			
1215.		Tricoryne elatior (Yellow Autumn Lily) Tricoryne humilis			
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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1217.	43207	Tricostularia exsul			
1218.	4289	Trifolium angustifolium (Narrowleaf Clover)	Υ		
1219.	17145	Trifolium angustifolium var. angustifolium	Υ		
1220.	17542	Trifolium arvense var. arvense	Υ		
1221.	4292	Trifolium campestre (Hop Clover)	Υ		
1222.		Trifolium hirtum (Rose Clover)	Y		
1223.		Trifolium pratense var. sativum	Y		
1224.		Trifolium resupinatum var. majus	Y		
1225.		Trifolium tomentosum var. tomentosum	Y		
			Ť		
1226.		Triglochin calcitrapa			
1227.		Triglochin minutissima			
1228.		Triglochin striata			
1229.		Tripterococcus brunonis (Winged Stackhousia)			
1230.	1139	Trithuria bibracteata			
1231.	38401	Tritonia gladiolaris (Lined Tritonia)	Υ		
1232.	13479	Trymalium ledifolium var. rosmarinifolium			
1233.	33418	Trymalium odoratissimum subsp. odoratissimum			
1234.	48147	Turnix varius (Painted Button-quail)			
1235.	24852	Tyto alba subsp. delicatula (Barn Owl)			
1236.		Tyto novaehollandiae (Masked Owl)			
1237.		Underwoodisaurus milii (Barking Gecko)			
1238.		Urodacus novaehollandiae			
1239.		Urodacus planimanus			
1240.		Urodacus woodwardii			
	9255		V		
1241. 1242.		Ursinia anthemoides (Ursinia)	Y		
		Ursinia anthemoides subsp. anthemoides	Υ		
1243.		Ustilago bromivora			
1244.		Ustilago nuda			
1245.		Ustilago tepperi			
1246.	7148	Utricularia multifida			
1247.	25218	Varanus gouldii (Bungarra or Sand Monitor)			
1248.	25526	Varanus tristis (Racehorse Monitor)			
1249.	7665	Velleia trinervis			
1250.	8257	Vellereophyton dealbatum (White Cudweed)	Υ		
1251.		Venator immansueta			
1252.		Venatrix arenaris			
1253.	15431	Verticordia acerosa var. acerosa			
1254.	12388	Verticordia acerosa var. preissii			
1255.	12411	Verticordia densiflora var. cespitosa			
1256.	15432	Verticordia densiflora var. densiflora			
1257.		Verticordia huegelii var. huegelii			
1258.		Verticordia insignis subsp. insignis			
1259.		Verticordia pennigera			
1260.					
		Verticordia plumosa var. brachyphylla			
1261.		Venticordia plumosa var. plumosa Vennodoli o regulto (Couthors Forest Ref)			
1262.		Vespadelus regulus (Southern Forest Bat)			
1263.		Viminaria juncea (Swishbush, Koweda)			
1264.		Vinca major (Blue Periwinkle)	Y		
1265.		Vulpia bromoides (Squirrel Tail Fescue)	Υ		
1266.		Vulpia muralis	Υ		
1267.	724	Vulpia myuros (Rat's Tail Fescue)	Υ		
1268.		Vulpia myuros forma myuros	Υ		
1269.	7384	Wahlenbergia capensis (Cape Bluebell)	Υ		
1270.	7389	Wahlenbergia preissii			
1271.	18375	Watsonia knysnana	Υ		
1272.	32456	Weissia rutilans			
1273.	12072	Wurmbea dioica subsp. alba			
1274.	1401	Wurmbea pygmaea			
1275.		Xanthorrhoea acanthostachya			
1276.		Xanthorrhoea brunonis subsp. brunonis			
1277.		Xanthorrhoea gracilis (Graceful Grass Tree, Mimidi)			
1278.		Xanthorrhoea greissii (Grass tree, Palga)			
1270.		Xanthosia atkinsoniana			
1279.		Xanthosia andida			
1281.		Xanthosia ciliata Vanthosia hugaslii			
1282.		Xanthosia huegelii			
1283.		Xerochrysum macranthum			
1284.	25765	Zosterops lateralis (Grey-breasted White-eye, Silvereye)			







Name ID Species Name

Naturalised

Conservation Code ¹Endemic To Query Area

Conservation Codes

- Raire of likely to become extinct

- Raire of likely to become extinct

X - Presumed extinct

IA - Protected under international agreement

S - Other specially protected fauna

- Priority

2 - Priority

3 - Priority

4 - Priority

5 - Priority

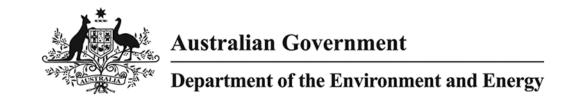
5 - Priority

5

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







EPBC Act Protected Matters Report

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

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

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

Report created: 29/07/19 18:43:56

<u>Summary</u>

Details

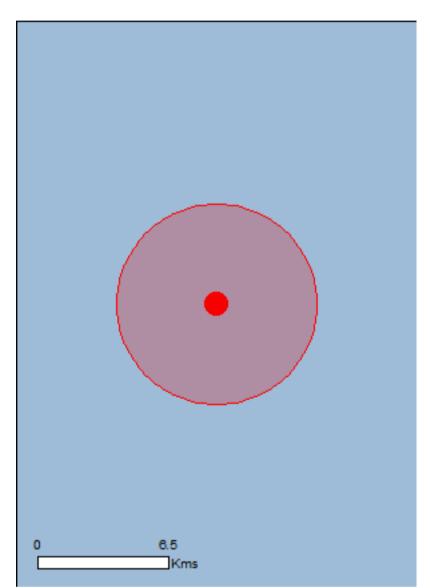
Matters of NES
Other Matters Protected by the

Other Matters Protected by the EPBC Act

Extra Information

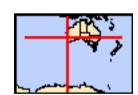
Caveat

<u>Acknowledgements</u>



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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	40
Listed Migratory Species:	9

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	15
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	3
Regional Forest Agreements:	1
Invasive Species:	40
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Mammals

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Forrestdale and thomsons lakes	Within 10km of Ramsar

Listed Threatened Ecological Communities		[Resource Information]
For threatened ecological communities where the distriplans, State vegetation maps, remote sensing imagery community distributions are less well known, existing veroduce indicative distribution maps.	and other sources. Where	threatened ecological
Name	Status	Type of Presence
Banksia Woodlands of the Swan Coastal Plain ecological community Clay Pans of the Swan Coastal Plain	Endangered Critically Endangered	Community likely to occur within area Community likely to occur within area
Corymbia calophylla - Kingia australis woodlands on heavy soils of the 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 may occur within area
Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area
Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	Roosting known to occur within area
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted-snipe, Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
Bettongia penicillata ogilbyi Woylie [66844]	Endangered	Species or species habitat likely to occur within area
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat likely to occur within area
Other		
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area
Plants		
Acacia anomala Grass Wattle, Chittering Grass Wattle [8153]	Vulnerable	Species or species habitat likely to occur within area
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat likely to occur within area
Anthocercis gracilis Slender Tailflower [11103]	Vulnerable	Species or species habitat known to occur within area
Austrostipa bronwenae [87808]	Endangered	Species or species habitat may occur within area
Banksia mimica Summer Honeypot [82765]	Endangered	Species or species habitat likely to occur within area
Caladenia huegelii King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat likely to occur within area
Calytrix breviseta subsp. breviseta Swamp Starflower [23879]	Endangered	Species or species habitat known to occur within area
Chamelaucium sp. Gingin (N.G.Marchant 6) Gingin Wax [88881]	Endangered	Species or species habitat may occur within area
Conospermum undulatum Wavy-leaved Smokebush [24435]	Vulnerable	Species or species habitat likely to occur within area
Darwinia apiculata Scarp Darwinia [8763]	Endangered	Species or species habitat known to occur within area
Diplolaena andrewsii [6601]	Endangered	Species or species habitat may occur within area
<u>Diuris drummondii</u> Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat likely to occur within area
<u>Diuris micrantha</u> Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur

Name	Status	Type of Presence
<u>Diuris purdiei</u>		within area
Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat known to occur within area
Drakaea elastica		
Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area
Drakaea micrantha Dwarf Hammar archid [56755]	V. do o roblo	Charles ar anasias habitat
Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat may occur within area
Eleocharis keigheryi	Vulgarabla	Charles ar angeles habitat
Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat known to occur within area
Eremophila glabra subsp. chlorella	Fordersonad	On a s'a s an an a s'a s la sh'i si
[84927]	Endangered	Species or species habitat likely to occur within area
Eucalyptus x balanites	En den mane d	Omanian an annaigh babitat
Cadda Road Mallee, Cadda Mallee [87816]	Endangered	Species or species habitat may occur within area
Goodenia arthrotricha		
[12448]	Endangered	Species or species habitat known to occur within area
Grevillea curviloba subsp. incurva		
Narrow curved-leaf Grevillea [64909]	Endangered	Species or species habitat may occur within area
Grevillea thelemanniana		
Spider Net Grevillea [32835]	Critically Endangered	Species or species habitat known to occur within area
_asiopetalum pterocarpum		
Wing-fruited Lasiopetalum [64922]	Endangered	Species or species habitat may occur within area
Lepidosperma rostratum	En den maned	Omanian an annaigh babitat
Beaked Lepidosperma [14152]	Endangered	Species or species habitat likely to occur within area
Synaphea sp. Fairbridge Farm (D. Papenfus 696)		
Selena's Synaphea [82881]	Critically Endangered	Species or species habitat likely to occur within area
Thelymitra dedmaniarum Cinnamon Sun Orchid [65105]	Endangered	Species or species habitat
	Litarigered	may occur within area
Thelymitra stellata		
Star Sun-orchid [7060]	Endangered	Species or species habitat known to occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name or		
Name Migratory Marine Birds	Threatened	Type of Presence
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		Species or species habitat
		may occur within area
Migratory Wetlands Species		

Name	Threatened	Type of Presence
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 ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat likely 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

Calidris melanotos

Pectoral Sandpiper [858]

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		•
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba		
Great Egret, White Egret [59541]		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 ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area

Species or species

Name	Threatened	Type of Presence
Name	Tilleateried	habitat may occur within area
Haliaeetus leucogaster		aroa
White-bellied Sea-Eagle [943]		Species or species habitat likely to 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
Pandion haliaetus		
Osprey [952]		Species or species habitat likely to occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat may 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

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Kenwick Wetlands	WA
Korung	WA
Lesmurdie Falls	WA
Regional Forest Agreements	[Resource Information]
Note that all areas with completed RFAs have been included.	
Name	State
South West WA RFA	Western Australia

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	Ctatus	Type of Dresence
Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat

likely to occur

Name	Status	Type of Presence
		within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Funambulus pennantii Northern Palm Squirrel, Five-striped Palm Squirrel [129]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur

	atus Type of Presence within area
Plants	within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]	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 linifolia Flax-leaved Broom, Mediterranean Broom, Flax Broom [2800]	Species or species habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]	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] Lycium ferocissimum	Species or species habitat likely to occur within area
African Boxthorn, Boxthorn [19235]	Species or species habitat likely to occur within area
Olea europaea Olive, Common Olive [9160]	Species or species habitat may occur within area
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 reich Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]	ardtii Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]	Species or species habitat likely to occur within area
Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018] Reptiles	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area
Nationally Important Wetlands		[Resource Information]
Name		State
Brixton Street Swamps		WA

Caveat

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

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-32.04222 116.02972

Acknowledgements

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

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

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

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



APPENDIX B

Flora Likelihood Table

Appendix D: Assessment of the Likely Occurrence of DRF and Priority Flora (as per DBCA and EPBC Database Searches) in the Survey Area

Closest record to Survey Area based on DBCA 2018. High Likelihood = Suitable habitat present and records less than 5 km from the Survey Area, Medium Likelihood = Suitable habitat present and records between 5 km and 10 km from the Survey Area, and Low Likelihood = No suitable habitat present and/or records greater than 10 km from the Survey Area. EN = Listed as Endangered under the EBPC Act, VU = Listed as Vulnerable under the EBPC Act.

	Conservation Status Source		æ	Distance to Record (NatureMap)				Habitat occurs	Likelihood of	
Species	DBCA	EPBC	NatureMap	EPBC	0 - 5km	5-10 km	Flowering Period	Prefered Habitat	within the Survey Area	Occurrence
Synaphea sp. Serpentine	Т	CR		Х		Х	-	Swan Coastal Plain and Pinjarrah Plain	No	Low
Synaphea sp. Fairbridge Farm	Т	CR	Х	Х		Х	Oct	Sandy with lateritic pebbles. Near winter-wet flats, in low woodland with weedy grasses	No	Low
Ptilotus pyramidatus	Т	CR	Х	Х		Х	-	Seasonally inundated, flat floodplain underlain by pale grey, muddy-sand to sandy-mud alluvium	No	Low
Grevillea thelemanniana	Т	CR	Х	Х	Х		May to Nov	Sand, sandy clay. Winter-wet low-lying flats.	No	Low
Calectasia cyanea	Т	CR	Х			Х	Jun to Oct	White, grey or yellow sand, gravel.	No	Low
Austrostipa jacobsiana	Т	CR	Х	X		Х	-	non-saline, winter-wet, white or grey sandy clay soil	No	Low
Thelymitra stellata	Т	EN	Х	Х	Х		Oct to Nov	Sand, gravel, lateritic loam	Yes	High
Thelymitra dedmaniarum	Т	EN		Х		Х	Nov - Jan	Granite	Yes	Low
Macarthuria keigheryi	Т	EN	Х	Х		Х	Sep to Dec or Feb to Mar	White or grey sand.	No	Low
Lepidosperma rostratum	Т	EN	Х	Х	Х		-	Peaty sand, clay.	No	Low
Lasiopetalum pterocarpum	Т	EN		Х		Х	Aug to Dec	Dark red-brown loam or clayey sand over granite. On sloping banks near creeklines	No	Low
Grevillea curviloba subsp. incurva	Т	EN		Х		Х	Aug to Sep	Sand, sandy loam. Winter-wet heath	No	Low
Goodenia arthrotricha	Т	EN	Х	Х	Х		Oct to Nov	Gravel. Granite rocks, slopes.	Yes	High
Eremophila glabra subsp. chlorella	Т	EN	Х	Х		Х	Jul to Nov	Sandy clay. Winter-wet depressions.	No	Low
Eleocharis keigheryi	Т	EN	Х	Х	Х		Aug - Nov	Clay, sandy loam, emergent in freshwater, creeks, claypans	No	Low
Drakaea elastica	Т	EN	Х	Х		Х	Oct - Nov	White, grey sand, low-lying situations adjoining winter-wet swamps	No	Low
Diuris purdiei	Т	EN	Х	Х		Х	Sep - Oct	Grey-black sand, moist, winter-wet swamps	No	Low
Diplolaena andrewsii	Т	EN		X		Х	Jul to Oct	Loam, clay. Granite outcrops & hillsides.	Yes	Low
Darwinia apiculata	Т	EN	Х	X	Χ		Oct	Lateritic soils.	Yes	High
Chamelaucium sp. Gingin	Т	EN		X			Sep - Nov	White and yellow sands	No	Low
Calytrix breviseta subsp. breviseta	Т	EN	Х	X	Χ		Oct to Nov	Sandy clay. Swampy flats.	No	Low
Caladenia huegelii	Т	EN	Х	X			Sep - Oct	Grey, brown sand, clay loam.	No	Low
Banksia mimica	Т	EN		Х	Χ		Dec or Jan to Feb	White or grey sand over laterite, sandy loam	No	Low
Austrostipa bronwenae	Т	EN	Х	Х		Х	-	non-saline but seasonally wet grey-brown sandy loam soil containing nodules of Muchea Limestone	No	Low
Andersonia gracilis	Т	EN	Х	Х	Х		Sep - Nov	White, grey sand, sandy clay, gravelly loam, winterwet areas, near swamps.	No	Low
Tetraria australiensis	Т	VU	Х			Х	Nov to Dec	grey sand over clay favours winter-wet, swampy depressions, drainage lines or rises surrounding swamps. Also found in open forest or Marri (Corymbia calophylla) woodland	Yes	Medium

Courter	Conservation Status		Sourc	Source		Distance to Record (NatureMap)		Prefered Habitat	Habitat occurs	Likelihood of
Species	DBCA	EPBC	NatureMap	EPBC	0 - 5km	5-10 km	Flowering Period	Prefered Habitat	within the Survey Area	Occurrence
Species	Conservat	tion Status	Source	ре		to Record reMap)	Flowering Period	lowering Period Prefered Habitat		Likelihood of
Openies	DBCA	EPBC	NatureMap	EPBC	0 - 5km	5-10 km	r lowering r endd	Trefered Habitat	within the Survey Area	Occurrence
Drakaea micrantha	Т	VU		Х		Х	Sep - Oct	White-grey sand	No	Low
Diuris micrantha	Т	VU		X		X	Sep - Oct	Brown loamy clay, winter-wet swamps, in shallow water	No	Low
Diuris drummondii	Т	VU	Х	Х		Х	Nov to Dec or Jan	Low-lying depressions, swamps	No	Low
Conospermum undulatum	Т	VU	Х	X	Χ		May to Oct	Grey or yellow-orange clayey sand.	No	Low
Anthocercis gracilis	T	VU	Х		Χ		Sep to Oct	Sandy or loamy soils. Granite outcrops.	Yes	High
Acacia aphylla	Т	VU	Х		Χ		Aug to Oct	Sand, loam, clay loam. Granite outcrops, hills.	Yes	High
Acacia anomala	Т	VU	Х	Х		Х	Aug to Sep	Lateritic soils. Slopes.	Yes	Medium
Thelymitra magnifica	P1	-	Х		Х		-	Stony ridges.	Yes	High
Schoenus sp. Beaufort	P1	-	Х			Х	Annual	Mud. Winter-wet claypans.	No	Low
Ptilotus sericostachyus subsp. Roseus	P1	-	Х			Х	Sep to Dec	No information available	Unknown	Unknown
Hydrocotyle striata	P1	-	Х			Х	-	Clay. Springs.	No	Low
Eriochilus sp. Roleystone	P1	-	Х			Х	-	No information available	Unknown	Unknown
Calandrinia sp. Piawaning	P1	-	Х			Х	Oct	Brown/gey silty sandy loam over granite. Near pools, small rise within large saline valley flats, disturbed shrubland.	No	Low
Boronia humifusa	P1	-	Х			Х	Jun or Sep	Gravelly clay loam over laterite. Jarrah-marri open forest	Yes	Medium
Bolboschoenus fluviatilis	P1	-	Х			Х	-	winter-wet areas	No	Low
Acacia lasiocarpa var. bracteolata long peduncle varient (G.J. Ko	P1	-	Х		Х		-	Grey or black sand over clay. Swampy areas, winter wet lowlands.	No	Low
Thysanotus sp. Badgingarra	P2	-	Х			Х	Dec	Grey sand with lateritic gravel.	No	Low
Stenanthemum sublineare	P2	-	Х			Х	Oct to Dec	Littered white sand. Coastal plain.	No	Low
Schoenus Ioliaceus	P2	-	Х			Х	Aug to Nov	Sandy soils. Winter-wet depressions.	No	Low
Paracaleana sp. Laterite	P2	-	Х		Χ		Aug to Nov	Sandy soils. Winter-wet depressions.	No	Low
Melaleuca viminalis	P2	-	Х			Х	-	No information available	Unknown	Unknown
Lepyrodia curvescens	P2	-	Х			Х	Sep to Nov	Sand, laterite. Seasonally inundated swampland.	No	Low
Johnsonia pubescens subsp. cygnorum	P2	-	Х			Х	Sep	Grey-white-yellow sand. Flats, seasonally-wet sites	No	Low
Comesperma griffinii	P2	-	Х			Х	Oct	Yellow or grey sand. Plains	No	Low
Bossiaea modesta	P2	-	Х			Х	Oct to Dec	Soils derived from granite. Damp areas close to stream.	No	Low
Andersonia sp. Blepharifolia	P2	-	Х		Х		-	No information available	Unknown	Unknown
Acacia benthamii	P2	-	Х			Х	Aug - Sep	Limestone breakaways	No	Low
Thysanotus anceps	P3	-	Х		Χ		Oct to Dec	White or grey sand, lateritic gravel, laterite	Yes	High

2	Conservation Status Source		Distance to Record (NatureMap)		Florida Book	Park and Maria	Habitat occurs	Likelihood of		
Species	DBCA	EPBC	NatureMap	EPBC	0 - 5km	5-10 km	Flowering Period	Prefered Habitat	within the Survey Area	Occurrence
Species	Conservat	ion Status	Source	e		to Record reMap)	Flowering Period	ering Period Prefered Habitat		Likelihood of
Openes	DBCA	EPBC	NatureMap	EPBC	0 - 5km	5-10 km	riowering renod	rieleled Habitat	within the Survey Area	Occurrence
Styphelia filifolia	P3	-	Х			Х	-	Sandy soils of the coastal plain (with one known occurrence from the northern Darling Scarp), usually in Banksia or Jarrah woodland and in low-lying situations.	No	Low
Stylidium periscelianthum	P3	-	Х			Х	Sep to Nov	Loamy clay, moist soils pockets. Wet flats, low granitic hills.	No	Low
Stylidium aceratum	P3	-	Х			Х	Oct to Nov	Sandy soils. Swamp heathland.	No	Low
Stackhousia sp. Red-blotched corolla	P3	-	Х		Χ		-	No information available	Unknown	Unknown
Schoenus sp. Waroona (G.J. Keighery 12235)	P3	-	Х			Х	Oct to Nov	Clay or sandy clay. Winter-wet flats.	No	Low
Schoenus pennisetis	P3	-	Х		X		Aug to Sep	Grey or peaty sand, sandy clay. Swamps, winterwet depressions.	No	Low
Schoenus capillifolius	P3	-	Х			Х	Oct to Nov	Brown mud. Claypans.	No	Low
Schoenus benthamii	P3	-	Х			Х	Oct to Nov	White, grey sand, sandy clay. Winter-wet flats, swamps.	No	Low
Pithocarpa corymbulosa	P3	-	Х		Х		Jan to Apr	Gravelly or sandy loam. Amongst granite outcrops.	Yes	High
Myriophyllum echinatum	P3	-	Х		Х		Nov	Clay. Winter-wet flats.	No	Low
Meionectes tenuifolia	P3	-	Х		Х		Unknown	No information available	Unknown	Unknown
Lasiopetalum glutinosum subsp. glutinosum	P3	-	Х		Х		Unknown	No information available	Unknown	Unknown
Jacksonia gracillima	P3	-	Х			Х	-	Winter – wet Bassendean sands. Littered, grey, peaty loamy sands	No	Low
Isotropis cuneifolia subsp. Glabra	P3	-	Х			Х	Sep	Sand, clay loam. Winter-wet flats.	No	Low
Isopogon drummondii	P3	-	Х		Х		Feb to Jun	Sandy soils	No	Low
Halgania corymbosa	P3	-	Х		Х		Aug to Nov	Gravelly soils, soils over granite.	Yes	High
Haemodorum Ioratum	P3	-	Х		Х		Nov	Grey or yellow sand, gravel	No	Low
Eryngium sp. Subdecumbens	P3	-	Х			Х	-	No information available	Unknown	Unknown
Eryngium pinnatifidum subsp. Palustre	P3	-	Х			Х	-	No information available	Unknown	Unknown
Comesperma rhadinocarpum	P3	-	Х			Х	Oct to Nov	Sandy soils.	No	Low
Chamaescilla gibsonii	P3	-	Х			Х	Sep	Clay to sandy clay. Winter-wet flats, shallow water- filled claypans	No	Low
Carex tereticaulis	P3	-	Х			Х	Sep to Oct	Black peaty sand	No	Low
Byblis gigantea	P3	-	Х		Х		Sep to Dec or Jan	Sandy-peat swamps. Seasonally wet areas	No	Low
Beaufortia purpurea	P3	-	Х		Х		Oct to Dec/ Jan to Feb	Lateritic or granitic soils. Rocky slopes.	Yes	High
Banksia pteridifolia subsp. vernalis	P3	-	Х		Х		Sep to Oct	White/grey sand over laterite.	No	Low
Banksia kippistiana var. paenepeccata	P3	-	Х		Х		Oct to Nov	Lateritic gravelly soils.	Yes	High
Babingtonia urbana	P3	-	Х		Х		-	Associated with wetlands on the coastal plain	No	Low
Asteridea gracilis	P3	-	Х		Х		Sep to Dec	Sand, clay, gravelly soils.	Yes	High

	Conservation Status Source		Distance to Record (NatureMap)				Habitat occurs	Likelihood of			
Species	DBCA	EPBC	NatureMap	EPBC	0 - 5km	5-10 km	Flowering Period	Prefered Habitat	within the Survey Area	Occurrence	
Species	Conservation Status		Source		Distance to Record (NatureMap)		Flowering Period	Prefered Habitat	Habitat occurs within the Survey	Likelihood of Occurrence	
	DBCA	EPBC	NatureMap	EPBC	0 - 5km	5-10 km			Area		
Allocasuarina grevilleoides	P3	-	Х		Χ		-	- Sand over laterite, gravel.		Low	
Acacia horridula	P3	-	Х		Χ		May to Aug	Gravelly soils over granite, sand. Rocky hillsides.	Yes	Unknown	
Verticordia lindleyi subsp. lindleyi	P4	-	Х		Χ		May or Nov to Dec or Jan	Sand, sandy clay. Winter-wet depressions	No	Low	
Thysanotus glaucus	P4	-	Х			Х	-	Swan coastal plain, white sandy soils	No	Low	
Stylidium striatum	P4	-	Х		Х		Oct to Nov	Brown clay loam over laterite. Hillslopes	Yes	High	
Stylidium longitubum	P4	-	Х			Х	Oct to Dec	Sandy clay, clay. Seasonal wetlands.	No	Low	
Senecio leucoglossus	P4	-	Х		Х		Aug to Dec	Gravelly lateritic or granitic soils. Granite outcrops, slopes.	Yes	High	
Schoenus natans	P4	-	Х			Х	Oct	Winter-wet depressions.	No	Low	
Pimelea rara	P4	-	Х		Х		Dec or Jan	Lateritic soils.	Yes	High	
Ornduffia submersa	P4	-	Х			Х		wetlands	No	Low	
Lasiopetalum bracteatum	P4	-	Х		Χ		Aug to Nov	Sandy clay, clay, lateritic gravel. Along drainage lines, creeks, gullies, granite outcrops.	No	Low	
Hydrocotyle lemnoides	P4	-	Х			Х	Aug to Oct	Swamps	No	Low	
Hibbertia montana	P4	-	Х			Х	-	Loam over granite, lateritic soils, gravel. Granite rocks, lateritic ridges & boulders, hills.	Yes	High	
Grevillea pimeleoides	P4	-	Х			Х	May to Nov	Gravelly soils over granite. Rocky hillsides.	Yes	Medium	
Drosera occidentalis	P4	-	Х		Х		Oct to Dec or Jan.	wetlands	No	Low	
Cyanicula ixioides subsp. ixioides	P4	-	Х		Χ		Aug to Oct	Aug to Oct Laterite, gravel.		High	
Calothamnus graniticus subsp. leptophyllus	P4	-	Х		Χ		Jun to Aug	Jun to Aug Clay over granite, lateritic soils. Hillsides.		High	
Calothamnus accedens	P4	-	Х		Χ		- Sandy soils over laterite. Road verge.		No	Low	
Boronia tenuis	P4	-	Х		Χ		Aug to Nov	Laterite, stony soils, granite.	Yes	High	
Aponogeton hexatepalus	P4	-	Х			Х	Jul to Oct	Mud. Freshwater: ponds, rivers, claypans.	No	Low	
Acacia oncinophylla subsp. patulifolia	P4	-	Х		Χ		Aug to Nov or Nov to Dec	Granitic soils, occasionally on laterite.	Yes	High	



APPENDIX C Flora Inventory



Family	Species					
Asparagaceae	*Asparagus asparagoides					
	Thysanotus sp.					
	*Hypochaeris glabra					
	*Sonchus oleraceus					
Boraginaceae	Echium plantagineum*					
Cactaceae	Opuntia stricta*					
Cyperaceae	Lepidosperma tenue					
Dilleniaceae	Hibbertia hypericoides					
	Hibbertia subvaginata					
F-h	Acacia saligna					
Fabaceae	Hovea pungens					
	*Gladiolus caryocephalus					
Iridaceae	*Romulea rosea					
	*Watsonia ?meriana					
Lauraceae	Cassytha racemosa					
Malvaceae	Lasiopetalum ?floribundum					
	Baekea camphorosmae					
	Callistemon phoeniceus					
	Calothamnus rupestris					
Myrtaceae	Calytrix ?glutinosa					
-	Corymbia calophylla					
	Darwinia citriodora					
	Eucalyptus camaldulensis (planted)					
	Melaleuca radula					



Family	Species
Oxalidaceae	*Oxalis sp.
	*Oxalis glabra
Papaveraceae	*Fumaria capreolata
	Austrostipa elegentissima
Poaceae	Poaceae sp.
	Poaceae sp. 2
	Banksia armata var armata
	Banksia sessilis
Proteaceae	Grevillea bipinnatifida
	Hakea erinacea
	Hakea undulata
Pteridaceae	Cheilanthes austrotenuifolia
Restionaceae	Desmocladus flexuosus
Xanthorrhoeaceae	Xanthorrhoea preissii
Zamiaceae	Macrozamia riedlei



APPENDIX D

Flora Site Sheets

Project Name Orange Grove

Site: OG1 MGA 50H 407947 mE 6454586 mN

Described by: Shenaye Hummerston
Date: Thursday, August 29, 2019
Type: Releve 10 x 10

Type: Releve
Soil Colour: Brown
Soil Type: Clay
Habitat: Upper slope

Vegetation:

Cr: Closed shrubland of Calothamnus rupestris over an open grassland of Poaceae sp



Veg Condition: Good

Fire Age: >10 years Fire Evidence:

Notes

 Rock Type
 Granite
 Rock Cover:
 1-5 %
 Outcropping:
 20-50 %

 Total PFC:
 95 %
 Bareground:
 2 %
 Leaf Litter:
 30 %
 Logs:
 10 %

Disturbance Type:

Name	Cover	Height	Notes		
*Asparagus asparagoides	3	0			
Baekea camphorosmae	0.2	3			
Calothamnus rupestris	90	0.2			
*Gladiolus caryocephalus	0.01	90			
Lepidosperma tenue	0.01	0.01			
Poaceae sp.	20	20			
Thysanotus sp.	0.001	0.001			

Project Name Orange Grove

Site: OG2 MGA 50H 407952 **mE** 6454602 **mN**

Described by: Shenaye Hummerston Date: Thursday, August 29, 2019 Type: Soil Colour: Releve 10 x 10

Black,Brown Soil Type: Clay Habitat: Upper slope

Vegetation:

Open Woodland of Corymbia calophylla over shrubland of Banksia sessilis



Veg Condition: Very Good

Fire Age: > 15 years Fire Evidence:

Notes

Rock Type Total PFC: 1-5 % Outcropping: 20-50 % Granite Rock Cover: 85 % Leaf Litter: 0 % Bareground: 5 % 95 % Logs:

Disturbance Type:

Name	Cover	Height	Notes
Austrostipa elegentissima	2	10	
Banksia sessilis	75	200	
Calothamnus rupestris	10	300	
Corymbia calophylla	75	10	
Poaceae sp.	5	3	
*Watsonia ?meriana	4	20	

Project Name Orange Grove

Site: OG03 MGA 50H 407969 **mE** 6454567 **mN**

Described by: Shenaye Hummerston Date: Thursday, August 29, 2019 Type: Soil Colour: Releve 10 x 10

Brown Soil Type: Clay Habitat: Upper slope

Vegetation:

Cr: Closed shrubland of Calothamnus rupestris over an open grassland of Poaceae sp

Veg Condition: Degraded

Fire Age: Unknown Fire Evidence: -

Notes

Rock Type Total PFC: 1-5 % Outcropping: Rock Cover: 20-50 % Granite

70 % 20 % 10 % Logs: 0 % Bareground: Leaf Litter:

Disturbance Type:

Name	Cover	Height	Notes	
Calothamnus rupestris	40	150		
Calytrix ?glutinosa	30	100		
Hakea erinacea	20	160		
Poaceae sp.	10	5		
*Romulea rosea	0.01	10		

Project Name Orange Grove

Site: OG4 MGA 50H 407983 **mE** 6454513 **mN**

Described by: Shenaye Hummerston Date: Thursday, August 29, 2019 Type: Soil Colour: Releve 10 x 10

Brown Soil Type: Clay Habitat: Upper slope

Vegetation:

Cr: Closed shrubland of Calothamnus rupestris over an open grassland of Poaceae sp

Veg Condition: Degraded

Fire Age: Unknown Fire Evidence: -

Rock Cover: Outcropping: 2-10 % Granite

Notes Rock Type Total PFC: <1 % 95 % 60 % Logs: 0 % Bareground: Leaf Litter:

Disturbance Type:

Name	Cover	Height	Notes
*Asparagus asparagoides	1	С	
Austrostipa elegantissima	0.5	100	
Calothamnus rupestris	80	120	
*Eucalyptus camaldulensis	40	600	
Hakea undulata	2	150	
Melaleuca radula	5	120	
Poacea sp.	30	10	
*Sonchus oleraceus	0.001	4	
*Watsonia ?meriana	25	60	



APPENDIX E

Black Cockatoo Potential Breeding Trees



Latitude	Longitude	Taxa	Circumference (m)	DBH (mm)	Approx Height (m)	Hollows	> 12 cm Diameter	Hollows with Bees	Comments	Tree Photo ID
-32.0419437999999	116.0264118000000	Wandoo (Eucalyptus wandoo)	2.05	652.53	18.00	yes	2	0	Tree likely to be outside of impact area	1
-32.0419768000000	116.0264159000000	Wandoo (Eucalyptus wandoo)	0.95	302.39	12.00	no	-	-		2
-32.0421231449999	116.0265496370000	Wandoo (Eucalyptus wandoo)	1.43	455.18	18.00	no	-	-		3
-32.0422950856000	116.0265623779990	Wandoo (Eucalyptus wandoo)	2.55	811.69	20.00	no	-	-		4
-32.0421772999999	116.0261485999990	Wandoo (Eucalyptus wandoo)	1.25	397.88	10.00	no	-	-		5



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