



Natural Area  
CONSULTING MANAGEMENT SERVICES

## Environmental Impact Assessment (EIA)

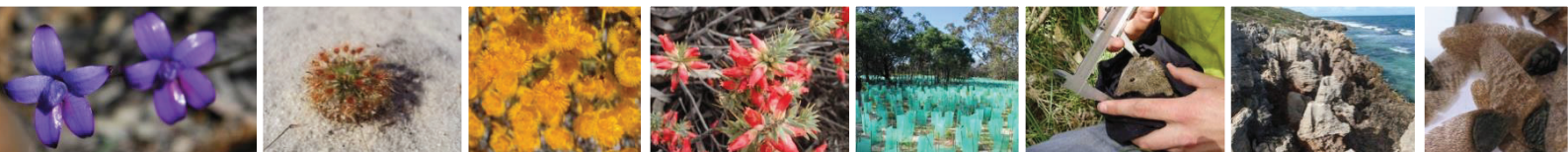
### Estrel Park

Lot: 10842 Vol:LR3144

Native Vegetation Clearing Permit Application Supporting  
Documentation

July 2024

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Ngala kaaditj Noongar moort keyen kaadak nidja boodja.

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<b>Document Title</b>	CoW-R Environmental Impact Assessment					
<b>Location</b>	City of Wanneroo/2024 Quotes/Estrel Park/Clearing Permit/CoW-R Environmental Impact Assessment.docx					
<b>Draft/Version No.</b>	<b>Date</b>	<b>Changes</b>	<b>Prepared by</b>	<b>Approved by</b>	<b>Status</b>	
D1	11/07/2024	Draft	ZS	JW	Superseded	
V1	26/07/2024	Amended	ZS	JW	Superseded	
V2	02/08/2024	Amended	ZS	JW	Superseded	
V3	06/08/2024	Amended	ZS	JW	Superseded	
V4	16/08/2024	Amended	ZS	JW	Released	

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## 1.0 Introduction

The City of Wanneroo (the City) is proposing to formalise 0.38 ha of tracks within Estrel Park for the City of Wanneroo Pony Club. A flora and vegetation assessment was undertaken within Estrel Park to identify the environmental values on site and potential impacts. Estrel Park is located at Lot 159 Benmuni Road, Wanneroo, and is approximately 20 km from the Perth Central Business District. The ownership and zoning of the land impacted by the proposed clearing works are outlined in Table 1.

**Table 1.** Ownership and zoning of the land affected by the proposed clearing works.

<b>Project</b>	Estrel Park
<b>Lot number</b>	10842
<b>Deposited Plan</b>	187739
<b>Reserve Number</b>	40012
<b>Address</b>	159 Benmuni Road, Wanneroo, WA 6056
<b>Land Owner</b>	City of Wanneroo
<b>MRS Zoning</b>	Parks and Recreation
<b>Reserve Purpose</b>	Parks and Recreation

## 2.0 Background

Estrel Park is a Crown Land reserve (Reserve 40012) with the power to lease. The Reserve is currently leased to the Wanneroo Horse and Pony Club (Pony Club) for the purposes of 'Equestrian Use'. The Pony Club is a longstanding community group, with significant public and Council support, having been at the current location for more than 50 years. Historically, all the trails within the reserve were utilized as riding trails by club members.

The Pony Club approached the City to re-establish riding trails throughout their leased area, highlighting all historically used tracks for equestrian use. Unfortunately, this option could not be supported by the City, as fire access and vegetation management may not be adequately maintained by the Pony Club. The City proposes to re-establish some of the riding trails, and to improve the vegetation along tracks marked to be rehabilitated.

## 3.0 Avoidance, Impacts and Mitigations

### 3.1 How impacts have been avoided

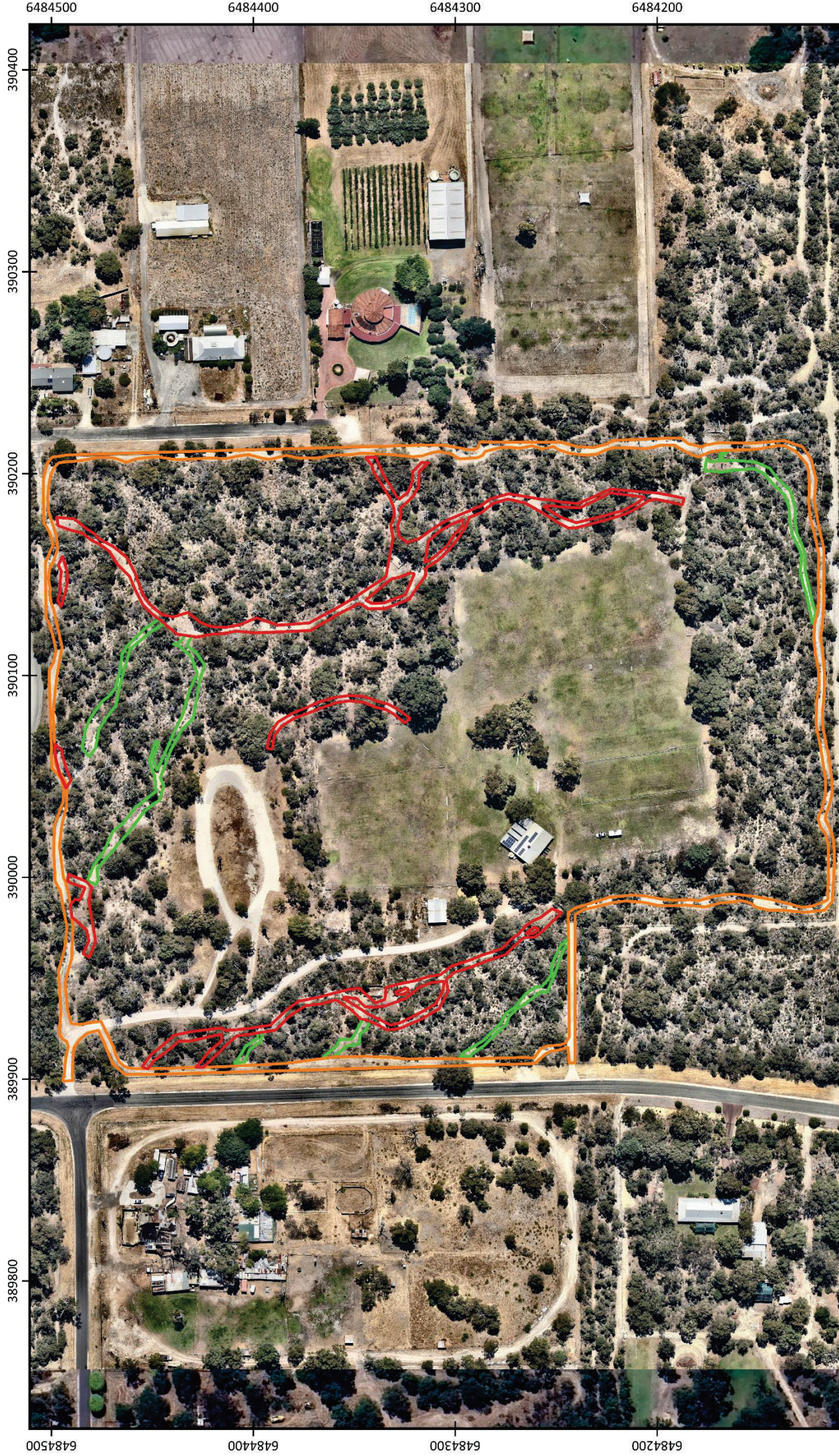
The Pony Club approached the City to re-establish riding trails throughout their leased area, highlighting all historically used tracks for Equestrian Use. This option could not be supported by the City, as fire access and vegetation management may not be adequately maintained by the Pony Club.

A meeting onsite between stakeholders resulted in the currently proposed option (Figure 1) which includes:

- a perimeter fire access track (trafficable by vehicles and not to be obstructed by horse jumps)
- tracks for equestrian use which can include horse jumps or riding trails
- tracks to remain wholly vegetated (promoting revegetation and reducing edge effects).

The project design was selected to minimize the potential impact on native vegetation by selecting areas in degraded or completely degraded vegetation condition, containing evidence of disturbance from previous use. All trees and grass trees (*Xanthorrhoea preissii*) within the proposed clearing envelope will be retained. Only middle and lower story shrubs and herbs are proposed to be removed. To support the continued development of the Pony Club, the tracks are required for equestrian use and will require clearing to provide clearance for horses and their riders. Some trees will be required to be pruned to provide clearance for horses and riders, this will be undertaken by qualified arborist. The clearing plan for Estrel Park is provided in Appendix 1.

The City proposes to improve the vegetation along tracks marked to be rehabilitated. Historic tracks that will not be re-established during the proposed clearing will be rehabilitated to reduce edge effects throughout the bushland and improve the vegetation condition of the tracks.

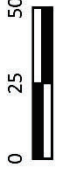


**Figure 1:**  
Proposed Tracks for Clearing and Rehabilitation

**Legend**

- ▭ Proposed Tracks for Clearing (0.38 ha)
- ▭ Proposed Tracks for Rehabilitation (0.16 ha)
- ▭ Fire Access Tracks (0.47 ha)

Client: City of Wanneroo  
 Date: 16/08/2024  
 Created by: Z. Stoney  
 Image Source: Nearmap, 2024  
 Datum: GDA2020 / MGA zone 50  
 Scale: 1: 2500



Lot 159 Benmuni Road, Wanneroo

### 3.2 How impacts have been mitigated

The proposed clearing areas along the tracks have been clearly delineated with flagging tape and pegs to ensure that no additional clearing outside of the track alignments are to be undertaken. All clearing works will consider environmental impact mitigation measures including weed control, dieback hygiene, dust suppression and tree protection during construction activities.

Estrel Park will receive whole of site weed management works to assist in improving the condition of the remnant vegetation through the reduction of weed populations.

In the previous 2 years the City has completed targeted weed management works costing \$82,431, including the following activities:

- Extensive removal of woody weeds – Coast Teatree (*\*Gaudium laevigatum*), *\*Acacia longifolia*, *\*Acacia iteaphylla* and Tagasaste (*\*Chamaecytisus palmensis*). Herbicide treatment of all weeds on the perimeter firebreak and fence lines
- Hand weeding/removal of priority weed species throughout the bushland areas, including – perennial veldt grass (*\*Ehrharta calycina*), African lovegrass (*\*Eragrostis curvula*), fleabane (*\*Erigeron bonariensis*) and Geraldton Carnation (*\*Euphorbia terracina*)

The City has ongoing weed management works targeting key species, as well as annual whole of site weed control. The City's weed program has been developed in collaboration with the Pony Club as the key user of the site. In particular, the Pony Club has expressed concern that herbicides should not be used in bushland areas of Estrel Park, due to potential impacts on horses at the site. Accordingly, the City's management program is based on hand removal in most circumstances, which enables appropriate mitigation while accommodating the Pony Club's preferences.



## 4.0 Scope

The clearing of vegetation to support the development of park and recreation activities for equestrian use including trail riding, show jumping, cross country and endurance. Mechanical clearing is to be undertaken in the demarcated alignments utilising brush cutters and chainsaws. The clearing of the proposed area is to be undertaken over the course of five years, to include any maintenance activities within the proposed alignments. The initial clearing will be undertaken once a valid permit has been received and the proposed clearing and maintenance of the track is to conclude in 2029.

## 5.0 Flora and Vegetation

### 5.1 General Information

#### 5.1.1 Vegetation Complexes

The survey area is located within the Karrakatta Complex- Central and South vegetation complex. This vegetation complex is described by Heddle, Loneragan, and Havel (1980), as having predominantly open forest of *Eucalyptus gomphocephala* (Tuart), *Eucalyptus marginata* (Jarrah), *Corymbia calophylla* (Marri), and woodlands of *Eucalyptus marginata* (Jarrah) and *Banksia* species. The pre-European extent of this vegetation complex remaining is:

- 12.89 % within the Swan Coastal Plain
- 19.85 % remaining within the City of Wanneroo

#### 5.1.2 Potential Conservation Significant Flora

A desktop survey of online databases indicated the potential for a total of 52 conservation significant species to occur within 10 km of the survey area (Table 2). Conservation code descriptions are listed in Appendix 2. NatureMap indicated 30 conservation significant flora species listed under the *Biodiversity Conservation Act 2016* (WA) or by the Western Australian Herbarium (1998-), as potentially occurring within 10 km radius of the site (DBCA, 2024a). A review of the Protected Matters Search Tool (PMST) (DCCEE, 2024) indicated 20 significant flora species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) as potentially occurring within a 10 km radius of the site (Appendix 3).

A review of the DBCA (2024b) threatened and priority flora database indicated 32 threatened or priority species have been recorded within 10 km of the site. Of the conservation significant species potentially found in the area, it was determined that the site conditions (soil type, drainage, location) may be suitable for five (highlighted green) of these species (Table 2).

**Table 2:** Threatened and priority flora species listed by NatureMap, PMST and DBCA

Species Name	Cons Code	NatureMap	PMST	DBCA
<i>Acacia benthamii</i>	P2	X		X
<i>Amanita carneiphylla</i>	P3	X		X
<i>Amanita preissii</i>	P3	X		X
<i>Andersonia gracilis</i>	T / EN		X	
<i>Anigozanthos humilis subsp. chrysanthus</i>	P4	X		X
<i>Anigozanthos viridis subsp. terraspectans</i>	T / VU		X	
<i>Austrostipa mundula</i>	P3	X		X
<i>Baeckea sp. Limestone</i> (N. Gibson & M.N. Lyons 1425)	P1	X		X
<i>Banksia mimica</i>	T / EN		X	
<i>Caladenia huegelii</i>	T / EN	X		X
<i>Caleana dixonii</i>	T / EN			

Species Name	Cons Code	NatureMap	PMST	DBCA
<i>Conostylis bracteata</i>	P3	X		X
<i>Cyathochaeta teretifolia</i>	P3	X		X
<i>Dampiera triloba</i>	P3	X		X
<i>Darwinia carnea</i>	T / EN	X		X
<i>Darwinia foetida</i>	T / CR		X	
<i>Darwinia macrostegia</i>	P4	X		X
<i>Darwinia meeboldii</i>	T / VU	X		X
<i>Darwinia oxylepis</i>	T / EN	X		X
<i>Diuris drummondii</i>	T / VU		X	
<i>Diuris micrantha</i>	T / VU		X	
<i>Diuris purdiei</i>	T / EN		X	
<i>Drakaea elastica</i>	T / EN		X	
<i>Drakaea micrantha</i>	T / VU		X	
<i>Drosera patens</i>	P1	X		X
<i>Drosera x badgerupii</i>	P2			X
<i>Drosera x sidjamesii</i>	P1	X		X
<i>Eleocharis keigheryi</i>	T / VU		X	
<i>Eucalyptus argutifolia</i>	T / VU		X	
<i>Grevillea christineae</i>	T / EN		X	
<i>Grevillea curviloba</i> subsp. <i>curviloba</i>	T / EN		X	
<i>Grevillea curviloba</i> subsp. <i>incurva</i>	T / EN		X	
<i>Jacksonia sericea</i>	P4	X		X
<i>Leucopogon maritimus</i>	P1	X		X
<i>Macarthuria keigheryi</i>	T / EN		X	
<i>Marianthus paralius</i>	T / EN		X	X
<i>Millotia tenuifolia</i> var. <i>laevis</i>	P2	X		X
<i>Pimelea calcicola</i>	P3	X		X
<i>Poranthera moorokatta</i>	P2	X		X
<i>Sarcozona bicarinata</i>	P3	X		X
<i>Stachystemon exilis</i>	P1	X		X
<i>Stylidium paludicola</i>	P3	X		X
<i>Stylidium striatum</i>	P4	X		X

Species Name	Cons Code	NatureMap	PMST	DBCA
<i>Styphelia filifolia</i>	P3	X		X
<i>Synaphea</i> sp. Fairbridge Farm (D.Papenfus 696)	T / CR		X	
<i>Thelymitra dedmaniarum</i>	T / EN		X	
<i>Thelymitra stellata</i>	T / EN		X	
<i>Thelymitra variegata</i>	T	X		X
<i>Thryptomene velutina</i>	P2	X		X
<i>Trithuria occidentalis</i>	T / EN		X	
<i>Utricularia oppositiflora</i>	P3	X		X
<i>Verticordia lindleyi</i> subsp. <i>lindleyi</i>	P4	X		X

### 5.1.3 Potential Threatened and Priority Ecological Communities

A review of the online databases identified 12 listed priority and threatened ecological communities to occur within 10 km of Estrel Park (Table 3) (DBCA, 2024c; DCCEEW, 2024). One threatened and priority ecological community has been previously identified within the survey boundary, the Banksia Woodlands of the Swan Coastal Plain ecological community.

**Table 3:** Potential threatened and priority ecological communities within the 10 km of Estrel Park

Name	State Category	Commonwealth Category
Tuart ( <i>Eucalyptus gomphocephala</i> ) woodlands and forests of the Swan Coastal Plain	Priority 3	Critically Endangered
<i>Banksia attenuata</i> woodlands over species rich dense shrublands (floristic community type 20a as originally described in Gibson et al. (1994))	Endangered	Endangered
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	Endangered
Swan Coastal Plain <i>Banksia attenuata</i> - <i>Banksia menziesii</i> woodlands	Priority 3	Endangered
Low lying <i>Banksia attenuata</i> woodlands or shrublands	Priority 3	Endangered
<i>Banksia ilicifolia</i> woodlands	Priority 3	Endangered
Southern <i>Eucalyptus gomphocephala</i> - <i>Agonis flexuosa</i> woodlands	Priority 3	
Northern Spearwood shrublands and woodlands	Priority 3	
<i>Banksia attenuata</i> woodlands over species rich dense shrublands (floristic community type 20a as originally described in Gibson et al. 1994)	BCA Critically Endangered	Endangered
Banksia Woodlands of the Swan Coastal Plain ecological community	Priority 3	Endangered

Name	State Category	Commonwealth Category
<i>Callitris preissii</i> (or <i>Melaleuca lanceolata</i> ) forests and woodlands of the Swan Coastal Plain (floristic community type 30a as originally described in Gibson et al. 1994)	BCA Critically Endangered	
Coastal shrublands on shallow sands	Priority 3	

## 5.2 Site Assessment and Photographs

A total of 70 flora species were identified within the track alignments, this comprised of 21 (30 %) introduced (weeds) and 49 (70 %) native species. The species identified within the proposed track alignments to be disturbed are listed in Appendix 4. The survey area contained one main vegetation type, *Eucalyptus marginata* over *Banksia attenuata*, and *Banksia menziesii* open woodland. The vegetation condition across the survey area ranged from completely degraded to good.

A total of four *Jacksonia sericea* (Priority 4) individuals were recorded across the proposed clearing area. Within five metres of the proposed clearing, an additional 10 *Jacksonia sericea* were recorded. The survey was conducted in January, outside of the recommended survey season for the Swan Coastal Plain bioregion. This out-of-season survey timing is associated with limitations regarding flora identification as a result of the lack of diagnostic features (i.e. flowers, fruit and seeds) for perennial species and dormancy for annual species. Of the five conservation significant flora identified to potentially occur within the survey area, one is conservation significant orchid species, *Caladenia huegelii*, which would not have had characteristics presenting above ground at the time of the survey. All of the other conservation significant flora are perennial and would have had other characteristics presenting at the time of the survey to be identified to species level. The proposed clearing area contains evidence of disturbance and is within a predominantly degraded to completely degraded condition. It is unlikely that *Caladenia huegelii* is within the proposed clearing area due to this disturbance, however it may be present within the adjacent bushland.

The vegetation type regarded as *Eucalyptus marginata* over *Banksia attenuata*, and *Banksia menziesii* open woodland meets the key diagnostic criteria to be classified as the Banksia Woodlands of the Swan Coastal Plain ecological community (Department of Agriculture, Water and the Environment (DAWE), 2013). The site has previously been identified as a component of the Banksia Woodlands of the Swan Coastal Plain ecological community. The surrounding vegetation extent, continuous with the proposed clearing area meets the key diagnostic criteria, condition and patch size criteria to be classed as part of the ecological community (Table 4; Table 5). The vegetation within the proposed clearing area is a component of the surrounding vegetation. The vegetation on site meets the minimum patch size criteria of 2 ha at good condition. Further detailed surveys and statistical analysis would be required of the surrounding vegetation to determine the floristic community type and extent of the community. The Banksia Woodlands of the Swan Coastal Plain ecological community is classed as endangered. The key threatening processes of this ecological community include land clearance, invasive species, dieback, change in fire regime, hydrological degradation, and climate change.

**Table 4:** Key Diagnostic Characteristics of the Banksia Woodlands of the Swan Coastal Plain ecological community

Key Diagnostic Characteristics	Description	Site Specifics
Location and Physical Environment	Occurs primarily in the Swan Coastal Plain IBRA Bioregion with pockets extending into the adjacent lower parts of the Darling and Whicher escarpments, within the Jarrah Forest IBRA bioregion.	Site occurs in the Swan Coastal Plain Bioregion.
Soils and Landform	Typically occurs on well drained, low nutrient soils on sandplain landforms particularly, Bassendean and Spearwood sands (occasionally Quindalup sands). Common on sandy colluvium and aeolian sands of the Ridge Hill Shelf, Whicher Scarp and Dandaragan Plateau.	Site occurs with the Bassendean System.
Structure	<p>A low woodland forest with specific features including:</p> <ul style="list-style-type: none"> <li>▪ a distinctive upper sclerophyllous layer of low trees, typically dominated or co-dominated by one or more of the Banksia species identified below</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>▪ emergent trees of medium or tall (&gt;10 m) height Eucalyptus or Allocasuarina species may be above the Banksia canopy</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>▪ a highly species-rich understory of various heights</li> </ul> <p>AND,</p> <ul style="list-style-type: none"> <li>▪ a herbaceous ground layer of cord rushes, sedges and perennial and ephemeral forbs, that sometimes includes grasses (ground layer may vary depending on the density of the shrub layer and disturbance history).</li> </ul>	The vegetation type on site is composed of an upper storey structural layer dominated by <i>Banksia menziesii</i> and <i>Banksia attenuata</i> with emergent taller trees including <i>Eucalyptus marginata</i> , with a high diversity understory containing correlating key species listed in the Approved Conservation Advice.
Contra-indicators	Patches clearly dominated by <i>Banksia littoralis</i> or <i>Banksia burdettii</i> are not part of the Banksia Woodlands ecological community. Floristic Community Type (FCT) 20c – Eastern shrublands and	Patch does not meet the contra-indicators.

Key Diagnostic Characteristics	Description	Site Specifics
	woodlands, corresponds with a separate EPBC ecological community listing, Shrublands and Woodlands of the eastern Swan Coastal Plain	

Source: (DAWE, 2016).

**Table 5:** Condition and patch size criteria

Vegetation Condition	Indicative Condition Measure / Threshold	Minimum Patch Size
Pristine	Native plant species diversity fully retained or almost so Zero or almost so weed cover/abundance	No minimum patch size
Excellent	High native plant species diversity Weed cover less than 10 %	0.5 ha
Very Good	Moderate native plant species diversity Weed cover between 5 – 20%	1 ha
Good	Moderate native plant species diversity Weed cover between 5 – 50%	2 ha
Degraded	Very low native plant species diversity Weed cover between 20 – 70%	Not considered as part of the ecological community.
Completely Degraded	Very low to no native species diversity Weed cover greater than 70%	Not considered as part of the ecological community.

Source: (DAWE, 2016).

No trees are to be impacted by the proposed clearing works with only understorey species to be disturbed. The proposed clearing works will be undertaken within the areas that have previously been disturbed. The proposed clearing area is primarily composed of areas assessed to be in a degraded vegetation condition, which have evidence of historic disturbance with natural recruitment and regeneration present.

Overhanging trees in the proposed clearing area are to be pruned by a qualified arborist to ensure health, structure and future growth of the trees are not adversely impacted. Proposed clearing is to be undertaken within the demarked pink flagging tapes (Table 6).




**Table 6:** Reference photographs across the proposed track alignment

ID	Easting	Northing	Reference Image
1	389972	6484268	
2	389949	6484319	
3	389943	6484348	



ID	Easting	Northing	Reference Image
4	389923	6484413	
5	389915	6484421	
6	389998	6484487	

ID	Easting	Northing	Reference Image
7	390051	6484495	
8	390139	6484497	
9	390177	6484498	

ID	Easting	Northing	Reference Image
10	390123	6484429	
11	390188	6484331	
12	390188	6484327	

ID	Easting	Northing	Reference Image
13	390187	6484261	
14	390084	6484333	
15	390084	6484373	

### 5.3 Bush Forever

Estrel Park is located within the Bush Forever Site, Badgerup Lake and Adjacent Woodland (Site No. 327) (Department of Planning, Lands and Heritage (DPLH), 2024). Badgerup Lake and adjacent woodland is a part of the Wanneroo Wetland Eastern Chain. The Bush Forever site meets the section criteria of representation

of ecological communities, rarity, and general criteria for the protection of wetland, streamline and estuarine fringing and coastal vegetation.

#### **5.4 Environmentally Sensitive Areas (ESA) and Ecological Linkages**

Estrel Park is within an Environmentally Sensitive Area (ESA) and a mapped ecological linkage. The ESA within Estrel Park has been identified as containing bush forever site no. 327, further described in section 5.3.

Ecological linkages provide connectivity between patches of remnant vegetation facilitating the maintenance of ecological processes and the movement of organism within and across a landscape. Perth Regional Ecological Linkages were identified by the Perth Biodiversity Project with input from the Department of Environment, CALM and the Department for Planning and Infrastructure (Western Australian Local Government Association (WALGA), 2004). Perth Regional Ecological Linkage No. 19 intersects with Estrel Park, this ecological linkage links the bush forever site 199, 463, 327, 471, and 324.

## 6.0 Fauna

### 6.1 General Information

A desktop survey of online databases indicated the potential for a total of 63 conservation significant fauna species to occur within 10km of the survey area (Table 7). NatureMap indicated 39 conservation significant species listed under the *Biodiversity Conservation Act 2016* (WA) as potentially occurring within a 10km radius of the site (DBCA, 2024a). The Protected Matters Search Tool (PMST) indicated 32 threatened species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) as potentially occurring within a 10km radius of the site (DCCEEW, 2024) (Appendix 3). A review of the DBCA threatened and priority fauna species database indicated the potential for 37 conservation significant fauna species to occur within a 10km radius of the site (DBCA, 2024d).

Both abiotic (soil, climate) as well as biotic (food resources, predator pressure) will determine the suitability of habitats for specific fauna assemblages, based on their ecological requirements. Evaluating the site locality, existing conditions and known home ranges. Natural Area determined that the following six species (highlighted green in Table 7) have the potential to be present within the survey site.

**Table 7:** Threatened and Priority fauna species listed by NatureMap, PMST and DBCA

Species Name	Lifeform	Cons Code	NatureMap	PMST	DBCA
<i>Anous tenuirostris melanops</i>	Bird	T / VU		X	
<i>Apus pacificus</i>	Bird	MI	X		X
<i>Ardenna grisea</i>	Bird	T / VU		X	
<i>Bettongia penicillata ogilbyi</i>	Mammal	T / EN		X	
<i>Botaurus poiciloptilus</i>	Bird	T / EN	X	X	X
<i>Calidris acuminata</i>	Bird	T / VU		X	
<i>Calidris canutus</i>	Bird	T / VU		X	
<i>Calidris ferruginea</i>	Bird	T / CR	X	X	
<i>Calidris ruficollis</i>	Bird	MI	X		X
<i>Calyptorhynchus banksii naso</i>	Bird	T / VU	X	X	X
<i>Calyptorhynchus baudinii</i>	Bird	T / EN	X		X
<i>Calyptorhynchus latirostris</i>	Bird	T / EN	X	X	X
<i>Charadrius leschenaultii</i>	Bird	T / VU	X	X	X
<i>Caretta caretta</i>					X
<i>Chelonia mydas</i>					X
<i>Dasyurus geoffroii</i>	Mammal	T / VU	X	X	X
<i>Diomedea amsterdamensis</i>	Bird	T / EN		X	

Species Name	Lifeform	Cons Code	NatureMap	PMST	DBCA
<i>Diomedea epomophora</i>	Bird	T / VU		X	
<i>Diomedea exulans</i>	Bird	T / VU		X	
<i>Falco peregrinus</i>	Bird	OS	X		X
<i>Glareola maldivarum</i>	Bird	MI	X		X
<i>Hesperocolletes douglasi</i>	Insect	T / CR		X	
<i>Hydromys chrysogaster</i>	Mammal	P4	X		X
<i>Hylaeus globuliferus</i>	Invertebrate	P3	X		X
<i>Idiosoma sigillatum</i>	Invertebrate	T / EN	X		X
<i>Isoodon fusciventer</i>	Mammal	P4	X		X
<i>Ixobrychus dubius</i>	Bird	P4	X		X
<i>Ixobrychus flavicollis australis</i>	Bird	P2	X		X
<i>Leioproctus contrarius</i>	Invertebrate	P3	X		
<i>Leipoa ocellata</i>	Bird	T / VU		X	
<i>Limosa lapponica</i>	Bird	MI	X		X
<i>Limosa lapponica menzbieri</i>	Bird	T / EN		X	
<i>Limosa limosa</i>	Bird	MI	X		X
<i>Macroderma gigas</i>	Mammal	T / VU		X	
<i>Macronectes giganteus</i>	Bird	MI	X	X	X
<i>Macronectes halli</i>	Bird	T / VU		X	
<i>Myrmecobius fasciatus</i>	Mammal	T / EN	X		X
<i>Neelaps calonotos</i>	Reptile	P3	X		X
<i>Notamacropus irma</i>	Mammal	P4	X		X
<i>Numenius madagascariensis</i>	Bird	T / CR		X	
<i>Oxyura australis</i>	Bird	P4	X		X
<i>Pachyptila turtur subantarctica</i>	Bird	T / VU		X	
<i>Phaethon rubricauda westralis</i>	Bird	T / EN		X	
<i>Phascogale tapoatafa wambenger</i>	Mammal	CD	X		X
<i>Plegadis falcinellus</i>	Bird	MI	X		X
<i>Pluvialis squatarola</i>	Bird	MI	X		X
<i>Procellaria aequinoctialis</i>	Bird	T / VU	X		X
<i>Pseudocheirus occidentalis</i>	Mammal	T / CR	X	X	X
<i>Pseudomys shortridgei</i>	Mammal	T / VU	X		

Species Name	Lifeform	Cons Code	NatureMap	PMST	DBCA
<i>Rostratula australis</i>	Bird	T / EN		X	
<i>Sternula nereis nereis</i>	Bird	T / VU	X	X	X
<i>Synemon gratiosa</i>	Invertebrate	P4	X		X
<i>Thalassarche carteri</i>	Bird	T / VU		X	
<i>Thalassarche cauta</i>	Bird	T / EN		X	
<i>Thalassarche chrysostoma</i>	Bird	T / VU	X		
<i>Thalassarche impavida</i>	Bird	T / VU		X	
<i>Thalassarche melanophris</i>	Bird	T / VU		X	
<i>Thalassarche steadi</i>	Bird	T / VU		X	
<i>Thalasseus bergii</i>	Bird	MI	X		X
<i>Tringa glareola</i>	Bird	MI	X		X
<i>Tringa nebularia</i>	Bird	MI	X	X	X
<i>Tringa stagnatilis</i>	Bird	MI	X		X
<i>Tyto novaehollandiae novaehollandiae</i>	Bird	P3	X		X



## 7.0 Clearing Principles

An assessment of the proposed clearing of the track alignments against the ten native vegetation clearing principles suggests that this action is not likely to be at variance with four principles. The clearing may be at variance with six principles (A, B, C, D, E, and H). Assessment of all clearing principles are provided in Table 8.

**Table 8:** Assessment of the Estrel Parks project works against the 10 native vegetation clearing principles and assessment

Clearing Principle	Proposed Project Impacts
A Native vegetation should not be cleared if it comprises a high level of biological diversity.	<p>The proposed area may be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ A total of 70 flora species were identified within the track alignments, this comprised of 21 (30 %) introduced (weeds) and 49 (70 %) native species.</li> <li>▪ Priority 4 conservation significant flora <i>Jacksonia sericea</i> was recorded within the proposed area.</li> <li>▪ The proposed clearing area will be undertaken in the good to completely degraded condition of the <i>Eucalyptus marginata</i> over <i>Banksia attenuata</i>, and <i>Banksia menziesii</i> open woodland.</li> </ul> <p>The vegetation condition within the proposed clearing area is predominately degraded with evidence of historic clearing.</p>
B Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	<p>The proposed area may be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ Limited suitable habitat was identified within the track alignments. The vegetation adjacent to the track alignments provide suitable habitat for native fauna species, providing adequate areas for refuge.</li> </ul> <p>The proposed clearing will not directly impact any significant trees.</p>
C Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	<p>The proposed area may be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ Priority 4 conservation significant flora <i>Jacksonia sericea</i> was recorded within the track alignments.</li> <li>▪ Of the five conservation significant species to potentially occur within the proposed clearing area, one is a orchid species which would not have had above ground features present at the time of the flora survey. Due to the high disturbance within the proposed clearing area it more likely to be recorded in the adjacent remnant bushland.</li> </ul> <p>No threatened flora species were recorded within the track alignments.</p>
D Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a	<p>The proposed clearing area may be at variance with this principle:</p> <p>The vegetation within the track alignments is a component of the surrounding vegetation. The threatened ecological community, Banksia Woodland of the Swan Coastal Plain has previously been identified and recorded within the site (DBCA, 2024c). The vegetation on site meets</p>

Clearing Principle	Proposed Project Impacts
threatened ecological community.	the minimum patch size criteria of 2 ha at good condition. The vegetation across the site meets the key diagnostic criteria, and the condition and patch size to be a component of the of the Banksia Woodlands of the Swan Coastal Plain ecological community. Discussed further in Section 5.2.
E Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	<p>The proposed clearing area may be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ The survey area is located within Karrakatta Complex- Central and South. Within the Swan Coastal Plain, there is 12.89 % of the Karrakatta Complex- Central and South remaining and 19.85 % remaining within the City of Wanneroo.</li> </ul> <p>The clearing development footprint intersects with areas regarded as native vegetation extent (DPIRD-005). The native vegetation extent dataset includes areas of remnant vegetation mapped out across Western Australia.</p>
F Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	<p>The proposed area is unlikely to be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ No watercourses or wetlands were identified directly within the survey area.</li> <li>▪ There are no RAMSAR or geomorphic wetlands within the proposed clearing area.</li> <li>▪ No RAMSAR wetlands are recorded within a 10 km radius of the site, with the nearest RAMSAR wetland, Forresdale and Thomsons Lake, recorded over 40 km away from the proposed clearing area.</li> <li>▪ The nearest geomorphic wetlands, UFI 8108 and UFI 8165 are respectively 250 m and 350 m away from the proposed clearing. UFI 8108 is as multiple use wetland and is primarily located within the cleared paddocks in privately owned freehold. UFI 8165 is a conservation category wetland, with the common name Badgerup Lake.</li> <li>▪ Due to the minimal proposed clearing area and the distance to the nearest geomorphic wetlands there is unlikely to be any impacts by the proposed clearing.</li> </ul>
G Native Vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	<p>The proposed area is unlikely to be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ The proposed clearing area contains and is adjacent to native vegetation extents.</li> <li>▪ The track alignments are predominately degraded, proposed clearing is unlikely to cause appreciable land degradation. The clearing of vegetation in good or better condition are more likely to cause appreciable land degradation.</li> <li>▪ Proposed clearing area is associated with the Spearwood System (211sp) (DPIRD -064). It is characterised by sand dunes</li> </ul>

Clearing Principle	Proposed Project Impacts
	<p>and plains with deep yellow/pale sands and yellow/brown shallow sands.</p> <ul style="list-style-type: none"> <li>▪ Soil type within proposed clearing extent consist of Karrakatta Sand Yellow Phase (211sp_Ky) (DPIRD-027). It consists of low gentle undulating terrain represented by <i>Banksia</i> spp. woodland with scattered emergent <i>Eucalyptus gomphocephala</i>, <i>Eucalyptus marginata</i> and a dense shrub layer.</li> <li>▪ Salinity risk for the proposed clearing has been identified as L1, with less than 3 % of the map unit with a moderate to high salinity risk or is presently saline (DPIRD-009).</li> <li>▪ Wind erosion risk for the site has been identified as H2, with greater than 70 % of the map unit as containing a high to extreme risk of wind erosion (DPIRD-016).</li> <li>▪ Subsurface acidification risk has been identified as H2 with greater than 70 % of the map unit with a high subsurface acidification risk or is presently acid (DPIRD-011).</li> <li>▪ Microbial purification across the proposed clearing are has been identified as H2, with greater than 70 % of the map unit with a low to very low rating (DPIRD-045).</li> <li>▪ Land Instability Risk across the proposed clearing area has been identified as L1, with less than 3 % of the map unit with a moderate to high hazard (DPIRD-042).</li> <li>▪ No acid sulfate soil risk has been identified within the proposed clearing area (DWER-055).</li> </ul> <p>The proposed clearing is minimal and will be along an existing track with historic disturbance, and unlikely to result in appreciable land degradation.</p>
<p>H Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.</p>	<p>The proposed area may be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ The proposed clearing will have direct impact on the environmental values nearby, particularly the Banksia Woodlands of the Swan Coastal Plain ecological community.</li> <li>▪ The proposed clearing area is within an ESA, containing a Bush Forever site (Site No. 327). This is further described in Section 5.3.</li> <li>▪ The proposed clearing area is within the conservation bushland reserve Estrel Park and is adjacent to two conservation bushland reserves, Badgerup Reserve to the south and Nanovich Park in the north.</li> </ul> <p>The clearing will not be impacting the vegetation in very good to excellent condition which was observed in the vegetation outside of the proposed clearing area.</p>

Clearing Principle	Proposed Project Impacts
<p>I Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.</p>	<p>The proposed area is unlikely to variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ The removal of the vegetation within the survey area is unlikely to contribute to an increased infiltration and surface water run-off due to the extent of the proposed clearing area.</li> <li>▪ No watercourses or wetlands were identified directly within the survey area.</li> <li>▪ Salinity risk for the proposed clearing has been identified as L1, with less than 3 % of the map unit with a moderate to high salinity risk or is presently saline (DPIRD-009).</li> </ul> <p>The extent of clearing is unlikely to result in sedimentation, increased nutrient levels, alterations to salinity of surface or groundwater-dependent ecosystems.</p>
<p>J Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.</p>	<p>The proposed area is unlikely to be at variance with this principle:</p> <ul style="list-style-type: none"> <li>▪ No established trees will be impacted during the clearing, reducing the potential for an increase in water run-off as a result of the loss of large, established trees during clearing</li> <li>▪ The flood risk within the proposed clearing areas has been identified as L1, with less than 3% of the map unit containing a moderate to high flood risk (DPIRD-007).</li> </ul>

## 8.0 References

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## **Appendix 1: Proposed Clearing Plan**



WANNEROO HORSE AND PONY CLUB  
TRACKS TO BE CLOSED (RE-VEGETATION)

TOTAL AREA = 1578.4 m<sup>2</sup>

AREA = 317.5 m<sup>2</sup>

AREA = 559.9 m<sup>2</sup>

AREA = 51.7 m<sup>2</sup>

AREA = 98.9 m<sup>2</sup>

WANNEROO HORSE AND PONY CLUB

AREA = 197.2 m<sup>2</sup>

AREA = 353.2 m<sup>2</sup>

BENMUNI ROAD

NICHOLAS ROAD

CRISKER ROAD

BENMUNI ROAD

ESTREL ROAD



## Appendix 2: Conservation Codes

### Western Australia

Conservation Code	Name	Description
T	Threatened	Flora or fauna that is rare or likely to become extinct, ranked according to their level of threat using IUCN Red List criteria (Schedules 1-3 of the Wildlife Conservation (Specially Protected Fauna) Notice or the Wildlife Conservation (Rare Flora) Notice)
CR	Critically endangered	Species considered to be facing an extremely high risk of extinction within the wild in the immediate future
EN	Endangered	Species considered to be facing a very high risk of extinction in the wild in the near future
VU	Vulnerable	Species considered to be facing a high risk of extinction in the wild in the medium-term future
EX	Extinct Species	Species where 'there is no reasonable doubt that the last member of the species has died (Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice or the Wildlife Conservation (Rare Flora) Notice)
EW	Extinct in the Wild	Species that are known to only survive in cultivation, in captivity, or as a naturalised population well outside its past range; and it has not been recorded in its known or expected habitat at appropriate seasons anywhere in its past range, despite surveys over a timeframe appropriate to its life cycle and form
MI	Migratory Species	Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth (Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice)
CD	Conservation Dependent	Species of special conservation interest (conservation dependent fauna), being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened (Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice)
OS	Specially Protected	Fauna otherwise in need of special protection to ensure their conservation (Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice)
P	Priority Species	Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or

Conservation Code	Name	Description
		flora. Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.
P1	Priority One	Poorly known species – Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either very small or on lands not managed for conservation, such as road verges, urban areas, farmland, active mineral lease and under threat of habitat destruction or degradation.
P2	Priority Two	Poorly known species – Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, such as national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves and similar.
P3	Priority Three	Poorly known species – Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat
P4	Priority Four	Rare or near threatened and other species in need of monitoring.

(Source: DBCA, 2023)

**Commonwealth**

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

## **Appendix 3: PMST Report 10 km**



# EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 11-Jul-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment Significance

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

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	4
<a href="#">Listed Threatened Species:</a>	68
<a href="#">Listed Migratory Species:</a>	49

## 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 <https://www.dcceew.gov.au/parks-heritage/heritage>

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

<a href="#">Commonwealth Lands:</a>	66
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	73
<a href="#">Whales and Other Cetaceans:</a>	12
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

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

<a href="#">State and Territory Reserves:</a>	11
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Nationally Important Wetlands:</a>	1
<a href="#">EPBC Act Referrals:</a>	62
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	9
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# Details

## Matters of National Environmental Significance

### Listed Threatened Ecological Communities

[ [Resource Information](#) ]

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

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Banksia Woodlands of the Swan Coastal Plain ecological community</a>	Endangered	Community likely to occur within area	In feature area
<a href="#">Empodisma peatlands of southwestern Australia</a>	Endangered	Community may occur within area	In feature area
<a href="#">Honeymyrtle shrubland on limestone ridges of the Swan Coastal Plain Bioregion</a>	Critically Endangered	Community likely to occur within area	In buffer area only
<a href="#">Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community</a>	Critically Endangered	Community likely to occur within area	In feature area

### Listed Threatened Species

[ [Resource Information](#) ]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>BIRD</b>			
<a href="#">Anous tenuirostris melanops</a> Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Ardenna grisea</a> Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Calyptorhynchus banksii naso</a> Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Diomedea amsterdamensis</a> Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Leipoa ocellata</a> Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Limosa lapponica menzbieri</a> Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pachyptila turtur subantarctica</a> Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Phaethon rubricauda westralis</a> Red-tailed Tropicbird (Indian Ocean), Indian Ocean Red-tailed Tropicbird [91824]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Zanda latirostris listed as Calyptorhynchus latirostris</a>			
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding known to occur within area	In feature area
<b>FISH</b>			
<a href="#">Galaxiella nigrostriata</a>			
Blackstriped Dwarf Galaxias, Black-stripe Minnow [88677]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Thunnus maccoyii</a>			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat known to occur within area	In buffer area only
<b>INSECT</b>			
<a href="#">Hesperocolletes douglasi</a>			
Douglas' Broad-headed Bee, Rottnest Bee [66734]	Critically Endangered	Species or species habitat may occur within area	In feature area
<b>MAMMAL</b>			
<a href="#">Balaenoptera musculus</a>			
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Bettongia penicillata ogilbyi</a>			
Woylie [66844]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Dasyurus geoffroii</a>			
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Eubalaena australis</a>			
Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
<a href="#">Macroderma gigas</a>			
Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Neophoca cinerea</a>			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Pseudocheirus occidentalis</a>			
Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only

**PLANT**

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Andersonia gracilis</a> Slender Andersonia [14470]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Anigozanthos viridis subsp. terraspectans</a> Dwarf Green Kangaroo Paw [3435]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Banksia mimica</a> Summer Honeypot [82765]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Caladenia huegelii</a> King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Caleana dixonii listed as Paracaleana dixonii</a> Sandplain Duck Orchid [87944]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Darwinia foetida</a> Muccha Bell [83190]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Diuris drummondii</a> Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diuris micrantha</a> Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Diuris purdiei</a> Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Drakaea elastica</a> Glossy-leafed Hammer Orchid, Glossy-leafed Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Drakaea micrantha</a> Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Eleocharis keigheryi</a> Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Eucalyptus argutifolia</a> Yanchep Mallee, Wabling Hill Mallee [24263]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Grevillea christineae</a> Christine's Grevillea [64520]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Grevillea curviloba subsp. curviloba</a> Curved-leaf Grevillea [64908]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Grevillea curviloba subsp. incurva</a> Narrow curved-leaf Grevillea [64909]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Macarthuria keigheryi</a> Keighery's Macarthuria [64930]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Marianthus paralius</a> [83925]	Endangered	Species or species habitat known to occur within area	In buffer area only
<a href="#">Synaphea sp. Fairbridge Farm (D.Papenfus 696)</a> Selena's Synaphea [82881]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Thelymitra dedmaniarum</a> Cinnamon Sun Orchid [65105]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Thelymitra stellata</a> Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Trithuria occidentalis</a> Swan Hydatella [42224]	Endangered	Species or species habitat likely to occur within area	In buffer area only

## REPTILE

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding likely to occur within area	In buffer area only
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding likely to occur within area	In buffer area only

## SHARK

<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Sphyrna lewini</a> Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

## Listed Migratory Species

[ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>Migratory Marine Birds</b>			
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Ardenna carneipes</a> Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Ardenna grisea</a> Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea amsterdamensis</a> Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Hydroprogne caspia</a> Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Onychoprion anaethetus</a> Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Sterna dougallii</a> Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Sternula albifrons</a> Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<b>Migratory Marine Species</b>			
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Caperea marginata</a> Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding likely to occur within area	In buffer area only
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Eubalaena australis as Balaena glacialis australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
<a href="#">Lamna nasus</a> Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In buffer area only
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Mobula alfredi as Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
<a href="#">Mobula birostris as Manta birostris</a> Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding likely to occur within area	In buffer area only
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only

## Migratory Terrestrial Species

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
<b>Migratory Wetlands Species</b>			
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Calidris subminuta</a> Long-toed Stint [861]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area	In feature area
<a href="#">Tringa glareola</a> Wood Sandpiper [829]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area

## Other Matters Protected by the EPBC Act

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

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

Commonwealth Land Name	State	Buffer Status
<b>Unknown</b>		
Commonwealth Land - [50713]	WA	In buffer area only
Commonwealth Land - [50694]	WA	In buffer area only
Commonwealth Land - [50698]	WA	In buffer area only
Commonwealth Land - [50705]	WA	In buffer area only
Commonwealth Land - [50696]	WA	In buffer area only
Commonwealth Land - [50691]	WA	In buffer area only
Commonwealth Land - [50560]	WA	In buffer area only
Commonwealth Land - [50561]	WA	In buffer area only
Commonwealth Land - [50562]	WA	In buffer area only
Commonwealth Land - [50563]	WA	In buffer area only
Commonwealth Land - [50697]	WA	In buffer area only
Commonwealth Land - [50692]	WA	In buffer area only
Commonwealth Land - [50508]	WA	In buffer area only
Commonwealth Land - [51129]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [50271]	WA	In buffer area only
Commonwealth Land - [50674]	WA	In buffer area only
Commonwealth Land - [50675]	WA	In buffer area only
Commonwealth Land - [50747]	WA	In buffer area only
Commonwealth Land - [50704]	WA	In buffer area only
Commonwealth Land - [50720]	WA	In buffer area only
Commonwealth Land - [50585]	WA	In buffer area only
Commonwealth Land - [50584]	WA	In buffer area only
Commonwealth Land - [50583]	WA	In buffer area only
Commonwealth Land - [50582]	WA	In buffer area only
Commonwealth Land - [50748]	WA	In buffer area only
Commonwealth Land - [50701]	WA	In buffer area only
Commonwealth Land - [50805]	WA	In buffer area only
Commonwealth Land - [50699]	WA	In buffer area only
Commonwealth Land - [50588]	WA	In buffer area only
Commonwealth Land - [50630]	WA	In buffer area only
Commonwealth Land - [50717]	WA	In buffer area only
Commonwealth Land - [50574]	WA	In buffer area only
Commonwealth Land - [50576]	WA	In buffer area only
Commonwealth Land - [50586]	WA	In buffer area only
Commonwealth Land - [50587]	WA	In buffer area only
Commonwealth Land - [50706]	WA	In buffer area only
Commonwealth Land - [50680]	WA	In buffer area only
Commonwealth Land - [50553]	WA	In buffer area only
Commonwealth Land - [50715]	WA	In buffer area only
Commonwealth Land - [50575]	WA	In buffer area only
Commonwealth Land - [50714]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [50625]	WA	In buffer area only
Commonwealth Land - [51118]	WA	In buffer area only
Commonwealth Land - [51154]	WA	In buffer area only
Commonwealth Land - [50606]	WA	In buffer area only
Commonwealth Land - [51130]	WA	In buffer area only
Commonwealth Land - [51120]	WA	In buffer area only
Commonwealth Land - [51132]	WA	In buffer area only
Commonwealth Land - [50682]	WA	In buffer area only
Commonwealth Land - [50594]	WA	In buffer area only
Commonwealth Land - [50702]	WA	In buffer area only
Commonwealth Land - [50689]	WA	In buffer area only
Commonwealth Land - [50703]	WA	In buffer area only
Commonwealth Land - [50312]	WA	In buffer area only
Commonwealth Land - [50700]	WA	In buffer area only
Commonwealth Land - [50598]	WA	In buffer area only
Commonwealth Land - [50592]	WA	In buffer area only
Commonwealth Land - [50593]	WA	In buffer area only
Commonwealth Land - [50667]	WA	In buffer area only
Commonwealth Land - [50716]	WA	In buffer area only
Commonwealth Land - [50719]	WA	In buffer area only
Commonwealth Land - [50626]	WA	In buffer area only
Commonwealth Land - [50668]	WA	In buffer area only
Commonwealth Land - [50711]	WA	In buffer area only
Commonwealth Land - [50801]	WA	In buffer area only
Commonwealth Land - [50559]	WA	In buffer area only

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

Scientific Name	Threatened Category	Presence Text	Buffer Status
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Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>Bird</b>			
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
<a href="#">Anous tenuirostris melanops</a> Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Ardenna carneipes as Puffinus carneipes</a> Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Ardenna grisea as Puffinus griseus</a> Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Bubulcus ibis as Ardea ibis</a> Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Species or species habitat known to occur within area overfly marine area	In buffer area only
<a href="#">Calidris subminuta</a> Long-toed Stint [861]		Species or species habitat known to occur within area overfly marine area	In buffer area only
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Charadrius ruficapillus</a> Red-capped Plover [881]		Species or species habitat known to occur within area overfly marine area	In buffer area only
<a href="#">Diomedea amsterdamensis</a> Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
<a href="#">Himantopus himantopus</a> Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Hydroprogne caspia as Sterna caspia</a> Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
<a href="#">Larus pacificus</a> Pacific Gull [811]		Foraging, feeding or related behaviour may occur within area	In buffer area only
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Onychoprion anaethetus as Sterna anaethetus</a> Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Pachyptila turtur</a> Fairy Prion [1066]		Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area	In feature area
<a href="#">Puffinus assimilis</a> Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
<a href="#">Recurvirostra novaehollandiae</a> Red-necked Avocet [871]		Species or species habitat known to occur within area overfly marine area	In buffer area only
<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Sterna dougallii</a> Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<a href="#">Sternula albifrons as Sterna albifrons</a> Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Thinornis cucullatus as Thinornis rubricollis</a> Hooded Plover, Hooded Dotterel [87735]		Species or species habitat may occur within area overfly marine area	In buffer area only
<a href="#">Tringa glareola</a> Wood Sandpiper [829]		Species or species habitat known to occur within area overfly marine area	In buffer area only
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
<b>Fish</b>			
<a href="#">Acentronura australe</a> Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area	In buffer area only
<a href="#">Campichthys galei</a> Gale's Pipefish [66191]		Species or species habitat may occur within area	In buffer area only
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area	In buffer area only
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		Species or species habitat may occur within area	In buffer area only
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area	In buffer area only
<a href="#">Hippocampus breviceps</a> Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In buffer area only



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Hippocampus subelongatus</a> West Australian Seahorse [66722]		Species or species habitat may occur within area	In buffer area only
<a href="#">Lissocampus fatiloquus</a> Prophet's Pipefish [66250]		Species or species habitat may occur within area	In buffer area only
<a href="#">Maroubra perserrata</a> Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only
<a href="#">Mitotichthys meraculus</a> Western Crested Pipefish [66259]		Species or species habitat may occur within area	In buffer area only
<a href="#">Nannocampus subosseus</a> Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area	In buffer area only
<a href="#">Phycodurus eques</a> Leafy Seadragon [66267]		Species or species habitat may occur within area	In buffer area only
<a href="#">Phyllopteryx taeniolatus</a> Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In buffer area only
<a href="#">Pugnaso curtirostris</a> Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In buffer area only
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
<a href="#">Stigmatopora argus</a> Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In buffer area only
<a href="#">Stigmatopora nigra</a> Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area	In buffer area only
<a href="#">Urocampus carinirostris</a> Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only
<a href="#">Vanacampus margaritifer</a> Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
<b>Mammal</b>			
<a href="#">Arctocephalus forsteri</a> Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In buffer area only
<a href="#">Neophoca cinerea</a> Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<b>Reptile</b>			
<a href="#">Aipysurus pooleorum</a> Shark Bay Sea Snake [66061]		Species or species habitat may occur within area	In buffer area only
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding likely to occur within area	In buffer area only
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
<a href="#">Hydrophis kingii as Disteira kingii</a> Spectacled Sea Snake [93511]		Species or species habitat may occur within area	In buffer area only
<a href="#">Hydrophis platura as Pelamis platurus</a> Yellow-bellied Sea Snake [93746]		Species or species habitat may occur within area	In buffer area only
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding likely to occur within area	In buffer area only

## Whales and Other Cetaceans

[ Resource Information ]

Current Scientific Name	Status	Type of Presence	Buffer Status
<b>Mammal</b>			
<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area	In buffer area only
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Caperea marginata</a> Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

## Extra Information

State and Territory Reserves			[ <a href="#">Resource Information</a> ]
Protected Area Name	Reserve Type	State	Buffer Status
Errina Road	Nature Reserve	WA	In buffer area only
Jandabup	Nature Reserve	WA	In buffer area only
Lake Joondalup	Nature Reserve	WA	In buffer area only
Marmion	Marine Park	WA	In buffer area only
Neerabup	National Park	WA	In buffer area only
Unnamed WA21176	5(1)(h) Reserve	WA	In buffer area only
Unnamed WA43290	Conservation Park	WA	In buffer area only
Unnamed WA46756	Conservation Park	WA	In buffer area only
Unnamed WA46926	5(1)(h) Reserve	WA	In buffer area only
Unnamed WA50514	5(1)(h) Reserve	WA	In buffer area only
Woodvale	5(1)(h) Reserve	WA	In buffer area only

Nationally Important Wetlands		[ <a href="#">Resource Information</a> ]
Wetland Name	State	Buffer Status
<a href="#">Joondalup Lake</a>	WA	In buffer area only

EPBC Act Referrals				[ <a href="#">Resource Information</a> ]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<a href="#">Alkimos Seawater Desalination</a>	2019/8453		Completed	In buffer area only
<a href="#">Land Development, James Street and Well Street, East Wanneroo, Elberton Property</a>	2021/9106		Assessment	In buffer area only
<a href="#">Mariginiup Residential Development</a>	2023/09675		Assessment	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<a href="#">Northern Terminal to Neerabup Terminal 330kV Transmission Line</a>	2024/09799		Assessment	In buffer area only
<a href="#">Residential Subdivision development</a>	2011/6040		Post-Approval	In buffer area only
<b>Controlled action</b>				
<a href="#">East Landsdale Residential Development</a>	2008/4676	Controlled Action	Post-Approval	In buffer area only
<a href="#">East Wanneroo Cell 9 residential subdivision - Lots 50,51,52,154 &amp; 404</a>	2010/5772	Controlled Action	Completed	In buffer area only
<a href="#">Erindale Road Development, Hamersley, WA</a>	2018/8324	Controlled Action	Further Information Request	In buffer area only
<a href="#">Lot 1665 Wanneroo Road, Sinagra.</a>	2017/7921	Controlled Action	Post-Approval	In buffer area only
<a href="#">Lot 9000 Wanneroo Road Sinagra Mixed Use Development, Western Australia</a>	2020/8798	Controlled Action	Proposed Decision	In buffer area only
<a href="#">Meridian Business Park Industrial Development</a>	2007/3479	Controlled Action	Post-Approval	In buffer area only
<a href="#">Mitchell Freeway Extension between Burns Beach Rd and Hester Av, Neerabup, WA</a>	2013/7091	Controlled Action	Post-Approval	In buffer area only
<a href="#">Mitchell Freeway Principal Shared Path Gaps Project Ocean Reef Road to Hepburn Avenue</a>	2020/8833	Controlled Action	Post-Approval	In buffer area only
<a href="#">Morley-Ellenbrook Rail Line Part 2, WA</a>	2019/8546	Controlled Action	Post-Approval	In buffer area only
<a href="#">National Lifestyle Villages Development</a>	2011/6020	Controlled Action	Post-Approval	In buffer area only
<a href="#">Nava-1 Cable System</a>	2001/510	Controlled Action	Completed	In buffer area only
<a href="#">Neerabup Industrial Area, WA</a>	2021/8917	Controlled Action	Assessment Approach	In buffer area only
<a href="#">Perth-Darwin National Highway alignment (Swan Valley Section), WA</a>	2013/7042	Controlled Action	Post-Approval	In buffer area only
<a href="#">Shark Hazard Mitigation Drum Line Program, WA</a>	2014/7174	Controlled Action	Completed	In buffer area only
<a href="#">Shenton Park Subdivision</a>	2004/1479	Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Controlled action</b>				
<a href="#">Subdivision of Lot 902 Flynn Drive Neerabup for Industrial Development</a>	2021/8977	Controlled Action	Assessment Approach	In buffer area only
<b>Not controlled action</b>				
<a href="#">Commercial development of Lot 9004 Hodges Drive, Joondalup, WA</a>	2016/7844	Not Controlled Action	Completed	In buffer area only
<a href="#">Connect Joondalup - Lot 9000 McLarty Ave and Lot 999 Piccadilly Circus, Joondalup, WA</a>	2016/7758	Not Controlled Action	Completed	In buffer area only
<a href="#">Development Application 20 Kenhelm St Balcatta WA</a>	2021/9037	Not Controlled Action	Completed	In buffer area only
<a href="#">Development of 39 (Lot 3000) Hardcastle Avenue, Landsdale, WA</a>	2017/8100	Not Controlled Action	Completed	In buffer area only
<a href="#">Development of ECU Engineering Annex, Joondalup Campus, WA</a>	2017/7995	Not Controlled Action	Completed	In buffer area only
<a href="#">Eradication of the European House Borer, Perth metropolitan area, WA</a>	2009/5027	Not Controlled Action	Completed	In feature area
<a href="#">Flynn Drive / Pinjar Road Intersection Works, Lot 9000 Flynn Drive, Neerabup, WA</a>	2017/7983	Not Controlled Action	Completed	In buffer area only
<a href="#">Gnangara Road upgrade project, city of Swan, WA</a>	2013/6966	Not Controlled Action	Completed	In buffer area only
<a href="#">Groundwater Replenishment Scheme (GWRS) Stage 2</a>	2016/7786	Not Controlled Action	Completed	In buffer area only
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed	In feature area
<a href="#">Landsdale Primary School Development, WA</a>	2015/7597	Not Controlled Action	Completed	In buffer area only
<a href="#">Landsdale Residential Subdivision Development</a>	2011/6027	Not Controlled Action	Completed	In buffer area only
<a href="#">Lot 158 Landsdale Rd, Landsdale, WA</a>	2012/6403	Not Controlled Action	Completed	In buffer area only
<a href="#">Lot 594 Wanneroo Road development, Hocking</a>	2020/8621	Not Controlled Action	Completed	In buffer area only
<a href="#">Lots 71 &amp; 72 Queensway Rd, East Landsdale</a>	2012/6541	Not Controlled Action	Completed	In buffer area only
<a href="#">Pearsall Primary School, Lots 62, 269, 1008, 1009 &amp; Part Lot 23, Pearsall, WA</a>	2012/6405	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Not controlled action</b>				
<a href="#">Pinjar Motorcycle Park Raceway Development</a>	2012/6419	Not Controlled Action	Completed	In buffer area only
<a href="#">Realignment of Flynn Drive</a>	2011/6170	Not Controlled Action	Completed	In buffer area only
<a href="#">Reid Highway/Malaga Drive interchange upgrade, City of Swan, WA</a>	2013/6892	Not Controlled Action	Completed	In buffer area only
<a href="#">Reid Highway duplication project(Erindale Rd - Duffy Rd)WA</a>	2013/7073	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential and commercial development, Lot 1981 Alexander Drive &amp; Lot 152 Gnangara Road, Landsdale.</a>	2013/6982	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential Development, 50 Lot 2 Driver Road, Darch, Western Australia</a>	2020/8677	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential development, Landsdale, WA</a>	2013/6964	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential development, Lot 14143 (16) Harford Way, Girrawheen, WA</a>	2016/7819	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential Development, Lot 4 Coogee Road, Mariginiup, WA</a>	2019/8452	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential development, Lot 55 Alexander Drive, Landsdale, WA</a>	2013/6971	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential Development, Lots 10 Dundobar Road and 28 and 29 Belgrade Road, East Wanneroo, WA</a>	2019/8521	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential development of 118 Coogee Road, Mariginiup, WA</a>	2017/8011	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential Subdivision</a>	2012/6410	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential subdivision - lot 169 Kingsway Road, Landsdale WA</a>	2012/6412	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential Subdivision - Lots 12, 36 &amp; 38 Capron St, Wanneroo</a>	2012/6409	Not Controlled Action	Completed	In buffer area only
<a href="#">Residential subdivision - Lots 156 and 157 Landsdale Road Landsdale WA</a>	2012/6407	Not Controlled Action	Completed	In buffer area only
<a href="#">Telstra PITC O3B Clearing Application</a>	2011/6147	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Not controlled action</b>				
<a href="#">Wangara Industrial Extension Area, WA</a>	2012/6501	Not Controlled Action	Completed	In buffer area only
<a href="#">Wanneroo Road/Ocean Reef Road Grade Separation, Pearsall, WA</a>	2017/8110	Not Controlled Action	Completed	In buffer area only
<a href="#">Wanneroo Road Duplication, WA</a>	2015/7632	Not Controlled Action	Completed	In buffer area only
<b>Not controlled action (particular manner)</b>				
<a href="#">Ocean Reef Road Extension Works in Wangara</a>	2010/5388	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<a href="#">Road realignment and widening</a>	2009/4926	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<a href="#">South West Metropolitan Railway Project</a>	2003/1175	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<a href="#">Subdivision Lot 4 Flynn Drive and earthworks for industrial development, 240 Fl</a>	2009/5028	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<b>Referral decision</b>				
<a href="#">Boundary Road Sand Quarry</a>	2019/8560	Referral Decision	Completed	In buffer area only

### Biologically Important Areas [ [Resource Information](#) ]

Scientific Name	Behaviour	Presence	Buffer Status
<b>Seabirds</b>			
<a href="#">Ardeanna pacifica</a>			
Wedge-tailed Shearwater [84292]	Foraging (in high numbers)	Known to occur	In buffer area only
<a href="#">Hydroprogne caspia</a>			
Caspian Tern [808]	Foraging (provisioning young)	Known to occur	In buffer area only
<a href="#">Larus pacificus</a>			
Pacific Gull [811]	Foraging (in high numbers)	Former Range	In buffer area only
<a href="#">Onychoprion anaethetus</a>			
Bridled Tern [82845]	Foraging (in high)	Known to occur	In buffer area only



Scientific Name	Behaviour numbers)	Presence	Buffer Status
<a href="#">Puffinus assimilis tunneyi</a> Little Shearwater [59363]	Foraging (in high numbers)	Known to occur	In buffer area only
<a href="#">Sterna dougallii</a> Roseate Tern [817]	Foraging	Known to occur	In buffer area only
<a href="#">Sternula nereis</a> Fairy Tern [82949]	Foraging (in high numbers)	Known to occur	In buffer area only
<b>Seals</b>			
<a href="#">Neophoca cinerea</a> Australian Sea Lion [22]	Foraging (male)	Likely to occur	In buffer area only
<b>Whales</b>			
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Migration (north and south)	Known to occur	In buffer area only

# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

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

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

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

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

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

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

# Acknowledgements

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

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

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

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

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## Appendix 4: Species List

The complete flora list for the proposed clearing area is provided in the table below with flora listed by family. \*Denotes introduced species and # denotes species that are native to Western Australia but not to this local region. Tree species highlighted in blue will be pruned but will not be removed by the clearing activities.

Family	Species	Common Name
Aizoaceae	* <i>Carpobrotus edulis</i>	Hottentot Fig
Amaranthaceae	<i>Ptilotus manglesii</i>	Pom Poms
Anarthriaceae	<i>Lyginia imberbis</i>	
Asparagaceae	<i>Dichopogon capillipes</i>	
Asparagaceae	<i>Thysanotus sparteus</i>	Leafless Fringed Lily
Asteraceae	* <i>Erigeron bonariensis</i>	
Asteraceae	* <i>Hypochaeris radicata</i>	Flat Weed
Asteraceae	* <i>Ursinia anthemoides</i>	Ursinia
Asteraceae	<i>Hyalosperma cotula</i>	
Brassicaceae	* <i>Brassica tournefortii</i>	Mediterranean Turnip
Caryophyllaceae	* <i>Silene gallica</i>	French Catchfly
Casuarinaceae	<i>Allocasuarina fraseriana</i>	Sheoak
Cyperaceae	<i>Mesomelaena pseudostygia</i>	Semaphore Sedge
Cyperaceae	<i>Lepidosperma squamatum</i>	
Cyperaceae	<i>Schoenus caespititius</i>	
Dasyopogonaceae	<i>Dasyopogon bromeliifolius</i>	Pineapple Bush
Dilleniaceae	<i>Hibbertia hypericoides</i>	Yellow Buttercups
Ericaceae	<i>Conostephium pendulum</i>	Pearl Flower
Ericaceae	<i>Conostephium preissii</i>	
Euphorbiaceae	* <i>Euphorbia terracina</i>	Geraldton Carnation Weed
Fabaceae	<i>Daviesia divaricata</i>	Marno
Fabaceae	<i>Euchilopsis linearis</i>	Swamp Pea
Fabaceae	<i>Jacksonia sternbergiana</i>	Stinkwood
Fabaceae	* <i>Acacia iteaphylla</i>	
Fabaceae	* <i>Trifolium campestre</i>	Hop Clover
Fabaceae	<i>Acacia pulchella</i>	Prickly Moses
Fabaceae	<i>Acacia saligna</i>	Orange Wattle

Family	Species	Common Name
Fabaceae	<i>Bossiaea eriocarpa</i>	Common Brown Pea
Fabaceae	<i>Gastrolobium linearifolium</i>	
Fabaceae	<i>Gompholobium tomentosum</i>	Hairy Yellow Pea
Fabaceae	<i>Hovea trisperma</i>	Common Hovea
Fabaceae	<i>Jacksonia floribunda</i>	Holly Pea
Fabaceae	<i>Jacksonia sericea</i>	Waldjumi
Fabaceae	<i>Kennedia prostrata</i>	Scarlet Runner
Geraniaceae	* <i>Pelargonium capitatum</i>	Rose Pelargonium
Goodeniaceae	<i>Scaevola globulifera</i>	
Goodeniaceae	<i>Scaevola thesioides</i>	
Haemodoraceae	<i>Haemodorum laxum</i>	Bloodroot
Haemodoraceae	<i>Anigozanthos humilis</i>	Catspaw
Haemodoraceae	<i>Conostylis aurea</i>	Golden Conostylis
Myrtaceae	* <i>Gaudium laevigatum</i>	Coast Teatree
Myrtaceae	<i>Calothamnus hirsutus</i>	
Myrtaceae	<i>Eucalyptus marginata</i>	Jarrah
Myrtaceae	<i>Hypocalymma robustum</i>	Swan River Myrtle
Onagraceae	* <i>Oenothera stricta</i>	Common Evening Primrose
Pittosporaceae	<i>Billardiera fraseri</i>	Elegant Pronaya
Poaceae	* <i>Aira caryophyllea</i>	Silvery Hairgrass
Poaceae	* <i>Avena barbata</i>	Bearded Oat
Poaceae	* <i>Briza maxima</i>	Blowfly Grass
Poaceae	* <i>Briza minor</i>	Shivery Grass
Poaceae	* <i>Bromus diandrus</i>	Great Brome
Poaceae	* <i>Bromus hordeaceus</i>	Soft Brome
Poaceae	* <i>Cynodon dactylon</i>	Couch
Poaceae	* <i>Ehrharta calycina</i>	Perennial Veldt
Poaceae	* <i>Lolium rigidum</i>	Wimmera Ryegrass
Poaceae	<i>Austrostipa flavescens</i>	
Proteaceae	<i>Banksia attenuata</i>	Slender Banksia
Proteaceae	<i>Banksia dallanneyi</i>	Couch Honeypot
Proteaceae	<i>Banksia grandis</i>	Bull Banksia

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<b>Family</b>	<b>Species</b>	<b>Common Name</b>
Proteaceae	<i>Banksia menziesii</i>	Firewood Banksia
Proteaceae	<i>Petrophile linearis</i>	Pixie Mops
Proteaceae	<i>Stirlingia latifolia</i>	Blueboy
Restionaceae	<i>Desmocladius asper</i>	
Restionaceae	<i>Desmocladius flexuosus</i>	
Restionaceae	<i>Hypolaena exsulca</i>	
Solanaceae	<i>Solanum nigrum</i>	Black Berry Nightshade
Thymelaeaceae	<i>Pimelea rosea</i>	Rose Banjine
Typhaceae	<i>Typha orientalis</i>	Bulrush
Xanthorrhoeaceae	<i>Xanthorrhoea preissii</i>	Grass tree
Zamiaceae	<i>Macrozamia riedlei</i>	Zamia

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