

TECHNICAL MEMORANDUM

Likelihood of occurrence

EPBC Act Referral

Lot 176 Hammond Road, Success

PROJECT NUMBER	EP24-068(03)	DOC. NO.	EP24-068(03)—002 DTA
PROJECT NAME	Subdivision and development of Lot 176 Hammond Road	CLIENT	Dorothy Guerini and Irene Fruzynski
AUTHOR	DTA	REVIEWER	JDH
VERSION	1	DATE	14/11/2024

1. INTRODUCTION

Dorothy Guerini and Irene (the Proponent) propose the residential development of 119 Hammond Road, Lot 176 in Success (referred to herein as the 'Proposed Action'). The proponent is referring the Proposed Action to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This technical memorandum provides a summary of the Matters of National Environmental Significance (MNES) relevant to the Proposed Action through a likelihood of occurrence assessment.

2. METHODS

As part of preparations for the ecological surveys completed over the Project Area, a search was conducted for MNES that may occur within a 10 km radius using the Protected Matters Search Tool (PMST) on 3 September 2024. An updated MNES search using the PMST was conducted on 4 November 2024 to ensure all MNES relevant to the Proposed Action were able to be addressed as part of the referral. The most recent PMST report has been included as **Attachment A**.

The information contained within the terrestrial flora and fauna studies completed within the Project Area have informed this updated likelihood of occurrence:

- *Environmental Assessment Report – 119 Hammond Road, Success* (Eco Logical 2018)
- *Targeted Flora, Vegetation, Fauna and Black Cockatoo Assessment - Hammond Road, Success, Version 1* (Emerge 2024).

To determine likelihood of occurrence, information relating to the MNES identified using the most recent PMST was reviewed. This has included consideration of the species profiles, characteristics/habitat preferences, management plans, recovery plans as well as historic and the recent biological surveys indicated above. Species information was compared to existing environmental data available for the Project Area, from various public datasets and the ecological surveys of the Project Area. This included consideration of factors such as geomorphology, soils, vegetation types, and historic land use, to understand the potential for MNES to occur.

3. MNES RELEVANCE

The MNES relevance assessment is based on a search of the Commonwealth's EPBC PMST which identified MNES that could occur within a 10 km radius of the Project area. A summary of the MNES relevant to the Project Area is provided based on the most recent likelihood of occurrence are outlined in **Table 1** below.

Table 1: Summary of Matters of National Environmental Significance relevant to the Project Area.

Matters of National Environmental Significance	MNES identified within 10 km of the Project Area based on PMST	Relevance to the Project Area
World Heritage areas	There are no World Heritage areas in the vicinity of the Project Area.	Not relevant.
National Heritage Places	There are no National Heritage places in the vicinity of the Project Area.	Not relevant.
Wetlands of international importance (listed under the Ramsar convention)	There are no Wetlands of International Importance in the vicinity of the project Area.	Not relevant.
Listed Threatened species	<ul style="list-style-type: none"> Seventy-seven (77) listed Threatened Species are identified within a 10 km buffer surrounding the Project area Thirty-four (34) listed Threatened Migratory Species are identified within a 10 km buffer surrounding the Project Area. 	<ul style="list-style-type: none"> One (1) Threatened fauna species pertinent to the EPBC Act was indirectly 'recorded' through signs of scattered foraging within the Project Area. <ul style="list-style-type: none"> Zanda latirostris – Carnaby's black cockatoo One (1) Threatened fauna species pertinent to the EPBC Act was considered 'likely' to occur based on the habitat and results recorded during ecological surveys. <ul style="list-style-type: none"> Calyptorhynchus banksii naso – Forest red-tailed black cockatoo The assessment of likelihood of occurrence for all species identified in the PMST search is included below in Table 2.
Listed Threatened Ecological Communities	<ul style="list-style-type: none"> Six (6) listed TEC are suggested to occur within the feature area, including: <ul style="list-style-type: none"> Banksia Woodlands of the Swan Coastal Plain ecological community (Endangered). Clay Pans of the Swan Coastal Plain (Critically Endangered). Empodisma peatlands of southwestern Australia (Endangered). Honeymyrtle shrubland on limestone ridges of the Swan Coastal Plain Bioregion (Critically Endangered) Subtropical and Temperate Coastal Saltmarsh (Vulnerable). Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain Ecological community (Critically Endangered). 	<ul style="list-style-type: none"> No TEC's were identified during the ecological surveys to occur within the Project Area – recent ecological surveys were conducted specifically to determine the presence of Banksia Woodland TEC within the Project Area. The Project Area is not located in an area and/or contains suitable habitat which might suggest a TEC identified during the desktop searches would occur. Likelihood of occurrence for TEC's are considered further in Table 3.

Table 1: Summary of Matters of National Environmental Significance relevant to the Project Area (continued).

Matters of National Environmental Significance	MNES identified within 10 km of the Project Area based on PMST	Relevance to the Project Area
Listed migratory species (protected under international agreements)	<ul style="list-style-type: none"> Sixty-eight (68) listed Migratory Species are identified within a 10 km buffer surrounding the Project Area. 	<ul style="list-style-type: none"> One (1) migratory bird species may possibly occur in the vicinity of the Project Area, significant impacts are unlikely. <ul style="list-style-type: none"> <i>Apus pacificus</i> – Pacific swift The assessment of likelihood of occurrence for all species identified in the PMST search is included below in Table 2.
Commonwealth marine areas	The Project Area is not located in a Commonwealth marine area.	Not relevant.
Great Barrier Reef Marine Park	The Project Area is not located in the Great Barrier Reef Marine Park.	Not relevant.
Nuclear actions (including uranium mines)	The Project Area is not likely to represent a significant impact to the environment resulting from a Nuclear Action.	Not relevant.
Water resources (that relate to coal seam gas development and large coal mining development)	The Project Area is not a coal seam gas or coal mining development.	Not relevant.

4. THREATENED SPECIES AND ECOLOGICAL COMMUNITIES

An assessment of the likelihood of occurrence for the listed threatened species and communities within the Project Area was undertaken for each species identified in the PMST search. Each species was assigned to one of the following categories:

- Recorded: the species or community has been previously recorded in the Project Area or was recorded during a field survey.
- Likely: suitable habitat for the species or community occurs and it is likely the species may occur based on recent a historical record within or nearby the Project Area.
- Possible: the Project Area contains marginal habitat and/or extent for the species or community and is located within the known distribution range for the species but there is no other information to suggest the species may occur within or nearby the Project Area.
- Unlikely: no suitable habitat for the species or community and/or no recent literature records occur within a 10 km radius of the Project Area and/or sufficient survey effort has been conducted to conclude the species is unlikely to occur.

Table 2 outlines the threatened species and the potential to occur based on results from ecological surveys with consideration to relevant literature to factor habitat preference, sightings and historical records of the species. It should be noted that marine bird, marine mammal and migratory marine birds identified by the PMST were disregarded as part of this assessment given the distance of the Project Area from marine areas. MNES considered likely to occur or possible to occur have been highlighted in green.

Table 2: Threatened flora and fauna species and likelihood of occurrence

Scientific Name	Common Name	EPBC status	Habitat	Likelihood of occurrence	Justification
Birds					
<i>Arenaria interpres</i>	Ruddy Turnstone	Vulnerable (Migratory)	Tidal mud and reef flats, sheltered rocky coasts, stony and seaweedy beaches and sandpits, dry coral ridges (Abrolhos) and pebbly shores of near-coastal saltlakes (including saltwork ponds) (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records available within the proximity of the project area.
<i>Anous tenuirostris melanops</i>	Australian Lesser Noddy	Vulnerable	Very common in blue-water seas around the Abrolhos (endemic to this area, accidental occurrences on lower west coast of Australia) (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records available within the proximity of the project area.
<i>Apus pacificus</i>	Pacific swift	Migratory	Aerial, migratory species that is most often seen over inland plains and sometimes above open areas, foothills or in coastal areas. Sometimes occurs over settled areas, including towns, urban areas and cities (Pizzey and Knight 2012).	Possible	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within the project area. One (1) reliable and recent DBCA record of this species was recorded in 2000 within 10 km of the project area. Potentially suitable habitat is present in the project area. The species is considered 'possible' to occur within the project area given the occurrence of suitable habitat and the recent and reliable record available within the proximity of the project area.
<i>Botaurus poiciloptilus</i>	Australasian Bittern	Endangered	Marine species that breeds on islands off south coast from near Cape Leeuwin (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and despite recent and reliable records within the proximity of the project area.
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Vulnerable (Migratory)	Occurs in tidal mudflats, saltmarshes and mangroves, as well as, shallow fresh, brackish or saline inland wetlands. It is also known from floodwaters, irrigated pastures and crops, sewage ponds, saltfields (Pizzey and Knight 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests that roosting is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records available within the proximity of the project area.
<i>Calidris canutus</i>	Red Knot, Knot	Vulnerable (Migratory)	The Tristan albatross is a marine, pelagic seabird. It forages in open water in the Atlantic Ocean near the Cape of Good Hope, South Africa. It sleeps and rests on ocean waters when not breeding (Marchant and Higgins 1990).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and despite recent and reliable records within the proximity of the project area.
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered (Migratory)	Mainly shallows of estuaries and near-coastal saltlakes (including saltwork ponds) and drying near-coastal freshwater lakes and swamps. Also beaches and near-coastal sewage ponds (Johnstone & Storr 1988).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and despite recent and reliable records within the proximity of the project area.
<i>Calidris tenuirostris</i>	Great Knot	Vulnerable (Migratory)	Mud or sand flats in estuaries and on sheltered coasts. Also near-coastal saltlakes, including saltwork ponds (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and despite recent and reliable records within the proximity of the project area.
<i>Calyptorhynchus banksii naso</i>	Forest Red-tailed Black -Cockatoo, Karrak	Vulnerable	Eucalypt and Corymbia forests, often in hilly interior. More recently also observed in more open agricultural and suburban areas including Perth metropolitan area. Attracted to seeding <i>Corymbia calophylla</i> , <i>Eucalyptus marginata</i> , introduced <i>Melia azedarach</i> and <i>Eucalyptus spp.</i> trees (Johnstone et al. 2013).	Likely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. Suitable habitat is present in the project area. The species is considered 'likely' to occur within the project area given the presence of suitable habitat and recent and reliable records within the proximity of the project area.

Table 2: Threatened flora and fauna species and likelihood of occurrence (continued)

Scientific Name	Common Name	EPBC Status	Habitat	Likelihood of occurrence	Justification
Birds (continued)					
<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large Sand Plover	Vulnerable (Migratory)	Wide sandy or shelly beaches, sandpits, tidal mudflats, reefs, sand cays, mangroves, saltmarsh, dune wilderness, bare paddocks, seldom far inland (Pizzey & Knight 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and despite recent and reliable records within the proximity of the project area.
<i>Charadrius mongolus</i>	Lesser Sand Plover, Mongolian Plover	Endangered (Migratory)	Sandy beaches and tidal estuarine flats. Also near-coastal saltlakes, including saltwork ponds (Johnstone & Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records available within the proximity of the project area.
<i>Halobaena caerulea</i>	Blue Petrel	Vulnerable	Marine species that breeds on southern subantarctic and northern arctic islands. Only an accidental or uncommon visitor to Western Australian waters (Johnstone & Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records available within the proximity of the project area.
<i>Leipoa ocellata</i>	Malleefowl	Vulnerable	Scrubs and thickets of <i>Eucalyptus</i> spp., <i>Melaleuca lanceolata</i> and <i>Acacia linophylla</i> ; also other dense litter-forming shrublands. Attracted to fallen wheat in stubbles and along roads (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records available within the proximity of the project area.
<i>Limosa lapponica menzbieri</i>	Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit	Endangered	Mainly coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. Has also been recorded in coastal sewage farms and saltworks, saltlakes and brackish wetlands near coasts, sandy ocean beaches, rock platforms, and coral reef-flats (Higgins and Davies 1996).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records available within the proximity of the project area.
<i>Limosa limosa</i>	Black-tailed Godwit	Endangered (Migratory)	Tidal mudflats, estuaries, sewage ponds, shallow river margins, brackish or saline inland lakes, flooded pastures, airfields (Pizzey & Knight 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests roosting for the species is known to occur within 10 km of the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records available within the proximity of the project area.
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew	Critically Endangered (Migratory)	Mainly tidal mudflats; also reef flats, sandy beaches and rarely near-coastal lakes (including saltwork ponds) (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records available within the proximity of the project area.
<i>Pachyptila turtur subantarctica</i>	Fairy Prion (southern)	Vulnerable	Breeds on subantarctic islands and is presumed to frequent subtropical waters during non-breeding period (TSSC 2015).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. No recent and reliable records were recorded within 10 km of the project area. No Suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Phaethon rubricauda westralis</i>	Red-tailed Tropicbird (Indian Ocean), Indian Ocean Red-tailed Tropicbird	Endangered	Spend most of their lives at sea and rarely venture near land. This bird is normally found in tropical and subtropical seas around northern Australia. Though rarely seen in colder areas, a few pairs breed on Sugarloaf Rock, south of Cape Naturaliste (DPAW 2017b). Are known to breed on Rottne Island (DCCEEW 2023).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records within the proximity of the project area.

Table 2: Threatened flora and fauna species and likelihood of occurrence (continued)

Scientific Name	Common Name	EPBC Status	Habitat	Likelihood of occurrence	Justification
Birds (continued)					
<i>Pluvialis squatarola</i>	Grey Plover	Vulnerable (Migratory)	Mudflats, saltmarsh, tidal reefs and estuaries, rarely inland (Pizzey and Knight 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records available within the proximity of the project area.
<i>Pterodroma mollis</i>	Soft-plumaged Petrel	Vulnerable	Marine species that breeds on temperate and subantarctic islands in south Atlantic and south Indian Ocean. Visitor to West Australian waters from March to September. Rarely observed inshore (Johnstone & Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records were recorded within 10 km of the project area. No Suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered	Mainly shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans (Marchant and Higgins 1993).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. No recent and reliable records were recorded within 10 km of the project area. No Suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Sternula nereis nereis</i>	Australian Fairy Tern	Vulnerable	Sheltered blue-water seas close to land, estuaries (when free of silt) and near-coastal lakes (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests the foraging, feeding or related behaviour is known to occur within the project area. No recent and reliable records were recorded within 10 km of the project area. No Suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Tringa nebularia</i>	Common Greenshank, Greenshank	Endangered (Migratory)	Mudflats, estuaries, saltmarshes, margins of lakes, wetlands, claypans (fresh and saline), commercial saltfields, sewage ponds (Pizzey & Knight 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records available within the proximity of the project area.
<i>Xenus cinereus</i>	Terek Sandpiper	Vulnerable (Migratory)	Tidal mudflats, estuaries; shores and reefs of islands; coastal swamps, commercial saltfields (Pizzey & Knight 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. No recent and reliable records were recorded within 10 km of the project area. No Suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Zanda baudinii</i>	Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo	Endangered	Mainly eucalypt forests. Attracted to seeding <i>Corymbia calophylla</i> , <i>Banksia spp.</i> , <i>Hakea spp.</i> , and to fruiting apples and pears (Johnstone and Storr 1998).	Unlikely	<ul style="list-style-type: none"> PMST suggests that roosting is known to occur within 10 km of the project area. Project area lies outside the modelled distribution of the species. Recent and reliable records within 10 km of the project area. Potentially suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the project area lies outside of the modelled distribution range.
<i>Zanda latirostris</i>	Carnaby's Black Cockatoo, Short-billed Black-cockatoo	Endangered	Mainly proteaceous scrubs and heaths and adjacent eucalypt woodlands and forests; also plantations of <i>Pinus spp.</i> Attracted to seeding <i>Banksia spp.</i> , <i>Hakea spp.</i> , <i>Eucalyptus spp.</i> , <i>Corymbia calophylla</i> , <i>Grevillea spp.</i> , and <i>Allocasuarina spp.</i> (Johnstone and Storr 1998).	Recorded	<ul style="list-style-type: none"> PMST suggests that breeding is known to occur within the project area. Numerous recent and reliable records within 10 km of the project area. Suitable habitat is present in the project area. The species was indirectly recorded during Eco Logical field survey through scattered signs of foraging evidence within the project area and as such is classified as 'recorded'.

Table 2: Threatened flora and fauna species and likelihood of occurrence (continued)

Scientific Name	Common Name	EPBC Status	Habitat	Likelihood of occurrence	Justification
Mammals					
<i>Bettongia penicillata ogilbyi</i>	Woylie	Endangered	Woodlands and adjacent heaths with a dense understorey of shrubs, particularly <i>Gastrolobium</i> spp. (TSSC 2018).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records were recorded within 10 km of the project area. No Suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Dasyurus geoffroii</i>	Chuditch, Western Quoll	Vulnerable	Wide range of habitats from woodlands, dry sclerophyll forests, riparian vegetation, beaches and deserts. Appears to utilise native vegetation along roadsides in the wheatbelt (DEC 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. Potentially suitable habitat is present in the project area. Closest record exists 8.4 km from the project area and is separated by several kilometres of urban development and major roads. Therefore, dispersal from recorded locations to the project area is highly unlikely. The species is considered 'unlikely' to occur within the project area given the access impediment presented by surrounding urban development despite the presence of potentially suitable habitat and recent and reliable records within the proximity of the project area.
<i>Pseudocheirus occidentalis</i>	Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit	Critically Endangered	On the Swan Coastal Plain in <i>Agonis flexuosa</i> woodlands and <i>Agonis flexuosa</i> / <i>Eucalyptus gomphocephala</i> forests. Also <i>Eucalyptus marginata</i> forests (DBCA 2017).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Setonix brachyurus</i>	Quokka	Vulnerable	On the mainland mostly dense streamside vegetation or shrubland and heath areas, particularly around swamps (Cronin 2007).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
Insects					
<i>Leioproctus douglasiellus</i>	a short-tongued bee	Critically Endangered	Life history and habits are poorly documented/ unknown. It has been recorded only on the flowers of <i>Goodenia filiformis</i> and <i>Anthotium junciforme</i> (Houston 2000).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.
<i>Neopasiphae simplicior</i>	A native bee	Critically Endangered	This species of native bee has been collected on flowers of <i>Goodenia filiformis</i> , <i>Lobelia tenuior</i> , <i>Angianthus preissianus</i> and <i>Velleia</i> sp. (Houston 2000).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. Recent and reliable record within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat despite recent and reliable records within the proximity of the project area.
Other					
<i>Westralunio carteri</i>	Carter's Freshwater Mussel, Freshwater Mussel	Vulnerable	Occurs in greatest abundance in slower flowing streams with stable sediments that are soft enough for burrowing amongst woody debris and exposed tree roots. Also occupies lentic systems including large water supply dams and even on-stream farm dams. Salinity tolerance quite low (Morgan et al. 2011).	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. The species is considered 'unlikely' to occur within the project area given the absence of suitable habitat and recent and reliable records within the proximity of the project area.

Table 2: Threatened flora and fauna species and likelihood of occurrence (continued)

Scientific Name	Common Name	EPBC Status	Habitat	Likelihood of occurrence	Justification
Plants					
<i>Andersonia gracilis</i>	Slender Andersonia	Endangered	Seasonally damp, black sandy clay flats near or on the margins of swamps.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within the project area. No recent and reliable records within 10 km of the project area. Potentially suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Austrostipa jacobiana</i>	-	Critically Endangered	Grey sandy clay.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Banksia mimica</i>	Summer Honeypot	Endangered	Flat to gentle slopes in grey and white sand in open woodlands.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within the project area. No recent and reliable records within 10 km of the project area. Potentially suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Caladenia huegelii</i>	King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid	Endangered	Well-drained, deep sandy soils in lush undergrowth in a variety of moisture levels.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. Potentially suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Conospermum undulatum</i>	Wavy-leaved Smokebush	Vulnerable	Sand and sandy clay soils, on flat or gently sloping sites between the Swan and Canning Rivers	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Diuris drummondii</i>	Tall Donkey Orchid	Vulnerable	In low-lying depressions in peaty and sandy clay swamps.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable DBCA record was recorded within 10 km of the project area. No suitable habitat is present within 10km of the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Diuris micrantha</i>	Dwarf Bee-orchid	Vulnerable	Dark grey-black sandy clay-loam in winter wet depressions or swamps. Often in shallow standing water.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.

Table 2: Threatened flora and fauna species and likelihood of occurrence (continued)

Scientific Name	Common Name	EPBC Status	Habitat	Likelihood of occurrence	Justification
Plants (continued)					
<i>Diuris purdiei</i>	Purdie's Donkey-orchid	Endangered	Sand to sandy clay soils in areas subject to winter inundation.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Drakaea elastica</i>	Glossy-leaved Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid	Endangered	Bare patches of sand within otherwise dense vegetation in low-lying areas alongside winter-wet swamps. Typically in banksia woodland or thickets of <i>Kunzea glabrescens</i> .	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Drakaea micrantha</i>	Dwarf Hammer-orchid	Vulnerable	Open sandy patches often adjacent to winter-wet swamps.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Eleocharis keigheryi</i>	Keighery's Eleocharis	Vulnerable	Clay or sandy loam in freshwater creeks and transient waterbodies such as seasonally wet clay pans.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Eremophila glabra subsp. chlorella</i>		Endangered	Sandy clay. Winter-wet depressions.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Eucalyptus x balanites</i>	Cadda Road Mallee, Cadda Mallee	Endangered	Light coloured sandy soils over laterite. Habitat consists of gently sloping heathlands; open mallee woodland over shrubland (Population 2) or heathland with emergent mallees (population 1)	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Grevillea curviloba subsp. incurva</i>	Narrow curved-leaf Grevillea	Endangered	Sand, sandy loam. Winter-wet heath.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.

Table 2: Threatened flora and fauna species and likelihood of occurrence (continued)

Scientific Name	Common Name	EPBC Status	Habitat	Likelihood of occurrence	Justification
Plants (continued)					
<i>Lepidosperma rostratum</i>	Beaked Lepidosperma	Endangered	Peaty sand and clay amongst low heath, in winter-wet swamps.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is known to occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Macarthuria keigheryi</i>	Keighery's Macarthuria	Endangered	Low-lying winter-wet damp grey/white sands in open patches.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. Potentially suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Morelotia australiensis</i>	Southern Tetraria	Vulnerable (listed as Tetraria australiensis)	Sand over clay, winter wet depressions and drainage lines.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Synaphea sp. Fairbridge Farm (D.Papenfus 696)</i>	Selena's Synaphea	Critically Endangered	Low woodland on grey, clayey sand with lateritic pebbles (Pinjarra Plain) near winter wet flats.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species is likely to occur within 10 km of the project area. Recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Synaphea sp. Pinjarra Plain (A.S.George 17182)</i>		Endangered	White grey clayey sand on edges of seasonally inundated low lying areas.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.
<i>Synaphea sp. Serpentine (G.R.Brand 103)</i>		Critically Endangered	Seasonally damp areas, loam - sand.	Unlikely	<ul style="list-style-type: none"> PMST suggests the species or suitable habitat for the species may occur within 10 km of the project area. No recent and reliable records within 10 km of the project area. No suitable habitat is present in the project area. Flora surveys conducted over 25th September 2018, 7th September and 31st October 2022, and 2nd August 20th September and 4th October 2024 were specifically targeted for the identification of this species, but no individuals were located within the Project Area. Therefore, it is considered that the species does not occur.

Table 3: Threatened Ecological Communities and likelihood of occurrence

Community Name	EPBC Status	Habitat/Description	Likelihood of occurrence	Reason
Ecological communities				
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	The Conservation Advice (Threatened Species Scientific Committee 2016) states that Banksia Woodland TEC “typically occurs on well drained, low nutrient soil on sandplain landforms, particularly deep Bassendean and Spearwood sands and occasionally on Quindalup sands”, and that the community “is also common on sandy colluvium and aeolian sands of the Ridge Hill Shelf, Whicher Scarp and Dandaragan Plateau; and may also occur in other limited scenarios” (DoEE 2016).	Unlikely	<ul style="list-style-type: none"> PMST suggests the ecological community is likely to occur within the project area. The vegetation in the project area comprises a number of flora species that are associated with this TEC, including <i>Banksia attenuata</i> and <i>Banksia menziesii</i>. However, the banksia vegetation does not meet minimum size or condition thresholds and therefore does not represent the TEC (Eco Logical 2018; Emerge Associates 2024).
Clay Pans of the Swan Coastal Plain	Critically Endangered	The Clay Pans of the Swan Coastal Plain ecological community occurs in Western Australia where clay soils form an impermeable layer close to the landscape surface, and wetlands form that rely solely on rainfall to fill and then dry to impervious pans in summer. The ecological community generally occurs as a shrubland (less commonly as a low, open woodland) over a ground layer of geophytes, herbs and sedges which are characteristic of the wetter parts of the sites. There are no dominant species which characterise the entire ecological community. The ecological community, however, shows similar landform and vegetation structural features across its range (DSEWPaC 2012).	Unlikely	<ul style="list-style-type: none"> PMST suggests the ecological community is likely to occur within 10 km of the project area. No vegetation or indicator species that meets the description of this TEC was identified to occur within the project area as part of the Detailed and Targeted Flora and Vegetation surveys conducted by Eco Logical Australia and Emerge Associates (Eco Logical 2018; Emerge Associates 2024).
Honeymyrtle shrubland on limestone In buffer area only ridges of the Swan Coastal Plain Bioregion	Critically Endangered	The Honeymyrtle shrubland is the assemblage of plants, animals and other organisms associated with a type of warm temperate shrubland or heath, dominated by <i>Melaleuca huegelii</i> (chenille honeymyrtle), <i>M. systema</i> (coastal honeymyrtle), and/or <i>Banksia sessilis</i> (parrot bush). It occurs only in southwest Western Australia (WA). It is known from a small number of locations in the Swan Coastal Plain IBRA1 Bioregion (SWA). It is a shrub-dominated ecological community, with sclerophyll shrubs forming thickets or heaths, above a typically diverse ground layer of herbs, including sedges, Restionaceae and occasional grasses. Honeymyrtle shrubland only occurs on the slopes and tops of limestone ridges on the Swan Coastal Plain. Its plants provide food for a variety of nectar, seed- and fruit-eating birds, and browsing for mammals. The associated rocky and sandy substrates provide ample reptile basking sites, and the shrub layer gives them cover (DCCEEW 2023).	Unlikely	<ul style="list-style-type: none"> PMST suggests the ecological community is likely to occur within 10 km of the project area. No vegetation or indicator species that meets the description of this TEC was identified to occur within the project area as part of the Detailed and Targeted Flora and Vegetation surveys conducted by Eco Logical Australia and Emerge Associates (Eco Logical 2018; Emerge Associates 2024).
Empodisma peatlands of southwestern Australia	Endangered	Occurs on an organosol within the southwest of western Australia that are typically saturated for at least a month during the year. The Empodisma peatlands of southwestern Australia mainly occur within the Warren IBRA bioregion and Southern Jarrah Forest subregion of the Jarrah Forest IBRA bioregion. Discrete occurrences may also be present in the Perth (SWA02) (Swan Coastal Plain), Northern Jarrah Forest (JAF01) (Jarrah Forest) and Fitzgerald (ESP01) (Esperance) IBRA subregions. Empodisma peatlands has a ground layer containing <i>Emodisma gracillimum</i> , whilst other sedge species are also typically present. Other associated plant species include <i>Acacia hastulata</i> , <i>Callistemon glaucus</i> , <i>Gymnoschoenus anceps</i> , <i>Leptocarpus tenax</i> and <i>Schoenus multiglumis</i> (Department of Climate Change 2023).	Unlikely	<ul style="list-style-type: none"> PMST suggests the ecological community is likely to occur within 10 km of the project area. No vegetation or indicator species that meets the description of this TEC was identified to occur within the project area as part of the Detailed and Targeted Flora and Vegetation surveys conducted by Eco Logical Australia and Emerge Associates (Eco Logical 2018; Emerge Associates 2024).
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	The Conservation Advice (Threatened Species Scientific Committee 2013) states that Subtropical and Temperate Coastal Saltmarsh “consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, sedges, rushes and shrubs. Succulent herbs, shrubs and grasses generally dominate and vegetation is generally of less than 0.5 m height (with the exception of some reeds and sedges) (Adam, 1990; see also Sainty et al., 2012a, b for pictorial field guide). Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats (Adam, 2002; Fotheringham and Coleman, 2008; Green et al., 2012; Millar, 2012)” (TSSC 2013).	Unlikely	<ul style="list-style-type: none"> PMST suggests the ecological community is likely to occur within 10 km of the project area. No vegetation or indicator species that meets the description of this TEC was identified to occur within the project area as part of the Detailed and Targeted Flora and Vegetation surveys conducted by Eco Logical Australia and Emerge Associates (Eco Logical 2018; Emerge Associates 2024).
Tuart (<i>Eucalyptus gomphocephala</i>) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Tuart (<i>Eucalyptus gomphocephala</i>) woodland and forests of the Swan Coastal Plan TEC, listed in July 2019 as a Critically Endangered TEC under the EPBC Act and Priority 3 listed by DBCA. Mostly confined to Quindalup Dunes and Spearwood Dunes from Jurien Bay to the Sabina River, with outliers along some rivers and the Bassendean dunes and Pinjarra Plain. Tuart is the key dominant canopy species however Tuart communities comprise a variety of flora and fauna assemblages. Trees commonly co-occurring with Tuart include <i>Agonis flexuosa</i> (peppermint), <i>Banksia grandis</i> , <i>Banksia attenuata</i> , <i>Eucalyptus marginata</i> ; and less commonly, <i>Corymbia calophylla</i> , <i>Banksia menziesii</i> and <i>Banksia prionotes</i> . An understorey of native plants is typically present, which may include grasses, herbs and shrubs (DoEE 2019).	Unlikely	<ul style="list-style-type: none"> PMST suggests the ecological community is likely to occur within the project area. No vegetation or indicator species that meets the description of this TEC was identified to occur within the project area as part of the Detailed and Targeted Flora and Vegetation surveys conducted by Eco Logical Australia and Emerge Associates (Eco Logical 2018; Emerge Associates 2024).

5. CONCLUSIONS

Information from available databases and recent comprehensive flora and fauna surveys were used to assess the likelihood of occurrence of each identified MNES.

None of the six (6) Threatened Ecological Communities (TECs) identified within the PMST database search were considered 'likely' or 'possible' to occur within the Project Area.

None of the 34 threatened migratory species identified within the PMST database search were considered 'likely' or 'possible' to occur within the Project Area.

Of the 50 Migratory species identified in the PMST search, one species was considered 'possible' to occur based on potential suitable habitat identified within the Project Area:

- *Apus pacificus* (Pacific swift) – May opportunistically fly over the Project Area on commute or in search of prey, and thus significant impacts on this species are unlikely.

Two (2) the 33 threatened fauna species identified in the PMST database search were considered 'likely' to occur within the Project Area, and one (1) was indirectly 'recorded':

- *Calyptorhynchus banksii naso* (Forest Red-tailed black cockatoo) – considered 'likely'
- *Zanda latirostris* (Carnaby's black cockatoo) – indirectly 'recorded' through foraging evidence.

The remainder of the conservation significant fauna species identified in the PMST were considered 'unlikely' to occur in the Project Area due to a lack of suitable habitat or absence of recent and reliable records of the species.

The remainder of the threatened flora species identified in the PMST search were considered 'unlikely' to occur in the Project Area either due to the lack of suitable habitat and/or recent and reliable records within 10 km of the Project Area and/or because they were not recorded during extensive targeted searches.

6. References

The references listed below have been considered as part of preparing this document.

Department of Climate Change Energy the Environment and Water (DCCEEW) 2023, *Approved Conservation Advice for Honeymyrtle shrubland on limestone ridges of the Swan Coastal Plain Bioregion*.

Department of Climate Change, E., the Environment and Water, 2023, *Approved Conservation Advice for the Empodisma peatlands of southwestern Australia*, Canberra.

Department of Environment and Energy (DoEE) 2016, *Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community*, Canberra.

Department of Environment and Energy (DoEE) 2019, *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community*, Canberra.

Department of Sustainability, Environment, Water, Population and Communities (DSEWPoC) 2012, *Approved Conservation Advice for Clay Pans of the Swan Coastal Plain*, Canberra.

Eco Logical 2018, *119 Hammond Road, Success - Flora, Vegetation and Black Cockatoo Assessment*, 18PER - 10345, Version 1.

Emerge Associates (Emerge) 2024, *Targeted Flora, Vegetation, Fauna and Black Cockatoo Assessment - Lot 176 Hammond Road, Success*. EP24-068(02)--006 MS, 1.

Emerge Associates 2024, *Targeted Flora, Vegetation, Fauna and Black Cockatoo Assessment - Lot 176 Hammond Road, Success* EP24-068(02)--006, Version 1.

Higgins, P. J. and Davies, S. J. J. F. 1996, *Handbook of Australian, New Zealand and Antarctic Birds. Volume Three - Snipe to Pigeons*, Oxford University Press, Melbourne, Victoria.

Johnstone, R. E. and Storr, G. M. 1998, *Handbook of Western Australian Birds. Volume 1 - Non-Passerines (Emu to Dollarbird)*, Western Australian Museum, Perth.

Marchant, S. and Higgins, P. J. 1990, *Handbook of Australian, New Zealand and Antarctic Birds. Volume One - Ratites to Ducks*, Oxford University Press, Melbourne, Victoria.

Pizzey, G. and Knight, F. 2012, *The Fieldguide to the Birds of Australia*, Harper Collins Publishers, Sydney, Australia.

Threatened Species Scientific Committee (TSSC) 2013, *Environment Protection And Biodiversity Conservation Act 1999 (EPBC Act) (S266b) Conservation Advice For Subtropical And Temperate Coastal Saltmarsh*, Department of Sustainability, Environment, Water, Population and Communities, Canberra.

Threatened Species Scientific Committee (TSSC) 2015, *Conservation Advice for Pachyptila tutur subantarctica (fairy prion, southern)*, Department of the Environment, Canberra.

Attachment A: PMST Report





Australian Government

Department of Climate Change, Energy,
the Environment and Water

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: 04-Nov-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](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	2
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	77
Listed Migratory Species:	68

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.

Commonwealth Lands:	80
Commonwealth Heritage Places:	None
Listed Marine Species:	95
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	16
Regional Forest Agreements:	None
Nationally Important Wetlands:	6
EPBC Act Referrals:	106
Key Ecological Features (Marine):	None
Biologically Important Areas:	10
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Forrestdale and thomsons lakes	Within Ramsar site	In feature area
Peel-yalgorup system	30 - 40km upstream from Ramsar site	In buffer area only

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
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area	In feature area
Clay Pans of the Swan Coastal Plain	Critically Endangered	Community likely to occur within area	In buffer area only
Empodisma peatlands of southwestern Australia	Endangered	Community may occur within area	In buffer area only
Honeymyrtle shrubland on limestone ridges of the Swan Coastal Plain Bioregion	Critically Endangered	Community likely to occur within area	In buffer area only
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only
Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species			[<u>Resource Information</u>]
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
BIRD			
Anous tenuirostris melanops	Vulnerable	Species or species habitat may occur within area	In buffer area only
Australian Lesser Noddy [26000]			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Roosting known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris tenuirostris Great Knot [862]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Endangered	Species or species habitat known to occur within area	In buffer area only
Limosa limosa Black-tailed Godwit [845]	Endangered	Roosting known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Phaethon rubricauda westralis Red-tailed Tropicbird (Indian Ocean), Indian Ocean Red-tailed Tropicbird [91824]	Endangered	Species or species habitat known to occur within area	In buffer area only
Pluvialis squatarola Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Zanda baudinii listed as Calyptorhynchus baudinii Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Roosting known to occur within area	In buffer area only
Zanda latirostris listed as Calyptorhynchus latirostris Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding known to occur within area	In feature area
INSECT			
Leioproctus douglasiellus a short-tongued bee [66756]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Neopasiphae simplicior A native bee [66821]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
MAMMAL			
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Bettongia penicillata ogilbyi Woylie [66844]	Endangered	Species or species habitat may occur within area	In buffer area only
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat may occur within area	In buffer area only
OTHER			
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
PLANT			
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat likely to occur within area	In feature area
Austrostipa jacobsiana [87809]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Banksia mimica Summer Honeypot [82765]	Endangered	Species or species habitat may occur within area	In feature area
Caladenia huegelii King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat known to occur within area	In feature area
Conospermum undulatum Wavy-leaved Smokebush [24435]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diuris drummondii Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat known to occur within area	In feature area
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat known to occur within area	In feature area
Diuris purdiei Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Drakaea elastica Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat known to occur within area	In feature area
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Eremophila glabra subsp. chlorella [84927]	Endangered	Species or species habitat may occur within area	In buffer area only
Eucalyptus x balanites Cadda Road Mallee, Cadda Mallee [87816]	Endangered	Species or species habitat may occur within area	In buffer area only
Grevillea curviloba subsp. incurva Narrow curved-leaf Grevillea [64909]	Endangered	Species or species habitat may occur within area	In buffer area only
Lepidosperma rostratum Beaked Lepidosperma [14152]	Endangered	Species or species habitat known to occur within area	In buffer area only
Macarthuria keigheryi Keighery's Macarthuria [64930]	Endangered	Species or species habitat may occur within area	In buffer area only
Morelotia australiensis listed as Tetraria australiensis Southern Tetraria [92784]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Synaphea sp. Fairbridge Farm (D.Papenfus 696) Selena's Synaphea [82881]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Synaphea sp. Pinjarra Plain (A.S.George 17182) [86878]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Synaphea sp. Serpentine (G.R.Brand 103) [86879]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
SHARK			
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat known to occur within area	In buffer area only
Listed Migratory Species		[Resource Information]	

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In buffer area only
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Sterna dougallii Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Marine Species			
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharias taurus Grey Nurse Shark [64469]		Species or species habitat likely to occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mobula alfredi as Manta alfredi Reef Manta Ray, Coastal Manta Ray [90033]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Terrestrial Species			
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Roosting known to occur within area	In feature area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
Calidris pugnax as Philomachus pugnax Ruff [91256]		Roosting known to occur within area	In buffer area only
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area	In buffer area only
Calidris subminuta Long-toed Stint [861]		Roosting known to occur within area	In buffer area only
Calidris tenuirostris Great Knot [862]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Charadrius dubius Little Ringed Plover [896]		Roosting known to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area	In buffer area only
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area	In buffer area only
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area	In buffer area only
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area	In feature area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Xenus cinereus			
Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands	[Resource Information]
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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
Unknown		
Commonwealth Land - [51151]	WA	In buffer area only
Commonwealth Land - [51150]	WA	In buffer area only
Commonwealth Land - [50730]	WA	In buffer area only
Commonwealth Land - [51155]	WA	In buffer area only
Commonwealth Land - [50762]	WA	In buffer area only
Commonwealth Land - [50787]	WA	In buffer area only
Commonwealth Land - [50784]	WA	In buffer area only
Commonwealth Land - [50785]	WA	In buffer area only
Commonwealth Land - [51901]	WA	In buffer area only
Commonwealth Land - [50781]	WA	In buffer area only
Commonwealth Land - [50786]	WA	In buffer area only
Commonwealth Land - [50792]	WA	In buffer area only
Commonwealth Land - [51900]	WA	In buffer area only
Commonwealth Land - [51899]	WA	In buffer area only
Commonwealth Land - [50832]	WA	In buffer area only
Commonwealth Land - [50796]	WA	In buffer area only
Commonwealth Land - [50793]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [51116]	WA	In buffer area only
Commonwealth Land - [50688]	WA	In buffer area only
Commonwealth Land - [51115]	WA	In buffer area only
Commonwealth Land - [51153]	WA	In buffer area only
Commonwealth Land - [50795]	WA	In buffer area only
Commonwealth Land - [50794]	WA	In buffer area only
Commonwealth Land - [50779]	WA	In buffer area only
Commonwealth Land - [51152]	WA	In buffer area only
Commonwealth Land - [50749]	WA	In buffer area only
Commonwealth Land - [51975]	WA	In buffer area only
Commonwealth Land - [51144]	WA	In buffer area only
Commonwealth Land - [50734]	WA	In buffer area only
Commonwealth Land - [51514]	WA	In buffer area only
Commonwealth Land - [50790]	WA	In buffer area only
Commonwealth Land - [50833]	WA	In buffer area only
Commonwealth Land - [51414]	WA	In buffer area only
Commonwealth Land - [50741]	WA	In buffer area only
Commonwealth Land - [50761]	WA	In buffer area only
Commonwealth Land - [50755]	WA	In buffer area only
Commonwealth Land - [50710]	WA	In buffer area only
Commonwealth Land - [51412]	WA	In buffer area only
Commonwealth Land - [51149]	WA	In buffer area only
Commonwealth Land - [50745]	WA	In buffer area only
Commonwealth Land - [51143]	WA	In buffer area only
Commonwealth Land - [51148]	WA	In buffer area only
Commonwealth Land - [50754]	WA	In buffer area only
Commonwealth Land - [51160]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [50763]	WA	In buffer area only
Commonwealth Land - [51417]	WA	In buffer area only
Commonwealth Land - [51416]	WA	In buffer area only
Commonwealth Land - [50683]	WA	In buffer area only
Commonwealth Land - [50687]	WA	In buffer area only
Commonwealth Land - [50722]	WA	In buffer area only
Commonwealth Land - [50685]	WA	In buffer area only
Commonwealth Land - [50684]	WA	In buffer area only
Commonwealth Land - [50751]	WA	In buffer area only
Commonwealth Land - [50736]	WA	In buffer area only
Commonwealth Land - [50686]	WA	In buffer area only
Commonwealth Land - [50735]	WA	In buffer area only
Commonwealth Land - [50809]	WA	In buffer area only
Commonwealth Land - [51147]	WA	In buffer area only
Commonwealth Land - [51421]	WA	In buffer area only
Commonwealth Land - [50707]	WA	In buffer area only
Commonwealth Land - [50672]	WA	In buffer area only
Commonwealth Land - [50725]	WA	In buffer area only
Commonwealth Land - [50708]	WA	In buffer area only
Commonwealth Land - [50671]	WA	In buffer area only
Commonwealth Land - [50721]	WA	In buffer area only
Commonwealth Land - [50740]	WA	In buffer area only
Commonwealth Land - [50729]	WA	In buffer area only
Commonwealth Land - [50782]	WA	In buffer area only
Commonwealth Land - [51126]	WA	In buffer area only
Commonwealth Land - [50788]	WA	In buffer area only
Commonwealth Land - [51146]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [51125]	WA	In buffer area only
Commonwealth Land - [50789]	WA	In buffer area only
Commonwealth Land - [51128]	WA	In buffer area only
Commonwealth Land - [50780]	WA	In buffer area only
Commonwealth Land - [50666]	WA	In buffer area only
Commonwealth Land - [50732]	WA	In buffer area only
Commonwealth Land - [50733]	WA	In buffer area only
Commonwealth Land - [50756]	WA	In buffer area only
Commonwealth Land - [50731]	WA	In buffer area only

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus			
Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Anous tenuirostris melanops			
Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In buffer area only
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Roosting known to occur within area	In feature area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris pugnax as Philomachus pugnax Ruff [91256]		Roosting known to occur within area overfly marine area	In buffer area only
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area	In buffer area only
Calidris subminuta Long-toed Stint [861]		Roosting known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris tenuirostris Great Knot [862]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Charadrius dubius Little Ringed Plover [896]		Roosting known to occur within area overfly marine area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area	In buffer area only
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago stenura Pin-tailed Snipe [841]	Vulnerable	Roosting likely to occur within area overfly marine area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]		Species or species habitat may occur within area	In buffer area only
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area	In buffer area only
Hydroprogne caspia as Sterna caspia Caspian Tern [808]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Larus pacificus Pacific Gull [811]		Foraging, feeding or related behaviour may occur within area	In buffer area only
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Limosa limosa Black-tailed Godwit [845]	Endangered	Roosting known to occur within area overfly marine area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area	In buffer area only
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area	In buffer area only
Onychoprion anaethetus as Sterna anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In buffer area only
Sterna dougallii Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Sternula albifrons as Sterna albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area	In buffer area only
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area overfly marine area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area	In buffer area only
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Fish			
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area	In buffer area only
Campichthys galei Gale's Pipefish [66191]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In buffer area only
Hippocampus angustus Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area	In buffer area only
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In buffer area only
Hippocampus subelongatus West Australian Seahorse [66722]		Species or species habitat may occur within area	In buffer area only
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In buffer area only
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In buffer area only
Lissocampus fatiloquus Prophet's Pipefish [66250]		Species or species habitat may occur within area	In buffer area only
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only
Mitotichthys meraculus Western Crested Pipefish [66259]		Species or species habitat may occur within area	In buffer area only
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In buffer area only
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In buffer area only
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In buffer area only
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In buffer area only
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In buffer area only
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In buffer area only
Mammal			
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Neophoca cinerea			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Reptile			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Hydrophis kingii as Disteira kingii			
Spectacled Sea Snake [93511]		Species or species habitat may occur within area	In buffer area only
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Whales and Other Cetaceans [Resource Information]			
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata			
Minke Whale [33]		Species or species habitat may occur within area	In buffer area only
Balaenoptera edeni			
Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus			
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Caperea marginata Pygmy Right Whale [39]	Endangered	Species or species habitat may occur within area	In buffer area only
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Eubalaena australis Southern Right Whale [40]		Breeding known to occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Balannup Lake	Nature Reserve	WA	In buffer area only
Canning River	Management Area	WA	In buffer area only
Forrestdale Lake	Nature Reserve	WA	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
Gibbs Road	Nature Reserve	WA	In buffer area only
Harry Waring Marsupial Reserve	Nature Reserve	WA	In buffer area only
Piara	Nature Reserve	WA	In buffer area only
Thomsons Lake	Nature Reserve	WA	In feature area
Unnamed WA39584	Conservation Park	WA	In buffer area only
Unnamed WA39752	Conservation Park	WA	In buffer area only
Unnamed WA42469	Nature Reserve	WA	In buffer area only
Unnamed WA48291	Conservation Park	WA	In buffer area only
Unnamed WA49220	Conservation Park	WA	In buffer area only
Unnamed WA49561	Conservation Park	WA	In buffer area only
Unnamed WA53313	Conservation Park	WA	In feature area
Unnamed WA53632	Conservation Park	WA	In buffer area only
Wandi	Nature Reserve	WA	In buffer area only

Nationally Important Wetlands		[Resource Information]	
Wetland Name	State	Buffer Status	
Booragoon Swamp	WA	In buffer area only	
Forrestdale Lake	WA	In buffer area only	
Gibbs Road Swamp System	WA	In buffer area only	
Spectacles Swamp	WA	In buffer area only	
Swan-Canning Estuary	WA	In buffer area only	
Thomsons Lake	WA	In buffer area only	

EPBC Act Referrals					[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
119 Hammond Road Residential Development	2023/09541		Completed	In feature area	
Abercrombie Road Quarry	2023/09465		Assessment	In buffer area only	
Anketell Road Upgrade (Leith Road to Kwinana Freeway)	2024/09841		Assessment	In buffer area only	

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Beale Park Redevelopment	2022/09297		Assessment	In buffer area only
Cockburn Surf Park	2022/09267		Completed	In buffer area only
Hammond Park Mixed Use Development	2024/09820		Assessment	In buffer area only
Jandakot Airport Expansion, Commercial Development and Clearing of Vegetation	2009/4796		Approval	In buffer area only
JANDAKOT EASTERN LINK ROAD	2022/09401		Completed	In buffer area only
Jandakot Horse Agistment	2022/09280		Assessment	In buffer area only
Kwinana Alumina Refinery ? Future Residue Storage Area	2023/09454		Completed	In buffer area only
Land clearing for limestone quarry	2023/09558		Completed	In buffer area only
Lot 16 Barfield Road: Residential Development	2023/09450		Approval	In buffer area only
Outer Harbour Port Development, Kwinana	2024/09859		Referral Decision	In buffer area only
Residential Development, Wattleup Road, Hammond Park, WA	2021/8933		Post-Approval	In buffer area only
Vegetation clearing (Cwlth land), Jandakot Airport, Cockburn, WA	2013/7032		Post-Approval	In buffer area only
Controlled action				
Alcoa Bauxite Residue Storage Area Extension	2011/5878	Controlled Action	Further Information Request	In buffer area only
Clearing of Lots 2 and 10 Rowley Road, Mandogalup WA	2018/8182	Controlled Action	Assessment Approach	In buffer area only
Construction of Fiona Stanley Hospital	2008/3970	Controlled Action	Post-Approval	In buffer area only
Development of Kwinana Quay port facility	2008/4387	Controlled Action	Completed	In buffer area only
Extension of Beeliar Drive between the junction of Mayor and Fawcett Roads an...	2003/1029	Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Hammond Park Secondary School development, WA	2016/7741	Controlled Action	Post-Approval	In buffer area only
Honeywood Estate Development	2010/5476	Controlled Action	Post-Approval	In buffer area only
Keane Road Strategic Link, proposed construction central portion of Keane Road	2009/5035	Controlled Action	Completed	In buffer area only
Latitude 32-industrial development of various lots, Ashley and Sayer Roads, Hope Valley, WA	2016/7695	Controlled Action	Post-Approval	In buffer area only
Lots 13, 14 & 18 Barfield Rd & Lots 48-51 Rowley Rd, Hammond Park	2012/6524	Controlled Action	Post-Approval	In buffer area only
Mandogalup Urban Development, Mandogalup, WA	2014/7308	Controlled Action	Post-Approval	In buffer area only
Natural Gas Pipeline Expansion	2006/2813	Controlled Action	Post-Approval	In buffer area only
Ranford Road Residential Development	2002/549	Controlled Action	Post-Approval	In buffer area only
Residential development and bushfire protection within part Lot 9006 Reilly Road, Harrisdale, WA	2016/7846	Controlled Action	Post-Approval	In buffer area only
Residential Development Lot 131 Jandakot Road, Treeby WA	2018/8205	Controlled Action	Further Information Request	In buffer area only
Residential developmnt, Lots 11 and 74 Beenyup Road, Banjup, WA	2017/7923	Controlled Action	Post-Approval	In buffer area only
Residential Estate Development, Lot 682 Rowley Road, Mandogalup, Western Australia	2014/7126	Controlled Action	Post-Approval	In buffer area only
Roe Highway extension, Kwinana Freeway to Stock Road, WA	2009/5031	Controlled Action	Post-Approval	In buffer area only
Roe Hwy Extension	2003/972	Controlled Action	Post-Approval	In buffer area only
Shenton Park Subdivision	2004/1479	Controlled Action	Completed	In buffer area only
Thornlie-Cockburn Link Project, WA	2018/8188	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
'Looping 10' gas transmission pipeline from Kwinana to	2005/2212	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Hopelands				
Armadale Road Duplication - Tapper to Anstey Road	2017/7972	Not Controlled Action	Completed	In buffer area only
Armadale Road to North Lake Road Bridge development, Jandakot, WA	2018/8284	Not Controlled Action	Completed	In buffer area only
Bibra Lake Aboriginal Cultural Centre Development	2020/8642	Not Controlled Action	Completed	In buffer area only
Bushfire hazard reduction, Lot 37 Barfield Road, Hammond Park, WA	2018/8204	Not Controlled Action	Completed	In buffer area only
Calleya Residential Development, Banjup, WA	2016/7708	Not Controlled Action	Completed	In buffer area only
Clearing and development of 220 and 234 Wattleup Rd, Wattleup, WA	2016/7738	Not Controlled Action	Completed	In buffer area only
Clearing of Native Vegetation, Hammond Park, WA	2011/6041	Not Controlled Action	Completed	In buffer area only
Commercial development of Lot 106 Wright Road, Forrestdale WA	2003/1255	Not Controlled Action	Completed	In buffer area only
Construction of Hammond Road Primary School, Hammond Park, WA	2012/6619	Not Controlled Action	Completed	In buffer area only
Construction of international rowing course and commercial/residential areas	2003/1034	Not Controlled Action	Completed	In buffer area only
Development of Lots 100-101 Sayer Road, Hope Valley, WA	2019/8399	Not Controlled Action	Completed	In buffer area only
Eradication of the European House Borer, Perth metropolitan area, WA	2009/5027	Not Controlled Action	Completed	In buffer area only
Expansion of berthing facilities at Kwinana Bulk Terminal	2006/2509	Not Controlled Action	Completed	In buffer area only
Expansion of existing Ammonium Nitrate Production Facility	2005/1941	Not Controlled Action	Completed	In buffer area only
Frankland Parks Oval project, Hammond Park, WA	2018/8369	Not Controlled Action	Completed	In buffer area only
Fremantle Ports Inner Harbour Capital Dredging Proposal	2005/2477	Not Controlled Action	Completed	In buffer area only
Gas-fired Power Station	2005/2213	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Hammond West Urban Development, Hammond Park, WA	2017/7917	Not Controlled Action	Completed	In buffer area only
Hazard reduction and site access, Lot 682 Rowley Road, Mandogalup, WA	2018/8186	Not Controlled Action	Completed	In buffer area only
High Street Upgrade, Fremantle, WA	2018/8315	Not Controlled Action	Completed	In buffer area only
Hope Valley-Wattleup Redevelopment Project	2020/8644	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Industrial development 105 Sayer Road, Hope Valley, WA	2014/7261	Not Controlled Action	Completed	In buffer area only
Industrial Development Lot 64 Ashley Road, Hope Valley, WA	2014/7238	Not Controlled Action	Completed	In buffer area only
Jandakot Road Widening, Solomon Road to Berrigan Drive, Jandakot, WA	2020/8728	Not Controlled Action	Completed	In buffer area only
Kwinana Fwy southbound widening Roe Hwy to Armadale Rd and construction of farrington Rd off-ramp	2013/7062	Not Controlled Action	Completed	In buffer area only
Kwinana Gas-Fired Power Station	2005/2101	Not Controlled Action	Completed	In buffer area only
Latitude 32 industrial development 6A, Cockburn, WA	2018/8193	Not Controlled Action	Completed	In buffer area only
Lot 170 Hope Valley Road, Hope Valley	2020/8830	Not Controlled Action	Completed	In buffer area only
Lot 28 157 Barfield Road, Hammond Park - Proposed Residential Development	2021/9063	Not Controlled Action	Completed	In buffer area only
Lot 29 Barfield Road, Hammond Park	2017/7948	Not Controlled Action	Completed	In buffer area only
Lot 2 Nicholson Road, Forrestdale	2012/6561	Not Controlled Action	Completed	In buffer area only
Lots 12, 13 and 18 Hammond Road, Lot 80 Beeliar Drive and Lot 500 Hird Road	2012/6576	Not Controlled Action	Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Murdoch University Sports Precinct, Melville, WA	2016/7823	Not Controlled Action	Completed	In buffer area only
Oakford Village development, Shire of Serpentine-Jarrahdale, WA	2018/8157	Not Controlled Action	Completed	In buffer area only
Perth Desalination Plant 2	2019/8454	Not Controlled Action	Completed	In buffer area only
Perth Seawater Desalination Project: Thomsons Lake to Kogolup Pipeline	2005/1971	Not Controlled Action	Completed	In feature area
Redevelopment of Purvis Street school site, Hamilton Hill, WA	2018/8255	Not Controlled Action	Completed	In buffer area only
Residential Development, Lot 12 Lyon Road, Aubin Grove, WA	2013/6852	Not Controlled Action	Completed	In buffer area only
Residential development, Lot 13 Lyon Road, Aubin Grove, WA	2014/7151	Not Controlled Action	Completed	In buffer area only
Residential development, Lot 33 Barfield Road, Hammond Park, WA	2015/7548	Not Controlled Action	Completed	In buffer area only
Residential development, Lot 74 Wattleup Road, Hammond Park, WA	2018/8273	Not Controlled Action	Completed	In buffer area only
Residential development, Lots 124 and 125, Wattleup Road, Hammond Park, WA	2015/7519	Not Controlled Action	Completed	In buffer area only
Residential development, Lots 1 and 7-11 Lyon Rd and Lot 88 De Haer Rd, Wandí, WA	2017/7908	Not Controlled Action	Completed	In buffer area only
Residential Development Lot 4225 North Lake Road, Kardinya, WA	2015/7505	Not Controlled Action	Completed	In buffer area only
Residential development of Lot 7 Anketell Rd, Anketell, WA	2018/8281	Not Controlled Action	Completed	In buffer area only
Residential Development of Lots 76 and 107 Wattleup Road, Hamond Park	2020/8865	Not Controlled Action	Completed	In buffer area only
Residential development on part of Lot 2 Fanstone Avenue, Beeliar, WA	2016/7726	Not Controlled Action	Completed	In buffer area only
Residential estate, multiple lots, Mandogalup, WA	2018/8264	Not Controlled Action	Completed	In buffer area only
Roe Highway - Karel Avenue to Hope Road Bridge Project	2005/2061	Not Controlled Action	Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Sand extraction operation, Lot 1 Thomas Road, Oakford, WA	2017/8136	Not Controlled Action	Completed	In buffer area only
South Metropolitan Crop Research Hub, Murdoch WA	2018/8201	Not Controlled Action	Completed	In buffer area only
Stages 2-5 of primary school and assoc facilities development, Hammond Park, WA	2015/7407	Not Controlled Action	Completed	In buffer area only
Subdivision, Lot 4 Anketell Road, Anketell, WA	2018/8145	Not Controlled Action	Completed	In buffer area only
Translocation of orchids (Caladenia huegelii) from Roe Hway Reserve	2002/781	Not Controlled Action	Completed	In buffer area only
Urban development, Lot 109 Wattleup Road, Hammond Park, WA	2015/7425	Not Controlled Action	Completed	In buffer area only
Urban development Lots 3, 1199 and 650 Thomas Road, Casuarina, WA	2016/7659	Not Controlled Action	Completed	In buffer area only
Urban development of Lot 107 Wattleup Road, Hammond Park, WA	2017/7890	Not Controlled Action	Completed	In buffer area only
Urban developmnet & associated infrastructure, Lot 4 Armadale Road, Banjup WA	2013/7049	Not Controlled Action	Completed	In buffer area only
Wandi South residential development Kenby Close & Lyon Rd, Wandi, WA	2014/7198	Not Controlled Action	Completed	In buffer area only
Wentworth West residential development, Bartram Road, Success, WA	2014/7245	Not Controlled Action	Completed	In buffer area only
Wungong Transfer Mains Project	2007/3532	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
City of Cockburn Sporting Facilties	2005/2139	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Extension of Spearwood Ave, from Barrington Rd to Miguel Rd	2009/5140	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
South West Metropolitan Railway Project	2003/1175	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
AIC Forrestdale Campus, Educational Establishment	2021/9134	Referral Decision	Referral Publication	In buffer area only
Rezoning of Crown Reserve 39181 to facilitate future residential development	2005/2096	Referral Decision	Completed	In feature area
Biologically Important Areas				
		[Resource Information]		
Scientific Name		Behaviour	Presence	Buffer Status
Seabirds				
Ardenna pacifica				
Wedge-tailed Shearwater [84292]		Foraging (in high numbers)	Known to occur	In buffer area only
Eudyptula minor				
Little Penguin [1085]		Foraging (provisioning young)	Known to occur	In buffer area only
Hydroprogne caspia				
Caspian Tern [808]		Foraging (provisioning young)	Known to occur	In buffer area only
Larus pacificus				
Pacific Gull [811]		Foraging (in high numbers)	Former Range	In buffer area only
Onychoprion anaethetus				
Bridled Tern [82845]		Foraging (in high numbers)	Known to occur	In buffer area only
Puffinus assimilis tunneyi				
Little Shearwater [59363]		Foraging (in high numbers)	Known to occur	In buffer area only
Sterna dougallii				
Roseate Tern [817]		Foraging	Known to occur	In buffer area only
Sternula nereis				
Fairy Tern [82949]		Foraging (in high	Known to occur	In buffer area only

Scientific Name	Behaviour numbers)	Presence	Buffer Status
Seals			
Neophoca cinerea			
Australian Sea Lion [22]	Foraging (male)	Likely to occur	In buffer area only
Whales			
Megaptera novaeangliae			
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 is 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 on the contents of this report.

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 point locations and environmental data layers.

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 when time permits.

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 breeding sites; and
- 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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