

Fauna Assessment



Capel Village

**Lot 12, 28 & 165
Capel Drive, Forrest & Roe Road**

Capel

September 2025

V1

On behalf of:

Doepel Marsh Architects
PO Box 308
SUBIACO WA 6904
P: 9388 2281
E: felicityc@doepelmarsh.com.au

Prepared by:

Greg Harewood
Zoologist
PO Box 755
BUNBURY WA 6231
M: 0402 141 197
E: greg.harewood@hotmail.com

TABLE OF CONTENTS

SUMMARY

1.	INTRODUCTION	1
2.	SCOPE OF WORKS	1
3.	METHODS	2
3.1	LITERATURE REVIEW – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE	2
3.2	FIELD SURVEYS	3
3.2.1	FAUNA HABITAT ASSESSMENT	3
3.2.2	BLACK COCKATOO HABITAT ASSESSMENT	3
3.2.2.1	Breeding Habitat Assessment	4
3.2.2.2	Foraging Habitat Assessment	5
3.2.2.3	Night Roosting Habitat Assessment	5
3.2.3	WESTERN RINGTAIL POSSUM ASSESSMENT	6
3.2.3.1	Daytime Surveys	6
3.2.3.2	Night Time Surveys	6
3.2.3.3	Habitat Assessment	6
3.2.4	OTHER FAUNA SPECIES OF CONSERVATION SIGNIFICANCE	6
3.3	LIKELIHOOD OF OCCURRENCE – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE	6
4.	SURVEY LIMITATIONS	7
5.	RESULTS	8
5.1	LITERATURE REVIEW – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE	8
5.2	FIELD SURVEYS	10
5.2.1	FAUNA HABITAT ASSESSMENT	10
5.2.2	BLACK COCKATOO HABITAT ASSESSMENT	11
5.2.2.1	Breeding Habitat Assessment	11

5.2.2.2	Foraging Habitat Assessment.....	12
5.2.2.3	Night Roosting Habitat Assessment	13
5.2.3	WESTERN RINGTAIL POSSUM ASSESSMENT.....	14
5.2.3.1	Daytime Survey	14
5.2.3.2	Night Time Survey	14
5.2.3.3	Habitat Assessment.....	14
5.2.4	OTHER FAUNA SPECIES OF CONSERVATION SIGNIFICANCE.....	14
5.3	LIKELIHOOD OF OCCURRENCE – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE.....	15
6.	CONCLUSION	21
7.	REFERENCES	22

FIGURES

FIGURE 1:	Survey Area - Aerial Photograph
FIGURE 2:	Survey Area – Proposed Development Plan
FIGURE 3:	Survey Area - Black Cockatoo Habitat Trees (DBH >30cm)
FIGURE 4:	Survey Area – Possum Observations

TABLES

TABLE 1:	Conservation significant fauna previously recorded or potentially occurring within in the general vicinity of survey area
TABLE 2:	Example images of the fauna habitats within the survey area
TABLE 3:	Summary of black cockatoo breeding habitat trees (DBH >30cm) within the survey area
TABLE 4:	Black cockatoo foraging evidence examples
TABLE 5:	Likelihood of occurrence – fauna species of conservation significance

APPENDICES

APPENDIX A: Conservation Categories

APPENDIX B: Dandjoo Database Search and Protected Matters Search Tool Results

APPENDIX C: Details - Habitat Trees

SUMMARY

This report details the results of a fauna assessment carried out over Lot 12, 28 & 165 Capel Drive, Forrest and Roe Road, Capel (the survey area). The survey area has a combined extent of about 3.9 hectares (ha) (Figure 1).

It is understood that the landowners are proposing a mixed use development over sections of the survey area and will require the removal of some existing fauna habitat (Figure 2). The information gained from the fauna assessment will be used to support a development application subject to review by various local and state government departments.

To comply with anticipated information requirements, a “basic” fauna assessment in addition to targeted surveys for black cockatoo habitat and western ringtail possums was carried out.

The field components of the fauna assessment were carried out on 20 (day survey) and 30 (night survey) August 2025 by Greg Harewood (Zoologist).

Key Findings

- The 3.9 ha survey area has been subject to significant historical disturbance with most of the natural vegetation having been removed. The northwestern section of the survey area contains the Capel Tavern with associated car parking areas, sheds and a horse stable. This section of the survey area contains areas of planted gardens with a range of non-endemic and exotic plant species. The balance of the survey area is represented by open pasture/paddocks containing some remnant native vegetation in the form of scattered trees, mainly peppermint, marri and flooded gum, with a small number of non-endemic eucalypts. The survey area is bordered along its northern boundary by the Capel River.
- As a consequence of the area's history of disturbance and lack of natural vegetation the original fauna diversity has been significantly compromised. The area would now only support a small subset of the original fauna assemblage with most (though not all) of those using the area generally being widespread, common species (mostly birds) able to persist in highly disturbed areas
- The survey area contains no hollow bearing trees suitable for breeding black cockatoos and the black cockatoo foraging habitat present is of low overall value. No evidence of black cockatoos roosting was evident during the survey period.
- The presence of a small number of western ringtail possums within vegetation in the survey area was confirmed and will need to be taken into consideration during the approval and development process.

- In summary two vertebrate fauna species of conservation significance (listed as State and/or Federal threatened/migratory species or as DBCA priority species) were positively identified as utilising the survey area, these being:
 - Forest Red-tailed Black Cockatoo – Vulnerable (WA/Federal)
 - Western Ringtail Possum – Critically Endangered (WA/Federal)
- Several additional species of conservation significance may also utilise the survey area, though, as no evidence of their presence was identified during the field survey, their status in the area remains uncertain.
- In cases where some habitat is present and available information indicates at least some probability of a species occurrence, likely impacts are anticipated to be related to the loss of small areas of habitat and in some cases, the potential for fauna to be killed or injured during clearing. This in particular relates to western ringtail possums.
- It is recommended that a fauna management plan be formulated and implemented during site clearing, with the primary component being the engagement of a suitable qualified and experienced “fauna spotter” given the task of minimising the risk to any fauna encountered.
- It is also recommended that any proposed landscaping/revegetation include plant species favoured by western ringtail possums and black cockatoos including but not limited to peppermint (*Agonis flexuosa*) and a range of foraging species (e.g. marri (*Corymbia calophylla*)).

1. INTRODUCTION

This report details the results of a fauna assessment carried out over Lot 12, 28 & 165 Capel Drive, Forrest and Roe Road, Capel (the survey area). The survey area has a combined extent of about 3.9 hectares (ha) (Figure 1).

It is understood that the landowners are proposing a mixed use development over sections of the survey area and will require the removal of some existing fauna habitat. The information gained from the fauna assessment will be used to support a development application subject to review by various local and state government departments (Figure 2).

More specifically it is understood that the Shire of Capel (the Shire) require a “native fauna assessment” and the Western Australian Planning Commission (WAPC) a “fauna survey” to assist in determining potential impacts of the proposal.

The results of the assessment/survey will also be used to formulate environmental/habitat preservation management plans, as required.

2. SCOPE OF WORKS

To comply with anticipated requirements, a “basic” fauna assessment in addition to targeted surveys for black cockatoo habitat and western ringtail possums was carried out and involved:

1. A basic (Level 1) fauna assessment (EPA 2020),
2. Targeted searches for black cockatoo habitat/site use (habitat trees, existing and potential nest hollows, foraging and roosting habitat).
3. Targeted day and night searches for western ringtail possum habitat/site use (foraging, refuge and dispersal habitat and individuals).
4. Opportunistic recording of other fauna encountered, with comments on the likelihood of other fauna of conservation significance occurring provided, and
5. Report for summarising methods, results and management recommendations.

Note: For the purposes of this report the term black cockatoo is in reference to Baudin's cockatoo *Zanda baudinii*, Carnaby's cockatoo *Zanda latirostris* and the forest red-tailed black cockatoo *Calyptorhynchus banksii naso*.

3. METHODS

3.1 LITERATURE REVIEW – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE

A list of conservation significant fauna recorded or likely to occur within the survey area has been compiled by a review of available databases and literature including, but not limited to the following data sources:

- Department of Biodiversity, Conservation and Attractions' (DBCA) Threatened Fauna Database (Dandjoo) search (DBCA 2025). A 10 km buffer around the survey area was applied to capture previous fauna records within the immediate vicinity.
- Department of Climate Change, Energy Agriculture, Water and the Environment's (DCCEEW) Protected Matters database search for fauna listed as being of national environmental significance (NES) under the Environment Protection and Biodiversity Conservation Act 1999 (the *EPBC Act*) (DCCEEW 2025). The minimum buffer (0 km) was applied to this search as the databases contains distribution data (areas) and not actual fauna records.

The conservation status of the listed fauna species has been assessed using data from the following sources:

- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Administered by the DCCEEW.
- *Biodiversity Conservation Act 2016 (BC Act)*. Administered by the Western Australian DBCA (Govt. of WA 2025).
- Red List produced by the Species Survival Commission (SSC) of the World Conservation Union (also known as the IUCN Red List - the acronym derived from its former name of the International Union for Conservation of Nature and Natural Resources). The Red List has no legislative power in Australia but is used as a framework for State and Commonwealth categories and criteria, and the
- DBCA Priority Fauna list. A non-statutory list maintained by the DBCA for management purposes (DBCA 2025).

The *EPBC Act* and *BC Act* also requires the compilation of a list of migratory species that are recognised under international treaties including the:

- Japan Australia Migratory Bird Agreement 1981 (JAMBA).
- China Australia Migratory Bird Agreement 1998 (CAMBA).
- Republic of Korea-Australia Migratory Bird Agreement 2007 (ROKAMBA), and

- Bonn Convention 1979 (The Convention on the Conservation of Migratory Species of Wild Animals).

Most, but not all migratory bird species listed in the annexes to these bilateral agreements are also protected in Australia as matters of national environmental significance under the *EPBC Act*. However, species only classified as ‘marine’ under the *EPBC Act* are not discussed as they are not considered as specially protected under the NES classification.

The conservation status of the threatened/migratory/priority fauna species listed as occurring or possibly occurring in the vicinity of the survey area has been assessed using the most recent lists published in accordance with the above-mentioned instruments and is indicated as such in the fauna listings of this report. A full listing of conservation codes is provided in Appendix A.

3.2 FIELD SURVEYS

The field components of the fauna assessment were carried out on 20 (day survey) and 30 (night survey) August 2025 by Greg Harewood (Zoologist).

3.2.1 FAUNA HABITAT ASSESSMENT

Vegetation units identified during the daytime reconnaissance survey have been used to define broad scale fauna habitats across the survey area. The main aim of the habitat assessment was to determine which fauna species of conservation significance would be most likely to be utilising the survey area.

As part of the desktop literature review, available information on the habitat requirements of the species of conservation significance listed as possibly occurring in the area was researched. During the field survey the habitats within the survey area were assessed and specific elements identified, if present, to determine the likelihood of listed threatened species utilising the area and its significance to them.

3.2.2 BLACK COCKATOO HABITAT ASSESSMENT

The following methods were employed to comply with the defined scope of works and are based on Commonwealth of Australia (2012 and 2022) guidelines which state that surveys of black cockatoo habitat should:

- be done by a suitably qualified person with experience in vegetation or cockatoo surveys, depending on the type of survey being undertaken.
- maximise the chance of detecting the species’ habitat and/or signs of use.
- determine the context of the site within the broader landscape—for example, the amount and quality of habitat nearby and in the local region (for example, within 12 km).
- account for uncertainty and error (false presence and absences), and

- include collation of existing data on known locations of breeding and feeding birds and night roost locations.

The Commonwealth of Australia (2012) places habitats used by black cockatoos into the following three categories:

- Breeding Habitat.
- Foraging Habitat, and
- Night Roosting Habitat.

3.2.2.1 Breeding Habitat Assessment

The black cockatoo breeding habitat assessment identified all suitable breeding tree species within the survey area that have a diameter at breast height (DBH) equal to or greater than 30 centimetres (cm). The DBH of each tree was estimated using a pre-made “caliper”.

Target tree species included marri, jarrah, tuart and flooded gum and any other *Corymbia/Eucalyptus* species of a suitable size that was present. Peppermints, *Banksia*, sheoak and *Melaleuca* tree species (for example) were not assessed as they typically do not develop hollows used by black cockatoos.

The location of each tree identified as being over the threshold DBH was recorded with a GPS and details on tree species, number and size of hollows (if any) noted.

Hollow/potential hollows were placed into one of four categories, based on the size of the apparent hollow entrance, these being:

- Small = $\sim < 5$ cm diameter (i.e. entrance too small for a black cockatoo);
- Medium = ~ 5 cm-10 cm diameter (i.e. entrance too small for a black cockatoo);
- Large = $\sim > 10$ cm diameter (entrance large enough for a black cockatoo but hollow appears unsuitable for nesting i.e. wrong orientation, appears too small, too low or too shallow); or
- Large (cockatoo) = $\sim > 10$ cm diameter (entrance and apparent hollow appears big enough and suitably sized/orientated for a black cockatoo to use for nesting).

Based on this assessment, trees present within the survey area were placed into one of five categories as defined by Commonwealth of Australia (2022):

- **Not a potential or suitable nesting tree** - Tree < 30 cm DBH or an unsuitable species (these were not recorded).
- **Potential nesting tree (no hollows)** - Tree ≥ 30 cm DBH, no hollows seen (these were not recorded).

- **Potential nesting tree (hollows or possible hollows)** - Tree ≥ 30 cm DBH, one or more hollows seen, none of which were considered suitable for black cockatoos to use for nesting.
- **Suitable nesting tree** - Tree ≥ 30 cm DBH, one or more hollows seen, with at least one considered suitable for black cockatoos to use for nesting, but with no evidence of use, or
- **Known nesting tree** - Tree ≥ 30 cm DBH, one or more hollows seen, where black cockatoo breeding has been recorded or which demonstrates evidence of breeding (i.e. showing evidence of use through scratches, chew marks or feathers).

For the purposes of this assessment, a tree containing a potential black cockatoo nest hollow was defined as:

Generally, any tree which is alive or dead that contains one or more visible hollows (cavities within the trunk or branches) or possible hollows potentially suitable for occupation by black cockatoo for the purpose of nesting/breeding. Hollows or possible hollows that had an entrance greater than about 10cm in diameter and would allow the entry of a black cockatoo into a suitably orientated and sized branch/trunk, were recorded as a “potential nest hollow”.

Identified hollows, if observed, were examined using binoculars for evidence of actual use by black cockatoos (e.g. chewing around hollow entrance, scarring and scratch marks on trunks and branches). Where considered warranted, suspect hollows were also examined and photographed using a drone and/or pole mounted camera.

A review of available literature was carried out to determine the location/extent of any known/likely black cockatoo breeding habitat areas in the vicinity of the survey area.

3.2.2.2 Foraging Habitat Assessment

Foraging habitat is represented by plant species that are known to provide a food source for black cockatoos. This can be in the form of seeds, flowers and also boring grubs that are extracted from some plant species.

The location and nature of black cockatoo foraging evidence (e.g. chewed fruits around base of trees) observed during the field survey was recorded. The nature and extent of potential foraging habitat present was documented irrespective of the presence of any actual foraging evidence.

A review of available literature was also carried out to determine the location/extent of any known/likely black cockatoo foraging habitat areas in the vicinity of the survey area.

3.2.2.3 Night Roosting Habitat Assessment

Direct and indirect evidence of black cockatoos roosting within trees on site was noted where observed (e.g. branch clippings, droppings or moulted feathers).

A review of available literature was carried out to determine the location/extent of any known/likely black cockatoo roosting habitat areas in the vicinity.

3.2.3 WESTERN RINGTAIL POSSUM ASSESSMENT

3.2.3.1 Daytime Surveys

Evidence of the presence of WRPs (i.e. dreys, obvious tree hollows, scats and individuals) was searched for and recorded during the daytime field reconnaissance survey. All areas of suitable vegetation were examined at least once.

3.2.3.2 Night Time Surveys

One night-time survey to locate and record individual WRPs was carried out. The survey involved a series of transects around areas of suitable habitat, on foot using a LED head torch.

3.2.3.3 Habitat Assessment

Description and comments on the amount and quality of WRP habitat within the survey area are provided based on observations made during the site surveys.

3.2.4 OTHER FAUNA SPECIES OF CONSERVATION SIGNIFICANCE

Evidence of the presence or likely presence of fauna species of conservation significance (or suitable habitat) was searched for and recorded concurrent with other site surveys. Opportunistic observations of all fauna species were made during all field survey work and recorded where positive species identifications were made.

This aspect of the assessment included but was not limited to:

- Undertaking a series of transects across the survey area.
- Searching for evidence (i.e. individuals, tracks, scats, calls) of potential conservation significant species under logs, rocks and leaf litter.
- Observing bird species with binoculars.

3.3 LIKELIHOOD OF OCCURRENCE – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE

Based on the information gathered during the site reconnaissance survey and the documented distribution and habitat preferences of the species of conservation significance identified as potentially being present in the general area, their likelihood of occurrence within the survey area itself has been assessed. The rankings and criteria used were:

- Would Not Occur: There is no suitable habitat for the species in the survey area and/or there is no documented record of the species in the general area since

records have been kept and/or the species is generally accepted as being locally/regionally extinct (supported by a lack of recent records).

- Locally Extinct: Populations no longer occur within a small part of the species natural range, in this case within 10 or 20km of the survey area. Populations do however persist outside of this area.
- Regionally Extinct: Populations no longer occur in a large part of the species original, natural range, in this case within the southern Swan Coastal Plain area. Populations do however persist outside of this area.
- Unlikely to Occur: The survey area is outside of the currently documented distribution for the species in question, or no suitable habitat (type, quality and extent) was identified as being present during the field assessment. Individuals of some species may occur occasionally as vagrants/transients especially if suitable habitat is located nearby, but the survey area itself would not support a population or part population of the species.
- Possibly Occurs: The survey area is within the known distribution of the species in question and habitat of at least marginal quality was identified as being present during the field assessment, supported in some cases by recent records being documented in literature from within or near the survey area. In some cases, while a species may be classified as possibly being present at times, habitat may be marginal (e.g. poor quality, fragmented, limited in extent) and therefore the frequency of occurrence and/or population levels may be low.
- Known to Occur: The species in question was positively identified as being present (for sedentary species) or as using the survey area as habitat for some other purpose (for non-sedentary/mobile species) during the field survey. This information may have been obtained by direct observation of individuals or by way of secondary evidence (e.g. foraging debris, tracks and scats). In some cases, while a species may be classified as known to occur, habitat may be marginal (e.g. poor quality, fragmented, limited in extent) and therefore the frequency of occurrence and/or population levels may be low.

4. SURVEY LIMITATIONS

No seasonal sampling was carried out as part of this fauna assessment. The conclusions presented are based upon field data and the environmental monitoring and/or testing carried out over a limited period of time and are therefore merely indicative of the environmental condition of the site at the time of the field assessments. It should be recognised that site conditions can change with time.

Lack of observational data on some species should also not necessarily be taken as an indication that a species is absent from the site or does not utilise it for some purpose at times.

During the survey, habitat trees with hollows were searched for. It should be noted that identifying hollows suitable for fauna species from ground level has limitations. Generally, the full characteristics of any hollow seen are not fully evident (e.g. internal dimensions). It is also difficult to locate all hollows within all trees as some are not observable from ground level. Where considered warranted and if feasible a drone and/or pole camera was deployed to assist in assessing the characteristics of tree hollows.

The location of observations was recorded using a handheld GPS. The accuracy of the GPS cannot be guaranteed above a level of about 5 to 10 metres, though it should be noted that in some circumstance the accuracy can increase or decrease beyond this range.

5. RESULTS

5.1 LITERATURE REVIEW – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE

The literature review identified multiple fauna species of conservation significance as potentially occurring in the general area as listed in Table 1. The Dandjoo database (DBCA 2025) and Protected Matters Search Tool (DCCEEW 2025) results, used as a primary source for compiling this listing, are held within Appendix B.

Given the survey area's proximity to some rivers, estuaries and the ocean several migratory shorebirds and/or wetland/marine fauna have appeared in the database searches. These species are in most cases not specifically listed or discussed in this report given there is no suitable habitat for any within the survey area. None of these species would, under normal circumstances, occur within the survey area or be impacted on by the proposed works.

The likelihood of the below listed species occurring within the survey area is provided in Section 5.3 of the report.

Table 1: Conservation significant fauna previously recorded or potentially occurring within the general vicinity of the survey area.

Species	Conservation Status ¹	
	BC Act	EPBC Act
Irvine's Bothriembryontid land snail <i>Bothriembryon irvineanus</i>	P2	-
Margaret River hairy marron <i>Cherax tenuimanus</i>	CR	CR
Swan Coastal Plain shield-backed trapdoor spider <i>Idiosoma sigillatum</i>	P3	-
Pouched Lamprey <i>Geotria australis</i>	P3	-
Carter's Freshwater Mussel <i>Westralunio carteri</i>	VU	VU
Black-stripe Minnow <i>Galaxiella nigrostriata</i>	EN	EN
Perth Slider <i>Lerista lineata</i>	P3	-
Coastal Plains Skink <i>Ctenotus ora</i>	P3	-
Migratory Shorebirds/Wetland Species	Various	Various
Australasian Bittern <i>Botaurus poiciloptilus</i>	EN	EN
Black Bittern (SW) <i>Botaurus flavicollis australis</i>	P2	-
Blue Billed Duck <i>Oxyura australis</i>	P4	-
Peregrine Falcon <i>Falco peregrinus</i>	OS	-
Grey Falcon <i>Falco hypoleucos</i>	VU	VU
Osprey <i>Pandion haliaetus</i>	MI	Mig
Masked Owl <i>Tyto n. novaehollandiae</i>	P3	-
Carnaby's Cockatoo <i>Zanda latirostris</i>	EN	EN
Baudin's Cockatoo <i>Zanda baudinii</i>	EN	EN
Forest Red-tailed Black Cockatoo <i>Calyptrorhynchus banksii naso</i>	VU	VU
Fork-tailed Swift <i>Apus pacificus</i>	MI	Mig
Grey Wagtail <i>Motacilla cinerea</i>	MI	Mig
Quenda <i>Isodon fusciventer</i>	P4	-
Chuditch <i>Dasyurus geoffroii</i>	VU	VU
South-western Brush-tailed Phascogale <i>Phascogale tapoatafa wambenger</i>	CD	-
Western Ringtail Possum <i>Pseudocheirus occidentalis</i>	CR	CR
Bilby <i>Macrotis lagotis</i>	VU	VU
Quokka <i>Setonix brachyurus</i>	VU	VU
Western Brush Wallaby <i>Notamacropus irma</i>	P4	-
Woylie <i>Bettongia penicillata ogilbyi</i>	CR	EN
Western Mouse <i>Pseudomys occidentalis</i>	P4	-
Water Rat <i>Hydromys chrysogaster</i>	P4	-
Western False Pipistrelle <i>Falsistrellus mackenziei</i>	P4	-

¹ See Appendix A for conservation status codes

5.2 FIELD SURVEYS



5.2.1 FAUNA HABITAT ASSESSMENT



The 3.9 ha survey area has been subject to significant historical disturbance with most of the natural vegetation having been removed. The northwestern section of the survey area contains the Capel Tavern with associated car parking areas, sheds and a horse stable. This section of the survey area contains areas of planted gardens with a range of non-endemic and exotic plant species. The balance of the survey area is represented by open pasture/paddocks containing some remnant native vegetation in the form of scattered trees, mainly peppermint, marri and flooded gum, with a small number of non-endemic eucalypts. The survey area is bordered along its northern boundary by the Capel River.

To put the area of vegetation present in perspective there is about 8,000 ha of remnant native vegetation within 12 kilometres (km) of the survey area (DPIRD 2025).

Example images of the various fauna habitats present are provided in Table 2.

Table 2: Example images of the fauna habitats within the survey area

Fauna Habitat Description	Example Image
<p>Grassland/pasture of exotic species. The majority of this unit is located in the southern half of the survey area. A significant portion of this unit is within the development footprint.</p>	
<p>Low open woodland of peppermint (<i>Agonis flexuosa</i>) over a grassland of exotic species. This unit is located in the central section of the survey area. Most of this unit is within the development footprint.</p>	

Fauna Habitat Description	Example Image
<p>Woodland dominated by marri (<i>Corymbia calophylla</i>), flooded gum (<i>Eucalyptus rudis</i>) (and a small number of jarrah (<i>E. marginata</i>) and non-endemics (<i>Eucalyptus</i> spp.)). The majority of this unit borders the Capel River, outside of the development footprint.</p>	
<p>Gardens of miscellaneous exotic and non-endemic species surrounding existing buildings and within the car park. The majority of this unit is outside of the development footprint.</p>	

As a consequence of the area's history of disturbance and lack of natural vegetation the original fauna diversity has been significantly compromised. The area would now only support a small subset of the original fauna assemblage with most (though not all) of those using the area generally being widespread, common species (mostly birds) able to persist in highly disturbed areas.

5.2.2 BLACK COCKATOO HABITAT ASSESSMENT

5.2.2.1 Breeding Habitat Assessment

Trees considered potentially suitable for black cockatoos to use as nesting habitat (subject to a suitable hollow being present and other factors) found within the survey area comprised the following species:

- Marri – *Corymbia calophylla*.
- Flooded Gum - *Eucalyptus rudis*.
- Jarrah – *Eucalyptus marginata*.

- Non-endemic Eucalypts – *Eucalyptus* spp.

A summary of the habitat trees observed is provided in Table 3. The locations of habitat trees are shown in Figure 3.

Table 3: Summary of potential habitat trees (DBH \geq 30cm) within the survey area

Total Number of Habitat Trees (DBH > 30cm)	Number of Habitat Trees with <u>No Hollows Observed</u>	Number of Habitat Trees with <u>Possible Hollows</u> considered <u>Unsuitable</u> for Black Cockatoos	Number of Habitat Trees with <u>Possible Hollows</u> considered <u>Potentially suitable</u> for Black Cockatoos	Tree Species			
				Marri	Flooded Gum	Jarrah	Non-Endemic
29	28	1	0	14	6	2	7

The black cockatoo breeding habitat assessment identified 29 trees within the survey area with a DBH of \geq 30 cm. Most of these trees (28) appeared to not contain hollows of any size. One tree contained apparent or obvious hollows, all of which were assessed as being unlikely to be suitable for black cockatoos to currently use for nesting purposes, due to the hollows apparent small size, unfavourable internal characteristics, unsuitable orientation and/or low height above ground level. One potential large hollow was occupied by bees making it unsuitable for black cockatoos even if it was of a favourable nature.

Additional details on each habitat tree observed can be found in Appendix C.

Based on available mapping, there is approximately 8,000 ha of remnant native vegetation within 12 km of the survey area (DPIRD 2025). Much of this is likely to contain “potential” breeding habitat as defined by DCCEEW (i.e. suitable tree species with a DBH \geq 30 cm).

5.2.2.2 Foraging Habitat Assessment

The following flora species are known to be or are potentially used as a direct food source (e.g. seeds, flowers, nectar, bark or grubs) by one or more species of black cockatoo were recorded within or near the survey area (as reported by Clark, Lindbeck & Associates (pers. comm August 2025):

- Marri – *Corymbia calophylla*.
- Flooded Gum - *Eucalyptus rudis*.
- Jarrah – *Eucalyptus marginata*.
- Non-endemic Eucalypts – *Eucalyptus* spp.
- Peppermint – *Agonis flexuosa*, and


- Bottlebrush – *Callistemon* spp.

It should be noted that some of the flora species listed are rarely targeted by black cockatoos as a foraging resource due to their potential food source (e.g. grubs), seasonal nature and/or small fruit size (e.g. peppermint, bottlebrush and non-endemic eucalypts). While possibly foraged upon on occasions these species would make up only a small proportion of any one bird's diet relative to more favoured large fruited/higher nutritional value plant species such as marri.

Evidence of black cockatoos foraging within the survey area was found in the form of chewed marri fruits at a small number of locations. This evidence was attributed to the forest red-tailed black cockatoo based on the nature of the foraging activity.

Example images are provided in Table 4.

Table 4: Black cockatoo foraging evidence examples

Foraging Evidence Description	Example Image
Marri fruits – foraging activity attributed to the Forest Red-tailed Black Cockatoo.	

Overall, the foraging value of the survey area to black cockatoos can be regarded as being low given the limited extent of favoured foraging species across the overall site.

Based on available mapping there is about 8,000 ha of remnant native vegetation within 12 km of the survey area (DPIRD 2025). Some of this vegetation may represent black cockatoo foraging habitat of some type.

5.2.2.3 Night Roosting Habitat Assessment

No evidence of black cockatoos roosting within trees located within the survey area was observed during the survey period. It is difficult to determine if trees or groves of trees within the survey area represent potential roosting habitat as a range of factors, not all of which can be observed, determine suitability. Some of the larger trees may be suitable for roosting but as indicated no actual evidence of use was seen.

A review of the 2022 Great Cocky Count database (the most recent available) shows no documented roost sites within the survey area. The 2022 Great Cocky Count report documents the closest confirmed roost site as being approximately 2.6 kilometres

southwest of the survey area (Site ID: CAPCAPR001). This roost has not been monitored for several years but was recorded as being occupied during the 2017 survey period by 7 white-tailed black cockatoos (Pryor *et al.* 2023). There are no other confirmed roost sites within 12 km of the survey area documented by Pryor *et al.* (2023)

Based on available mapping there is however about 8,000 ha of remnant native vegetation within 12 km of the survey area (DPIRD 2025). Some of this vegetation has the potential to represent black cockatoo roosting habitat of some type.

5.2.3 WESTERN RINGTAIL POSSUM ASSESSMENT

5.2.3.1 Daytime Survey

Evidence of western ringtail possums was observed during the daytime surveys in the form of five dreys (nest like structures used for daytime refuge by WRPs) (Figure 4) and scats. Most of the dreys (4) were located in peppermint trees in the central section of the survey area (note: not all dreys were necessarily in current use). WRP scats were detected at a number of locations but were most obvious in garden areas surrounding the Tavern.

5.2.3.2 Night Time Survey

Four western ringtail possums were observed during the night survey (Figure 4). One WRP was located within the central area of peppermint trees and two within vegetation bordering the Capel River. One WRP was observed on the roof of the horse stables.

5.2.3.3 Habitat Assessment

The presence of WRP individuals within vegetation in the survey area indicates that it represents suitable habitat and almost all the vegetation present within the survey area can be regarded as WRP habitat of some type (i.e. foraging, refuge or dispersal habitat).

Superficially the primary habitat would appear to be the area of peppermints in the central section of the survey area however most of these trees are relatively small (including several dead specimens) with no direct canopy connectivity reducing this area's overall value. A dense accumulation of scats under thick garden vegetation (including bottlebrush) around the Tavern suggest this area maybe favoured as a foraging location. Vegetation bordering the Capel River represents good habitat given it provides a continuous corridor with some favoured foraging species (e.g. peppermint) also being present.

5.2.4 OTHER FAUNA SPECIES OF CONSERVATION SIGNIFICANCE

A small number of fauna species were observed or secondary evidence of their presence recorded during the field survey, most being common, widespread bird species.

Besides WRP (Critically Endangered) and the forest red-tailed black cockatoo (Vulnerable) no evidence of any other fauna species of conservation significance utilising the survey area was recorded during the survey period.

The lack of evidence other species of conservation significance being observed does not eliminate the potential for them still occur, if only infrequently. The likelihood of conservation significant species occurring within the survey area is provided in Section 5.3 of the report.

5.3 LIKELIHOOD OF OCCURRENCE – FAUNA SPECIES OF CONSERVATION SIGNIFICANCE

Based on the information gathered during the site reconnaissance survey and the documented distribution and habitat preferences of the species of conservation significance identified as potentially being present in the general area, their likelihood of occurrence within the survey area itself has been assessed. A summary of this assessment is presented in Table 5.

Two vertebrate fauna species of conservation significance (listed as State and/or Federal threatened/migratory species or as DBCA priority species) were positively identified as utilising the survey area during the survey period, these being:

- Forest Red-tailed Black Cockatoo *Calyptorhynchus banksii naso* –Vulnerable (*BC Act* & *EPBC Act*). Foraging evidence (chewed marri fruits) attributed to this species were observed during the survey period. The survey area contains areas of potential black cockatoo breeding habitat (trees with a DBH ≥ 30 cm) but no suitable hollows are present. Small amount of potential foraging habitat present. No evidence of roosting observed.
- Western Ringtail Possum *Pseudocheirus occidentalis* – Critically Endangered (*BC Act* & *EPBC Act*). Several individuals recorded within the survey area but population density appears to be relatively low.

Several additional species of conservation significance may utilise the survey area for some purpose at times, but their status on-site and/or in the general area is difficult to determine because they were not sighted during the field survey, or evidence of use was not observed, these being:

- Peregrine Falcon *Falco peregrinus* – OS (*BC Act*)
This species potentially utilises some sections of the survey area as part of a much larger home range, though it is only likely to occur very infrequently. All areas represent potential foraging habitat for this species. No potential nest sites present. Listed as a potential species based on available information.
- Masked Owl *Tyto n. novaehollandiae* – P4 (*BC Act* Priority Species)
No evidence of this species was found during the survey period but there are some records from nearby, surrounding areas. May forage in open areas. Appears to be a lack of roosting/nesting opportunities (tree hollows) within survey area which reduces the likelihood of this species occurring. Listed as a potential species based on available information.

- Carnaby's Cockatoo *Zanda latirostris* – Endangered (*BC Act & EPBC Act*).
No evidence of this species was found during the survey period but this species is known to commonly frequent the general area. The survey area contains areas of potential black cockatoo breeding habitat (trees with a DBH ≥ 30 cm) but no suitable hollows are present. Small amount of potential foraging habitat present. No evidence of roosting observed.
- Baudin's Cockatoo *Zanda baudinii* – Endangered (*BC Act & EPBC Act*).
No evidence of this species was found during the survey period but this species is known to commonly frequent the general area. The survey area contains areas of potential black cockatoo breeding habitat (trees with a DBH > 30 cm) but no suitable hollows are present. Small amount of potential foraging habitat present. No evidence of roosting observed.
- South-west Brush-tailed Phascogale *Phascogale tapoatafa wambenger* – CD (*BC Act*). No evidence of this species was found during the survey period but there are some records from nearby, surrounding areas. Appears to be a lack of denning opportunities (tree hollows) within survey area which reduces the likelihood of this species occurring. Listed as a potential species based on available information.
- Western False Pipistrelle *Falsistrellus mackenziei* – P4 (*BC Act* Priority Species)
No evidence of this species was found during the survey period but there are some records from nearby, surrounding areas. May forage in open areas. Appears to be a lack of roosting opportunities (tree hollows) within survey area which reduces the likelihood of this species occurring. Listed as a potential species based on available information.

A number of other species of conservation significance (as listed in Table 5), while possibly present in the larger bush remnants in the wider area (e.g. Tuart Forest National Park), are not listed as potentially occurring within the survey area primarily due to a complete lack of suitable habitat (quality and extent) and/or known local/regional extinction.

Table 5: Likelihood of Occurrence – Fauna Species of Conservation Significance

Species	Conservation Status		Habitat Preferences	Habitat Present	Likelihood of Occurrence	Comments/Possible Impacts
	BC Act	EPBC Act				
Irvine's Bothriembryontid Land Snail <i>Bothriembryon irvineanus</i>	P2	-	Poorly documented – records from coastal areas of Leeuwin Naturaliste Ridge	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Swan Coastal Plain Shield-backed Trapdoor Spider <i>Idiosoma sigillatum</i>	P3	-	Burrows of this species usually found in <i>Banksia</i> woodland and heathland on sandy soils.	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Margaret River hairy marron <i>Cherax tenuimanus</i>	CR	CR	Margaret River	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Carter's Freshwater Mussel <i>Westralunio carteri</i>	VU	VU	Occurs in greatest abundance in slower flowing streams with stable sediments that are soft enough for burrowing amongst woody debris and exposed tree roots.	No	Would Not Occur.	No suitable habitat. May occur within the Capel River but would not utilise the survey area. No impact on this species will occur.
Pouched Lamprey <i>Geotria australis</i>	P3	-	This species lives in mud burrows in the upper reaches of coastal freshwater streams for the first 4 years of life until migrating to the sea. Adults migrate up to 60km upstream during spawning.	No	Would Not Occur.	No suitable habitat. May occur within the Capel River but would not utilise the survey area. No impact on this species will occur.
Black-stripe Minnow <i>Galaxiella nigrostriata</i>	EN	EN	Permanent or ephemeral pools, roadside ditches and small creeks in sandy, thickly vegetated wetland areas. Water is usually darkly tannin stained and acidic (pH 4.6 – 6.5)	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Perth Slider <i>Lerista lineata</i>	P3	-	Inhabits loose white sands and leaf litter under areas of shrubs and heath particularly in association with banksias.	No	Would Not Occur.	No suitable habitat and outside of current documented range. No impact on this species will occur.
Coastal Plains Skink <i>Ctenotus ora</i>	P3	-	Sandy substrates with low vegetation (including heath) in open eucalypt woodland over <i>Banksia</i> .	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Migratory Shorebirds/Wetland Bird Species	MI, Various	Ma, Mig, Various	Varies between species but includes open ocean, beaches and permanent/temporary wetlands varying from billabongs, swamps, lakes, floodplains, sewerage farms, saltwork ponds, estuaries, lagoons, mudflats sandbars, pastures, airfields, sports fields and lawns.	No	Would Not Occur.	No suitable habitat. No impact on these species will occur.
Australasian Bittern <i>Botaurus poiciloptilus</i>	EN	EN	Freshwater wetlands, occasionally estuarine; prefers heavy vegetation such as beds of tall dense <i>Typha</i> , <i>Baumea</i> and sedges in freshwater swamps.	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Black Bittern (SW) <i>Botaurus flavicollis australis</i>	P2	-	Freshwater pools, swamps and lagoons well screened with trees. Shelters in dense waterside vegetation.	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.

Species	Conservation Status		Habitat Preferences	Habitat Present	Likelihood of Occurrence	Comments/Possible Impacts
	BC Act	EPBC Act				
Blue Billed Duck <i>Oxyura australis</i>	P4	-	Well vegetated freshwater swamps, large dams and lakes, winters on more open water. Occasionally salt lakes and estuaries freshened by floodwaters.	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Peregrine Falcon <i>Falco peregrinus</i>	OS	-	Diverse from rainforest to arid shrublands, from coastal heath to alpine. Mainly about cliffs along coasts, rivers and ranges and about wooded watercourses and lakes.	Yes	Possibly Occurs.	May forage in general area. Modification of areas of foraging habitat. No significant impact on this species will occur.
Grey Falcon <i>Falco hypoleucos</i>	VU	VU	Typically confined to the arid inland where it frequents <i>Triodia</i> grassland, <i>Acacia</i> shrubland, and lightly timbered arid woodland.	No	Would Not Occur.	Very rarely, if ever recorded in the lower southwest. No impact on this species will occur.
Osprey <i>Pandion haliaetus</i>	MI	Mig	Coasts, estuaries, bays, inlets, islands, and surrounding waters, coral atolls, reefs, lagoons, rock cliffs and stacks. Ascends larger rivers.	No	Unlikely to Occur.	Occasional flyovers possible but this species would mainly confine its activities to coastal/estuarine areas in this region.
Masked Owl <i>Tyto n. novaehollandiae</i>	P3	-	Roosts and nests in heavy forest, hunts over open woodlands and farmlands.	Yes/Marginal	Possibly Occurs.	May forage in general area and roost in vegetation bordering the river. Modification of areas of foraging habitat. No significant impact on this species will occur.
Carnaby's Cockatoo <i>Zanda latirostris</i>	EN	EN	Forests, woodlands, heathlands, farms; feeds on <i>Banksia</i> , <i>Hakea</i> and Marri.	Yes/Marginal	Possibly Occurs.	Known to occur in general area. Modification/loss of small areas of foraging habitat. No significant impact on this species overall conservation status is anticipated given limited area of likely impact and low quality of habitat.
Baudin's Cockatoo <i>Zanda baudinii</i>	EN	EN	Mainly eucalypt forests where it feeds primarily on the marri seeds.	Yes	Possibly Occurs.	Known to occur in general area. Modification/loss of small areas of foraging habitat. No significant impact on this species overall conservation status is anticipated given limited area of likely impact and low quality of habitat.
Forest Red-tailed Black Cockatoo <i>Calyptorhynchus banksii naso</i>	VU	VU	Eucalypt forests, feeds on marri, jarrah, blackbutt, karri, sheoak and snottygobble.	Yes	Known to Occur.	Foraging evidence found during survey. Modification/loss of small areas of foraging habitat, however, no significant impact on this species overall conservation status is anticipated given limited area of likely impact.
Fork-tailed Swift <i>Apus pacificus</i>	MI	Ma, Mig	Low to very high airspace over varied habitat from rainforest to semi desert.	Yes	Unlikely to Occur	May occur very occasionally for brief periods. Entirely aerial. No impact on this species will occur.
Grey Wagtail <i>Motacilla cinerea</i>	MI	Mig, Ma	In Australia, near running water in disused quarries, sandy, rocky streams in escarpments and rainforest, sewerage ponds, ploughed fields and airfields.	No/Very Marginal	Would Not Occur.	Very rarely record in southwest. No impact on this species will occur.

Species	Conservation Status		Habitat Preferences	Habitat Present	Likelihood of Occurrence	Comments/Possible Impacts
	BC Act	EPBC Act				
Quenda <i>Isoodon fusciventer</i>	P4	-	Dense scrubby, often swampy, vegetation with dense cover.	No/Very Marginal	Unlikely to Occur	Vegetation within the survey area appears unsuitable for this species to persist. May occur in some adjoining areas. No impact on this species anticipated.
Chuditch <i>Dasyurus geoffroi</i>	VU	VU	Forest, mallee shrublands, woodland and desert. Currently, the densest populations have been found in riparian jarrah forest.	No	Would Not Occur.	Locally extinct. The limited extent and fragmented/completely degraded nature of habitat within and around the survey area suggest this species would not persist in the immediate vicinity. No impact on this species will occur.
South-western Brush-tailed Phascogale <i>Phascogale tapoatafa wambenger</i>	CD	-	Dry sclerophyll forests and open woodlands that contain hollow-bearing trees but a sparse ground cover.	No/Marginal	Unlikely to Occur	Unlikely to reside in paddock area but may persist in some vegetation along rivers edge. No impact on this species anticipated.
Western Ringtail Possum <i>Pseudocheirus occidentalis</i>	CR	CR	Coastal peppermint, coastal peppermint-tuart, jarrah-marri associations, sheoak woodland, and eucalypt woodland and mallee.	Yes	Known to Occur.	Recorded during survey period. Modification/loss of small areas of habitat. Potential for individuals to be killed or injured during site clearing. Impacts require management.
Bilby <i>Macrotis lagotis</i>	VU	VU	Acacia shrublands, spinifex and hummock grassland. Mitchell grass and stony downs country if cracking clay, also desert sand plains and dune fields sometimes with spinifex hummock grassland and acacia shrubland.	No	Would Not Occur.	This species is regionally extinct. No suitable habitat. No impact on this species will occur.
Quokka <i>Setonix brachyurus</i>	VU	VU	Currently restricted to densely vegetated coastal heaths, swamps, riverine habitats including tea-tree thickets on sandy soils along creek systems.	No	Would Not Occur.	No suitable habitat. No impact on this species will occur.
Western Brush Wallaby <i>Notamacropus irma</i>	P4	-	The species preferred habitat is open forest or woodland, particularly favouring open, seasonally wet flats with low grasses and open scrubby thickets. It is also found in some areas of mallee and heathland.	No	Would Not Occur.	The fragmented/degraded nature of habitat within and around the survey area suggest this species would not persist in the immediate vicinity. No impact on this species will occur.
Woylie <i>Bettongia penicillata ogilbyi</i>	CR	EN	Open sclerophyll forest and woodland with a low, dense, understorey of tussock grasses or woody scrub.	No	Would Not Occur.	Locally extinct. The limited extent and fragmented/completely degraded nature of habitat within and around the survey area suggest this species would not persist in the immediate vicinity. No impact on this species will occur.
Western Mouse <i>Pseudomys occidentalis</i>	P4	-	Now restricted to long unburnt areas near the Ravensthorpe Range, at Fitzgerald River National Park, and several isolated populations in the southern wheatbelt.	No	Would Not Occur.	This species is regionally extinct. No suitable habitat. No impact on this species will occur.
Water Rat <i>Hydromys chrysogaster</i>	P4	-	Permanent water, fresh, brackish or marine.	No	Would Not Occur.	May occur along Capel River but would not utilise the survey area. No impact on this species will occur.

Species	Conservation Status		Habitat Preferences	Habitat Present	Likelihood of Occurrence	Comments/Possible Impacts
	BC Act	EPBC Act				
Western False Pipistrelle <i>Falsistrellus mackenziei</i>	P4	-	Wet sclerophyll forest dominated by karri and in high rainfall zones of the jarrah and marri forest.	Yes	Possibly Occurs.	May forage in the general area and roost in vegetation bordering the river. Modification of areas of foraging habitat. No significant impact on this species will occur.

See Appendix A for conservation status codes

6. CONCLUSION

The fauna assessment was primarily undertaken to determine the possible presence of conservation significant fauna species and/or their habitat in addition to carrying out a targeted black cockatoo habitat and western ringtail possum assessment.

With respect to fauna habitat values in general, the remnant native vegetation present is only likely to support a very small range of its original fauna assemblage primarily given its significant history of disturbance and its location within a largely cleared landscape. Most species present would be common, widespread bird species. Vegetation within the survey area does however have some value to a small number of conservation significant species.

The survey area contains no hollow bearing trees suitable for breeding black cockatoos and the black cockatoo foraging habitat present is of low overall value. No evidence of black cockatoos roosting was evident during the survey period.

The presence of a small number of western ringtail possums within vegetation in the survey area was confirmed and will need to be taken into consideration during the approval and development process.

In summary two vertebrate fauna species of conservation significance (listed as State and/or Federal threatened/migratory species or as DBCA priority species) were positively identified as utilising the survey area, these being:

- Forest Red-tailed Black Cockatoo – Vulnerable (WA/Federal)
- Western Ringtail Possum – Critically Endangered (WA/Federal)

Several additional species of conservation significance may also utilise the survey area, though, as no evidence of their presence was identified during the field survey, their status in the area remains uncertain.

In cases where some habitat is present and available information indicates at least some probability of a species occurrence, likely impacts are anticipated to be related to the loss of small areas of habitat and in some cases, the potential for fauna to be killed or injured during clearing. This in particular relates to western ringtail possums.

It is recommended that a fauna management plan be formulated and implemented during site clearing, with the primary component being the engagement of a suitable qualified and experienced “fauna spotter” given the task of minimising the risk to any fauna encountered.

It is also recommended that any proposed landscaping/revegetation include plant species favoured by western ringtail possums and black cockatoos including but not limited to peppermint (*Agonis flexuosa*) and a range of foraging species (e.g. marri (*Corymbia calophylla*)).

7. REFERENCES

Commonwealth of Australia (2012). *EPBC Act* Referral guidelines for three threatened Black Cockatoo species: Carnaby's cockatoo (endangered) *Calyptorhynchus latirostris*, Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii*, Forest Red-tailed Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso*.

Commonwealth of Australia (2022). Referral guideline for 3 threatened WA threatened black cockatoo species: Carnaby's cockatoo (*Zanda latirostris*), Baudin's cockatoo (*Zanda baudinii*), Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*). Department of Agriculture, Water and the Environment, Canberra.

Department of Biodiversity, Conservation and Attractions (DBCA) (2025). Dandjoo database search. Survey Area plus 10km buffer). Accessed 5 Sept 2025.

Department of Biodiversity, Conservation and Attractions (DBCA) (2025). Threatened and Priority Fauna Rankings. July 2025.

Department of Climate Change, Energy Agriculture, Water and the Environment (DCCEEW) (2025). *EPBC Act* Protected Matters Report: Survey Area. Available from: <http://www.environment.gov.au>. Accessed 5 September 2025.

Department of Primary Industries and Regional Development (DPIRD) Geographic Information Services (2025). Native Vegetation Extent (DPIRD-005) (Western Australia) Shapefile - <https://catalogue.data.wa.gov.au/dataset/native-vegetation-extent>.

Environmental Protection Authority (EPA) (2020). Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment, Joondalup, Western Australia.

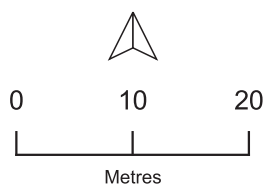
Government of Western Australia (2025). Biodiversity Conservation Act 2016. Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2025. Government Gazette, WA. 1 July 2025.

FIGURES



Legend

Survey Area



Drawn: G Harewood

Date: Sept 2025

Scale: 1:1,300

Coordinate System: UTM Z50/GDA 2020

Capel Village - Lot 12, 28 & 165
Capel Dr, Forrest & Roe Rd
Capel

Survey Area Aerial Photograph

Figure 1

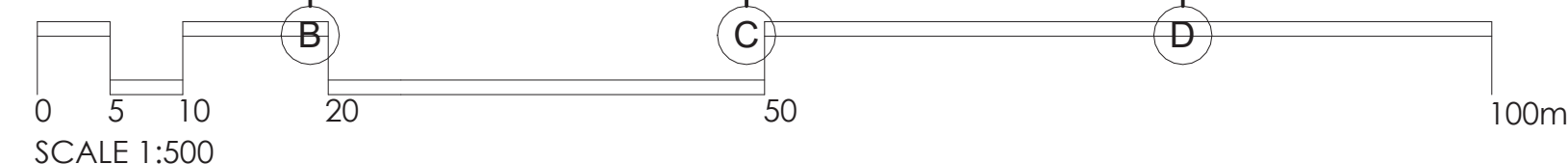


AREAS	
EASEMENT	- 0.7168 ha
Lot 28 (R60)	- 1.0922 ha
Lot 28 (R40)	- 1.5452 ha
Lot 165(R40)	- 0.5059 ha
Lot 12 (R60)	- 0.0607 ha
TOTAL	- 3.9208 ha

DOEPEL
MARSH

architects
61 Forrest St, Subiaco Western Australia 6008
PO Box 308 Subiaco WA 6904
T + 61 8 9388 2281 F + 61 8 9388 3162
License No. 2038 E admin@doepelmarsh.com.au
ABN 73 883 655 197 W www.doepelmarsh.com.au
© Copyright. THIS DRAWING REMAINS THE PROPERTY
OF DOEPEL MARSH ARCHITECTS PTY. LTD. AND SHALL
NOT BE COPIED OR USED WITHOUT PRIOR WRITTEN
AUTHORISATION.

PROPOSED - AERIAL VIEW



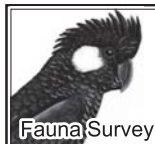
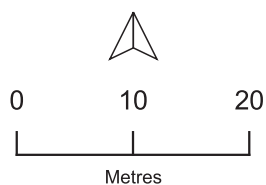
MIXED USE DEVELOPMENT - CAPEL VILLAGE
LOT 12, 28 & 165 CAPEL DRIVE, FORREST & ROE ROAD

PROJECT NAME	PROJECT NUMBER
24.034	DATE
3/07/2025 3:25:43 PM	ISSUE
A	DRAWING NUMBER
CONCEPT DESIGN	A103



Legend

- Survey Area
- Habitat Tree - No visible hollows
- Habitat Tree - One or more visible hollows
None suitable for black cockatoos



Drawn: G Harewood
Date: Sept 2025
Scale: 1:1,300

Coordinate System: UTM Z50/GDA 2020

Capel Village - Lot 12, 28 & 165
Capel Dr, Forrest & Roe Rd
Capel

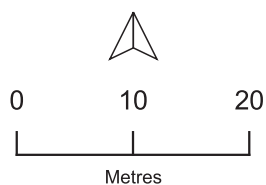
**Survey Area
Black Cockatoo
Habitat Trees
(DBH >30cm)**

Figure 3



Legend

- Survey Area
- ◆ Western Ringtail Possum Drey (Day Survey)
- Western Ringtail Possum (Night Survey)



Drawn: G Harewood
Date: Sept 2025
Scale: 1:1,300

Coordinate System: UTM Z50/GDA 2020

Capel Village - Lot 12, 28 & 165
Capel Dr, Forrest & Roe Rd
Capel

Survey Area Possum Observations

Figure 4

APPENDIX A

CONSERVATION CATEGORIES

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
Threatened Fauna Categories

Threatened fauna may be listed under Section 178 of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* in any one of the following categories:

Category	Code	Description
Extinct	E	There is no reasonable doubt that the last member of the species has died.
*Extinct in the wild	EW	A species (a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or (b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
*Critically Endangered	CR	A species is facing an extremely high risk of extinction in the wild in the immediate future.
*Endangered	EN	A species: (a) is not critically endangered; and (b) is facing a very high risk of extinction in the wild in the near future.
*Vulnerable	VU	A species (a) is not critically endangered or endangered; and (b) is facing a high risk of extinction in the wild in the medium-term future.
Conservation Dependent	CD	A species is the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered
*Migratory	Mig	(a) all migratory species that are: (i) native species; and (ii) from time to time included in the appendices to the Bonn Convention; and (b) all migratory species from time to time included in annexes established under JAMBA, CAMBA and ROKAMBA; and (c) all native species from time to time identified in a list established under, or an instrument made under, an international agreement approved by the Minister.
Marine	Ma	Species in the list established under s248 of the <i>EPBC Act</i>

Note: Only species in those categories marked with an asterisk are matters of national environmental significance (NES) under the *EPBC Act*.

Biodiversity Conservation Act 2016 (BC Act)
Specially Protected Fauna Categories

Biodiversity Conservation (Listing of Native Species) (Fauna) Order 2022, made by the Minister under sections 13(1), 19(1) and 23(1) of the Act and regulation 174(1) of the Biodiversity Conservation Regulations 2018

Threatened Species		
Category	Code	Description
Critically Endangered species	CR	Species facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines
Endangered species	EN	Species facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines.
Vulnerable species	VU	Species facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines.
Presumed extinct species	EX	Species where there is no reasonable doubt that the last member of the species has died.
Extinct in the wild species	EW	Species that is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and from.
Specially Protected Species		
Category	Code	Description
Migratory Species	MI	Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the <i>BC Act</i>)
Species of special conservation interest (conservation dependent)	CD	Species of special conservation need that are dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the <i>BC Act</i>).
Species otherwise in need of special protection (other specially protected).	OS	Species otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the <i>BC Act</i>).

Priority Species*		
Category	Code	Description
Priority 1 (P1) Poorly Known Species.	P1	Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.
Priority 2 (P2) Poorly Known Species.	P2	Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.
Priority 3 (P3) Poorly Known Species.	P3	Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.
Priority 4 (P4) Rare, Near Threatened and other species in need of monitoring.	P4	<p>(a) Rare: Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.</p> <p>(b) Near Threatened: Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.</p> <p>(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.</p>

*Priority is not a listing category under the BC Act.

All fauna and flora are protected in WA following the provisions in Part 10 of the *BC Act*. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land). Species that may possibly be threatened species that do not meet the criteria for listing under the *BC Act* because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened. Species that are adequately known, meet criteria for near threatened, or are rare but not threatened, or that have been recently removed from the threatened species list or conservation dependent or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring. Assessment of priority status is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

IUCN Red List Threatened Species Categories

The *IUCN Red List of Threatened Species*™ is a checklist of taxa that have undergone an extinction risk assessment using the *IUCN Red List Categories and Criteria*.

Categories are summarized below.

Category	Code	Description
Extinct	EX	Taxa for which there is no reasonable doubt that the last individual has died.
Extinct in the Wild	EW	Taxa which is known only to survive in cultivation, in captivity or and as a naturalised population well outside its past range and it has not been recorded in known or expected habitat despite exhaustive survey over a time frame appropriate to its life cycle and form.
Critically Endangered	CR	Taxa facing an extremely high risk of extinction in the wild.
Endangered	EN	Taxa facing a very high risk of extinction in the wild.
Vulnerable	VU	Taxa facing a high risk of extinction in the wild.
Near Threatened	NT	Taxa which has been evaluated but does not qualify for CR, EN or VU now but is close to qualifying or likely to qualify in the near future.
Least Concern	LC	Taxa which has been evaluated but does not qualify for CR, EN, VU, or NT but is likely to qualify for NT in the near future.
Data Deficient	DD	Taxa for which there is inadequate information to make a direct or indirect assessment of its risk of extinction based on its distribution and/or population status.
Not Evaluated	NE	Taxa which has not been evaluated.

A full list of categories and their meanings are available at:

<https://www.iucnredlist.org/resources/categories-and-criteria>

APPENDIX B

DANDJOO DATABASE SEARCH AND PROTECTED MATTERS SEARCH TOOL RESULTS



Dandjoo Species List Export

Created by Guest User on 05 Sep 2025

Source	Dandjoo - Department of Biodiversity, Conservation and Attractions
Method	User defined polygon: [[[[[115.63628232027826, -33.484234035790905], [115.6200045987904, -33.474206816839626], [115.60177054959131, -33.466890551014885], [115.58222107782917, -33.46254223298096], [115.56204289347154, -33.46131457350519], [115.54194458621978, -33.46325068328053], [115.52263196644265, -33.468282572717406], [115.50478349928291, -33.47623351802764], [115.48902665645214, -33.48682421421702], [115.47591598410267, -33.4996825081572], [115.47490984242147, -33.5008809751704], [115.4643180974444, -33.51666600068813], [115.45772588245016, -33.53389852198253], [115.45540204949175, -33.551882110419356], [115.45744322763856, -33.5698895462254], [115.46376949415583, -33.587192196267026], [115.46450327269433, -33.58865240843427], [115.474309202516, -33.60386802655853], [115.48742982934172, -33.61724069339221], [115.50338181301069, -33.62827634239311], [115.52157650845331, -33.63656707879391], [115.54134173321798, -33.641806361801684], [115.56194673899381, -33.643800429437164], [115.5634344052173, -33.64382453168956], [115.58444878196302, -33.642450662963626], [115.60474074810283, -33.63770215431238], [115.62353556522939, -33.62976034477496], [115.64011615175762, -33.618928454698775], [115.65385060625852, -33.60561991446528], [115.65476888514418, -33.60453067358649], [115.6656576848186, -33.5882515895889], [115.67228164872819, -33.570452235604314], [115.67435878841435, -33.55189757049716], [115.67180280712611, -33.53338451720643], [115.66472631327743, -33.515707707222575], [115.65343550021629, -33.49962540919154], [115.63841660283072, -33.48582709605968], [115.63628232027826, -33.484234035790905], [115.63628232027826, -33.484234035790905]]]]].
Date time	2025-09-05T16:49:48.984587+08:00

Conservation status summary	Count
CD	1
CD, MI	1
CR	6
Cons code inherited from parent	1
EN	7
MI	13
None	395
OS	1
P2	2
P3	4
P4	7
Parent of conservation listed taxa	4
VU	10
Total	452

Kingdoms	Count
Animalia	452
Total unique species	452

Class	Family	Name	Establishment Conservation
-------	--------	------	----------------------------

Animalia

1	None	None	Hylaeus proximus (Smith, 1879)		
2	None	None	Marita compta (Adams & Angas, 1864)		
3	None	None	Monophorus angasi (Crosse & Fischer, 1865)		
4	None	None	Rissopsetia maccoyi (Tenison-Woods, 1877)		
5	Actinopterygii Klein, 1885	Cyprinidae	Carassius auratus (Linnaeus, 1758)		
6	Actinopterygii Klein, 1885	Echeneidae	Echeneis naucrates Linnaeus, 1758		
7	Actinopterygii Klein, 1885	Galaxiidae	Galaxias occidentalis Ogilby, 1899	native	
8	Actinopterygii Klein, 1885	Galaxiidae	Galaxiella nigrostriata (Shipway, 1953) (<i>Black-stripe Minnow</i>)	native	EN
9	Actinopterygii Klein, 1885	Gobiidae	Pseudogobius olorum (Sauvage, 1880)		
10	Actinopterygii Klein, 1885	Monacanthidae	Acanthaluteres brownii (Richardson, 1846)		
11	Actinopterygii Klein, 1885	Monacanthidae	Cantheschenia longipinnis (Fraser-Brunner, 1941)		
12	Actinopterygii Klein, 1885	Monacanthidae	Eubalichthys cyanoura Hutchins, 1987		
13	Actinopterygii Klein, 1885	Monacanthidae	Meuschenia galii (Waite, 1905)		
14	Actinopterygii Klein, 1885	Percichthyidae D.S. Jordan & C.H. Eigenmann, 1890	Bostockia porosa Castelnau, 1873 (<i>Nightfish, Western Cod</i>)		
15	Actinopterygii Klein, 1885	Percichthyidae D.S. Jordan & C.H. Eigenmann, 1890	Nannoperca vittata (Castelnau, 1873)		
16	Actinopterygii Klein, 1885	Percidae	Perca fluviatilis Linnaeus, 1758		
17	Actinopterygii Klein, 1885	Poeciliidae	Gambusia holbrooki Girard, 1859		
18	Amphibia	Limnodynastidae	Heleioporus eyrei (Gray, 1845)	native	
19	Amphibia	Limnodynastidae	Limnodynastes dorsalis (Gray, 1841)	native	
20	Amphibia	Myobatrachidae	Crinia georgiana Tschudi, 1838	native	
21	Amphibia	Myobatrachidae	Crinia glauerti (Loveridge, 1933)	native	
22	Amphibia	Myobatrachidae	Crinia insignifera (Moore, 1954)	native	
23	Amphibia	Myobatrachidae	Geocrinia leai (Fletcher, 1898)	native	
24	Amphibia	Pelodryadidae Günther, 1858	Litoria adelaidensis (Gray, 1841)	native	
25	Amphibia	Pelodryadidae Günther, 1858	Litoria moorei (Copland, 1957)	native	
26	Arachnida	None	Acari Leach, 1817		
27	Arachnida	None	Acariformes		
28	Arachnida	Actinopodidae Simon, 1892	Missulena Walckenaer, 1805		
29	Arachnida	Actinopodidae Simon, 1892	Missulena granulosa (O. P.-Cambridge, 1869)		
30	Arachnida	Anamidae Simon, 1889	Proshermacha Simon, 1908		
31	Arachnida	Anapidae Simon, 1895	Raveniella peckorum Rix & Harvey, 2010		
32	Arachnida	Araneidae Clerck, 1757	Argiope protensa L. Koch, 1872	mixed	
33	Arachnida	Araneidae Clerck, 1757	Austracantha minax (Thorell, 1859)		
34	Arachnida	Araneidae Clerck, 1757	Backobourkia brouni (Urquhart, 1885)		
35	Arachnida	Araneidae Clerck, 1757	Cyclosa Menge, 1866		
36	Arachnida	Araneidae Clerck, 1757	Cyclosa trilobata (Urquhart, 1885)		
37	Arachnida	Araneidae Clerck, 1757	Hortophora biapicata (L. Koch, 1871)		
38	Arachnida	Araneidae Clerck, 1757	Plebs cyphoxis (Simon, 1908)	native	
39	Arachnida	Araneidae Clerck, 1757	Socca senicaudata (Simon, 1908)		
40	Arachnida	Arkyidae L. Koch, 1872	Arkys alticephala (Urquhart, 1891)		
41	Arachnida	Arkyidae L. Koch, 1872	Arkys walckenaeri Simon, 1879		
42	Arachnida	Atemnidae Kishida, 1929	Oratemnus curtus (Beier, 1954)		
43	Arachnida	Bothriuridae	Cercophonius sulcatus Kraepelin, 1908		
44	Arachnida	Buthidae C.L. Koch, 1837	Lychas C.L. Koch, 1845		

45	Arachnida	Chthoniidae Daday, 1888	Austrochthonius J.C. Chamberlin, 1929		
46	Arachnida	Chthoniidae Daday, 1888	Austrochthonius strigosus Harvey & Mould, 2006		
47	Arachnida	Clubionidae Simon, 1878	Clubiona Latreille, 1804		
48	Arachnida	Corinnidae	Battalus rugosus Raven, 2015		
49	Arachnida	Desidae Pocock, 1895	Badumna insignis (L. Koch, 1872)		
50	Arachnida	Desidae Pocock, 1895	Baiami volucripes (Simon, 1908)		
51	Arachnida	Desidae Pocock, 1895	Desidae Pocock, 1895		
52	Arachnida	Geogarypidae Chamberlin, 1930	Geogarypus taylori Harvey, 1986		
53	Arachnida	Gnaphosidae Banks, 1892	Gnaphosidae Banks, 1892		
54	Arachnida	Hersiliidae Thorell, 1869	Tamopsis perthensis B. Baehr & M. Baehr, 1987		
55	Arachnida	Hersiliidae Thorell, 1869	Tamopsis reevesbyana B. Baehr & M. Baehr, 1987		
56	Arachnida	Idiopidae Simon, 1889	Euoplos Rainbow, 1914		
57	Arachnida	Idiopidae Simon, 1889	Idiosoma Ausserer, 1871		Parent of conservation listed taxa
58	Arachnida	Idiopidae Simon, 1889	Idiosoma raphiduca (Rainbow & Pulleine, 1918)	native	
59	Arachnida	Idiopidae Simon, 1889	Idiosoma sigillatum O. P.-Cambridge, 1870 (<i>Swan Coastal Plain shield-backed trapdoor spider</i>)	native	P3
60	Arachnida	Lamponidae Simon, 1893	Lampona cylindrata (L. Koch, 1866)		
61	Arachnida	Lamponidae Simon, 1893	Lampona punctigera Simon, 1908	mixed	
62	Arachnida	Linyphiidae Blackwall, 1859	Linyphiidae Blackwall, 1859		
63	Arachnida	Lycosidae	Artoria flavimana Simon, 1909		
64	Arachnida	Lycosidae	Lycosidae		
65	Arachnida	Lycosidae	Tasmanicosa leuckarti (Thorell, 1870)		
66	Arachnida	Lycosidae	Venatrix pullastra (Simon, 1909)		
67	Arachnida	Miturgidae Simon, 1889	Argoctenus L. Koch, 1878		
68	Arachnida	Miturgidae Simon, 1889	Mituliodon tarantulinus (L. Koch, 1873)		
69	Arachnida	Salticidae Blackwall, 1841	Clynotis severus (L. Koch, 1879)		
70	Arachnida	Salticidae Blackwall, 1841	Helpis Simon, 1901		
71	Arachnida	Salticidae Blackwall, 1841	Helpis minitabunda (L. Koch, 1880)		
72	Arachnida	Salticidae Blackwall, 1841	Maratus pavonis (Dunn, 1947)		
73	Arachnida	Salticidae Blackwall, 1841	Ocrisiona parmeliae Zabka, 1990		
74	Arachnida	Salticidae Blackwall, 1841	Salticidae Blackwall, 1841		
75	Arachnida	Segestriidae Simon, 1893	Segestriidae Simon, 1893		
76	Arachnida	Sparassidae Bertkau, 1872	Isopeda leishmanni Hogg, 1903		
77	Arachnida	Sparassidae Bertkau, 1872	Isopedella cana (Simon, 1908)		
78	Arachnida	Sparassidae Bertkau, 1872	Neosparassus Hogg, 1903		
79	Arachnida	Sparassidae Bertkau, 1872	Sparassidae Bertkau, 1872		
80	Arachnida	Tetragnathidae	Tetragnatha demissa L. Koch, 1872		
81	Arachnida	Theridiidae Sundevall, 1833	Latrodectus hasselti Thorell, 1870		
82	Arachnida	Theridiidae Sundevall, 1833	Theridiidae Sundevall, 1833		
83	Arachnida	Thomisidae Sundevall, 1833	Synalus angustus (L. Koch, 1876)		
84	Arachnida	Trachycosmidae Platnick, 2002	Trachytrema castaneum Simon, 1909		
85	Arachnida	Triaenonychidae	Nunciella Roewer, 1929		
86	Arachnida	Triaenonychidae	Nunciella aspera (Pocock, 1903)		
87	Arachnida	Uloboridae	Philoponella Mello-Leitão, 1917		
88	Arachnida	Urodacidae	Urodacus novaehollandiae Peters, 1861		
89	Asteroidea	Asterinidae Gray, 1840	Meridiastra gunnii (Gray, 1840)		
90	Asteroidea	Goniasteridae	Fromia polypora H.L. Clark, 1916		
91	Asteroidea	Goniasteridae	Pentagonaster duebeni Gray, 1847		
92	Asteroidea	Goniasteridae	Tosia australis Gray, 1840		
93	Asteroidea	Oreasteridae	Anthaster valvulatus (Troschel & Muller, 1843)		
94	Aves	Acanthizidae	Acanthiza apicalis Gould, 1847	native	
95	Aves	Acanthizidae	Acanthiza chrysorrhoa (Quoy & Gaimard, 1830)	native	
96	Aves	Acanthizidae	Acanthiza inornata Gould, 1841	native	

97	Aves	Acanthizidae	Gerygone fusca (Gould, 1838)	native	
98	Aves	Acanthizidae	Gerygone fusca fusca (Gould, 1838)	native	
99	Aves	Acanthizidae	Sericornis frontalis (Vigors & Horsfield, 1827)	native	
100	Aves	Acanthizidae	Sericornis frontalis maculatus Gould, 1847 (<i>White-browed Scrubwren</i>)	native	
101	Aves	Acanthizidae	Smicrornis brevirostris (Gould, 1838)	native	
102	Aves	Accipitridae	Aquila audax (Latham, 1802)	native	
103	Aves	Accipitridae	Circus approximans Peale, 1848	native	
104	Aves	Accipitridae	Circus assimilis Jardine & Selby, 1828	native	
105	Aves	Accipitridae	Elanus axillaris (Latham, 1802)		
106	Aves	Accipitridae	Haliaeetus leucogaster (Gmelin, 1788)	native	
107	Aves	Accipitridae	Haliastur sphenurus (Vieillot, 1818)	native	
108	Aves	Accipitridae	Hieraaetus morphnoides (Gould, 1841)	native	
109	Aves	Accipitridae	Pandion haliaetus (Linnaeus, 1758)	native	MI
110	Aves	Accipitridae	Tachyspiza cirrocephala (Vieillot, 1817)	native	
111	Aves	Accipitridae	Tachyspiza fasciata Vigors & Horsfield, 1827	native	
112	Aves	Acrocephalidae	Acrocephalus australis (Gould, 1838)	native	
113	Aves	Alcedinidae	Dacelo novaeguineae (Hermann, 1783)	alien	
114	Aves	Alcedinidae	Todiramphus sanctus (Vigors & Horsfield, 1827)	native	
115	Aves	Anatidae	Anas castanea	native	
116	Aves	Anatidae	Anas gracilis Buller, 1869	native	
117	Aves	Anatidae	Anas superciliosa Gmelin, 1789	native	
118	Aves	Anatidae	Aythya australis	native	
119	Aves	Anatidae	Biziura lobata (Shaw, 1796)	native	
120	Aves	Anatidae	Chenonetta jubata (Latham, 1802)	native	
121	Aves	Anatidae	Cygnus atratus (Latham, 1790)	native	
122	Aves	Anatidae	Malacorhynchus membranaceus (Latham, 1802)	native	
123	Aves	Anatidae	Oxyura australis Gould, 1836	native	P4
124	Aves	Anatidae	Stictonetta naevosa (Gould, 1841)	native	
125	Aves	Anatidae	Tadorna tadornoides (Jardine & Selby, 1828)	native	
126	Aves	Anhingidae	Anhinga novaehollandiae	native	
127	Aves	Ardeidae	Ardea alba Linnaeus, 1758	native	
128	Aves	Ardeidae	Ardea pacifica Latham, 1802	native	
129	Aves	Ardeidae	Botaurus flavicollis australis (Lesson, 1831) (<i>Black Bittern (southwest subpop.)</i>)	native	P2
130	Aves	Ardeidae	Botaurus poiciloptilus	native	EN
131	Aves	Ardeidae	Egretta novaehollandiae (Latham, 1790)		
132	Aves	Ardeidae	Nycticorax caledonicus (Gmelin, 1789)	native	
133	Aves	Artamidae	Artamus cinereus Vieillot, 1817	native	
134	Aves	Artamidae	Artamus cyanopterus (Latham, 1802)	native	
135	Aves	Artamidae	Cracticus torquatus (Latham, 1802)	native	
136	Aves	Artamidae	Gymnorhina tibicen (Latham, 1802)		
137	Aves	Cacatuidae	Calyptorhynchus banksii (Latham, 1790)	native	
138	Aves	Cacatuidae	Calyptorhynchus banksii naso Gould, 1837 (<i>Forest Red-tailed Black Cockatoo</i>)	native	VU
139	Aves	Cacatuidae	Eolophus roseicapilla (Vieillot, 1817)		
140	Aves	Cacatuidae	Zanda Mathews, 1913		Parent of conservation listed taxa
141	Aves	Cacatuidae	Zanda baudinii Lear, 1832	native	EN
142	Aves	Cacatuidae	Zanda latirostris Carnaby, 1948	native	EN
143	Aves	Campephagidae	Coracina novaehollandiae (Gmelin, 1789)	native	
144	Aves	Campephagidae	Lalage tricolor (Swainson, 1825)	native	
145	Aves	Charadriidae	Charadrius leschenaultii		VU
146	Aves	Charadriidae	Charadrius ruficapillus	native	
147	Aves	Charadriidae	Charadrius cucullatus Vieillot, 1818	native	P4

148	Aves	Charadriidae	Charadrius melanops Vieillot, 1818	native	
149	Aves	Charadriidae	Pluvialis fulva (Gmelin, 1789)	native	MI
150	Aves	Charadriidae	Pluvialis squatarola (Linnaeus, 1758)	native	MI
151	Aves	Charadriidae	Vanellus tricolor (Vieillot, 1818)	native	
152	Aves	Columbidae	Columba livia Gmelin, 1789	alien	
153	Aves	Columbidae	Ocyphaps lophotes (Temminck, 1822)	native	
154	Aves	Columbidae	Phaps chalcoptera (Latham, 1790)	native	
155	Aves	Columbidae	Spilopelia senegalensis (Linnaeus, 1766)		
156	Aves	Corvidae	Corvus coronoides Vigors & Horsfield, 1827	native	
157	Aves	Cracticidae	Strepera versicolor (Latham, 1802)	native	
158	Aves	Cuculidae	Cacomantis flabelliformis (Latham, 1802)	native	
159	Aves	Cuculidae	Chalcites basalis (Horsfield, 1821)		
160	Aves	Cuculidae	Chalcites lucidus (Gmelin & JF, 1788)		
161	Aves	Cuculidae	Chalcites lucidus plagosus (Latham, 1802)		
162	Aves	Cuculidae	Heteroscenes pallidus (Latham, 1802)		
163	Aves	Dicaeidae	Dicaeum hirundinaceum (Shaw, 1792)	native	
164	Aves	Diomedidae	Diomedea exulans Linnaeus, 1758 (<i>Wandering Albatross</i>)	native	VU
165	Aves	Diomedidae	Thalassarche carteri (Rothschild, 1903) (<i>Indian Yellow-nosed Albatross</i>)	native	EN
166	Aves	Falconidae	Falco berigora Vigors & Horsfield, 1827	native	
167	Aves	Falconidae	Falco cenchroides Vigors & Horsfield, 1827	native	
168	Aves	Falconidae	Falco longipennis Swainson, 1837	native	
169	Aves	Falconidae	Falco peregrinus Tunstall, 1771	native	OS
170	Aves	Hirundinidae	Hirundo neoxena	native	
171	Aves	Hirundinidae	Petrochelidon nigricans (Vieillot, 1817)	native	
172	Aves	Laridae	Chroicocephalus novaehollandiae Stephens, 1826		
173	Aves	Laridae	Hydroprogne caspia (Pallas, 1770)	native	MI
174	Aves	Laridae	Larus pacificus Latham, 1802	native	
175	Aves	Laridae	Thalasseus bergii (Lichtenstein, 1823) (<i>Crested Tern</i>)	native	MI
176	Aves	Locustellidae Bonaparte, 1854	Cincloramphus mathewsi Iredale, 1911 (<i>Rufous Songlark</i>)	native	
177	Aves	Locustellidae Bonaparte, 1854	Poodytes gramineus (Gould, 1845)		
178	Aves	Maluridae	Malurus splendens (Quoy & Gaimard, 1830)	native	
179	Aves	Maluridae	Stipiturus malachurus (Shaw, 1789)	native	
180	Aves	Meliphagidae	Acanthorhynchus superciliosus Gould, 1837	native	
181	Aves	Meliphagidae	Anthochaera carunculata (Shaw, 1790) (<i>Red Wattlebird</i>)	native	
182	Aves	Meliphagidae	Epthianura albifrons (Jardine & Selby, 1828) (<i>White-fronted Chat</i>)	native	
183	Aves	Meliphagidae	Gavicalis virescens (Vieillot, 1817) (<i>Singing Honeyeater</i>)	native	
184	Aves	Meliphagidae	Gliciphila melanops (Latham, 1802) (<i>Tawny-crowned honeyeater</i>)	native	
185	Aves	Meliphagidae	Lichmera indistincta (Vigors & Horsfield, 1827)	native	
186	Aves	Meliphagidae	Melithreptus lunatus (Vieillot, 1802)	mixed	
187	Aves	Meliphagidae	Phylidonyris niger (Bechstein, 1811)	native	
188	Aves	Meliphagidae	Phylidonyris novaehollandiae (Latham, 1790) (<i>New Holland Honeyeater</i>)	native	
189	Aves	Meropidae	Merops ornatus Latham, 1802	native	
190	Aves	Monarchidae Bonaparte, 1854	Grallina cyanoleuca	native	
191	Aves	Monarchidae Bonaparte, 1854	Myiagra inquieta (Latham, 1802)	native	
192	Aves	Motacillidae	Anthus novaeseelandiae (J.F.Gmelin, 1789)	alien	
193	Aves	Motacillidae	Anthus novaeseelandiae novaeseelandiae (J.F.Gmelin, 1789)	uncertain	
194	Aves	Neosittidae	Daphoenositta chrysoptera (Latham, 1802)	native	
195	Aves	Pachycephalidae	Colluricincla harmonica (Latham, 1802)	native	
196	Aves	Pachycephalidae	Pachycephala occidentalis Ramsay, 1878	native	
197	Aves	Pachycephalidae	Pachycephala rufiventris (Latham, 1802)	native	

198	Aves	Pardalotidae	Pardalotus punctatus (Shaw, 1792)	native	
199	Aves	Pardalotidae	Pardalotus striatus (Gmelin, 1789)	native	
200	Aves	Pelecanidae	Pelecanus conspicillatus Temminck, 1824	native	
201	Aves	Petroicidae Mathews, 1920	Eopsaltria griseogularis Gould, 1838		
202	Aves	Petroicidae Mathews, 1920	Melanodryas cucullata (Latham, 1802) (<i>Hooded Robin</i>)	native	
203	Aves	Petroicidae Mathews, 1920	Microeca fascinans (Latham, 1802)	native	
204	Aves	Petroicidae Mathews, 1920	Petroica boodang (Lesson, 1838)	native	
205	Aves	Petroicidae Mathews, 1920	Quoyornis georgianus (Quoy & Gaimard, 1830)		
206	Aves	Phalacrocoracidae	Microcarbo melanoleucos (Vieillot, 1817)		
207	Aves	Phalacrocoracidae	Phalacrocorax carbo (Linnaeus, 1758)	native	
208	Aves	Phalacrocoracidae	Phalacrocorax sulcirostris (von Brandt, 1837)	native	
209	Aves	Podargidae	Podargus strigoides (Latham, 1802)	native	
210	Aves	Podicipedidae	Poliocephalus poliocephalus (Jardine & Selby, 1827)	native	
211	Aves	Podicipedidae	Tachybaptus novaehollandiae (Stephens, 1826)	native	
212	Aves	Procellariidae	Macronectes giganteus (Gmelin, 1789)	native	MI
213	Aves	Procellariidae	Pachyptila belcheri (Mathews, 1912)	native	
214	Aves	Procellariidae	Pachyptila desolata (Gmelin, 1789)	native	
215	Aves	Procellariidae	Pachyptila vittata (G. Forster, 1777)	native	
216	Aves	Procellariidae	Pterodroma lessonii (Garnot, 1826)	native	
217	Aves	Psittacidae	Neophema elegans (Gould, 1837)	native	
218	Aves	Psittaculidae	Barnardius zonarius (Shaw, 1805)		
219	Aves	Psittaculidae	Barnardius zonarius semitorquatus (Quoy & Gaimard, 1830)		
220	Aves	Psittaculidae	Parvipsitta porphyrocephala (Dietrichsen, 1837)	native	
221	Aves	Psittaculidae	Platycercus icterotis (Temminck & Kuhl, 1820)	native	
222	Aves	Psittaculidae	Polytelis anthopeplus (Lear, 1831)	native	
223	Aves	Psittaculidae	Purpureicephalus spurius (Kuhl, 1820)		
224	Aves	Rallidae	Fulica atra Linnaeus, 1758	native	
225	Aves	Rallidae	Gallinula tenebrosa Gould, 1846	native	
226	Aves	Rallidae	Hypotaenidia philippensis (Linnaeus, 1766)		
227	Aves	Rallidae	Porphyrio porphyrio (Linnaeus, 1758)	native	
228	Aves	Recurvirostridae	Cladorhynchus leucocephalus (Vieillot, 1816)	native	
229	Aves	Recurvirostridae	Himantopus leucocephalus Gould, 1837		
230	Aves	Rhipiduridae	Rhipidura albiscapa	native	
231	Aves	Rhipiduridae	Rhipidura leucophrys	native	
232	Aves	Scolopacidae	Actitis hypoleucos (Linnaeus, 1758)	native	MI
233	Aves	Scolopacidae	Calidris acuminata (Horsfield, 1821) (<i>Sharp-tailed Sandpiper</i>)	native	MI
234	Aves	Scolopacidae	Calidris ferruginea (Pontoppidan, 1763) (<i>Curlew Sandpiper</i>)	native	CR
235	Aves	Scolopacidae	Calidris ruficollis (Pallas, 1776)	native	MI
236	Aves	Scolopacidae	Calidris subminuta (Middendorff, 1853)	native	MI
237	Aves	Scolopacidae	Calidris tenuirostris (Horsfield, 1821)	native	CR
238	Aves	Scolopacidae	Numenius madagascariensis (Linnaeus, 1766) (<i>Eastern Curlew</i>)	native	CR
239	Aves	Scolopacidae	Tringa nebularia (Gunnerus, 1767)	native	MI
240	Aves	Scolopacidae	Tringa stagnatilis (Bechstein, 1803)	native	MI
241	Aves	Strigidae	Ninox boobook (Latham, 1801)	native	
242	Aves	Threskiornithidae	Platalea flavipes Gould, 1838	native	
243	Aves	Threskiornithidae	Plegadis falcinellus (Linnaeus, 1766)	native	MI
244	Aves	Threskiornithidae	Threskiornis moluccus (Cuvier, 1829)	native	
245	Aves	Threskiornithidae	Threskiornis spinicollis (Jameson, 1835)	native	
246	Aves	Turnicidae	Turnix varius (Latham, 1802) (<i>Painted Button-quail</i>)	native	
247	Aves	Tytonidae	Tyto novaehollandiae (Stephens, 1826)	native	Parent of conservation listed taxa

248	Aves	Tytonidae	Tyto novaehollandiae novaehollandiae (Stephens, 1826)	native	P3
249	Aves	Zosteropidae	Zosterops lateralis (Latham, 1802)	native	
250	Bivalvia	Carditidae Férussac, 1822	Cardita aviculina Lamarck, 1819		
251	Bivalvia	Carditidae Férussac, 1822	Cardita crassicosta Lamarck, 1819		
252	Bivalvia	Hyriidae	Hyriidae		
253	Bivalvia	Hyriidae	Westralunio carteri Iredale, 1934 (<i>Carter's Freshwater Mussel</i>)	native	VU
254	Bivalvia	Lucinidae	Pseudolucinisca wami Glover & Taylor, 2008		
255	Cephalaspidomorphi	Geotriidae	Geotria australis Gray, 1851 (<i>Pouched Lamprey</i>)	native	P3
256	Cephalopoda	Loliginidae Lesueur, 1821	Sepioteuthis Blainville, 1824		
257	Chilopoda Latreille, 1817	Chilenophilidae	Chilenophilidae		
258	Chilopoda Latreille, 1817	Henicopidae	Henicops dentatus Pocock, 1901		
259	Chilopoda Latreille, 1817	Mecistocephalidae	Mecistocephalidae		
260	Clitellata	None	Oligochaeta Grube, 1850		
261	Demospongiae	Tethyidae Gray, 1848	Tethya ingalli Bowerbank, 1859		
262	Gastropoda	Anabathridae	Badepigrus protractus (Hedley, 1904)		
263	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon Pilsbry, 1894		
264	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon irvineanus Iredale, 1939	native	P2
265	Gastropoda	Bullidae Gray, 1827	Bulla quoyii Gray & Dieffenbach, 1843		
266	Gastropoda	Campanilidae	Campanile symbolicum Iredale, 1917		
267	Gastropoda	Cassidae Latreille, 1825	Cassis fimbriata Quoy & Gaimard, 1833		
268	Gastropoda	Chilodontaidae Wenz, 1938	Granata imbricata (Lamarck, 1816)		
269	Gastropoda	Chilodontaidae Wenz, 1938	Herpetopoma aspersum (R. A. Philippi, 1846)		
270	Gastropoda	Chilodontaidae Wenz, 1938	Herpetopoma hamiltoni (Kirk, 1882)		
271	Gastropoda	Chilodontaidae Wenz, 1938	Herpetopoma pumilio (Tate, 1893)		
272	Gastropoda	Cingulopsidae Fretter & Patil, 1958	Pseudopisinna gregaria gregaria (Laseron, 1950)		
273	Gastropoda	Columbellidae Swainson, 1840	Mitrella austrina (Gaskoin, 1852)		
274	Gastropoda	Columbellidae Swainson, 1840	Mitrella lincolnensis (Reeve, 1859)		
275	Gastropoda	Conidae Fleming, 1822	Conus anemone Lamarck, 1810		
276	Gastropoda	Costellariidae MacDonald, 1860	Pusia hansenae (Cernohorsky, 1973)		
277	Gastropoda	Costellariidae MacDonald, 1860	Pusia marrowi (Cernohorsky, 1973)		
278	Gastropoda	Costellariidae MacDonald, 1860	Vexillum malleopunctum Cernohorsky, 1981		
279	Gastropoda	Cypraeidae Rafinesque, 1815	Zoila friendii friendii (Gray, 1831)		
280	Gastropoda	Cypraeidae Rafinesque, 1815	Zoila venusta (Sowerby, 1847)		
281	Gastropoda	Cypraeidae Rafinesque, 1815	Zoila venusta episema Iredale, 1939		
282	Gastropoda	Eatoniellidae Ponder, 1965	Crassitoniella erratica erratica (May, 1913)		
283	Gastropoda	Fascioliariidae Gray, 1853	Microcolus dunkeri (Jonas, 1846)		
284	Gastropoda	Fissurellidae Fleming, 1822	Montfortia subemarginata (Blainville, 1819)		
285	Gastropoda	Haliotidae Rafinesque, 1815	Haliotis scalaris scalaris (Leach, 1814)		
286	Gastropoda	Helicidae Rafinesque, 1815	Theba pisana (Müller, 1774)		
287	Gastropoda	Liotiidae Gray, 1850	Austroliotia australis (Kiener, 1839)		
288	Gastropoda	Lymnaeidae	Bullastra vinosa (A. Adams & Angas, 1864)		
289	Gastropoda	Marginellidae	Hydroginella columnaria (Hedley & May, 1908)		
290	Gastropoda	Muricidae Rafinesque, 1815	Dicathais orbita (Gmelin, 1791)		
291	Gastropoda	Muricidae Rafinesque, 1815	Murexsul planiliratus (Reeve, 1845)		
292	Gastropoda	Muricidae Rafinesque, 1815	Pterochelus undosus (Vokes, 1993)		
293	Gastropoda	Naticidae Guilding, 1834	Conuber conicus (Lamarck, 1822)		
294	Gastropoda	Naticidae Guilding, 1834	Mammilla sebae (Récluz, 1844)		
295	Gastropoda	Naticidae Guilding, 1834	Naticarius colliei (Récluz, 1844)		

296	Gastropoda	Newtoniellidae Korobkov, 1955	Ataxocerithium serotinum (Adams, 1855)		
297	Gastropoda	Olividae Latreille, 1825	Oliva australis Duclos, 1835		
298	Gastropoda	Phasianellidae Swainson, 1840	Tricolia fordiana (Pilsbry, 1888)		
299	Gastropoda	Phyllidiidae Rafinesque, 1814	Phyllidiella pustulosa (Cuvier, 1804)		
300	Gastropoda	Pisaniidae Gray, 1857	Pollia bednalli (Sowerby, 1895)		
301	Gastropoda	Planorbidae Rafinesque, 1815	Ancylinae Rafinesque, 1815		
302	Gastropoda	Planorbidae Rafinesque, 1815	Planorbidae Rafinesque, 1815		
303	Gastropoda	Rissoellidae Gray, 1850	Rissoella atrimacula Ponder & Yoo, 1977		
304	Gastropoda	Rissoidae Gray, 1847	Alvania novarensis Frauenfeld, 1867		
305	Gastropoda	Rissoinidae W. Stimpson, 1865	Rissoina crassa Angas, 1871		
306	Gastropoda	Rissoinidae W. Stimpson, 1865	Rissoina nivea A. Adams, 1853		
307	Gastropoda	Tornatinidae Fischer, 1883	Acteocina apicina (A. Gould, 1859)		
308	Gastropoda	Triphoridae J. E. Gray, 1847	Bouchetriphora pallida (Pease, 1870)		
309	Gastropoda	Triphoridae J. E. Gray, 1847	Hedleytriphora basimacula Marshall, 1983		
310	Gastropoda	Trochidae Rafinesque, 1815	Botelloides chrysalidus kendricki Ponder, 1985		
311	Gastropoda	Trochidae Rafinesque, 1815	Cantharidus lepidus (Philippi, 1849)		
312	Insecta	Acanthosomatidae	Elasmostethus nigropunctatus (Reuter, 1881)		
313	Insecta	Aeshnidae	Aeshnidae		
314	Insecta	Argiolestidae	Archiargiolestes pusillus (Tillyard, 1908)		
315	Insecta	Baetidae	Baetidae		
316	Insecta	Bombyliidae Latreille, 1802	Pseudopenthes fenestrata Roberts, 1928		
317	Insecta	Buprestidae Leach, 1815	Castiarina anchoralis (Gory & Laporte, 1838)		
318	Insecta	Buprestidae Leach, 1815	Castiarina pallidiventris (Gory & Laporte, 1838)		
319	Insecta	Caenidae	Caenidae		
320	Insecta	Carabidae Latreille, 1802	Mecyclothorax (Mecyclothorax) punctipennis (Macleay, 1871)		
321	Insecta	Castniidae	Synemon directa Westwood, 1877		
322	Insecta	Ceratopogonidae Newman, 1834	Ceratopogonidae Newman, 1834		
323	Insecta	Chironomidae Newman, 1834	Chironominae		
324	Insecta	Chironomidae Newman, 1834	Orthocladiinae		
325	Insecta	Chironomidae Newman, 1834	Tanypodinae		
326	Insecta	Chrysomelidae	Chrysomelidae		
327	Insecta	Cicadellidae Latreille, 1825	Neotartessus parvus (Evans, 1966)		
328	Insecta	Cicadellidae Latreille, 1825	Paradorydium viridis (Evans, 1937)		
329	Insecta	Coccinellidae	Coccinella transversalis Fabricius, 1781		
330	Insecta	Coenagrionidae	Coenagrionidae		
331	Insecta	Colletidae	Dasyhesma robusta Michener, 1965		
332	Insecta	Colletidae	Glossurocolletes xenoceratus (Michener, 1965)		
333	Insecta	Colletidae	Hylaeus (Euprosopis) elegans (Smith, 1853)		
334	Insecta	Colletidae	Hylaeus (Euprosopis) violaceus (Smith, 1853)		
335	Insecta	Colletidae	Hylaeus (Euprosopoides) ruficeps (Smith, 1853)		
336	Insecta	Colletidae	Hylaeus (Euprosopoides) ruficeps kalamundae (Cockerell, 1915)		
337	Insecta	Colletidae	Hylaeus (Gnathoprosopis) amicus (Smith, 1879)		
338	Insecta	Colletidae	Hylaeus (Prosopistemon) perhumilis (Cockerell, 1914)		
339	Insecta	Conopidae Latreille, 1802	Atrichoparia curticornis (Kröber, 1940)		
340	Insecta	Corduliidae	Corduliidae		
341	Insecta	Coreidae	Mictis profana (Fabricius, 1803)		
342	Insecta	Corixidae	Corixidae		
343	Insecta	Culicidae Meigen, 1818	Culicidae Meigen, 1818		
344	Insecta	Dytiscidae	Dytiscidae		
345	Insecta	Dytiscidae	Necterosoma penicillatum (Clark, 1862)		
346	Insecta	Dytiscidae	Spencerhydrus latecinctus Sharp, 1882		
347	Insecta	Dytiscidae	Sternopriscus browni Sharp, 1882		

348	Insecta	Ecnomidae	Ecnomidae		
349	Insecta	Formicidae Latreille, 1809	Amblyopone clarki Wheeler, 1927		
350	Insecta	Gelastocoridae	Gelastocoridae		
351	Insecta	Gomphidae	Gomphidae		
352	Insecta	Gripopterygidae	Gripopterygidae		
353	Insecta	Gyrinidae	Gyrinidae		
354	Insecta	Hesperiidae Latreille, 1809	Taractrocera papyria agraulia (Hewitson, 1868)		
355	Insecta	Hesperiidae Latreille, 1809	Trapezites argenteoornatus (Hewitson, 1868)		
356	Insecta	Hydraenidae	Hydraenidae		
357	Insecta	Hydrobiosidae	Hydrobiosidae		
358	Insecta	Hydrophilidae Latreille, 1802	Hydrophilidae Latreille, 1802		
359	Insecta	Hydrophilidae Latreille, 1802	Hydrophilus (Hydrophilus) albipes Castelnau, 1840		
360	Insecta	Hydrophilidae Latreille, 1802	Paracymus pygmaeus (W. J. Macleay, 1871)		
361	Insecta	Hydroptilidae	Hydroptilidae		
362	Insecta	Leptoceridae	Leptoceridae		
363	Insecta	Leptophlebiidae	Leptophlebiidae		
364	Insecta	Lestidae	Lestidae		
365	Insecta	Libellulidae	Libellulidae		
366	Insecta	Megachilidae	Megachile (Chalicodomoides) aethiops (Smith, 1853)		
367	Insecta	Megachilidae	Megachile (Eutricharaea) chrysopyga Smith, 1853		
368	Insecta	Megachilidae	Megachile (Hackeriapis) tosticauda Cockerell, 1912		
369	Insecta	Megachilidae	Megachile erythropyga Smith, 1853		
370	Insecta	Megapodagrionidae	Megapodagrionidae		
371	Insecta	Notonectidae	Notonectidae		
372	Insecta	Nymphalidae Rafinesque, 1815	Geitoneura klugii (Guérin-Méneville, 1830)		
373	Insecta	Nymphalidae Rafinesque, 1815	Geitoneura minyas (Waterhouse & Lyell, 1914)		
374	Insecta	Pentatomidae	Anaxilaus vesiculosus (Herrich-Schaeffer, 1840)		
375	Insecta	Pentatomidae	Dictyotus roei (Westwood, 1837)		
376	Insecta	Pentatomidae	Kalkadoona enchylaenae Gross, 1976		
377	Insecta	Pentatomidae	Oechalia schellenbergii (Guérin, 1831)		
378	Insecta	Pieridae	Pieris rapae rapae (Linnaeus, 1758)		
379	Insecta	Protoneuridae	Protoneuridae sp.		
380	Insecta	Rhinotermitidae	Heterotermes platycephalus Froggatt, 1897		
381	Insecta	Simuliidae Newman, 1834	Simuliidae Newman, 1834		
382	Insecta	Syrphidae Latreille, 1802	Eristalinus (Lathyrophthalmus) punctulatus (Macquart, 1847)		
383	Insecta	Syrphidae Latreille, 1802	Melangyna collatus (Walker, 1852)		
384	Insecta	Syrphidae Latreille, 1802	Psilota coerulea Macquart, 1846		
385	Insecta	Tabanidae	Tabanidae		
386	Insecta	Termitidae	Amitermes conformis Gay, 1968		
387	Insecta	Termitidae	Hesperotermes infrequens (Hill, 1927)		
388	Insecta	Termitidae	Occasitermes occasus (Silvestri, 1909)		
389	Insecta	Termitidae	Xylochomitermes occidualis (Gay, 1971)		
390	Insecta	Tettigoniidae	Metaballus litus Rentz, 1985		
391	Insecta	Tipulidae Latreille, 1802	Tipulidae Latreille, 1802		
392	Malacostraca	Armadillidae Brandt, 1831	Buddelundia Michaelsen, 1912		
393	Malacostraca	Ceinidae J. L. Barnard, None	Ceinidae J. L. Barnard, None		
394	Malacostraca	Palaemonidae Rafinesque, 1815	Palaemonidae Rafinesque, 1815		
395	Malacostraca	Parastacidae	Cherax destructor Clark, 1936		
396	Malacostraca	Parastacidae	Cherax preissii (Erichson, 1846)		
397	Malacostraca	Parastacidae	Cherax quinquecarinatus (Gray, 1845)		
398	Malacostraca	Parastacidae	Cherax tenuimanus Smith, 2002	native	CR
399	Malacostraca	Parastacidae	Parastacidae		

400	Malacostraca	Perthiidae	Perthiidae		
401	Mammalia	Balaenidae	Eubalaena australis (Desmoulins, 1822) (<i>Southern Right Whale</i>)	native	VU
402	Mammalia	Balaenopteridae	Megaptera novaeangliae Borowski, 1781 (<i>Humpback Whale</i>)	native	CD, MI
403	Mammalia	Dasyuridae	Dasyurus geoffroii Gould, 1841	native	VU
404	Mammalia	Dasyuridae	Dasyurus geoffroii fortis Thomas, 1906	native	Cons code inherited from parent
405	Mammalia	Dasyuridae	Phascogale tapoatafa (Meyer, 1793)	native	Parent of conservation listed taxa
406	Mammalia	Dasyuridae	Phascogale tapoatafa wambenger Aplin, Rhind, Ten Have & Chesser, 2015	native	CD
407	Mammalia	Macropodidae	Notamacropus irma (Jourdan, 1837) (<i>Western Brush Wallaby</i>)	native	P4
408	Mammalia	Macropodidae	Setonix brachyurus (Quoy & Gaimard, 1830) (<i>Quokka</i>)	native	VU
409	Mammalia	Muridae	Hydromys chrysogaster Geoffroy, 1804 (<i>Water-rat</i>)	native	P4
410	Mammalia	Muridae	Mus musculus	alien	
411	Mammalia	Muridae	Pseudomys occidentalis Tate, 1951	native	P4
412	Mammalia	Muridae	Rattus rattus (Linnaeus, 1758)	alien	
413	Mammalia	Otariidae	Arctocephalus tropicalis (Gray, 1872) (<i>Subantarctic fur-seal</i>)	native	VU
414	Mammalia	Otariidae	Neophoca cinerea (Peron, 1816) (<i>Australian Sea-lion</i>)	native	EN
415	Mammalia	Peramelidae	Isodon fusciventer (Gray, 1841) (<i>Southern Brown Bandicoot</i>)	native	P4
416	Mammalia	Peramelidae	Isodon obesulus (Shaw, 1797) (<i>Southern Brown Bandicoot</i>)	native	
417	Mammalia	Phalangeridae	Trichosurus vulpecula (Kerr, 1793)	native	
418	Mammalia	Phalangeridae	Trichosurus vulpecula vulpecula (Kerr, 1793)	native	
419	Mammalia	Potoroidae	Bettongia penicillata ogilbyi (Waterhouse, 1841)	native	CR
420	Mammalia	Pseudocheiridae	Pseudocheirus occidentalis (Thomas, 1888)	native	CR
421	Mammalia	Thylacomyidae	Macrotis lagotis (Reid, 1837) (<i>Bilby</i>)	native	VU
422	Mammalia	Vespertilionidae	Falsistrellus mackenziei Kitchener, Caputi & Jones, 1986 (<i>Western False Pipistrelle</i>)	native	P4
423	Mammalia	Vespertilionidae	Vespadelus regulus (Thomas, 1906) (<i>Southern Forest Bat</i>)	native	
424	Mammalia	Ziphiidae	Mesoplodon bowdoini Andrews, 1908	native	
425	Mammalia	Ziphiidae	Mesoplodon grayi Von Haast, 1876	native	
426	Polyplocaphora	Loricidae	Lorica volvox (Reeve, 1847)		
427	Reptilia	Cheloniidae	Caretta caretta Linnaeus, 1758 (<i>Loggerhead Turtle</i>)	native	EN
428	Reptilia	Cheloniidae	Chelonia mydas (Linnaeus, 1758) (<i>Green Turtle</i>)	native	VU
429	Reptilia	Elapidae	Notechis scutatus (Peters, 1861)	native	
430	Reptilia	Elapidae	Pseudonaja affinis Gunther, 1872	native	
431	Reptilia	Elapidae	Pseudonaja affinis affinis Günther, 1872 (<i>Dugite</i>)	native	
432	Reptilia	Gekkonidae	Christinus marmoratus (Gray, 1845)	native	
433	Reptilia	Pygopodidae	Aprasia pulchella Gray, 1839 (<i>Granite Worm-lizard</i>)	native	
434	Reptilia	Pygopodidae	Lialis burtonis Gray, 1835 (<i>Burton's Snake-lizard</i>)	native	
435	Reptilia	Scincidae	Cryptoblepharus buechananii (Gray, 1838)	native	
436	Reptilia	Scincidae	Cryptoblepharus plagiocephalus	native	
437	Reptilia	Scincidae	Ctenotus impar Storr, 1969 (<i>South-western Odd-striped Ctenotus</i>)	native	
438	Reptilia	Scincidae	Egernia kingii (Gray, 1838) (<i>King's Skink</i>)	native	
439	Reptilia	Scincidae	Hemiergis gracilipes (Gray, 1839) (<i>South-western Mulch-skink</i>)	native	
440	Reptilia	Scincidae	Hemiergis peronii (Fitzinger, 1826)	native	
441	Reptilia	Scincidae	Hemiergis peronii tridactyla (Boulenger, 1915) (<i>Four-toed Earless Skink</i>)	native	
442	Reptilia	Scincidae	Hemiergis quadrilineatus (Dumeril, Shaw & Bibron,	native	

			1839)		
443	Reptilia	Scincidae	Lerista distinguenda (Werner, 1910) (<i>Dwarf Four-toed Slider</i>)	native	
444	Reptilia	Scincidae	Lerista elegans (Gray, 1845) (<i>Elegant Slider</i>)	native	
445	Reptilia	Scincidae	Lerista lineata Bell, 1883 (<i>Perth Slider</i>)	native	P3
446	Reptilia	Scincidae	Menetia greyii Gray, 1845	native	
447	Reptilia	Scincidae	Morethia lineoocellata (Dumeril & Bibron, 1839)	native	
448	Reptilia	Scincidae	Tiliqua rugosa (Gray, 1825)	native	
449	Reptilia	Typhlopidae Merrem, 1820	Anilius australis Gray, 1845 (<i>Southern Blind Snake</i>)	native	
450	Reptilia	Varanidae	Varanus gouldii (Gray, 1838) (<i>Bungarra or Sand Goanna, Bungarra or Sand Monitor</i>)	native	
451	Reptilia	Varanidae	Varanus rosenbergi Mertens, 1957	native	
452	Symphyla	None	Cephalostigmata		

Conservation status definitions

Threatened species

- CR – Critically Endangered
- EN – Endangered
- VU – Vulnerable
- EX – Extinct
- EW – Extinct in the Wild
- CD – Species of special conservation interest (conservation dependent)
- OS – Species otherwise in need of special protection (other specially protected)
- MI – Migratory
- SP – Specially protected species

Priority species

- P1 – Priority 1: Poorly-known species – known from few locations, none on conservation lands
- P2 – Priority 2: Poorly-known species – known from few locations, some on conservation lands
- P3 – Priority 3: Poorly-known species – known from several locations
- P4 – Priority 4: Rare, Near Threatened and other species in need of monitoring

Dandjoo specific codes

- Parent of conservation listed taxa
- Cons code inherited from parent, X

Read full definitions at <https://bio.wa.gov.au/guide/conservation-status-definitions>

Disclaimer

The production and usage of this report is deemed acceptance of Dandjoo's conditions of use. Details available via our web - [Dandjoo Conditions of Use | Biodiversity Information Office](#)

Further note, precise locations of [conservation listed species](#) are considered sensitive. To protect this information, [obfuscation](#) has been applied to conservation-listed species records. For these species, the true location is 10km from the search area used to generate this species list.



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: 05-Sep-2025

[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)	
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	2
Listed Migratory Species:	2

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:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	
Whales and Other Cetaceans:	None
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:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	
Key Ecological Features (Marine)	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Ecological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		Resource Information
Ramsar Site Name	Proximity	
Wasse-wonnerup system	Within 10km of Ramsar site	

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
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area
Tuart Eucalyptus gomphocephala Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area

Listed Threatened Species	Resource Information
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
BIRD		
Botaurus poiciloptilus Australasian Bittern 0000	Endangered	Species or species habitat likely to occur within area
Calidris acuminata Sharp-tailed Sandpiper 0000	Vulnerable	Species or species habitat known to occur within area
Calidris canutus Red Knot not not 550	Vulnerable	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper 500	Critically Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo arrak 0	vulnerable	Species or species habitat likely to occur within area
Charadrius leschenaultii Greater Sand PloverLarge Sand Plover	vulnerable	Species or species habitat likely to occur within area
Falco hypoleucos Grey Falcon 2	vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern CurlewFar Eastern Curlew	Critically Endangered	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern 250	vulnerable	Species or species habitat may occur within area
Tringa nebularia Common GreenshankGreenshank 2	Endangered	Species or species habitat likely to occur within area
Zanda baudinii listed as Calyptorhynchus baudinii Baudin's CockatooBaudin's Black-CockatooLong-billed Black-cockatoo	Endangered	Breeding known to occur within area
Zanda latirostris listed as Calyptorhynchus latirostris Carnaby's Black CockatooShort-billed Black-cockatoo	Endangered	Species or species habitat known to occur within area
MAMMA		
Dasyurus geoffroii ChuditchEastern Quoll 0	vulnerable	Species or species habitat likely to occur within area
Pseudocheirus occidentalis Eastern Ringtail PossumNgwayir MompoderNgoorNgoolangit 25	Critically Endangered	Species or species habitat known to occur within area
OTHER		
Pestralunio carteri Carter's Freshwater MusselAmbiguous Mussel 2	vulnerable	Species or species habitat known to occur within area
PLANT		

Scientific Name	Threatened Category	Presence Text
Banksia mimica Summer ☐oneypot ☐☐2☐☐5☐	Endangered	Species or species habitat may occur within area
Banksia nivea subsp. uliginosa Swamp ☐oneypot ☐☐2☐☐☐☐	Endangered	Species or species habitat may occur within area
Banksia squarrosa subsp. argillacea ☐ hicher Range Dryandra ☐☐2☐☐☐☐	☐ulnerable	Species or species habitat may occur within area
Brachyscias verecundus Ironstone Brachyscias ☐☐☐☐2☐☐	Critically Endangered	Species or species habitat may occur within area
Chamelaucium sp. S coastal plain ☐R.D.Royce ☐☐☐2☐ Royce☐ ☐ axflower ☐☐☐☐☐☐☐☐	☐ulnerable	Species or species habitat likely to occur within area
Diuris drummondii Tall Donkey Orchid ☐☐☐☐5☐	☐ulnerable	Species or species habitat known to occur within area
Diuris micrantha Dwarf Bee-orchid ☐550☐2☐	☐ulnerable	Species or species habitat may occur within area
Drakaea elastica ☐lossy-leafed ☐ammer Orchid☐☐lossy-leafed ☐ammer Orchid☐☐ arty ☐ammer Orchid ☐☐☐☐5☐☐	Endangered	Species or species habitat known to occur within area
Drakaea micrantha Dwarf ☐ammer-orchid ☐5☐☐55☐	☐ulnerable	Species or species habitat may occur within area
☐astrolobium papilio Butterfly-leafed ☐astrolobium ☐☐☐☐☐5☐	Endangered	Species or species habitat may occur within area
☐ambertia echinata subsp. occidentalis ☐ estern Prickly ☐oneysuckle ☐☐☐52☐☐	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Morelotia australiensis listed as Tetraria australiensis		
Southern Tetraria 00020000	Vulnerable	Species or species habitat may occur within area
Petrophile latericola		
Laterite Petrophile 0005020	Endangered	Species or species habitat may occur within area
Synaphea sp. Fairbridge Farm D.Papenfus 0000		
Selena's Synaphea 00200000	Critically Endangered	Species or species habitat likely to occur within area
Merticordia densiflora var. pedunculata		
Long-stalked Featherflower 550000	Endangered	Species or species habitat may occur within area
Merticordia plumosa var. vassensis		
Massed Featherflower 550000	Endangered	Species or species habitat may occur within area

SAR		
Pristis pristis		
Freshwater SawfishTargettooth SawfishRiver SawfishLeichhardt's SawfishNorthern Sawfish 000500	Endangered	Species or species habitat may occur within area

Listed Migratory Species		Resource Information
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus		
Black-tailed Swift 00000		Species or species habitat likely to occur within area

Migratory Marine Species		
Pristis pristis		
Freshwater SawfishTargettooth SawfishRiver SawfishLeichhardt's SawfishNorthern Sawfish 000500	Endangered	Species or species habitat may occur within area

Migratory Terrestrial Species		
Motacilla cinerea		
Grey Wagtail 00020		Species or species habitat may occur within area

Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper 500000		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris acuminata Sharp-tailed Sandpiper <div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div>vulnerable</div> </div>	Species or species habitat known to occur within area
Calidris canutus Red <div> <div>not</div> <div>not</div> <div>55</div> </div>	<div> <div></div> <div>vulnerable</div> </div>	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper <div> <div>5</div> <div></div> <div></div> </div>	<div> <div></div> <div>Critically Endangered</div> </div>	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper <div> <div>5</div> <div></div> <div></div> </div>		Species or species habitat may occur within area
Charadrius leschenaultii <div> <div>reater Sand Plover</div> <div>arge Sand Plover</div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div>vulnerable</div> </div>	Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew <div> <div>ar Eastern Curlew</div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div>Critically Endangered</div> </div>	Species or species habitat may occur within area
Pandion haliaetus Osprey <div> <div>52</div> <div></div> </div>		Species or species habitat may occur within area
Tringa nebularia Common <div> <div>reenshank</div> <div>reenshank</div> <div></div> <div>2</div> <div></div> </div>	<div> <div></div> <div>Endangered</div> </div>	Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands	Resource Information
The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.	
Commonwealth Land Name	State
Unknown	
Commonwealth Land - 50	A
Commonwealth Land - 505	A

Listed Marine Species		Resource Information
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper 5000		Species or species habitat known to occur within area
Apus pacificus ork-tailed Swift 0000		Species or species habitat likely to occur within area overfly marine area
Bubulcus ibis as Ardea ibis Cattle Egret 0052		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper 0000	vulnerable	Species or species habitat known to occur within area
Calidris canutus Red notnot 55	vulnerable	Species or species habitat may occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper 5	Critically Endangered	Species or species habitat may occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper 5		Species or species habitat may occur within area overfly marine area
Charadrius leschenaultii reater Sand Ploverarge Sand Plover 0000	vulnerable	Species or species habitat likely to occur within area
Haliaeetus leucogaster hite-bellied Sea-Eagle 0000		Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater 000		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Motacilla cinerea Grey Wagtail 2		Species or species habitat may occur within area overfly marine area
Numenius madagascariensis Eastern Curlew Eastern Curlew	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey 52		Species or species habitat may occur within area
Tringa nebularia Common Greenshank Greenshank 2	Endangered	Species or species habitat likely to occur within area overfly marine area

Extra Information

EPBC Act Referrals		Resource Information	
Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Arragadee Water Supply Development	200520	Controlled Action	Completed
Not controlled action			
Improving rabbit biocontrol: releasing another strain of RHD to cull two thirds of Australia	2005522	Not Controlled Action	Completed
INDO Central Submarine Telecommunications Cable	200002	Not Controlled Action	Completed
Not controlled action in particular manner			
INDO Marine Cable Route Survey INDO	2000000	Not Controlled Action in Particular Manner	Post-Approval

Caveat

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 (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.

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 (MAENT or BIOCIM 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 0.0 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 (1990s-early 2000s), distributions were defined by degree blocks (100 or 250 map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

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-Mobart-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.

[Commonwealth of Australia](#)

Department of Climate Change, Energy, the Environment and Water

PO Box 988

Canberra ACT 2600 Australia

02 6224 2222

APPENDIX C

DETAILS - HABITAT TREES

Habitat Trees

DBH >30cm

Datum - GDA2020

Entrance Size Ranges: Small = <5cm, Medium = 5-<10cm, Large = 10cm+

Waypoint Number	Zone	mE	mN	DBH (cm)	Tree Height (m)	Tree Species	Number of Hollows	Estimated Hollow Entrance Size	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt004	50H	366856	6286429	>50	0-5	Jarrah	0					
wpt005	50H	366859	6286435	>50	10-15	Jarrah	0					
wpt006	50H	366878	6286467	>50	15-20	Marri	0					
wpt007	50H	366870	6286472	>50	15-20	Marri	0					
wpt008	50H	366853	6286486	>50	15-20	Flooded Gum	0					
wpt009	50H	366850	6286490	>50	20+	Marri	0					
wpt010	50H	366848	6286493	<50	10-15	Marri	0					
wpt011	50H	366844	6286494	>50	15-20	Marri	0					
wpt012	50H	366840	6286496	30-50	10-15	Marri	0					
wpt013	50H	366838	6286497	30-50	10-15	Marri	0					
wpt014	50H	366836	6286498	30-50	10-15	Marri	0					
wpt015	50H	366835	6286499	>50	15-20	Marri	0					
wpt016	50H	366833	6286499	>50	20+	Marri	0					
wpt017	50H	366824	6286505	>50	20+	Marri	0					
wpt018	50H	366818	6286518	>50	20+	Marri	0					
wpt019	50H	366811	6286521	30-50	15-20	Marri	0					
wpt020	50H	366812	6286531	30-50	15-20	Flooded Gum	0					
wpt021	50H	366801	6286542	>50	20+	Flooded Gum	2+	Small, Medium & Large	Bees	No Signs	No	Possible large hollow occupied by bees so unsuitable for cockatoos
wpt022	50H	366796	6286551	30-50	10-15	Marri	0					
wpt023	50H	366780	6286576	>50	20+	Non-Endemic Eucalypt	0					
wpt024	50H	366739	6286599	>50	20+	Non-Endemic Eucalypt	0					
wpt025	50H	366741	6286614	>50	15-20	Non-Endemic Eucalypt	0					
wpt026	50H	366712	6286638	>50	15-20	Non-Endemic Eucalypt	0					
wpt027	50H	366698	6286619	>50	15-20	Flooded Gum	0					
wpt028	50H	366696	6286622	30-50	10-15	Non-Endemic Eucalypt	0					
wpt029	50H	366688	6286628	>50	20+	Non-Endemic Eucalypt	0					
wpt030	50H	366710	6286610	30-50	10-15	Flooded Gum	0					
wpt031	50H	366717	6286607	30-50	0-5	Non-Endemic Eucalypt	0					
wpt032	50H	366739	6286586	30-50	10-15	Dead Flooded Gum	0					

DISCLAIMER

This fauna assessment report (“the report”) has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Greg Harewood (“the Author”). In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints. In accordance with the scope of services, the Author has relied upon the data and has conducted environmental field monitoring and/or testing in the preparation of the report. The nature and extent of monitoring and/or testing conducted is described in the report.

The conclusions are based upon field data and the environmental monitoring and/or testing carried out over a limited period of time and are therefore merely indicative of the environmental condition of the site at the time of preparing the report. Also it should be recognised that site conditions, can change with time.

Within the limitations imposed by the scope of services, the field assessment and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.

In preparing the report, the Author has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations, most of which are referred to in the report (“the data”). Except as otherwise stated in the report, the Author has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report (“conclusions”) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. The Author will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to the Author.

The report has been prepared for the benefit of the Client and no other party. The Author assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of the Author or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

The Author will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.