



# Roe Highway Widening

## Basic Fauna and SRE Survey

Main Roads Western Australia

16 January 2026

→ The Power of Commitment



| <b>Project name</b>   |          | Roe Hwy Widening Flora and Fauna Assessment                                  |                          |                                                                                     |                    |                                                                                       |            |
|-----------------------|----------|------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------|------------|
| <b>Document title</b> |          | Roe Highway Widening   Basic Fauna and SRE Survey                            |                          |                                                                                     |                    |                                                                                       |            |
| <b>Project number</b> |          | 12634226                                                                     |                          |                                                                                     |                    |                                                                                       |            |
| <b>File name</b>      |          | 12634226-REP- REV0_Main Roads Roe Highway Widening - Basic Fauna Survey.docx |                          |                                                                                     |                    |                                                                                       |            |
| Status Code           | Revision | Author                                                                       | Reviewer                 |                                                                                     | Approved for issue |                                                                                       |            |
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# Executive Summary

Roe Highway is a strategic freight route carrying high freight volumes and has been identified as a future Smart Freeway, to be implemented based on Maximum Sustainable Flow Rate requirements contained in the Smart Freeways guidelines. Main Roads Western Australia (Main Roads) has commenced planning for the widening of Roe Highway (H018) between Kwinana Freeway and Tonkin Highway (9.88 to 29.26 SLK) from the current 4-lane configuration to an 8-lane configuration (4 lanes in each direction) by 2036.

GHD Pty Ltd (GHD) was commissioned by Main Roads to undertake a single season Basic fauna survey and targeted Swan Coastal Plain (SCP) Shield-back Trapdoor Spider (*Idiosoma sigillatum*) survey to delineate key fauna and habitat values within the survey area. The survey area extends approximately 19 kilometres (km) and is approximately 330 hectares (ha).

Assessment of Black Cockatoo species and habitats are excluded from this scope and report.

This report is subject to, and must be read in conjunction with, the limitations set out in section 1.5 and the assumptions and qualifications contained throughout the Report.

## ***Fauna Habitats***

Eight broad fauna habitat types were identified and mapped across the survey area excluding cleared areas which accounted for approximately 43% of the survey area. The habitats include woodlands, damplands, modified wetlands and drainage lines, as well as types including native, naturalised and introduced vegetation. The habitats are generally highly degraded and fragmented due to the survey area being located in an extensively developed metropolitan setting that has been subject to long-term degradation from the effects of weed invasion, landscape modification, and broad-scale vegetation loss.

Within the survey area, some areas of remnant habitat are considered high value and provide suitable foraging and shelter for several locally occurring significant fauna. These areas include several patches of either Banksia woodland, or Eucalyptus woodland over Banksia habitats assessed as very good to good condition and with some habitat continuity beyond the survey area boundary.

The Canning River represents a relatively small proportion (0.48 ha) of the survey area and provides habitat for significant fauna. The continuity of riparian habitat through the metropolitan landscape provides connectivity along the river.

## ***Fauna diversity***

Fifty-one vertebrate fauna species were recorded during the field survey comprising 35 birds, seven mammals, seven reptiles and two frogs. Of these, eight birds and mammals are introduced species. Habitats across the survey area support a diverse range of vertebrate and invertebrate fauna including wide-ranging habitat generalist and endemic species.

## ***Significant fauna***

During the field survey three significant fauna species were recorded within the survey area. The Quenda was recorded from extensive signs of activity and numerous local records indicate populations persisting in small, fragmented bushland areas within and around the survey area. Dense, low strata remnants of native and modified vegetation provide habitat for this species. Two species of Black Cockatoo were also recorded within the survey area; details regarding Black Cockatoo species occurrence and assessment of habitat values are documented in a separate report (GHD, 2025b).

In addition to the above-mentioned three recorded species, nine significant fauna species are considered likely to occur within the survey area based on available habitats and proximity of records. They include Peregrine Falcon, Perth Slider, Black Striped Snake, SCP Shield-backed Spider, Graceful Sun Moth and Western Brush Wallaby. The Canning River provides habitat for Carter's Freshwater Mussel, Blue-billed Duck and Water Rat (Rakali). Target searching for the locally occurring SCP Shield-backed Spider did not detect this species, but the species is considered likely to occur based on local records and available suitable habitat.

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# 1. Introduction

## 1.1 Background

Roe Highway is a strategic freight route carrying high freight volumes and has been identified as a future Smart Freeway, to be implemented based on Maximum Sustainable Flow Rate requirements contained in the Smart Freeways guidelines. Main Roads Western Australia (Main Roads) has commenced planning for the widening of Roe Highway (H018) between Kwinana Freeway and Tonkin Highway from the current 4-lane configuration to an 8-lane configuration (4 lanes in each direction) by 2036.

## 1.2 Purpose of this report

GHD Pty Ltd (GHD) was commissioned by Main Roads to undertake a single season Basic fauna survey and targeted Swan Coastal Plain (SCP) Shield-back Trapdoor Spider (*Idiosoma sigillatum*) survey to delineate key fauna and habitat values within the survey area. Assessment of Black Cockatoo species and habitats are excluded from this scope and report (Reported separately in targeted Black Cockatoo assessment (GHD, 2025b)).

This report details the methods and results of the Basic fauna survey and targeted SCP Shield-back Trapdoor Spider survey within the survey area.

The outcome of the survey and information supplied in this survey report will be used to inform the environmental assessment and approvals process and refine the proposal's design. The results of the survey may also assist in the preparation of Environmental Impact Assessment documentation.

## 1.3 Project location

### 1.3.1 Survey area

The survey area extends approximately 19 kilometres (km) along Roe Highway between Kwinana Freeway and Tonkin Highway (9.88 to 29.26 straight line kilometre, SLK). The survey area is approximately 330 hectares (ha) and is based on the Metropolitan Regional Scheme reservations for Primary Regional Road. The survey area is shown on Figure 1, Appendix A.

### 1.3.2 Study area

The desktop study area includes the survey area and a 5 km buffer. Within the study area is the proposal context area which includes a 500 metre (m) boundary either side of the survey area (Figure 1, Appendix A).

## 1.4 Scope of works

The scope of works was to undertake a Basic fauna survey (excluding assessment of Black Cockatoo species and habitats) and targeted SCP Shield-back Trapdoor Spider survey. The following actions were completed to fulfil the scope:

- A desktop assessment of the study area, prior to the field survey to identify biological features which may be in, or near the survey area
- A Basic fauna survey to verify/ground truth the desktop assessment findings in accordance with Environmental Protection Authority (EPA) guidelines (2020).
- A Targeted survey for the SCP Shield-back Trapdoor Spider (*Idiosoma sigillatum*)
- Preparation of a technical report (this document) covering the findings of the desktop assessment and field survey
- Provision of survey data in electronic format consistent with Index of Biodiversity Surveys for Assessments (IBSA) and Main Roads data standards.

## 1.5 Report limitations and assumptions

This report has been prepared by GHD for Main Roads and may only be used and relied on by Main Roads for the purpose agreed between GHD and Main Roads as set out in section 1.2 of this report.

GHD otherwise disclaims responsibility to any person other than Main Roads arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Main Roads and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Site conditions may change after the date of this report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change.

This report has assessed desktop environmental aspects and biological factors in the field for the survey area. Should these areas change or be refined, further assessment may be required.

## 1.6 Relevant legislation, conservation codes and background information

In Western Australia (WA) significant fauna are protected under both Federal and State Government legislation. In addition, regulatory bodies also provide a range of guidance and information on expected standards and protocols for environmental surveys.

The following legislation is applicable to this assessment:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- *Environmental Protection Act 1986* (EP Act)
- *Biodiversity Conservation Act 2016* (BC Act)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act).

An overview of key legislation and guidelines, conservation codes and background information relevant to this report are provided in Appendix B.

## 2. Methods

### 2.1 Desktop assessment

Prior to the field survey, a desktop assessment of the study area was undertaken by viewing geographic information system (GIS) spatial files sourced from Government of WA (GoWA) (2025) and reviewing publicly available, government managed databases to identify environmental values and constraints. The information sources utilised in this assessment are presented in Table 1, with spatially represented environmental constraints mapped in Figure 2, Appendix A.

A pre-survey significant fauna likelihood of occurrence assessment was completed as part of the desktop assessment. For the purpose of this study, exclusively marine animals were excluded from the likelihood of occurrence assessment as they are not expected to interact with the survey area.

*Table 1 Desktop information sources*

| Aspect                                         | Information source                                                                                                                                                                                                                                                                                 |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Climate                                        | Bureau of Meteorology (BoM) Climate Data Online (BoM 2025)                                                                                                                                                                                                                                         |
| Geology, landforms and soil                    | 1:500 000 State linear structures layer (DMIRS-015)<br>Department of Primary Industries and Regional Development (DPIRD) soil landscape mapping<br>Soil Landscape Mapping – Systems (DPIRD-064)                                                                                                    |
| Environmentally Sensitive Areas (ESAs)         | Department of Water and Environmental Regulation (DWER) - Clearing Regulations - Environmentally Sensitive Areas (DWER-046)                                                                                                                                                                        |
| Conservation estates and reserves              | Department of Biodiversity, Conservation and Attractions (DBCA) – Legislated Lands and Waters (DBCA-011)<br>DBCA – Lands of Interest (DBCA-012)                                                                                                                                                    |
| Hydrology                                      | Ramsar Sites (DBCA-010)<br>Directory of Important Wetlands in Australia - Western Australia (DBCA-045)<br>Geomorphic wetlands of the Swan Coastal Plain<br>Rivers and streamlines (DWER-031)                                                                                                       |
| Fauna diversity and significant fauna          | DBCA Threatened and Priority Fauna database (DBCA 2024a). This database contains data from various sources, including Atlas of Australian Birds, BirdLife Australia, DBCA Fauna Survey Returns database and WA Museum (WAM) databases.<br>DBCA <i>NatureMap</i> database (DBCA 2024b) (Appendix C) |
| Matters of National Environmental Significance | EPBC Act Protected Matters Search Tool (PMST) - The Department of Climate Change, Energy, the Environment and Water (DCCEEW 2024).                                                                                                                                                                 |

### 2.2 Field survey

#### 2.2.1 Survey timing and personnel

GHD Senior Zoologist Robert Browne-Cooper and Zoologist Melissa Wood completed a Basic vertebrate and Targeted SRE survey of the survey area. In total 12 person days were used to complete the field survey component (Table 2).

Table 2 Survey timing

| Date           | Survey type                             | Survey effort |
|----------------|-----------------------------------------|---------------|
| 26-27/9/2024   | Basic Fauna Survey, Targeted SRE survey | 4 person days |
| 30/9-3/10/2024 | Basic Fauna Survey, Targeted SRE survey | 8 person days |

## 2.2.2 Guiding documents

The survey methodology and data collection by GHD was consistent with relevant aspects of:

- EPA Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA 2020)
- Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) Survey Guidelines for Australia's Threatened Mammals (DSEWPC 2011)

## 2.2.3 Data collection and storage

Data collected included all survey and assessment methods and results as points, lines and polygons. Field data collection was undertaken using Global Positioning System (GPS) enabled Samsung tablets using electronic forms in Collector. Data was synced to the cloud at the conclusion of each field day. GPS devices were used to capture survey effort (track logs). Field photographs were stored and where applicable have been provided as part of the deliverables.

## 2.2.4 Basic Fauna Survey

In the context of a Basic fauna survey, the guidance statement advises field observers to describe the fauna habitats of the survey area, which gives a comprehensive list of fauna that can reasonably be expected to occur. The fauna survey included traversing the survey area by vehicle and foot to describe and map fauna habitats and a compile a list of fauna species recorded opportunistically. Significant fauna considered likely to occur were targeted during the survey. This included recording any secondary signs of fauna (tracks, scats, feeding evidence) or visible/audible encounters of the target species in suitable habitat. Sample locations and search effort are presented in Figure 3, Appendix A.

### 2.2.4.1 Habitat assessments

Fauna habitat assessments were undertaken at point locations to document the type, value and extent of habitats within the survey area and to inform habitat mapping. Specifically, the assessment included and/or considered the following aspects:

- Habitat structure (e.g. vegetation types, structural layers / strata such as ground cover and mid storey)
- Presence/absence of refuge including density of ground covers, fallen timber (coarse woody debris), hollow-bearing trees and stags and rocks/boulder piles, and the type and extent of each refuge
- Presence/absence of waterways
- Location of the habitat within the survey area in comparison to the habitat within the surrounding landscape
- Habitat connectivity and identification of wildlife corridors within and immediately adjacent to the survey area
- Current land use and disturbance history
- Evaluation of key habitat features, and types identified during the desktop assessment relevant to fauna of conservation significance
- Evaluation of the likelihood of occurrence of significant fauna (based on presence of suitable habitat)
- A representative photograph of each habitat type.
- Floristic species present based on vegetation community type data, and foliage density estimates.

Fauna habitats were delineated and mapped on field tablets at broad scale based on characteristics recorded in the habitat assessments, and in consideration of the vegetation types (VTs) identified during the flora and



vegetation field survey. Habitat types have been aligned with mapped VT polygon boundaries where practicable, as delineated during the flora survey (GHD 2025).

2.2.4.2 Active searches and opportunistic observations

Active searches and opportunistic observations of fauna were undertaken in the survey area, including:

- Searching for tracks, scats, remains, diggings and feeding areas for both native and feral species
- Searching through microhabitats including turning over logs or rocks, turning over leaf litter and examining tree hollows and logs
- Visual and aural surveys, which accounted for many bird species potentially utilising the survey area
- Recording GPS locations of any significant fauna species observed.

2.2.5 Targeted SCP Shield-back Trapdoor Spider survey

State and Commonwealth survey guidelines do not provide prescriptive survey methods for the SCP Shield-back Trapdoor Spider (*Idiosoma sigillatum*). The survey approach used was adapted from a transect-based approach developed by Bamford et.al (2013) in a long-term study of a related species, the Northern Shield-backed Trapdoor spider (*Idiosoma clypeatum*).

Search sites within the survey area were chosen in areas of good to very good quality Banksia woodland based on habitat preference documented by Rix et.al (2018). Twenty-six transects 50 m long by 2 m wide (100m<sup>2</sup>) were established using a tape measure. Two ecologists walked the length of the transect, with each ecologist surveying 1 m either side of the tape measure laid out on the ground. For burrows detected, the distance along the tape measure was recorded and a milliscope used to determine species presence. The SCP Shield-backed Trapdoor Spider can be recognised as it usually presents its distinctive armoured abdomen to an intruder as it blocks the burrow to intruders (such as the milliscope). Locations of search transects are presented in Figure 3 Appendix A.

2.3 Limitations

2.3.1 Desktop limitations

The EPBC Act PMST is based on bioclimatic modelling for the potential presence of species. As such, this does not represent actual records of the species within the study area. The records from the DBCA searches of Threatened and Priority fauna provide more accurate information for the study area and local occurrence. However, some collections cannot be dated and often misrepresent the current range of Threatened and Priority species.

2.3.2 Field survey limitations

The EPA (2020) Technical Guidance states that fauna survey reports for environmental impact assessment in WA should contain a section describing the limitations of the survey methods used. The limitations and constraints associated with this field survey are discussed in Table 3. Based on this assessment, the survey effort has not been subject to any constraints that affect the thoroughness of the assessment, and the conclusions formed.

Table 3 Field survey limitations

| Aspect                                                             | Constraint | Comment                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sources of information and availability of contextual information. | Nil        | Adequate information is available for the survey area, this includes: DBCA fauna database searches (DBCA 2024a) and <i>NatureMap</i> (DBCA 2024b).                                                                                                                                                                                            |
| Scope (what life forms were sampled etc.)                          | Nil        | Terrestrial vertebrate fauna including locally occurring significant fauna and the SCP Shield-back Trapdoor Spider ( <i>Idiosoma sigillatum</i> ) were surveyed. Assessment of Black Cockatoo species and habitats are excluded from this scope and report (Reported in GHD, 2025b). Aquatic fauna and other invertebrates were not surveyed. |

| Aspect                                                                                          | Constraint | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Proportion of fauna identified, recorded and/or collected.                                      | Nil        | All significant fauna relevant to the study area and region were assessed according to the requested level during the field survey via on-ground searches and habitat assessment.<br>All fauna observed during the field survey was identified to species level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Completeness and further work which might be needed (e.g. was the relevant area fully surveyed) | Nil        | The survey area was accessed by vehicle and on foot. The survey area was adequately surveyed during the survey in line with the scope. An adequate number of sample sites, including habitat assessment points, active search sites and invertebrate search transects assessed for the Basic fauna survey and targeted SCP Shield-back Trapdoor Spider survey.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mapping reliability                                                                             | Nil        | The survey was conducted using high-resolution aerial imagery obtained from Landgate, topographical features and field data. Data was recorded in the field using hand-held GPS tools (e.g. Samsung tablet, and Garmin GPS). Certain atmospheric factors and other sources of error can affect the accuracy of GPS receivers, including tree canopies. The Garmin GPS units used for fauna component are accurate to within $\pm 5$ metres on average. Therefore, data points consisting of coordinates recorded from the GPS may contain minor inaccuracies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Timing/weather/season/cycle                                                                     | Nil        | The field survey was conducted during spring (September and October 2024). In the three months prior to the survey (Jun - Aug) 534.6 mm of rainfall was recorded at Jandakot Airport weather station (site number: 009172). Comparable to the long-term average for the same period (Jun - Aug) of 453.5 mm (BoM 2025), the site experienced wetter on average conditions and therefore the season is not considered to be a limitation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Disturbances (e.g. fire, flood, accidental human intervention)                                  | Nil        | The majority of the survey area has been subjected to urban development; however, these disturbances did not affect the results of the survey.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Intensity (in retrospect, was the intensity adequate)                                           | Nil        | The fauna survey was sampled in accordance with EPA (2020). The survey area was sufficiently covered by the field team during the survey over 12 person days.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Resources                                                                                       | Nil        | Adequate resources were employed during the field survey. One Senior Zoologist and one Zoologist undertook the field survey over 12 person days.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Access restrictions                                                                             | Minor      | Some parts of the survey area were unable to be accessed on foot due to the freeway restrictions (e.g. lack of safe parking, no pedestrian access). In these areas assessments of fauna habitat and habitat suitability for significant fauna were made from the vehicle travelling as slow as safely possible. Fauna habitat mapping was also completed by reviewing aerial imagery and extrapolation from adjacent areas (i.e. assessing the plants present, and the height and canopy cover range for the patches of Banksia woodland adjacent the freeway). Some areas of the survey area were unable to be reached due to high security fencing or sound-blocking walls for the freeway. In these cases, the zoologists would park as close as was possible and utilise binoculars to make an assessment of the habitat that was present. Full detailed searches for signs of fauna were not possible in these areas. These areas are only small areas amounting to a few hectares across the site, rather than large un-surveyed areas. All suitable habitat types were targeted and therefore detection of fauna signs would have been possible if present. Refer to Figure 3, Appendix A for the tracklog effort of transects searched for signs of fauna. |
| Experience level                                                                                | Nil        | The zoologists who executed the survey are practitioners suitably qualified and experienced in their respective fields: <ul style="list-style-type: none"> <li>– Senior Zoologist Robert Browne Cooper has over 20 years' experience leading and conducting detailed fauna surveys including target SCP Shield-back Trapdoor Spider surveys throughout WA and on the SCP.</li> <li>– Zoologist Melissa Wood has over 2 years' of experience in undertaking fauna surveys throughout WA and on the SCP.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## 3. Desktop assessment

### 3.1 Climate

The survey area is located within the Perth Metropolitan area that has a mediterranean climate, characterised by hot, dry summers and mild, wet winters.

At the Jandakot Airport weather station (site number: 009172) the mean maximum temperature is 31.7°C in summer (Feb) and 18.1°C in winter (July) and the mean minimum temperature is 17.2°C in summer (Feb) and 7.2°C in winter (July) (BoM 2025). The highest mean rainfall is received in July with 173 mm and the lowest mean rainfall is received in December with 9.8 mm. The mean annual rainfall is 806.2 mm (BoM 2025). Plate 1 illustrates the monthly climate statistics for Jandakot Airport.

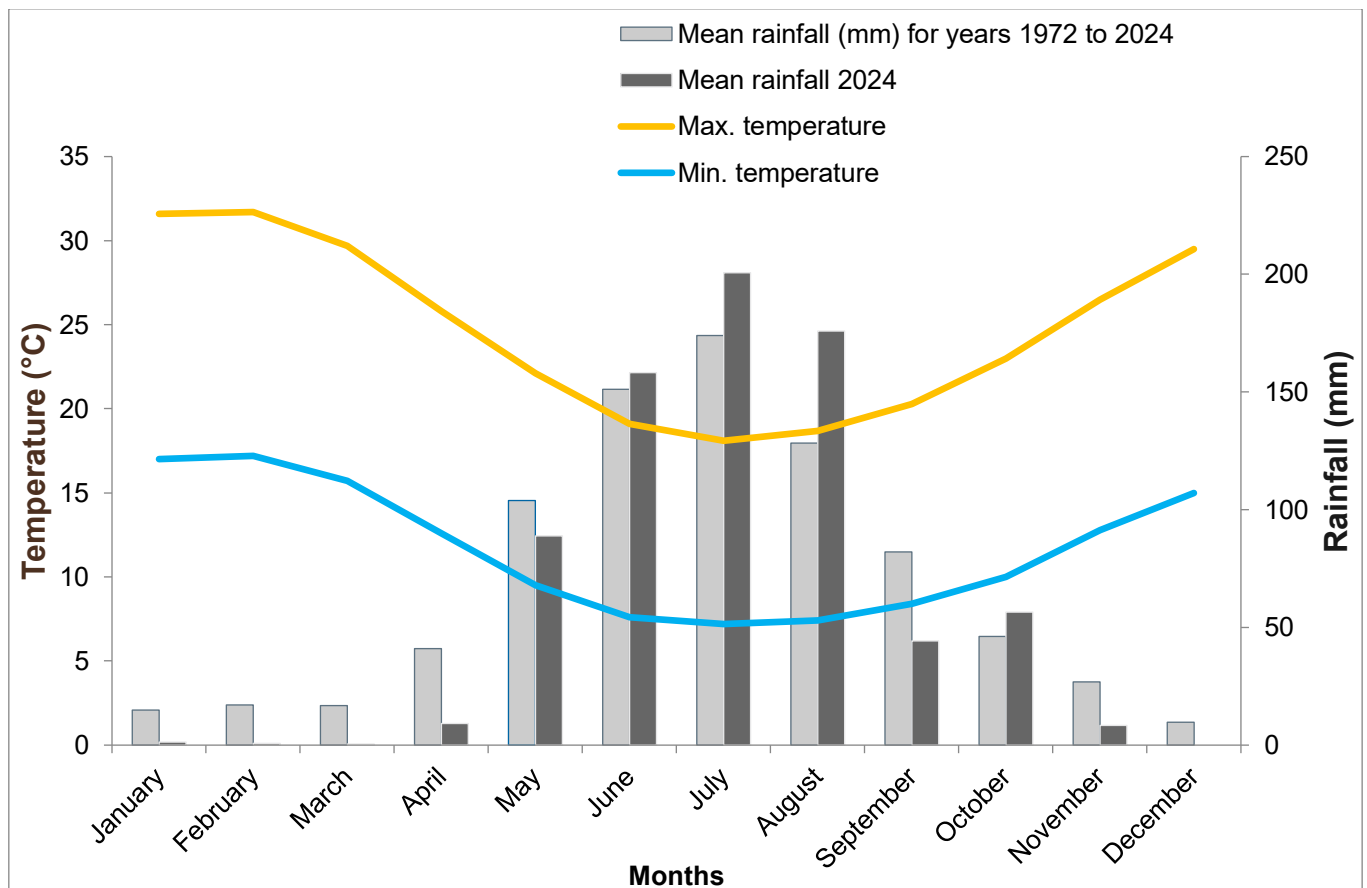


Plate 1 Jandakot Airport monthly climate statistics (BoM weather station: 009172)

### 3.2 Geology, soils and landforms

The survey area is located at the SCP, a low-lying area of sand, limestone and fluvial deposits located between the Darling Scarp and the Indian Ocean. Colluvial and aeolian sand areas represent three phases of Quaternary marine sand dune development and include a complex series of seasonal freshwater wetlands, alluvial river flats, coastal limestones and several offshore islands (Mitchell et al. 2002).

The survey area overlays the following geological unit:

- Coolyena Group – characterised by a composition of chalk, greensand, glauconitic sandstone, siltstone, marl; and glauconite.

The survey area is located across the following two unique soil landscape zones:

- Bassendean Zone (zone 212): Mid Pleistocene Bassendean sand. Fixed dunes inland from coastal dune zone. Non-calcareous sands, podsolised soils with low-lying wet areas

- Pinjarra Zone (zone 213): Alluvial deposits (early Pleistocene to Recent) between the Bassendean Dunes Zone and the Darling Scarp, colluvial and shelf deposits adjacent to the Darling Scarp. Clayey to sandy alluvial soils with wet areas.

Land zones have been further classified into soil-landscape systems. The survey area is located across two soil landscape systems as described below:

- Bassendean system (212Bs): Swan Coastal Plain from Busselton to Jurien. Sand dunes and sandplains with pale deep sand, semi-wet and wet soil. Banksia-paperbark woodlands and mixed heaths
- Pinjarra system (213Pj): Swan Coastal Plain from Perth to Capel. Poorly drained coastal plain with variable alluvial and aeolian soils. Variable vegetation includes Jarrah, marri, wandoo, paperbark sheoaks and flooded gum.

## 3.3 Land use

### 3.3.1 Conservation reserves and estates

The survey area intersects one conservation area associated with the Canning River (un-named, R 48327) and is situated immediately adjacent to three other conservation areas (Greater Brixton Street (Kenwick) Wetlands, R 49200; Dundas Road Nature Reserve, R 5313; and Beeliar Conservation Park, R 53313). A further 14 conservation estates and reserves are located within the study area (Table 4).

*Table 4 Conservation reserves and estates within the study area*

| Conservation Estate/Reserve name          | Identifier | IUCN category | Locality                                                   |
|-------------------------------------------|------------|---------------|------------------------------------------------------------|
| Thomsons Lake Nature Reserve              | WA_15556   | 1             | Located approximately 6 km south of the Survey Area        |
| Lesmurdie Falls National Park             | WA_22515   | 2             | Located approximately 3 km east of the Survey Area         |
| Kalamunda Nature Reserve                  | WA_23076   | 1a            | Located approximately 3 km north-east of the Survey Area   |
| Kalamunda Conservation Park               | WA_24657   | 2             | Located approximately 3.5 km north-east of the Survey Area |
| Unnamed WA29815                           | WA_29815   | 5             | Located approximately 1km north-east of the Survey Area    |
| Gooseberry Hill National Park             | WA_30200   | 2             | Located approximately 5 km north-east of the Survey Area   |
| Unnamed WA37997                           | WA_37997   | 1a            | Located approximately 500m north-east of Survey Area       |
| Korung National Park                      | WA_47881   | 2             | Located approximately 4 km east of the Survey Area         |
| Unnamed WA48327                           | WA_48327   | -             | In Survey Area                                             |
| Hawkevale Nature Reserve                  | WA_49079   | 1a            | Located approximately 6 km north-east of the Survey Area   |
| Greater Brixton Street (Kenwick) Wetlands | WA_49200   | 1a            | In Survey Area                                             |
| Gay Street Nature Reserve                 | WA_49299   | 1a            | Located approximately 3 km south of the Survey Area        |
| Unnamed WA49362                           | WA_49362   | 1a            | Located approximately 2.5 km north of the Survey Area      |
| Canning River Conservation Park           | WA_49363   | 2             | Located approximately 2 km north of the Survey Area        |
| Thomsons Lake Conservation Park           | WA_49561   | 2             | Located approximately 5 km south of the Survey Area        |
| Dundas Road Nature Reserve                | WA_53131   | 1a            | In Survey Area                                             |
| Beeliar conservation reserve              | WA_53313   | 2             | Located approximately 1 km west of the survey area         |
| Unnamed WA540121                          | WA_54021   | 1a            | Located approximately 3km east of the survey area          |

### 3.3.2 Environmentally sensitive areas

The survey area intersects eight ESA's predominantly consisting of Bush Forever reserves, TEC's and Wetlands (ESA identifiers 3410, 3416, 3438, 3652, 3499, 3481, 3489 and 3562) (Figure 2, Appendix A).

### 3.3.3 Bush forever

The survey area intersects four Bush Forever sites and lies immediately adjacent to an additional four Bush Forever sites. Further information on the Bush Forever sites located within and immediately adjacent to the survey area are listed in Table 5.

*Table 5 Bush Forever sites located within or immediately adjacent to the survey area*

| Site No. | Name                                                                    | Location in proximity to the survey area                                   |
|----------|-------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 319      | Dundas Rd, Forrestfield                                                 | Immediately north of the survey area                                       |
| 282      | Tomah Road Bushland, Wattle Grove                                       | Immediately adjacent to the survey area                                    |
| 387      | Greater Brixton Street Wetlands, Kenwick                                | Immediately adjacent to the survey area                                    |
| 224      | Canning River Regional Park and Adjacent Bushland, Riverton to Langford | Intersects the boundary of the survey area along Kenwick Link and Roe Hwy. |
| 246      | Southern Rivers, Beckenham to Martin/Kelmscott                          | Intersects the boundary of the survey area along Roe Hwy.                  |
| 456      | Nicholson Road Bushland, Langford/Thornlie                              | Intersects the boundary of the survey area along Roe Hwy.                  |
| 245      | Ken Hurst Park, Leeming/Canning                                         | Intersects the boundary of the survey area along Roe Hwy.                  |
| 388      | Jandakot Airport, Jandakot                                              | Immediately adjacent to the survey boundary                                |

## 3.4 Hydrology

### 3.4.1 Rivers and waterways

The Canning River intersects the survey area and includes the major drainage channel and fringing riparian vegetation. This area has highly modified hydrology and drainage and is generally highly degraded by infrastructure. The associated vegetation maintains a narrow corridor of riparian vegetation along the Canning River. Water flow fluctuates seasonally but generally remains fresh (non-saline) due to the Kent Street Weir downstream, and continual, albeit low water flow year-round. The Yule Brook is a minor drainage line that intersects the survey area and flows seasonally through a storm drain below the Roe Highway.

### 3.4.2 Wetlands

The desktop assessment identified one wetland system of global Ramsar significance occurring within the study area, the Thomsons and Forrestdale Lakes wetland system. Thomson Lake is 4.9 km southwest of the survey area, while Forrestdale Lake is to the south of the survey area, outside the study area (Figure 2, Appendix A).

Four wetlands listed in the Directory of Important Wetlands in Australia were identified within the study area, Booragoon Lake, Brixton Street Swamps, Perth Airport Woodland Swamps and Swan-Canning Estuary (Figure 2, Appendix A). The survey area intersects the mapped area of the Brixton Street Wetland, however the intersecting area has been cleared and does not support wetland vegetation.

The survey area intersects 24 wetlands that are mapped in the Geomorphic Wetlands Dataset. This includes five Conservation Category wetlands, thirteen Multiple Use wetlands and six Resource Enhancement wetlands.

## 3.5 Fauna

### 3.5.1 Fauna diversity

The *NatureMap* database search identified 610 terrestrial vertebrate fauna taxa, representing 416 birds, 62 mammals, 18 amphibians and 114 reptiles. In addition, the search identified 237 species of terrestrial invertebrate fauna officially recorded within the survey area. Noting that there are irregularities within government fauna database records due to taxonomic errors and listing duplications. The *NatureMap* database search is provided in Appendix C.

### 3.5.2 Significant fauna

Desktop searches of the EPBC Act PMST, *NatureMap* and DBCA Threatened Fauna databases identified the presence or potential occurrence of 60 significant fauna taxa within the study area. This pre-field assessment list consists of 53 terrestrial vertebrate species and 6 terrestrial invertebrates and 1 aquatic invertebrate species. Exclusively Marine fauna and pelagic birds listed in the PMST were excluded from the likelihood of occurrence assessment.

From an assessment of terrestrial vertebrate fauna, the desktop searches recorded:

- Twenty-two (22) species listed as Migratory (MI) under the EPBC Act and/or BC Act
- Five (5) species taxa listed as Critically Endangered (CR) under the EPBC Act and/or BC Act
- Seven (7) species listed as Endangered (EN) under the EPBC Act and/or BC Act
- Six (6) species listed as Vulnerable (VU) under the EPBC Act and/or BC Act
- One (1) species listed as Other Specially Protected Fauna (OS) under the BC Act
- One (1) species listed as Conservation Dependant (CD) under the BC Act
- Three (3) species listed as Priority 3 taxa by the DBCA
- Eight (8) species listed as Priority 4 taxa under the BC Act.

From an assessment of invertebrate fauna species, the desktop searches recorded:

- Two (2) species listed as Critically Endangered (CR) under the EPBC and/or BC Act
- One (1) species listed as Vulnerable (VU) under the EPBC and/or BC Act
- One (1) species listed as Priority 2 taxa by the DBCA
- Two (2) species listed as Priority 3 taxa by the DBCA
- One (1) species listed as Priority 4 taxa by the DBCA.

The locations of significant fauna from the DBCA database searches are presented in Figure 2, Appendix A.

A likelihood of occurrence assessment was completed pre-survey for all significant species identified in the desktop searches (Appendix D). Pre-survey the assessment concluded that:

- 3 species are known to occur
- 12 species are likely to occur in the survey area.

These species are listed in Table 6 below.

*Table 6 Pre-survey likelihood of occurrence within the survey area*

| Species                              | Common Name                      | EPBC Act | BC Act/<br>DBCA | Pre-survey Likelihood of Occurrence within the survey area                                 |
|--------------------------------------|----------------------------------|----------|-----------------|--------------------------------------------------------------------------------------------|
| <i>Calyptrorhynchus banksii naso</i> | Forest Red-tailed Black-Cockatoo | VU       | VU              | <b>Known.</b><br>Confirmed local occurrence based on numerous local database records.      |
| <i>Zanda latirostris</i>             | Carnaby's Black Cockatoo         | EN       | EN              | <b>Known.</b><br>Known to occur within the survey area based on numerous database records. |

| Species                         | Common Name                             | EPBC Act | BC Act/<br>DBCA | Pre-survey Likelihood of Occurrence within the survey area                                                                                                                                          |
|---------------------------------|-----------------------------------------|----------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Isoodon fusciventer</i>      | Quenda                                  | -        | P4              | <b>Known.</b><br>Numerous local DBCA records including locations within the survey area.                                                                                                            |
| <i>Falco peregrinus</i>         | Peregrine Falcon                        | -        | OS              | <b>Likely.</b><br>Known to occur locally from regular sightings and there are local database records including Bibra lake area 4 km southwest, and along Canning Rv 3.5km northwest of survey area. |
| <i>Oxyura australis</i>         | Blue-billed Duck                        | -        | P4              | <b>Likely.</b><br>There are several local records from freshwater lakes and upper Canning River about 2km north of survey area.                                                                     |
| <i>Plegadis falcinellus</i>     | Glossy Ibis                             | MI       | MI              | <b>Likely.</b><br>Known to occur locally on regular basis with records from lakes and Swan River within 4 km of the survey area.                                                                    |
| <i>Zanda baudinii</i>           | Baudin's Black Cockatoo                 | EN       | EN              | <b>Likely.</b><br>Known to occur locally on the Swan Coastal Plain including Perth Peel region however not known to nest within or in proximity of the survey area.                                 |
| <i>Hydromys chrysogaster</i>    | Rakali, Water-rat                       | -        | P4              | <b>Likely.</b><br>There are local database records associated with the Swan and Canning Rivers. The survey area intersects with Canning. Therefore, suitable riparian habitat is likely to occur.   |
| <i>Notamacropus irma</i>        | Western Brush Wallaby                   | -        | P4              | <b>Likely.</b><br>There are regional database records, including recent local records within Ken Hurst Park which straddles the southern portion of the survey area.                                |
| <i>Lerista lineata</i>          | Perth Slider                            | -        | P3              | <b>Likely.</b><br>Several database records near survey area from Jandakot located 2km south. Suitable remnant bushland habitat likely to occur within survey area.                                  |
| <i>Neelaps calonotos</i>        | Black Striped Snake                     | -        | P3              | <b>Likely.</b><br>Known to occur locally including recent database record 5km NE of the survey area.                                                                                                |
| <i>Australotomurus morbidus</i> | Guildford Springtail                    | -        | P3              | <b>Likely.</b><br>Recorded locally within Perth metropolitan area. Habitat may occur within the survey area, pending the site assessment.                                                           |
| <i>Idiosoma sigillatum</i>      | Swan Coastal Plain Shield-backed Spider | -        | P3              | <b>Likely.</b><br>Several local and regional records including Beeliar area located 4 km southwest of the survey area.                                                                              |
| <i>Synemon gratiosa</i>         | Graceful Sun Moth                       | -        | P4              | <b>Likely</b><br>Several local records from Perth-Peel region in areas of remnant Banksia woodland.                                                                                                 |
| <i>Westralunio carteri</i>      | Carter's Freshwater Mussel              | VU       | VU              | <b>Likely.</b><br>Recent database records confirm species' occurrence locally within the Canning River, upstream and downstream of the survey area.                                                 |

## **4. Survey results**

### **4.1 Fauna habitat types**

Eight broad fauna habitat types excluding cleared areas were described and mapped throughout the survey area (Table 7 and Figure 4, Appendix A). The habitats include woodlands, damplands, modified wetlands and drainage lines, as well as types including native, naturalised and introduced vegetation. The habitats are generally highly degraded and fragmented due to the survey area being located in an extensively developed metropolitan setting that has been subject to long-term degradation from the effects of weed invasion, landscape modification, and broad-scale vegetation loss.



Table 7 Habitat types within the survey area

| Habitat Type     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Extent and percentage of survey area | Representative photograph                                                           |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
| Banksia Woodland | <p>This habitat is present in southern portion and includes remnant patches bordering Roe Hwy and Kwinana Fwy. Floristically it is characterised by <i>Banksia attenuata</i>, <i>B. menziesii</i> and scattered areas of <i>B. ilicifolia</i> woodland over <i>Hibbertia</i> species, <i>Scholtzia involucrata</i>, <i>Styphelia conostephioides</i> over <i>Patersonia occidentalis</i>, <i>Desmocladius flexuosus</i>, <i>Lyginia barbata</i>. Patches of understory include <i>Xanthorrhoea preissii</i> and <i>Hibbertia subvaginata</i> Shrub layer over <i>Dasypogon bromeliifolius</i>, <i>Phlebocarya ciliata</i>, <i>Schoenus caespitius</i>. Substrate is pale grey deep sandy soil.</p> <p>Habitat condition varies widely from completely degraded to very good with diverse intact vegetation assemblages in sections assessed as in either good or very good condition. Due to high level of fragmentation, habitat value is marginal for larger mammal species such as Western Brush Wallaby. Suitable habitat for a range of woodland sandplain birds, particularly smaller species having smaller home range and territory such as Splendid Fairy-wren, Rufous Whistler and Brown Honeyeater, and suitable habitat for herpetofauna: Sandplain Worm lizard, Elegant Slider, and Turtle Frog.</p> <p><b>Significant fauna species:</b> While a separate and targeted report by GHD (2025b) discusses Black Cockatoo presence in greater detail, the fauna habitat type in the context of the present report notes that Banksia woodland foraging habitat for Carnaby's Cockatoo (<i>Zanda latirostris</i>). Shelter and foraging habitat for (<i>Isoodon fusciventer</i>), Perth Slider (<i>Lerista lineata</i>), Black-striped Snake (<i>Neelaps calonotos</i>), Swan Coastal Plain Shield-back Spider (<i>Idiosoma sigillatum</i>) and Graceful Sun Moth (<i>Synemon gratiosa</i>); Marginal foraging habitat for Western Brush Wallaby (<i>Notomacropus irma</i>).</p> | 59.27 ha<br>18.1%                    |  |

| Habitat Type                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Extent and percentage of survey area | Representative photograph                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
| Eucalyptus woodland over Banksia | <p>This habitat is characterised as emergent open to patchy Tuart over <i>Banksia attenuata</i> and <i>B. menziesii</i> woodland over <i>Acacia pulchella</i>, <i>Xanthorrhoea</i> and <i>Hibbertia</i> low shrubland over weedy sedgeland/ grassland. Substrate is deep pale grey sandy soil.</p> <p>Habitat condition varies widely from completely degraded to very good, but retention of sparse emergent eucalypts and mid-story Banksia maintains good habitat structure value for a range of sandplain woodland species. It comprises a relatively small and scattered proportion of the survey area. The main disturbance factors are associated with edge effects of fragmentation and long-term encroachment of weeds such as <i>Gladiolus</i> and Veldtgrass.</p> <p>Suitable habitat for woodland sandplain birds, particularly smaller species having smaller home range and territory such as Shining Bronze Cuckoo, Striated Pardalote, Splendid Fairy-wren, Rufous Whistler and Brown Honeyeater. Suitable habitat for small reptiles: Burton's Legless Lizard and Western Bearded Dragon.</p> <p><b>Significant fauna species:</b> While a separate and targeted report by GHD (2025b) discusses Black Cockatoo presence in greater detail, the fauna habitat type in the context of the present report notes that Eucalyptus woodland over Banksia is foraging habitat for Carnaby's Cockatoo (<i>Zanda latirostris</i>). Habitat for Quenda (<i>Isoodon fusciventer</i>), Perth Slider (<i>Lerista lineata</i>), Black-striped Snake (<i>Neelaps calonotos</i>) and Swan Coastal Plain Shield-back Spider (<i>Idiosoma sigillatum</i>). Peregrine Falcon (<i>Falco peregrinus</i>) potentially nest in large emergent senescent Tuart.</p> | 6.14 ha<br>1.9%                      |  |



| Habitat Type                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Extent and percentage of survey area | Representative photograph                                                            |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------|
| Melaleuca dampland and sparse flooded gum | <p>This habitat is comprised of occasional to sparse Flooded Gum over <i>Melaleuca raphiophylla</i> and / or <i>M. preissiana</i> over <i>Kunzea glabrescens</i>, <i>Xanthorrhoea preissii</i> and <i>Lepidosperma longitudinale</i>. Soil is sandy grey Bassendean formation but tends to be poor draining and relatively flat and low elevation.</p> <p>Habitat condition varies from completely degraded to very good, however the lower stratum vegetation tends to retain high density of native shrubs and naturalised annual species. Total extent area is low and limited to few patches across the survey area.</p> <p>This habitat is seasonally swampy providing breeding habitat for amphibians such as Glauert's Toadlet, and Sandplain Froglet, and small reptiles including <i>Acritoscincus trilineatus</i> and <i>Hemiergis sp.</i></p> <p><b>Significant fauna species:</b> Preferred foraging and shelter / refuge habitat for Quenda (<i>Isoodon fusciventer</i>). Low quality habitat for other significant fauna.</p> | 4.64 ha<br>1.4%                      |   |
| Marri woodland                            | <p>This habitat comprises relatively small, often linear remnant patches and isolated stands of planted Marri (<i>Corymbia calophylla</i>) over scattered natives and naturalised shrubs and weeds along infrastructure corridors. The lower strata understory and shrub layers are highly degraded to absent. The retained canopy provides habitat for a range of locally occurring woodland birds such as Black-faced Cuckoo-shrike and Australian Magpie. This habitat is often highly modified by ground disturbance and clearing.</p> <p><b>Significant fauna species:</b> Marginal habitat for significant fauna, with exception of Black Cockatoos. While a separate and targeted report by GHD (2025b) discusses Black Cockatoo presence in greater detail, the fauna habitat type in the context of the present report notes that Marri woodland is foraging habitat and potential breeding habitat for Carnaby's (<i>Zanda latirostris</i>) and Forest Red-tailed Black Cockatoo (<i>Calyptorhynchus banksii naso</i>).</p>       | 12.98 ha<br>3.9%                     |  |

| Habitat Type                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Extent and percentage of survey area | Representative photograph                                                            |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------|
| Naturalised and native trees | <p>This habitat comprises a range of Eucalyptus species over scattered natives and weeds and is considered highly degraded. Trees include River Red-Gum, Spotted Gum, Lemon-scented Gum, occasional to low density of native tree species namely Marri, Jarrah and Tuart. Usually associated with disturbed areas along road verges and cycle path embankments. The lower strata are absent, replaced by weed grasses and annual herb species. The habitat provides foraging and nesting for a range of common habitat-generalist species of native nectivore and insectivore bird species such as honeyeaters and Weebill.</p> <p><b>Significant fauna species:</b> Marginal habitat for significant fauna due to degraded condition of vegetation. Species likely to forage on an occasional basis include Peregrine Falcon (<i>Falco peregrinus</i>) and Quenda (<i>Isoodon fusciventer</i>).</p>                   | 21.75 ha<br>6.6%                     |   |
| Native and introduced shrubs | <p>This habitat comprises a range of naturalised, introduced and native planted shrubs, with weed grasses and herbaceous weeds, and usually associated with disturbed areas along road verges and cycle path embankments, often planted or regenerated vegetation in disturbed areas post-road construction. It comprises Acacia and myrtaceous shrubs and relatively low density to patchy proteaceous shrubs including <i>Banksia</i>, <i>Hakea</i> and <i>Grevillea</i>. Vegetation condition is highly degraded. Due to the degraded condition of this habitat, fauna species present are limited to those with resilience and habitat generality that persist in highly disturbed and modified vegetation structure such as Singing Honeyeater, Rainbow Bee-eater and Willie Wagtail.</p> <p><b>Significant fauna species:</b> Suitable to marginal foraging habitat for Quenda (<i>Isoodon fusciventer</i>).</p> | 77.24 ha<br>23.1%                    |  |



| Habitat Type                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Extent and percentage of survey area | Representative photograph                                                            |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------|
| Modified wetland drainage area | <p>This habitat includes small artificial lakes, sumps and low swampy areas and fringing trees such as River Red Gum and shrubs (<i>Melaleuca</i> sp.), Typha rushes, and other dampland-adapted sedge species. Vegetation of these areas is generally degraded to completely degraded. Water bodies and swampy areas associated with this habitat tend to fluctuate seasonal with rainfall and drainage, providing small but limited areas of temporary habitat for water birds. Patches of dense low vegetation provide some refuge habitat, and fringing scattered trees provide habitat for woodland birds. Marri and Jarrah are absent to very low density. Due to the degraded condition of this habitat, fauna species present are limited to those with resilience and habitat generality that persist in highly disturbed or artificial wetlands such as such common frog species and Egrets. Open water habitat is limited and considered marginal for duck species.</p> <p><b>Significant fauna species:</b> Fringing vegetation is suitable shelter and forage habitat for Quenda (<i>Isoodon fusciventer</i>) that can utilise low dense vegetation.</p>                                                                                                                                                                                                                                                                  | 6.49 ha<br>2.0%                      |   |
| Major drainage line            | <p>This habitat is localised to a small portion of the Canning River that intersects the survey area and includes the major drainage channel and fringing riparian vegetation. This area has highly modified hydrology and drainage and is generally highly degraded by infrastructure. Vegetation includes remnant Flooded Gum, and occasional planted eucalypts over patchy <i>Melaleuca</i> and a range of naturalised plants.</p> <p>The associated vegetation maintains narrow habitat connectivity along the Canning River due to continuity of a riparian habitat corridor for birds, mammals, reptiles and amphibians. Water flow fluctuates seasonally but generally remains fresh (non-saline) due to the Kent Street Weir downstream, and continual albeit low water flow year-round. Patches of dense low vegetation fringing the river provide some refuge habitat, and scattered trees provide habitat for woodland birds. Due to the degraded condition of this habitat, fauna species present are limited to those with resilience and habitat generality such as common waterbirds and frog species.</p> <p><b>Significant fauna species:</b> The stream zone is suitable habitat for Rakali (<i>Hydromys chrysogaster</i>) and Carter's Mussel (<i>Westralunio carteri</i>). Fringing vegetation is suitable shelter and forage habitat for Quenda (<i>Isoodon fusciventer</i>). The open water is also suitable</p> | 0.48 ha<br>0.1%                      |  |

| Habitat Type  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Extent and percentage of survey area | Representative photograph                                                           |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
|               | foraging habitat for Blue-billed Duck ( <i>Oxyura australis</i> ). Fringing trees are potential habitat for Peregrine Falcon ( <i>Falco peregrinus</i> ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                      |                                                                                     |
| Cleared areas | <p>This includes areas of road and other infrastructure with no vegetation, as well as completely degraded and cleared land along road verges often with bare ground or sparse ground cover of colonising broad-leaf annual weed, naturalised grasses or occasional planted or naturalised shrubs. The density of native species is negligible. Cleared areas cover most of the survey area and there is minimal habitat value for native and significant species.</p> <p>Bird species that utilise disturbed areas are limited and include feral doves and pigeons, Australia Magpie, and Magpie Lark.</p> <p><b>Significant fauna species:</b> Where these areas border dense shrub and dampland, Quenda (<i>Isodon fusciventer</i>) will forage amongst weed grasses.</p> | 141.72 ha<br>43.1%                   |  |

## 4.2 Fauna diversity

Fifty-one vertebrate fauna species were recorded during the field survey comprising 35 birds, seven mammals, seven reptiles and two frogs. Of these, eight birds and mammals are introduced species. A full species list is presented in Appendix D. The survey area is located within on the SCP within the southwest of WA, a region recognised for high biodiversity and endemism. Habitats across the survey area support a diverse range of vertebrate and invertebrate fauna including wide-ranging habitat generalist and endemic species.

## 4.3 Significant fauna

During the field survey three significant fauna species were recorded within the survey area including:

- Carnaby's Cockatoo (*Zanda latirostris*) – listed as Endangered under EPBC Act and BC Act
- Forest Red-tailed Black Cockatoo (*Calyptrorhynchus banksia naso*) – listed as Vulnerable under EPBC Act and BC Act
- Quenda (*Isodon fusciventer*) – listed as Priority 4 by DBCA.

Details regarding Black Cockatoo species occurrence and assessment of habitat values are documented in a separate report (GHD, 2025b).

The likelihood of occurrence assessment completed during the desktop assessment was revised following the field survey based on ecological field data gathered across the survey area (Appendix D). The majority of the 61 species identified in the desktop searches were assessed post-survey as unlikely to occur based on unsuitable or marginal habitat and current species' distribution. In addition to the above-mentioned three recorded species, nine significant fauna species are considered likely to occur within the survey area (Table 8).

Table 8 Significant fauna considered likely to occur in the survey area post-survey

| Species                                               | Status          |          | Likelihood of occurrence                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------|-----------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                       | BC Act/<br>DECA | EPBC Act |                                                                                                                                                                                                                                                                                                                                 |
| Birds                                                 |                 |          |                                                                                                                                                                                                                                                                                                                                 |
| Peregrine Falcon<br>( <i>Falco peregrinus</i> )       | OS              | -        | <b>Likely.</b> Trees within the survey area represent marginal nesting habitat. Species is likely to hunt or roost on at least an occasional to regular basis.<br><br>The suitable habitat types for this species in the survey area is Naturalised and native trees, Eucalyptus woodland over Banksia and Major drainage line. |
| Blue-billed Duck<br>( <i>Oxyura australis</i> )       | P4              | -        | <b>Likely.</b> Recorded locally in freshwater lakes and upper Canning River. Likely to occur in section of Canning River that intersects survey area in at least occasionally.<br><br>The suitable habitat type for this species in the survey area is Major drainage line.                                                     |
| Mammals                                               |                 |          |                                                                                                                                                                                                                                                                                                                                 |
| Rakali<br>( <i>Hydromys chrysosaster</i> )            | P4              | -        | <b>Likely.</b> The Canning River stream zone provides suitable freshwater foraging habitat for this species, and food species such as crustaceans, Cater's Freshwater Mussel and fish species are likely to occur.<br><br>The suitable habitat type for this species in the survey area is Major drainage line.                 |
| Western Brush Wallaby<br>( <i>Notamacropus irma</i> ) | P4              | -        | <b>Likely.</b> Recent local records within Ken Hurst Park which straddles the southern portion of the survey area. Likely to occur on occasional to frequent basis.<br><br>The suitable habitat type for this species in the survey area is Banksia Woodland.                                                                   |
| Reptiles                                              |                 |          |                                                                                                                                                                                                                                                                                                                                 |

| Species                                                                   | Status       |          | Likelihood of occurrence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------|--------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                           | BC Act/ DBCA | EPBC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Perth Slider<br>( <i>Lerista lineata</i> )                                | P3           | -        | <b>Likely.</b> Several database records in close proximity to the survey area (within 3 km) and suitable remnant bushland habitat occurs in survey area such as Banksia woodland.<br>Suitable habitat types within the survey area include Banksia Woodland and Eucalyptus woodland over Banksia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Black Striped Snake<br>( <i>Neelaps calonotos</i> )                       | P3           | -        | <b>Likely.</b> Locally recorded and suitable habitat occurs in the southwest portion of survey area where native vegetation may be of adequate size to support a population of this species.<br>Suitable habitat types within the survey area include Eucalyptus woodland over Banksia and Banksia woodland.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Invertebrates</b>                                                      |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Swan Coastal Plain Shield-backed Spider<br>( <i>Idiosoma sigillatum</i> ) | P3           | -        | <b>Likely.</b> The survey area intersects with suitable banksia woodland habitat in the southwest portion of the survey area. Even though it was not detected during the field survey, it is likely to occur in remnant patches of Banksia woodland of good or better condition.<br>The species was likely not recorded during the surveys due to the potential variation in natural dispersal of spiders within a home-range in suitable habitat. Although no burrows were present in the survey area at this time, it is likely that spiders could utilise the suitable habitat where there is good habitat connectivity, for burrows at any time, especially as there are occurrences of the species within and just outside the survey area. A historical record exists in the survey area in Wattle Grove which is surrounded by remnant vegetation. Other near records occur in the suburb of Lynwood 0.8 km north of the survey area from 2019, and a historical record from the Perth Airport located 1.5 km west of the northernmost extent of the survey area where there is remaining patches of habitat.<br>Suitable habitat types within the survey area include Eucalyptus woodland over Banksia and Banksia woodland. |
| Graceful Sun Moth<br>( <i>Synemon gratiosa</i> )                          | P4           | -        | <b>Likely.</b> Recorded locally, and host plant species <i>Lomandra hermaphrodita</i> recorded within the survey area in the southern portion in the vicinity of Jandakot.<br>Suitable habitat type for this species in the survey area is Banksia woodland.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Carter's Freshwater Mussel<br>( <i>Westralunio carteri</i> )              | Vu           | Vu       | <b>Likely.</b> Not recorded during the field survey however based on species local upstream and downstream, it is likely to occur where the survey area bisects the Canning River.<br>The suitable habitat type for this species in the survey area is Major drainage line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

### Quenda (*Isoodon fusciventer*)

The Quenda is listed by DBCA as Priority 4. Its preferred habitat is low dense scrubby, often swampy, vegetation with dense cover up to one metre high. It also occurs in woodlands and will utilise weedy low condition habitat adjacent higher quality bushland. The species often feeds in adjacent forest and woodland that is burnt on a regular basis and in areas of pasture and cropland close to dense cover (Van Dyck & Strahan 2008). Quenda persists in semi-rural areas such as Swan Valley and occurs in some Perth urban areas.

Signs of foraging, tracks, scat and runnels were recorded at several locations during the field survey in the sections near the South Street intersection of Roe Highway, and several further in the south of the survey area, all along either sides of the road network, mostly in Banksia Woodland habitat but occasionally in Native and introduced shrubs habitat. The diggings, footprints and runnels all confirm species' presence within the survey area. Populations of Quenda are likely to be persisting in small, fragmented bushland areas within and around the survey area, especially where there is suitable vegetation connectivity to larger bushland outside but adjacent to the survey area.



### **Western Brush Wallaby (*Notamacropus irma*)**

The Western Brush Wallaby is listed by DBCA as Priority 4. It occurs in 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, and is uncommon in karri forest (DEC, 2012b; Van Dyck & Strahan, 2008). It is commonly seen in the Jarrah Forests east of Perth and in Remnant Banksia woodland or the SCP but relies on bushland connectivity to persist. There are recent local records (2017, within 5km of survey area, DBCA, 2024) within Ken Hurst Park which straddles the southern portion of the survey area and the species is likely to occur on occasional to frequent basis.

### **Rakali (*Hydromys chrysogaster*)**

This is WA's largest native rodent and is listed by DBCA as Priority 4. The Rakali occurs in higher rainfall zones: southwest and Kimberley in WA, and also in Eastern Australia. It lives in the vicinity of permanent bodies of fresh, brackish, coastal shorelines, tidal estuarine inlets, lakes, reservoirs, and mangroves. In the south-west of WA, this rat shows preference for areas with riparian vegetation and with good water quality and a degree of habitat complexity. Woody debris, rock ledges and wetland islands are likely to be important areas for feeding and refuge (DEC 2012). It is an occasional vagrant of temporary waters. Rakali make dens within burrows in river banks and occasionally in hollow logs (Van Dyck and Strahan 2008). They feed on a variety of aquatic prey including fish, crustaceans, and bi-valve molluscs.

The species was not recorded during the field survey however there are local database records along with the Swan and Canning Rivers with the most recent from 2005 and 2010. The survey area intersects with the Canning River, and suitable riparian habitat and constant water is present therefore the species is likely to occur at least on an occasional basis.

### **Peregrine Falcon (*Falco peregrinus*)**

The Peregrine Falcon is listed under the BC Act as 'Other specially protected fauna'. It is uncommon but wide ranging across Australia. Found everywhere from woodlands to open grasslands and coastal cliffs, though less frequently in desert regions. It feeds almost exclusively on other birds. It also eats rabbits and other moderate sized mammals, bats and reptiles. The Peregrine Falcon is territorial during breeding season (DEE 2019b, Morcombe 2004).

The species was not recorded during the field survey, however there are local records. There are trees within the survey area that provide potentially suitable to marginal nesting or temporary night roost habitat. The species is likely to hunt within survey area on occasional to regular basis.

### **Perth Slider (*Lerista lineata*)**

This small cryptic lizard is listed by DBCA as Priority 3. It is endemic to the SCP preferring sandy, coastal heath and shrubland, particularly between Perth and Mandurah (Wilson & Swan 2013). It also occurs in remnant bushland areas and recorded in disturbed areas such as residential land (pers. Obs. R. Browne-Cooper).

The species was not recorded within the survey area but there are several database records near the survey area from Jandakot located 2km south. There is suitable remnant bushland in southern portion of the survey area therefore the species is considered likely to occur.

### **Black-striped Snake (*Neelaps calolotus*)**

A small species of burrowing, mildly venomous elapid snake species, listed by DBCA as Priority 3. It reaches a maximum length of 30 cm and has a distinct black vertical stripe down the length of the body in between a bright orange coloured body (Wilson & Swan 2013). Given the strong burrowing adaptations, it is restricted to sandy, dune eco-systems and deep sand plains, in areas which are dominated by Eucalypt and Banksia woodlands. It has a distribution range endemic to the southwest WA coast, from Mandurah to Dongara (Wilson & Swan 2013).

There are local database records and suitable habitat occurs in the southwest portion of survey area where Banksia woodland vegetation is high quality and bushland patches may be of adequate size to support a population of this species.

## Swan Coastal Plain Shield-back Trapdoor Spider (*Idiosoma sigilatum*)

This spider is listed by DBCA as Priority 3. It was recently described as part of a revision of Shield-back Trapdoor spider group (Rix et.al 2018). It has a relatively widespread distribution along the Perth SCP, from Dalyellup north to Ledge Point, and also occurs on Rottnest Island and Garden Island. The eastern limit of its range is along the sandy foothills of the Darling Escarpment, from Boyanup north to at least Gingin. Preferred habitat appears to be Banksia woodland and heathland on sandy soils. The vertical burrows are enhanced with a typical 'moustache-like' arrangement of twig-lines.

There are several early WAM records since 1939 spread widely across the SCP but the expansion of Perth has significantly reduced and fragmented its former habitat area. Even though the SCP Shield-back Trapdoor Spider was not detected during the field survey; it is likely to occur in remnant patches of suitable Banksia woodland habitat in the southern portion of the survey area in the vicinity of Jandakot, and potentially the northern extent of the survey area, where there is habitat linkage to habitats outside of the survey area.

The species was likely not recorded during the surveys due to the potential variation in natural dispersal of spiders within a home-range in suitable habitat. Although no burrows were present in the survey area at this time, it is likely that spiders could utilise the suitable habitat where there is good habitat connectivity, for burrows at any time, especially as there are occurrences of the species within and just outside the survey area. A historical record (Recorded in 1999, DBCA, 2024) exists in the survey area in Wattle Grove which is surrounded by remnant vegetation. Other near records occur in the suburb of Lynwood 0.8 km north of the survey area from 2019, and a historical record (Recorded in 1989, DBCA, 2024) from the Perth Airport located 1.5 km west of the northernmost extent of the survey area where there is remaining patches of habitat.

## Graceful Sun Moth (*Synemon gratiosa*)

The Graceful Sun Moth is listed by DBCA as Priority 4 and is endemic to the SCP. Its range extends from Bunbury to Kalbarri. Host plants include *Lomandra* species found in Banksia woodlands of Bassendean Dunes, and *Lomandra maritima* which is common on coastal Quindalup Dunes. The moth completes its metamorphosis and emerges as adult moth in early Autumn (early March) and is active for several weeks to mate and complete life cycle before mortality. Eggs are laid on host plants, and the larvae (grubs) remain in the plant for several years before reaching maturity.

There are several local records from Perth-Peel region in areas of remnant Banksia woodland. Host plants species namely *Lomandra hermaphrodita* was recorded within the survey area therefore the species is likely to occur.

## Carter's Freshwater Mussel (*Westralunio carteri*)

Carter's Freshwater Mussel is listed as vulnerable under the BC Act and EPBC Act. It occurs in freshwater river pools and creeks where year-round water is maintained, and water flow is constant or consistently maintained seasonally. It prefers riverbed areas with muddy, silty and sandy bottoms and flowing permanent water. Environmental tolerances of this species are not precisely known but it can be found where water temperatures range from 4 to 30°C. Formerly this species occurred widely through the interior of the southwest of WA including all freshwater rivers and major interior rivers of southwest such as Avon, Murray, Hotham, Harvey, Serpentine, Brunswick, and Blackwood, to name a few, however widespread salinity increase in rivers throughout the southwest caused by vegetation clearing for agriculture has severely reduced this species distribution due to its sensitivity to salt concentration.

The species was not recorded during the field survey, however based on species local occurrence upstream and downstream, it is likely to occur where the survey area bisects the Canning River.

## Blue-billed Duck (*Oxyura australis*)

The Blue-billed Duck is listed as Priority 4 by the DBCA and is endemic to Australia. It is often seen on freshwater lakes and billabongs where deep fresh water is present (Morcombe 2004). It occurs in temperate regions including South-West of WA and locally on the Perth SCP in freshwater wetlands. There are more than 100 local records in the study area, and many close to the survey area in lakes and upper Canning River from recent times (2012 and 2018) and suitable habitat (Major drainage line) in the survey area is available to this species.

The species was not recorded but based on the significant number of records within the study area, and suitable habitat present, the species is likely to occur in the survey area on an occasional basis. The Major drainage line

habitat-type only equates to 0.48 ha (0.1%) of the survey area, which explains why the species was not recorded during the survey.

## 5. Discussion and conclusions

Eight broad fauna habitat types were identified and mapped across the survey area excluding cleared areas which accounted for approximately 43% of the survey area. The habitats include woodlands, damplands, modified wetlands and drainage lines, as well as types including native, naturalised and introduced vegetation. The habitats were generally highly degraded and fragmented in most areas due to the survey area location in an extensively developed metropolitan context and subject to long-term degradation from the effects of weed and feral fauna invasion, landscape modification and broad-scale vegetation loss.

Within the survey area, some areas of remnant habitat are considered high value and provide suitable foraging and shelter for several locally occurring significant fauna. These areas included several patches of either Banksia woodland, or Eucalyptus woodland over Banksia habitats assessed as very good to good condition and with some habitat continuity beyond the survey area. Areas of Banksia woodland habitat in very good condition included the intersection of Daddow Road and Roe Highway, and large patches east of the intersection of Karel Avenue and Roe Highway, which also contained patches of good condition in both Banksia woodland and Eucalyptus Woodland over Banksia. Other areas in good condition included Banksia woodland habitat where Roe Highway is adjacent to Bannister Road, located south of the survey area.

The Canning River also provides habitat for significant fauna, namely Carter's Freshwater Mussel (*Westralunio carteri*) and Rakali Rat (*Hydromys chrysogaster*). The connectivity of the river and riparian habitat provides continuity of habitat through the landscape is considered to be ecologically important for both significant species mentioned above.

The survey area is located on the SCP which is known for its high biodiversity. This is reflected in the desktop assessment findings with the species list showing a diverse assemblage totalling 61 species including migratory shorebirds, and a range of mammals, reptiles and invertebrates occurring locally. Even though this regional species list is comprehensive, the survey area characteristics, quality and extent limit the types of species likely to occur and potentially use the habitat. For example, there are about 20 migratory shore birds occurring locally due to proximity of the survey area to Ramsar, coastal and estuarine wetlands. However, suitable habitat is limited to absent within the survey area and therefore these birds are not considered likely to occur.

The Quenda was recorded from extensive signs of activity confirming species' presence within the survey area. Numerous local records indicate populations persisting in small, fragmented bushland areas within and around the survey area. Dense low strata remnants of native and modified vegetation provide habitat for this species.

Several species of vertebrate and invertebrate occurring locally were not recorded during the survey but are likely to occur based on habitat and proximity of records. They include Peregrine Falcon (*Falco peregrinus*); Perth Slider (*Lerista lineata*); Black Striped Snake (*Neelaps calonotos*); Swan Coastal Plain Shield-backed Spider (*Idiosoma sigillatum*); Graceful Sun Moth (*Synemon gratiosa*); Western Brush Wallaby (*Notamacropus irma*); Rakali (*Hydromys chrysogaster*), Carter's Freshwater Mussel (*Westralunio carteri*), and Blue-billed Duck (*Oxyura australis*).

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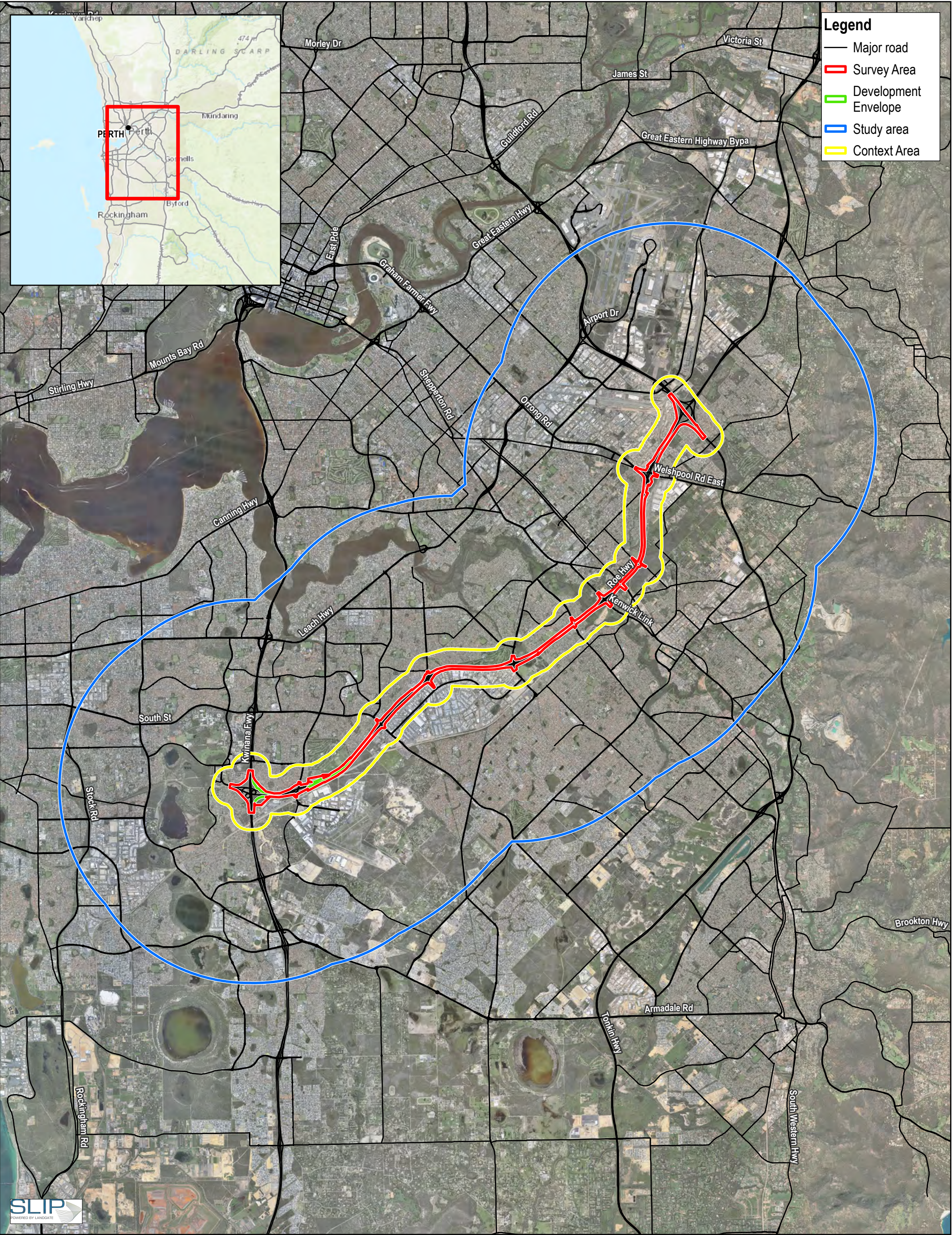
# Appendices

# Appendix A

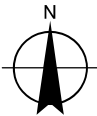
## Figures

|                 |                                  |
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| <i>Figure 1</i> | <i>Survey area location</i>      |
| <i>Figure 2</i> | <i>Environmental constraints</i> |
| <i>Figure 3</i> | <i>Survey effort and methods</i> |
| <i>Figure 4</i> | <i>Fauna results and habitat</i> |





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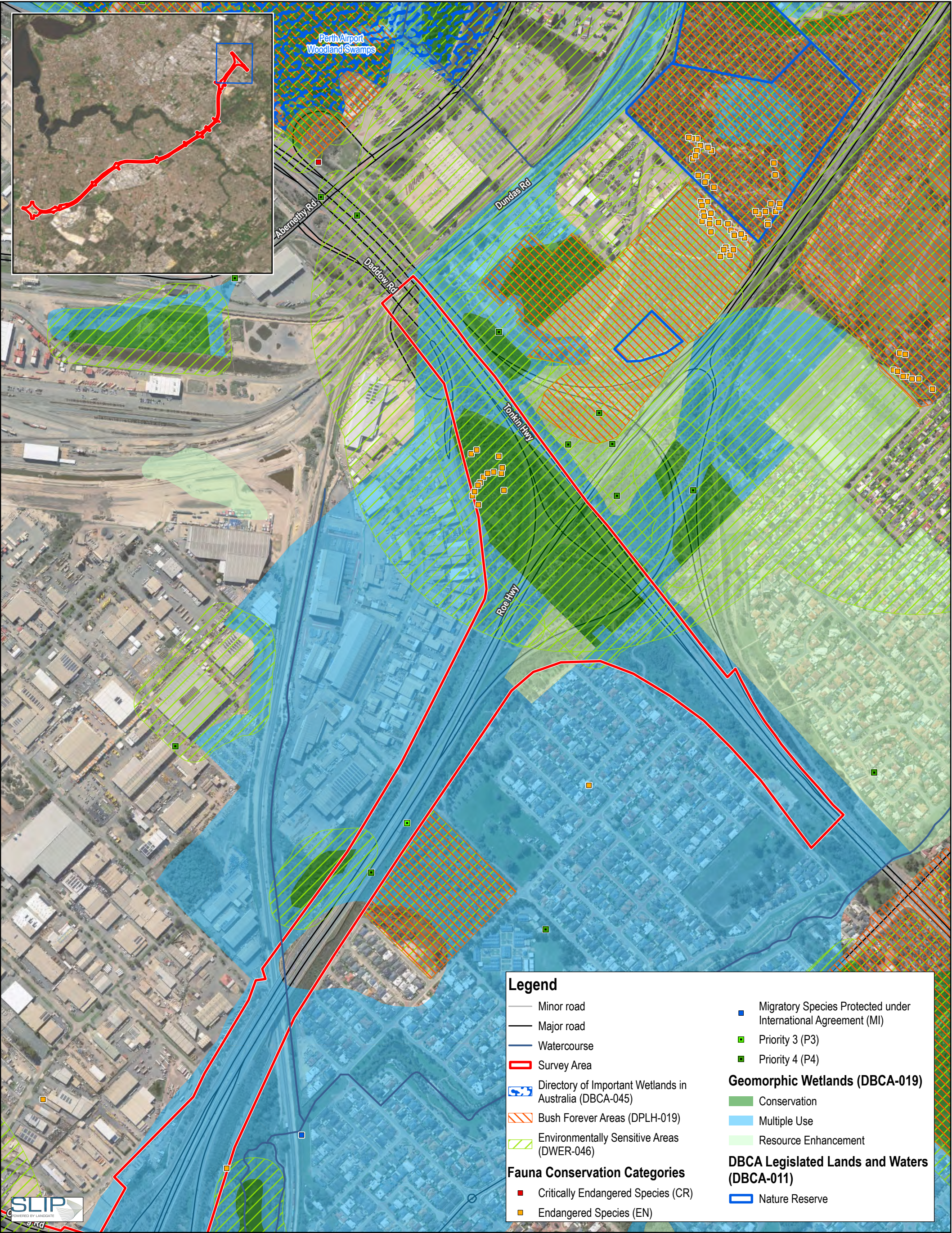
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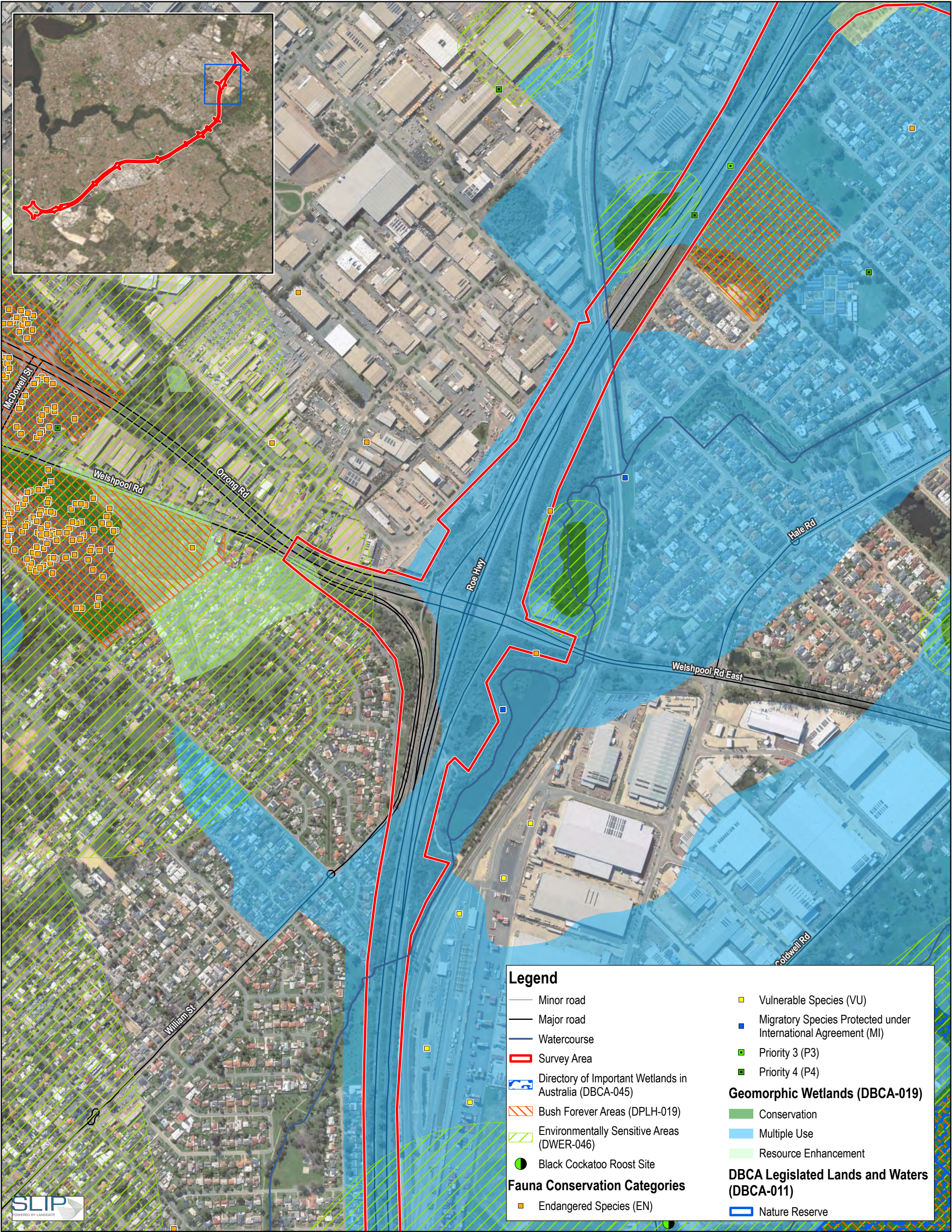
Project Location

FIGURE 1

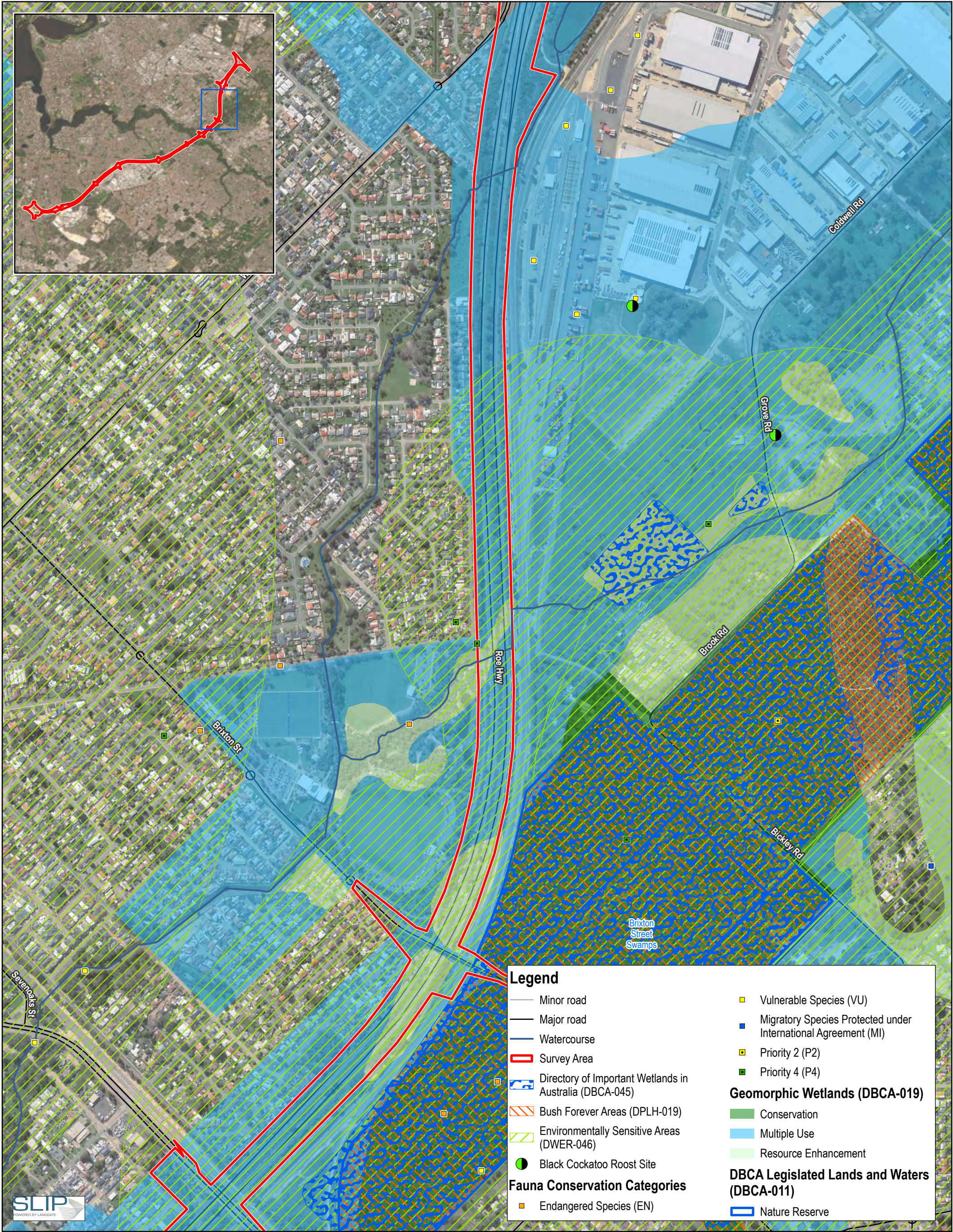






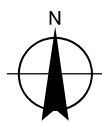






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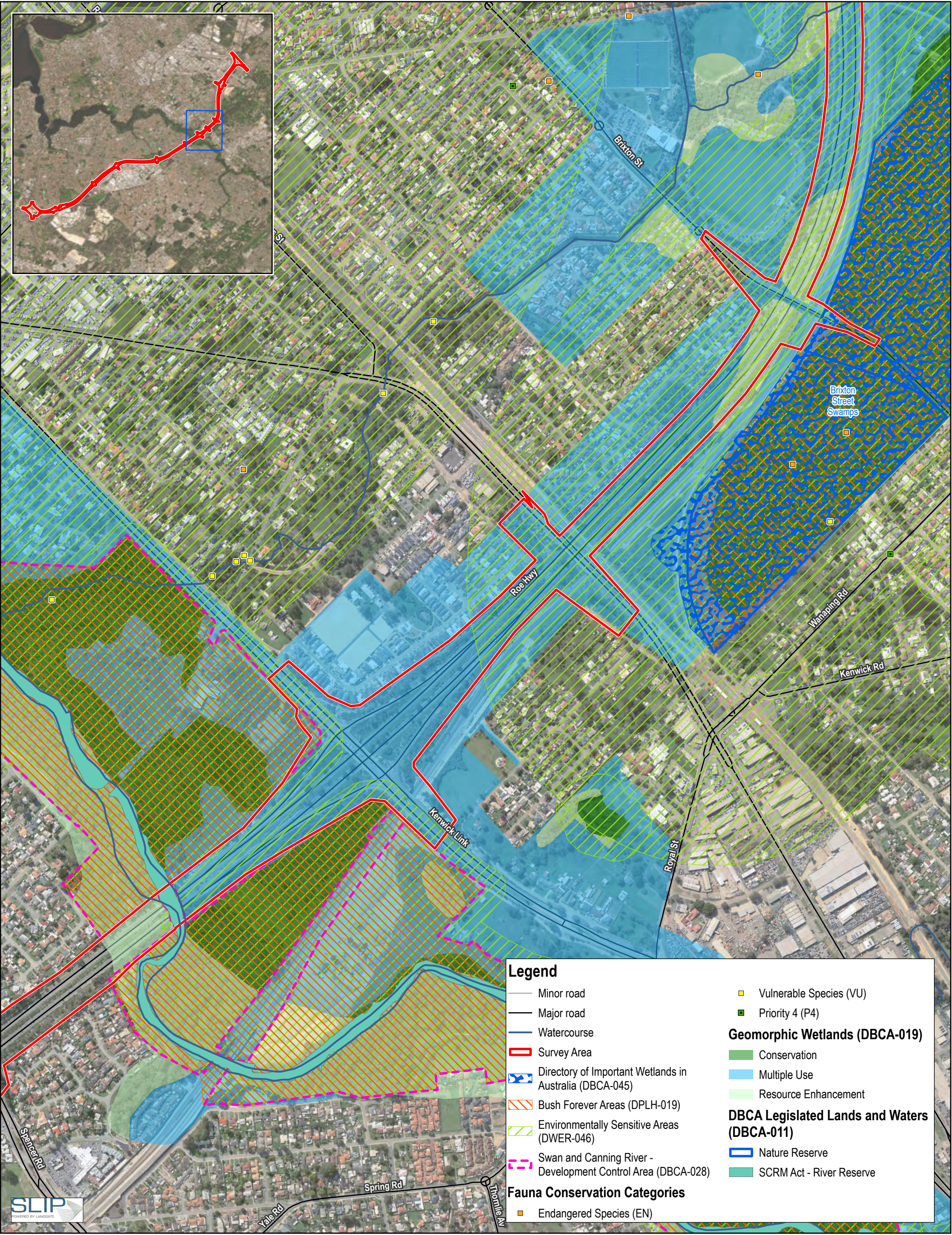
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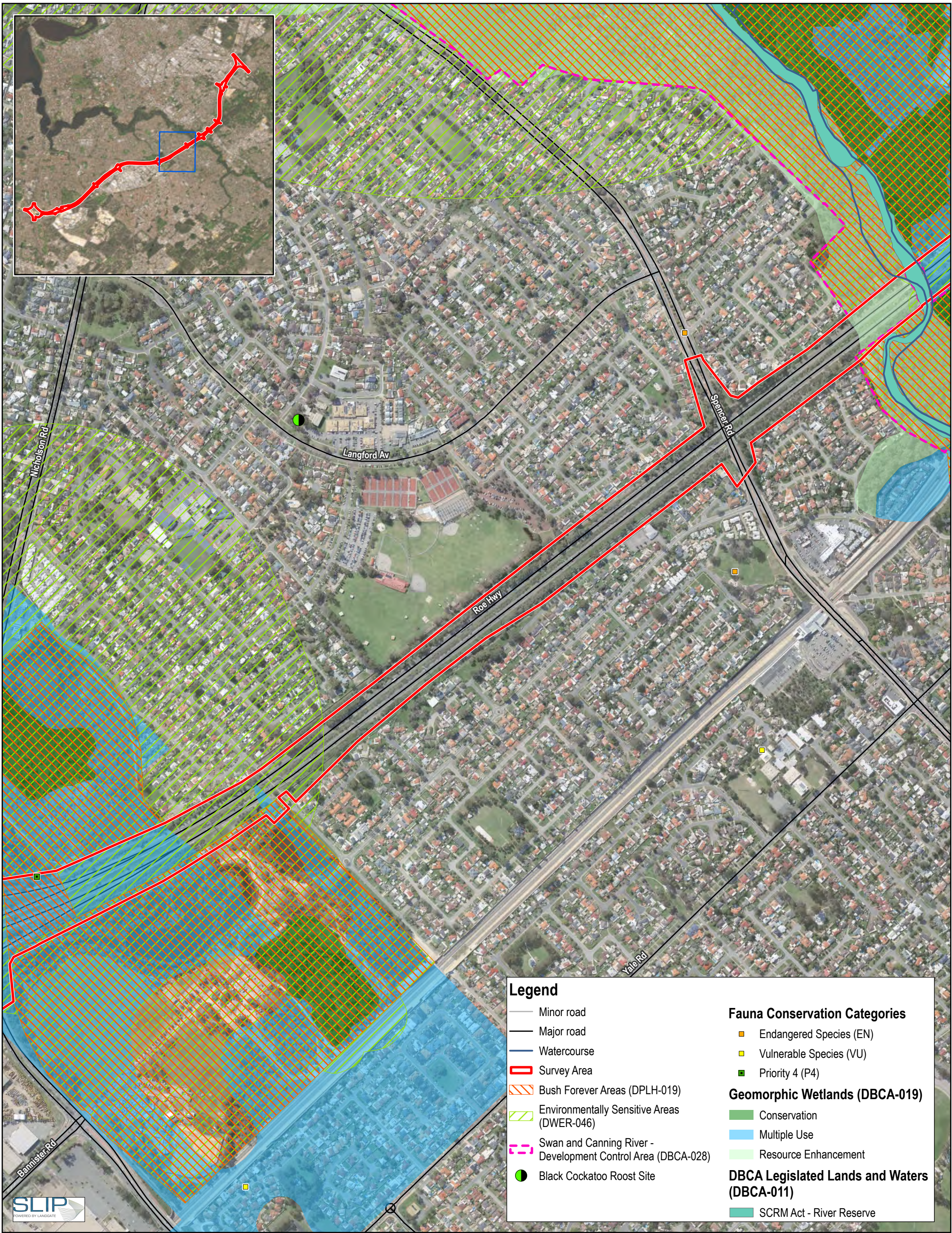
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FIGURE 2



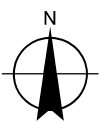






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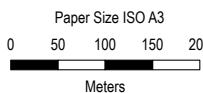
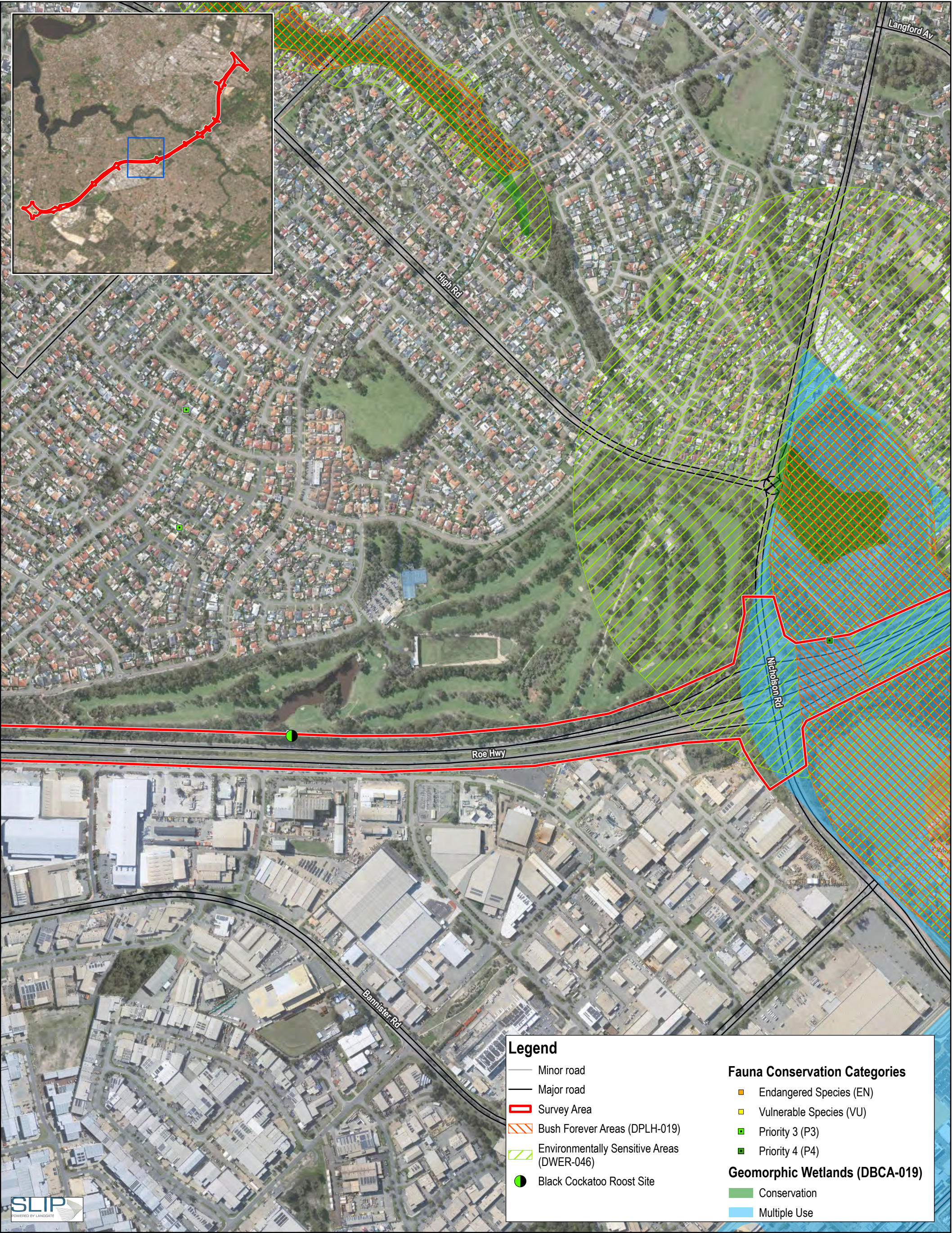
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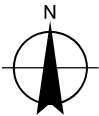
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FIGURE 2





Map Projection: Transverse Mercator  
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Main Roads  
Roe Highway Basic Fauna Survey

Environmental Constraints

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Revision No. 0  
Date 21/01/2026

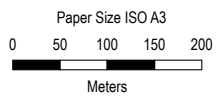
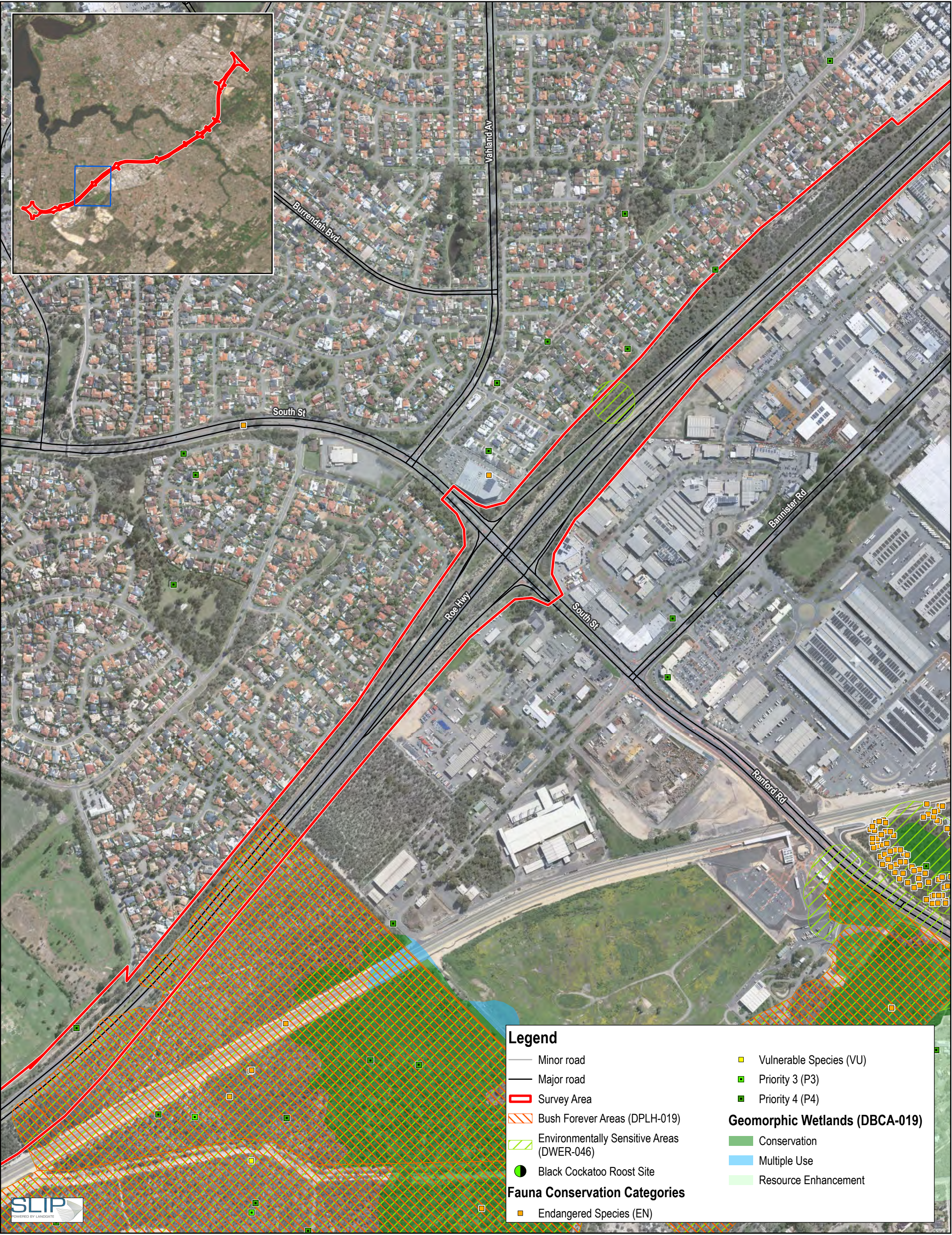
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FIGURE 2

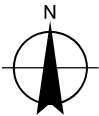








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Main Roads  
Roe Highway Basic Fauna Survey

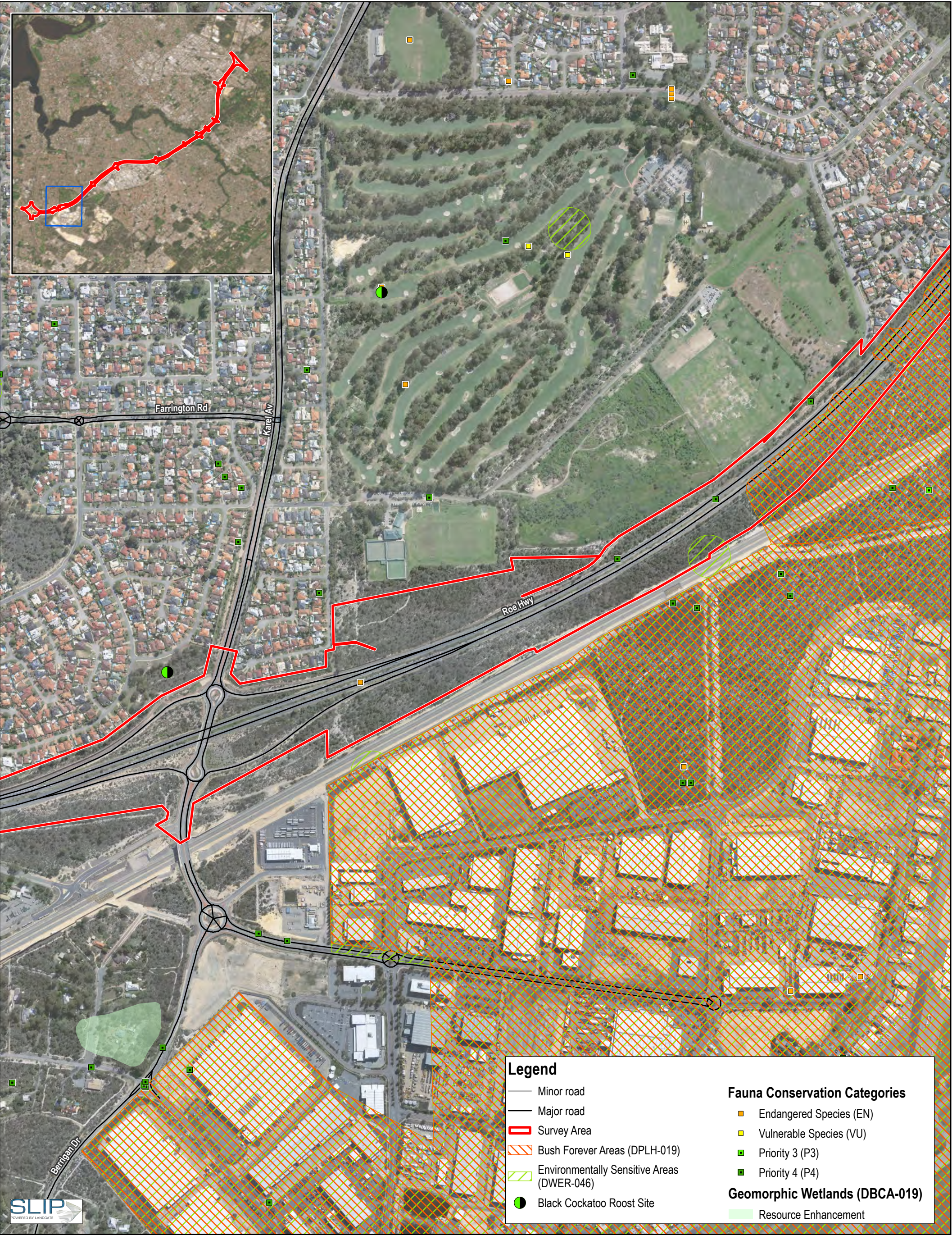
Environmental Constraints

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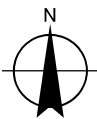
FIGURE 2





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Main Roads  
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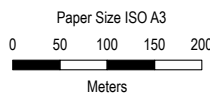
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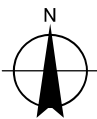
Environmental Constraints

FIGURE 2





Map Projection: Transverse Mercator  
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Roe Highway Basic Fauna Survey

Environmental Constraints

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FIGURE 2

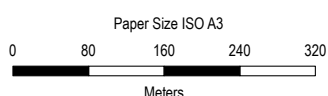




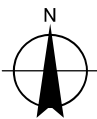








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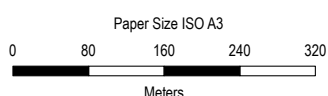
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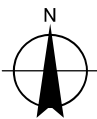
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FIGURE 3





Map Projection: Transverse Mercator  
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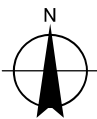
FIGURE 3





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Main Roads  
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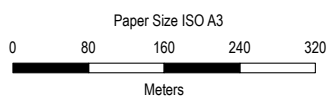
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FIGURE 3

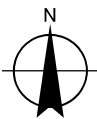
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Data source: WANow; Landgate / SLIP  
World Imagery: Earthstar Geographics. Created by: closaria





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Main Roads  
Roe Highway Basic Fauna Survey

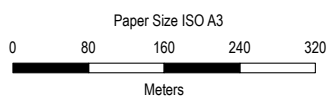
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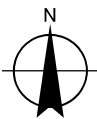
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FIGURE 3





Map Projection: Transverse Mercator  
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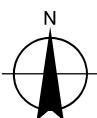
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Sample Locations and Survey Effort

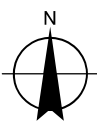
FIGURE 3





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Main Roads  
Roe Highway Basic Fauna Survey

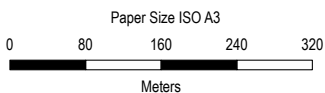
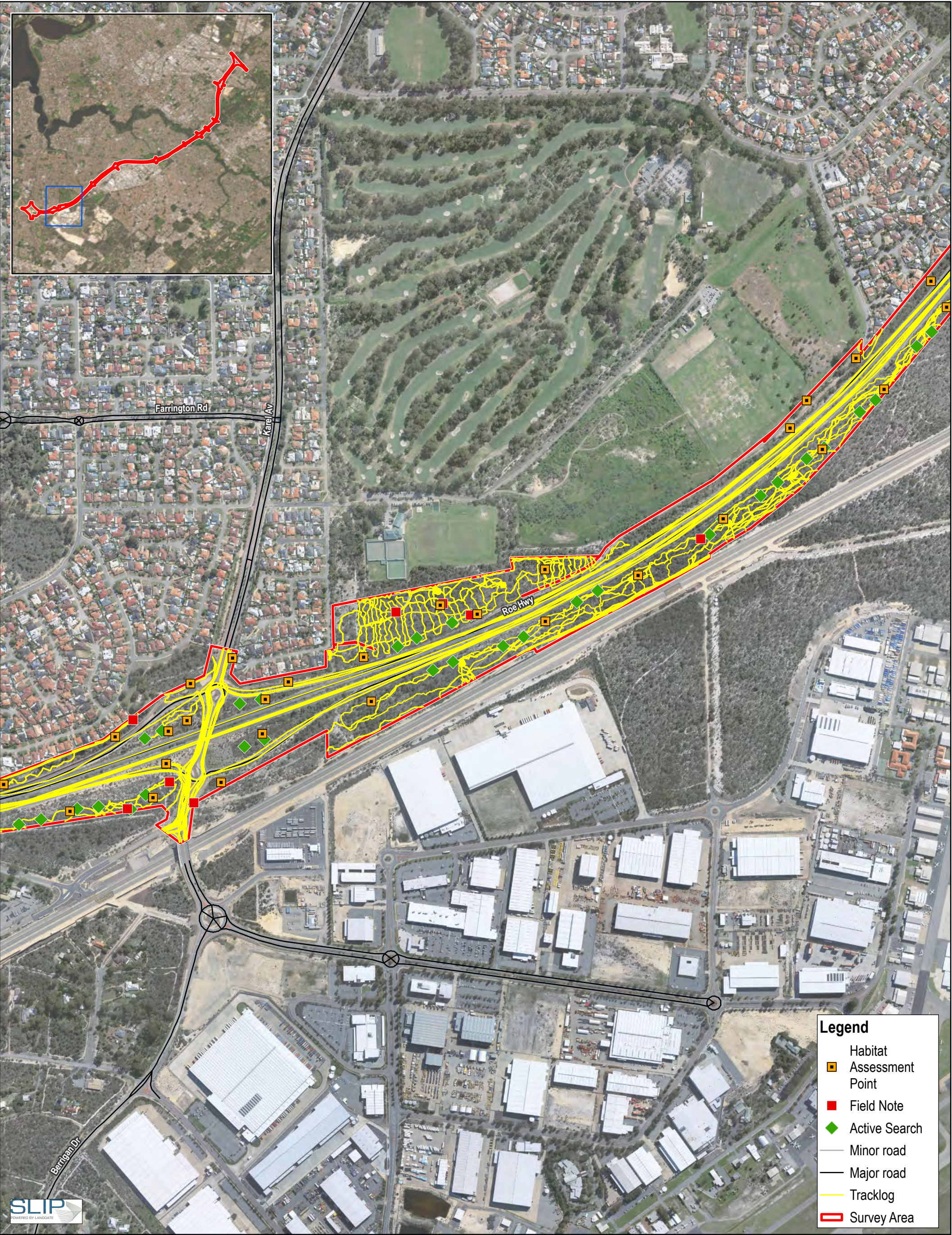
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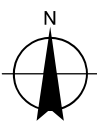
Sample Locations and Survey Effort

**FIGURE 3**





Map Projection: Transverse Mercator  
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Grid: GDA2020 MGA Zone 50



Main Roads  
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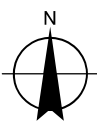
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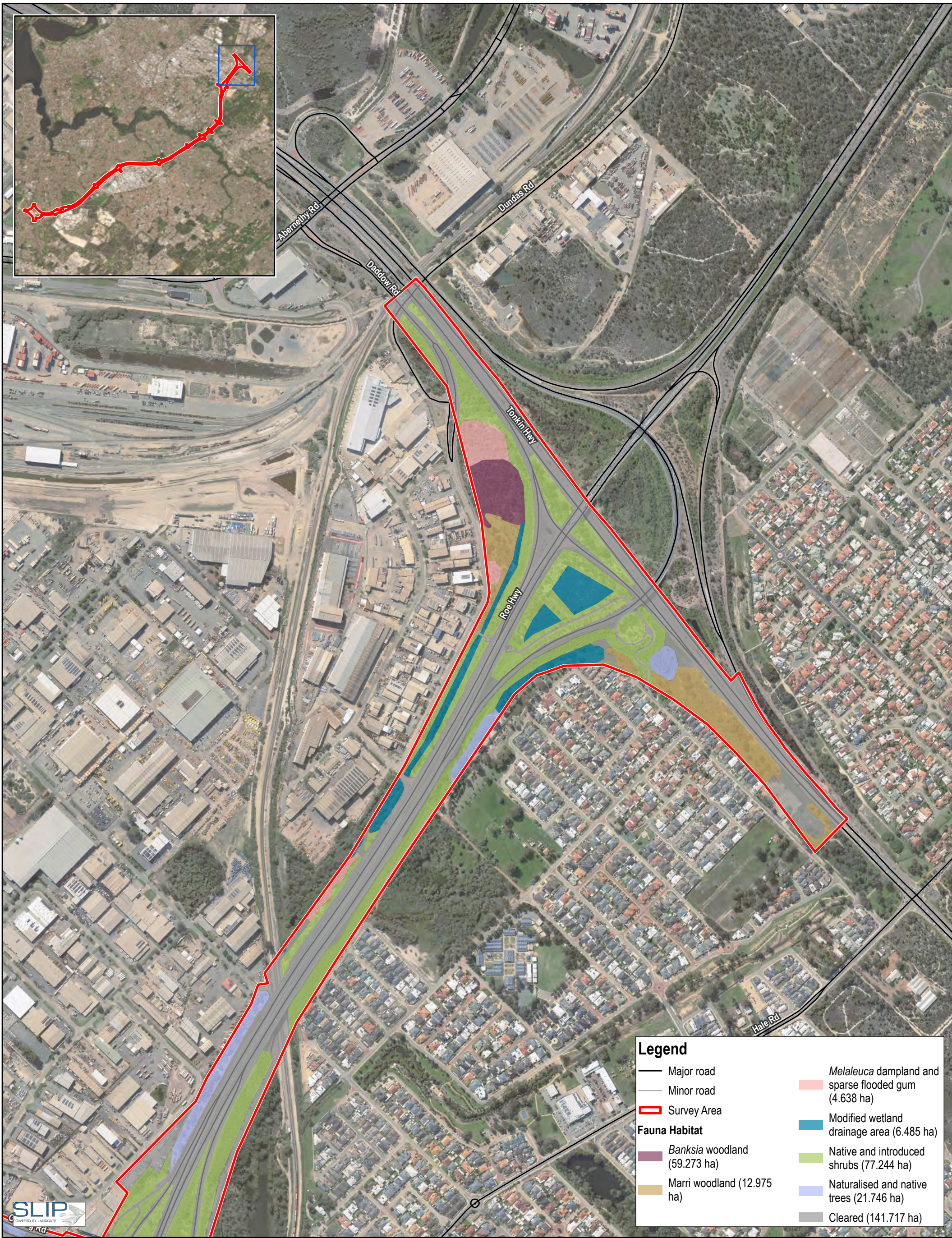
Sample Locations and Survey Effort

FIGURE 3



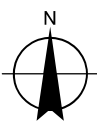






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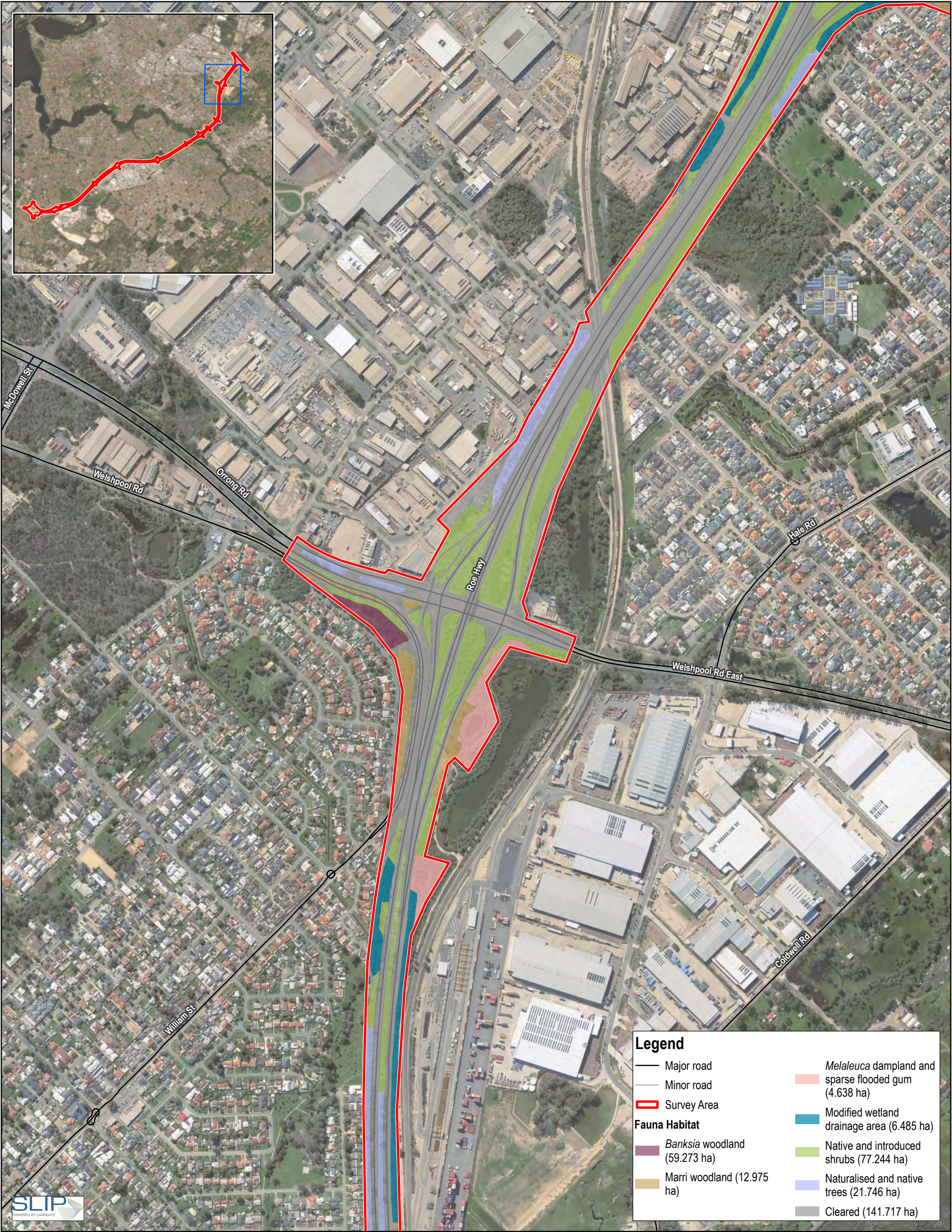
Main Roads  
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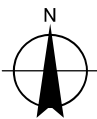
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**FIGURE 4**





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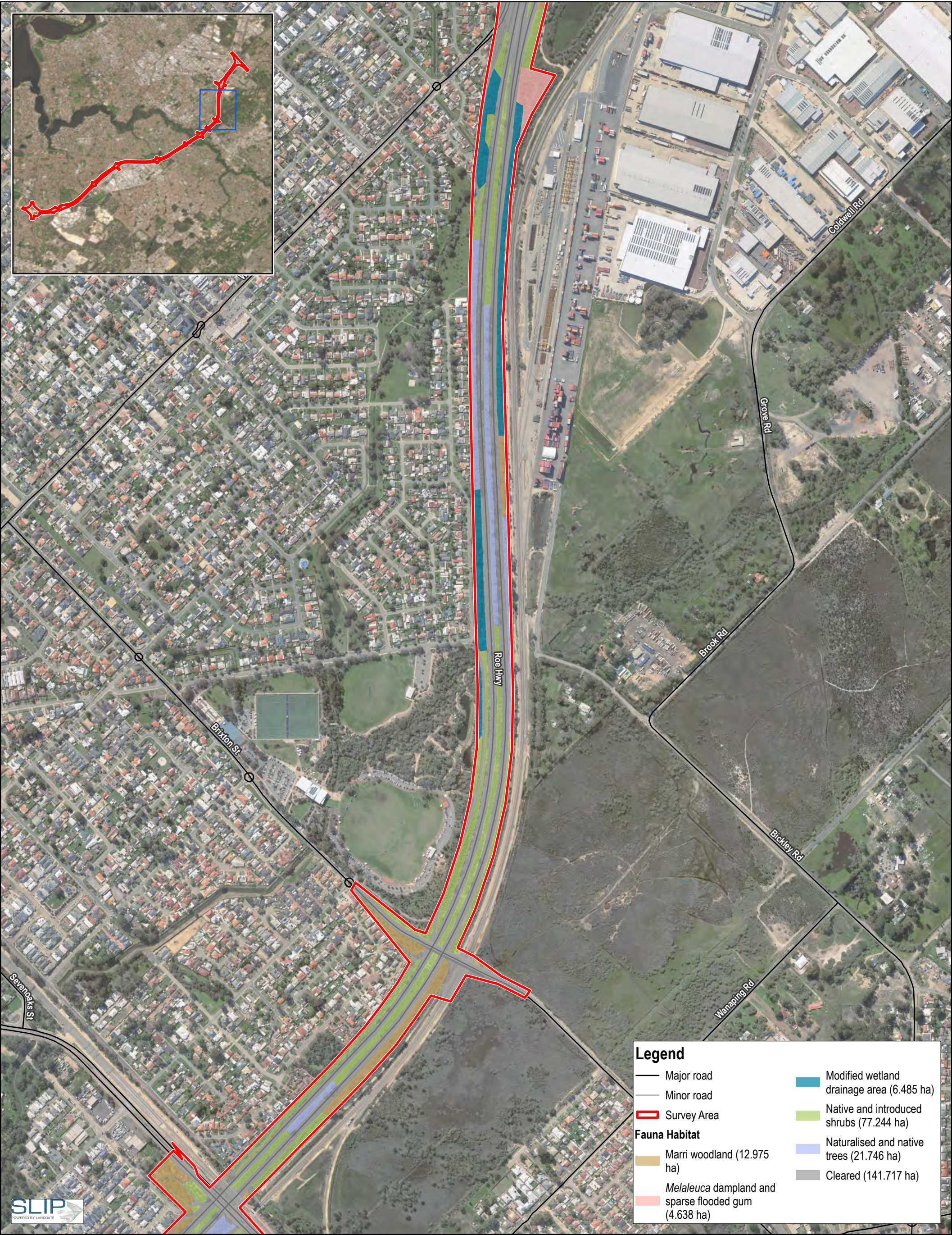
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**FIGURE 4**

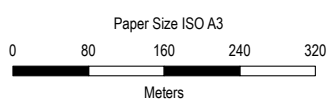




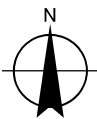








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Main Roads  
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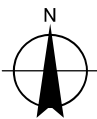
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**FIGURE 4**





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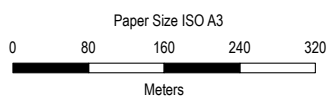
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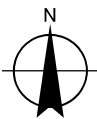
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**FIGURE 4**





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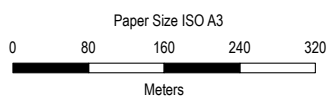
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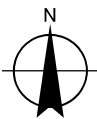
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**FIGURE 4**





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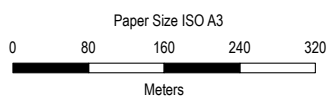
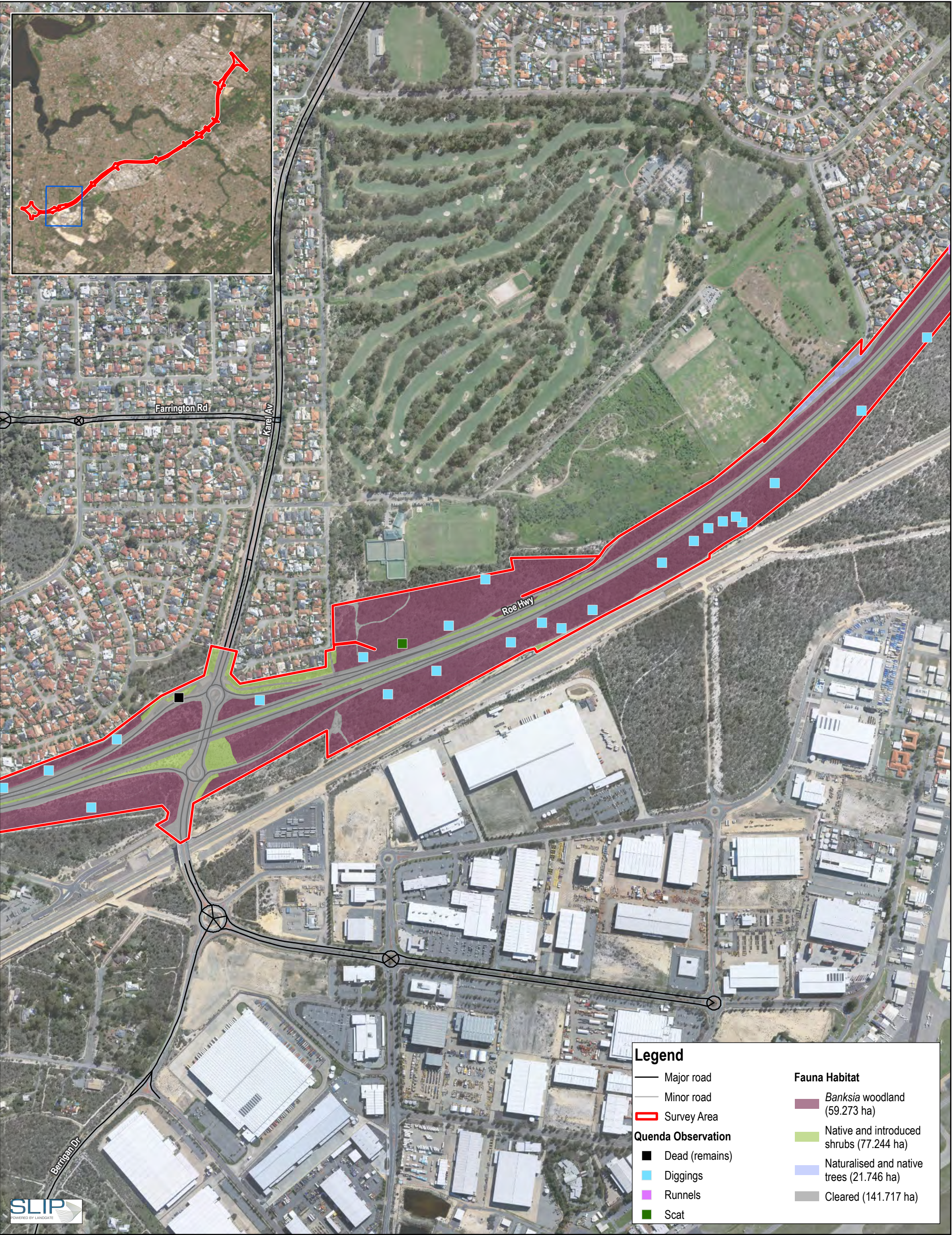
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Survey Results and Habitats

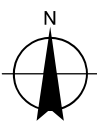
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**FIGURE 4**





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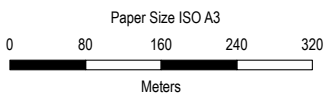
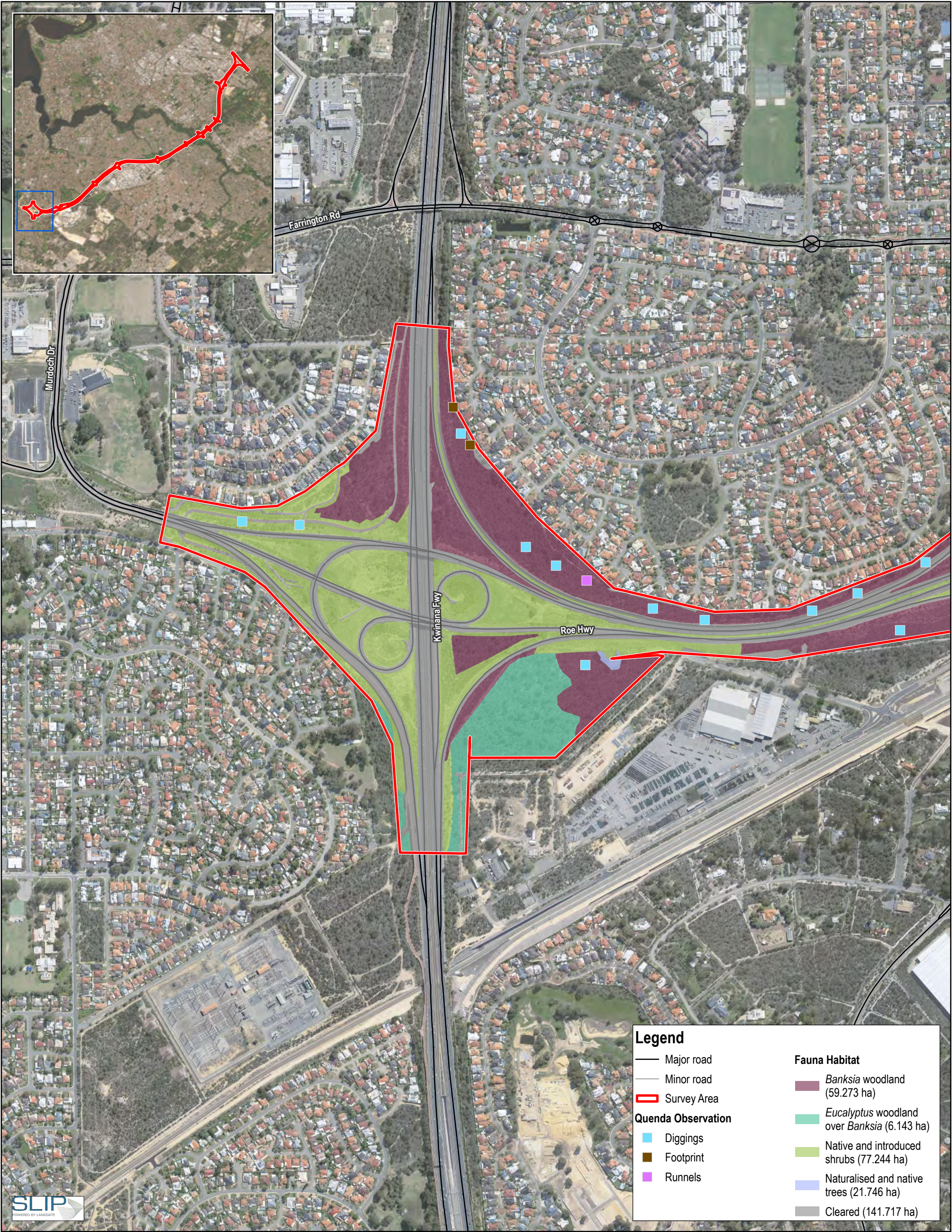
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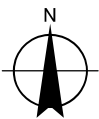
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# **Appendix B**

**Relevant legislation, conservation codes  
and background information**



# Relevant legislation

## Federal *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Federal Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, which are defined in the EPBC Act as Matters of National Environmental Significance (MNES).

The biological aspects listed as MNES include:

Nationally threatened flora and fauna species and ecological communities

Migratory species

A person must not undertake an action that has, will have, or is likely to have a significant impact (direct or indirect) on MNES, without approval from the Federal Minister for the Environment.

The EPBC Act is administered by the Department of Agriculture, Water and the Environment (DAWE).

## State *Environmental Protection Act 1986*

The *Environmental Protection Act 1986* (EP Act) is the primary legislative Act dealing with the protection of the environment in Western Australia. The Act allows the Environmental Protection Authority (EPA), to prevent, control and abate pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment and for matters incidental to or connected with the foregoing. Part IV of the EP Act is administered by the EPA and makes provisions for the EPA to undertake environmental impact assessment of significant proposals, strategic proposals and land use planning schemes.

The Department of Water and Environment Regulation (DWER) is responsible for administering the clearing provisions of the EP Act (Part V). Clearing of native vegetation in Western Australia requires a permit from the DWER, unless exemptions apply. Applications for clearing permits are assessed by the Department and decisions are made to grant or refuse the application in accordance with the Act. When making a decision the assessment considers clearing against the ten clearing principles as specified in Schedule 5 of the EP Act:

1. Native vegetation should not be cleared if it comprises a high level of biodiversity.
2. Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significance habitat for fauna indigenous to Western Australia.
3. Native vegetation should not be cleared if it includes, or is necessary, for the continued existence of rare flora.
4. Native vegetation should not be cleared if it comprises the whole or part of native vegetation in an area that has been extensively cleared.
5. Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
6. Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
7. Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
8. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
9. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.



10. Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

Exemptions for clearing include clearing that is a requirement of a written law or authorised under certain statutory processes (listed in Schedule 6 of the EP Act) and exemptions for prescribed low impact day-to-day activities (prescribed in the Environmental Protection (Clearing of Native Vegetation) Regulations 2004); these exemptions do not apply in environmentally sensitive areas (ESAs).

## **State Biodiversity and Conservation Act 2016**

The *Biodiversity Conservation Act 2016* (BC Act) provides for the conservation and protection of biodiversity and biodiversity components, as well as the promotion of the ecologically sustainable use of biodiversity components in Western Australia. The BC Act replaces both the repealed *Wildlife Conservation Act 1950* (WC Act) and the *Sandalwood Act 1929* (Sandalwood Act), as well as their associated regulations. To attain the objectives of the BC Act, principles of ecological sustainable development have been established:

- Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations
- If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation
- The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- The conservation of biodiversity and ecological integrity should be a fundamental consideration in decision-making
- Improved valuation, pricing and incentive mechanisms should be promoted.

The BC Act is administered by the Department of Biodiversity Conservation and Attractions (DBCA).

## **State Biosecurity and Agriculture Management Act 2007**

The *Biosecurity and Agriculture Management Act 2007* (BAM Act) and associated regulations are administered by the Department of Primary Industries and Regional Development (DPIRD) and replace the repealed *Agriculture and Related Resources Protection Act 1976*. The main purposes of the BAM Act and its regulations are to:

- Prevent new animal and plant pests (vermin and weeds) and diseases from entering WA
- Manage the impact and spread of those pests already present in the state
- Safely manage the use of agricultural and veterinary chemicals
- Increased control over the sale of agricultural products that contain violative chemical residues.

The Western Australian Organism List (WAOL) provides the status of organisms which have been categorised under the BAM Act. A Declared Pest is a prohibited organism or an organism for which a declaration under Section 22(2) of the Act is in force. Declared Pests may be assigned a control category including: C1 (exclusion), C2 (eradication) and C3 (management). The category may apply to the whole of the State, LGAs, districts, individual properties or even paddocks, and all landholders are obliged to comply with the specific category of control. Categories of control are defined below.



*DPIRD Categories for Declared Pests under the BAM Act*

| Control class code | Description                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C1 (Exclusion)     | Pests will be assigned to this category if they are not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.                                                                                                                                        |
| C2 (Eradication)   | Pests will be assigned to this category if they are present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.                                                                                                                                                                          |
| C3 (Management)    | Pests will be assigned to this category if they are established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest. |



# Background information

## Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are declared by the Minister for Environment under Section 51B of the EP Act. The Table below outlines the aspects of areas declared as ESA in the Environmental Protection (Environmentally Sensitive Areas) Notice 2005.

### Aspects of ESAs

| Aspects of Environmentally Sensitive Areas                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A declared World Heritage property as defined in Section 13 of the EPBC Act.                                                                                                                                                                                                                                                      |
| An area that is included on the Register of the National Estate (RNE), because of its natural values, under the <i>Australian Heritage Commission Act 1975</i> of the Commonwealth (the RNE was closed in 2007 and is no longer a statutory list – all references to the RNE were removed from the EPBC Act on 19 February 2012). |
| A defined wetland and the area within 50 m of the wetland. Defined wetlands include Ramsar wetlands, conservation category wetlands and nationally important wetlands.                                                                                                                                                            |
| The area covered by vegetation within 50 m of rare flora, to the extent to which the vegetation is continuous with the vegetation in which the rare flora is located.                                                                                                                                                             |
| The area covered by a Threatened Ecological Community.                                                                                                                                                                                                                                                                            |
| A Bush Forever Site listed in "Bush Forever" Volumes 1 and 2 (2000), published by the Western Australia Planning Commission, except to the extent to which the site is approved to be developed by the Western Australia Planning Commission.                                                                                     |
| The areas covered by the <i>Environmental Protection (Gnangara Mound Crown Land) Policy 1992</i> .                                                                                                                                                                                                                                |
| The areas covered by the <i>Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002</i> .                                                                                                                                                                                                                           |
| The areas covered by the lakes to which the <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992</i> (EPP Lakes) applies.                                                                                                                                                                                           |
| Protected wetlands as defined in the <i>Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998</i> .                                                                                                                                                                                                        |

## Reserves and conservation areas

### Bush Forever

Bush Forever, which was released in December 2000 and proclaimed in 2010, is a Government initiative aimed to retain and protect regionally significant bushland on the Swan Coastal Plain within the Perth Metropolitan Region. Bush Forever aims to protect more than 51,000 hectares of regionally significant bushland within 287 sites across the metropolitan portion of the Swan Coastal Plain (Government of Western Australia (GoWA) 2000). Bush Forever sites constitute ESAs as declared by a notice under Section 51B of the EP Act.

## Department of Biodiversity, Conservation and Attractions managed land and waters

DBCA manages lands and waters throughout Western Australia to conserve ecosystems and species, and to provide for recreation and appreciation of the natural environment. DBCA managed lands and waters include national parks, conservation parks and reserves, marine parks and reserves, regional parks, nature reserves, State forest and timber reserves. Access to, or through, some areas of DBCA managed lands may require a permit or could be restricted due to management activities. Proposed land use changes and development proposals that affect DBCA managed lands will generally be referred to DBCA throughout the assessment process.



# Wetlands

Wetlands include not only lakes with open water, but areas of seasonally, intermittently or permanently waterlogged soil.

## Ramsar Wetlands (Wetlands of International Importance)

The Convention of Wetlands of International Importance was signed in 1971 at the Iranian town of Ramsar. The Convention has since been referred to as the Ramsar Convention. Ramsar Listed wetlands are “sites containing representative, rare or unique wetlands, or wetlands that are important for conserving biological diversity ... because of their ecological, botanical, zoological, limnological or hydrological importance” (DAWE 2020b). Once a Ramsar Listed Wetland is designated, the country agrees to manage its conservation and ensure its wise use. Under the Convention, wise use is broadly defined as “maintaining the ecological character of a wetland” (DAWE 2020b).

## Nationally important wetlands

Wetlands of national significance are listed under the Directory of Important Wetlands in Australia. Nationally important wetlands are wetlands which meet at least one of the following criteria (DAWE 2020a):

- It is a good example of a wetland type occurring within a biogeographic region in Australia
- It is a wetland which plays an important ecological or hydrological role in the natural functioning of a major wetland system/complex
- It is a wetland which is important as the habitat for animal taxa at a vulnerable stage in their life cycles, or provides a refuge when adverse conditions such as drought prevail
- The wetland supports one percent or more of the national populations of any native plant or animal taxa
- The wetland supports native plant or animal taxa or communities which are considered endangered or vulnerable at the national level
- The wetland is of outstanding historical or cultural significance.

## Geomorphic wetlands

Categorisation of wetlands has been conducted by Hill et al. (1996), delineating Swan Coastal Plain wetlands into levels of protection and management categories. Conservation Category Wetlands are wetlands that support high levels of attributes and functions. Resource Enhancement Wetlands are those that have been partly modified but still support substantial functions and attributes. Multiple Use Wetlands are classified as those wetlands with few attributes that still provide important wetland functions. Multiple Use wetlands have few important ecological attributes and functions remaining.

The Geomorphic Wetlands Swan Coastal Plain dataset displays the location, boundary, geomorphic classification (wetland type) and management category of wetlands on the Swan Coastal Plain.

## Vegetation extent and status

The National Objectives and Targets for Biodiversity Conservation 2001–2005 (Commonwealth of Australia 2001) recognise that the retention of 30 percent or more of the pre-clearing extent of each ecological community is necessary if Australia’s biological diversity is to be protected. This is the threshold level below which species loss appears to accelerate exponentially and loss below this level should not be permitted. This level of recognition is in keeping with the targets recommended in the review of the National Strategy for the Conservation of Australia’s Biological Diversity (ANZECC 2000).

The extent of remnant native vegetation in WA has been assessed by Shepherd et al. (2002) and the GoWA (2019), based on broadscale vegetation association mapping by Beard (various publications). The GoWA produces Statewide Vegetation Statistics Reports that are used for a number of purposes including conservation planning, land use planning and when assessing development applications. The reports are updated every 2-3 years.



# Vegetation condition

The vegetation condition can be assessed in accordance with the vegetation condition rating scale for the South West and Interzone Botanical Provinces (EPA 2016a). The scale recognises the intactness of vegetation and consists of six rating levels as outlined below.

*Vegetation condition rating scale for the South West and Interzone Botanical Provinces*

| Condition           | South West and Interzone Botanical Provinces description                                                                                                                                                                                                                                                                         |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pristine            | Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.                                                                                                                                                                                                                          |
| Excellent           | Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.                                                                                                                  |
| Very Good           | Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.                                                                                                                              |
| Good                | Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.                      |
| Degraded            | Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing. |
| Completely Degraded | The structure of vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.                                                               |



# Conservation codes

Species of significant flora, fauna and communities are protected under both Federal and State Acts. The Federal EPBC Act provides a legal framework to protect and manage nationally important flora and communities. The State BC Act is the primary wildlife conservation legislation in Western Australia. Information on the conservation codes is summarised in the following sections.

## Ecological communities

### Significant communities

Ecological communities are defined as naturally occurring biological assemblages that occur in a particular type of habitat (English and Blyth 1997). Federally listed Threatened Ecological Communities (TECs) are protected under the EPBC Act. The BC Act provides for the Minister to list an ecological community as a TEC (section 27), or as a collapsed ecological community (section 31) statutory listing of State TECs by the Minister. The legislation also describes statutory processes for preparing recovery plans for TECs, the registration of their critical habitat, and penalties for unauthorised modification of TECs.

Possible TECs that do not meet survey criteria are added to the DBCA Priority Ecological Community (PEC) List under Priorities 1, 2 and 3. These are ecological communities that are adequately known; are rare but not threatened, or meet criteria for Near Threatened. PECs that have been recently removed from the threatened list are placed in Priority 4. These ecological communities require regular monitoring. Conservation dependent ecological communities are placed in Priority 5. PECs are not listed under any formal Federal or State legislation, however, may be listed as TECs under the EPBC Act.

*Codes and definitions for TECs listed under the EPBC Act and/or BC Act*

| Categories                                                   | Definitions                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Federal Government Conservation Categories (EPBC Act)</b> |                                                                                                                                                                                                                                                                                                                                                                                              |
| Critically Endangered (CR)                                   | An ecological community if, at that time, is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria (as outlined in Environment Protection and Biodiversity Conservation Regulations 2000).                                                                                                               |
| Endangered *(EN)                                             | An ecological community if, at that time: <ul style="list-style-type: none"><li>is not critically endangered; and</li><li>is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria (as outlined in Environment Protection and Biodiversity Conservation Regulations 2000).</li></ul>                                |
| Vulnerable (VU)                                              | An ecological community if, at that time: <ul style="list-style-type: none"><li>is not critically endangered or endangered; and</li><li>is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria (as outlined in Environment Protection and Biodiversity Conservation Regulations 2000).</li></ul>                |
| <b>Western Australia Conservation Categories (BC Act)</b>    |                                                                                                                                                                                                                                                                                                                                                                                              |
| <u>Threatened Ecological Communities</u>                     |                                                                                                                                                                                                                                                                                                                                                                                              |
| Critically Endangered (CR)                                   | An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated. |
| Endangered (EN)                                              | An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future.                                                                     |



| Categories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Definitions                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vulnerable (VU)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range. |
| <u><b>Collapsed ecological communities</b></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>An ecological community is eligible for listing as a collapsed ecological community at a particular time if, at that time –</p> <ul style="list-style-type: none"> <li>– there is no reasonable doubt that the last occurrence of the ecological community has collapsed); or</li> <li>– the ecological community has been so extensively modified throughout its range that no occurrence of it is likely to recover – <ul style="list-style-type: none"> <li>• its species composition or structure; or</li> <li>• its species composition and structure.</li> </ul> </li> </ul> <p>Section 33 of the BC Act provides for a collapsed ecological community to be regarded as a threatened ecological community if it is discovered in a state that no longer makes it eligible for listing as a collapsed ecological community.</p> |                                                                                                                                                                                                                                                                                                                                                                                                            |

**Categories and definitions for PECs as listed by the DBCA**

| Category   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Priority 1 | <p>Poorly known ecological communities.</p> <p>Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤5 occurrences or a total area of ≤100 ha). Occurrences are believed to be under threat either due to limited extent, or being on lands under immediate threat (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) or for which current threats exist. May include communities with occurrences on protected lands. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.</p>                                                                                                                                                                                                                                          |
| Priority 2 | <p>Poorly known ecological communities.</p> <p>Communities that are known from few occurrences with a restricted distribution (generally ≤10 occurrences or a total area of ≤200 ha). At least some occurrences are not believed to be under immediate threat of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Priority 3 | <p>Poorly known ecological communities.</p> <ul style="list-style-type: none"> <li>– Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or:</li> <li>– communities known from a few widespread occurrences, which are either large or with significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or;</li> <li>– communities made up of large, and/or widespread occurrences, that may or may not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, and inappropriate fire regimes.</li> </ul> <p>Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.</p> |
| Priority 4 | <p>Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.</p> <ul style="list-style-type: none"> <li>– Rare. Ecological communities known from few occurrences 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 communities are usually represented on conservation lands.</li> <li>– Near Threatened. Ecological communities that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.</li> </ul>                                                                                                                                                                  |



| Category   | Description                                                                                                                                                                                                                                      |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | – Ecological communities that have been removed from the list of threatened communities during the past five years.                                                                                                                              |
| Priority 5 | Conservation Dependent ecological communities.<br>Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years. |

## Other significant vegetation

Vegetation may be significant for a range of reasons other than a statutory listing. The EPA (2016a, b) states that significant vegetation may include vegetation that includes the following:

- Restricted distribution
- Degree of historical impact from threatening processes
- A role as a refuge
- Providing an important function required to maintain ecological integrity of a significant ecosystem
- Local endemism in restricted habitats
- Novel combinations of taxa
- A role as a key habitat for Threatened species or large population representing a significant proportion of the local to regional total population of a species
- Being representative of a vegetation unit in 'pristine' condition in a highly cleared landscape, recently discovered range extensions, or isolated outliers of the main range.

This may apply at a number of levels, so the unit may be significant when considered at the fine-scale (intra-locality), intermediate-scale (locality or inter-locality) or broad-scale (local to region).

## Flora and fauna

### Significant flora and fauna

Species of significant flora are protected under both Federal and State legislation. Any activities that are deemed to have a significant impact on species that are recognised by the EPBC Act, and/or the BC Act can warrant referral to DAWE and/or the EPA.

The Federal conservation level of flora and fauna species and their significance status is assessed under the EPBC Act. The significance levels for flora and fauna used in the EPBC Act align with the International Union for Conservation of Nature (IUCN) Red List criteria, which are internationally recognised as providing best practice for assigning the conservation status of species. The EPBC Act also protects land and migratory species that are listed under International Agreements. The list of migratory species established under section 209 of the EPBC Act comprises:

- Migratory species which are native to Australia and are included in the appendices to the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals Appendices I and II)
- Migratory species included in annexes established under the Japan-Australia Migratory Bird Agreement (JAMBA) and the China–Australia Migratory Bird Agreement (CAMBA)
- Native, migratory species identified in a list established under, or an instrument made under, an international agreement approved by the Minister, such as the republic of Korea–Australia Migratory Bird Agreement (ROKAMBA)

The State conservation level of flora and fauna species and their significance status also follows the IUCN Red List criteria. Under the BC Act flora and fauna can be listed as Threatened, Extinct and as Specially Protected species.

Threatened species are those are species which have been adequately searched for and are deemed to be, in the wild, either rare, under identifiable threat of extinction, or otherwise in need of special protection, and have been gazetted as such. The assessment of the conservation status of Threatened species is based on their national



extent and ranked according to their level of threat using IUCN Red List categories and criteria. Specially protected species meet one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection. Species that are listed as Threatened or Extinct species under the BC Act cannot also be listed as Specially Protected species.

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

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes 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.

For the purposes of this assessment, all species listed under the EPBC Act, BC Act and DBCA Priority species are considered significant.



*Categories and definitions for EPBC Act and BC Act listed flora and fauna species*

| Conservation category                                                        | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Threatened species</b>                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Critically Endangered (CR)                                                   | Threatened species considered to be “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”.<br>Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Endangered (EN)                                                              | Threatened species considered to be “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”.<br>Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Vulnerable (VU)                                                              | Threatened species considered to be “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”.<br>Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Extinct species</b>                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Extinct (EX)                                                                 | Species where “there is no reasonable doubt that the last member of the species has died”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Extinct in the Wild (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 form”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Specially protected species</b>                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Migratory (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 BC Act).<br>Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species. |
| Species of Special conservation interest (conservation dependent fauna) (CD) | Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Other specially protected fauna (OS)                                         | Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

*Codes for DBCA listed Priority flora and fauna*

| Priority category | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Priority 1        | Poorly-known taxa<br>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, e.g. 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 and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey. |



| Priority category | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Priority 2        | <p>Poorly-known taxa</p> <p>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, e.g. 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 and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.</p>                                                                                                                                                                                        |
| Priority 3        | <p>Poorly-known taxa</p> <p>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. Such species are in need of further survey.</p>                                                                                                                                                                                            |
| Priority 4        | <p>Rare, Near Threatened and other taxa in need of monitoring</p> <ul style="list-style-type: none"> <li>– Rare: Taxa 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 taxa are usually represented on conservation lands.</li> <li>– Near Threatened. Taxa that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.</li> <li>– Taxa that have been removed from the list of threatened taxa during the past five years for reasons other than taxonomy.</li> </ul> |



## Other significant flora

Flora species, subspecies, varieties, hybrids and ecotypes may be significant for a range of reasons, other than a statutory listing. The EPA (2016a, b) states that significant flora may include taxa that have/are:

- A keystone role in a particular habitat for Threatened or Priority flora or fauna species, or large populations representing a considerable proportion of the local or regional total population of a species
- Relictual status, being representation of taxonomic or physiognomic groups that no longer occur widely in the broader landscape
- New species or anomalous features that indicate a potential new species
- Being representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range)
- Unusual species, including restricted subspecies, varieties, or naturally occurring hybrids
- Local endemism (a restricted distribution) or association with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems).

## Other significant fauna

Fauna species may be significant for a range of reasons other than those protected by international agreement or treaty, Specially Protected or Priority Fauna. Significant fauna may include short-range endemic species, species that have declining populations or declining distributions, species at the extremes of their range, or isolated outlying populations, or species which may be undescribed (EPA 2010).

## Introduced plants (weeds)

### Declared Pests

Information on species considered to be Declared Pests is provided under *State Biosecurity and Agriculture Management Act 2007*.

### Weeds of National Significance

The spread of weeds across a range of land uses or ecosystems is important in the context of socio-economic and environmental values. The assessment of Weeds of National Significance (WoNS) is based on four major criteria:

- Invasiveness
- Impacts
- Potential for spread
- Socio-economic and environmental values.

Australian state and territory governments have identified thirty-two Weeds of National Significance (WoNS); a list of 20 WoNS was endorsed in 1999 and a further 12 were added in 2012.



# References

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- Threatened Species Scientific Community (TSSC) 2016, Environmental Protection and Biodiversity Conservation Act 1999 Approved Conservation Advice (incorporating listing advice) for the banksia Woodlands of the Swan Coastal Plain Ecological Community, Department of the Environment and Energy, Canberra. Available at <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-conservation-advice.pdf>



# Appendix C

## Database searches

PMST search results

*NatureMap* results for flora and fauna





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: 29-Oct-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



# Summary

## Matters of National Environment Significance

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

|                                                              |      |
|--------------------------------------------------------------|------|
| <a href="#">World Heritage Properties:</a>                   | 1    |
| <a href="#">National Heritage Places:</a>                    | 1    |
| <a href="#">Wetlands of International Importance (Ramsar</a> | 1    |
| <a href="#">Great Barrier Reef Marine Park:</a>              | None |
| <a href="#">Commonwealth Marine Area:</a>                    | None |
| <a href="#">Listed Threatened Ecological Communities:</a>    | 8    |
| <a href="#">Listed Threatened Species:</a>                   | 94   |
| <a href="#">Listed Migratory Species:</a>                    | 72   |

## Other Matters Protected by the EPBC Act

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

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

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

|                                                                     |      |
|---------------------------------------------------------------------|------|
| <a href="#">Commonwealth Lands:</a>                                 | 459  |
| <a href="#">Commonwealth Heritage Places:</a>                       | 3    |
| <a href="#">Listed Marine Species:</a>                              | 99   |
| <a href="#">Whales and Other Cetaceans:</a>                         | 12   |
| <a href="#">Critical Habitats:</a>                                  | None |
| <a href="#">Commonwealth Reserves Terrestrial:</a>                  | None |
| <a href="#">Australian Marine Parks:</a>                            | None |
| <a href="#">Habitat Critical to the Survival of Marine Turtles:</a> | None |

## Extra Information

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

|                                                         |      |
|---------------------------------------------------------|------|
| <a href="#">State and Territory Reserves:</a>           | 46   |
| <a href="#">Regional Forest Agreements:</a>             | 1    |
| <a href="#">Nationally Important Wetlands:</a>          | 7    |
| <a href="#">EPBC Act Referrals:</a>                     | 148  |
| <a href="#">Key Ecological Features (Marine):</a>       | None |
| <a href="#">Biologically Important Areas:</a>           | 10   |
| <a href="#">Bioregional Assessments:</a>                | None |
| <a href="#">Geological and Bioregional Assessments:</a> | None |



# Details

## Matters of National Environmental Significance

| World Heritage Properties                                   |       | [ Resource Information ] |                     |
|-------------------------------------------------------------|-------|--------------------------|---------------------|
| Name                                                        | State | Legal Status             | Buffer Status       |
| <a href="#">Australian Convict Sites (Fremantle Prison)</a> | WA    | Declared property        | In buffer area only |

| National Heritage Places                  |       | [ Resource Information ] |                     |
|-------------------------------------------|-------|--------------------------|---------------------|
| Name                                      | State | Legal Status             | Buffer Status       |
| Historic                                  |       |                          |                     |
| <a href="#">Fremantle Prison (former)</a> | WA    | Listed place             | In buffer area only |

| Wetlands of International Importance (Ramsar Wetlands) |  | [ Resource Information ] |                 |
|--------------------------------------------------------|--|--------------------------|-----------------|
| Ramsar Site Name                                       |  | Proximity                | Buffer Status   |
| <a href="#">Forrestdale and thomsons lakes</a>         |  | Within Ramsar site       | In feature area |

| Listed Threatened Ecological Communities                                                                                                                                                                                                                                                                                                                       | [ Resource Information ] |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps. |                          |
| Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.                                                                                                                                                                                                                                                                               |                          |

| Community Name                                                                                                        | Threatened Category   | Presence Text                         | Buffer Status       |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------|---------------------|
| <a href="#">Banksia Woodlands of the Swan Coastal Plain ecological community</a>                                      | Endangered            | Community likely to occur within area | In feature area     |
| <a href="#">Clay Pans of the Swan Coastal Plain</a>                                                                   | Critically Endangered | Community likely to occur within area | In feature area     |
| <a href="#">Corymbia calophylla - Kingia australis woodlands on heavy soils of the Swan Coastal Plain</a>             | Endangered            | Community known to occur within area  | In feature area     |
| <a href="#">Empodisma peatlands of southwestern Australia</a>                                                         | Endangered            | Community may occur within area       | In feature area     |
| <a href="#">Honeymyrtle shrubland on limestone ridges of the Swan Coastal Plain Bioregion</a>                         | Critically Endangered | Community likely to occur within area | In buffer area only |
| <a href="#">Shrublands and Woodlands of the eastern Swan Coastal Plain</a>                                            | Endangered            | Community known to occur within area  | In buffer area only |
| <a href="#">Subtropical and Temperate Coastal Saltmarsh</a>                                                           | Vulnerable            | Community likely to occur within area | In buffer area only |
| <a href="#">Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community</a> | Critically Endangered | Community likely to occur within area | In feature area     |



Listed Threatened Species

[ Resource Information ]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.  
Number is the current name ID.

| Scientific Name                                                                                  | Threatened Category   | Presence Text                                         | Buffer Status       |
|--------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------|---------------------|
| BIRD                                                                                             |                       |                                                       |                     |
| <a href="#">Anous tenuirostris melanops</a><br>Australian Lesser Noddy [26000]                   | Vulnerable            | Species or species habitat may occur within area      | In buffer area only |
| <a href="#">Ardeenna grisea</a><br>Sooty Shearwater [82651]                                      | Vulnerable            | Species or species habitat may occur within area      | In buffer area only |
| <a href="#">Arenaria interpres</a><br>Ruddy Turnstone [872]                                      | Vulnerable            | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Botaurus poiciloptilus</a><br>Australasian Bittern [1001]                            | Endangered            | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Calidris acuminata</a><br>Sharp-tailed Sandpiper [874]                               | Vulnerable            | Roosting known to occur within area                   | In feature area     |
| <a href="#">Calidris canutus</a><br>Red Knot, Knot [855]                                         | Vulnerable            | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Calidris ferruginea</a><br>Curlew Sandpiper [856]                                    | Critically Endangered | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Calidris tenuirostris</a><br>Great Knot [862]                                        | Vulnerable            | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Calyptorhynchus banksii naso</a><br>Forest Red-tailed Black-Cockatoo, Karrak [67034] | Vulnerable            | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Charadrius leschenaultii</a><br>Greater Sand Plover, Large Sand Plover [877]         | Vulnerable            | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Charadrius mongolus</a><br>Lesser Sand Plover, Mongolian Plover [879]                | Endangered            | Roosting known to occur within area                   | In buffer area only |



| Scientific Name                                                                                                       | Threatened Category | Presence Text                                                      | Buffer Status       |
|-----------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------|---------------------|
| <a href="#">Diomedea amsterdamensis</a><br>Amsterdam Albatross [64405]                                                | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Diomedea dabbenena</a><br>Tristan Albatross [66471]                                                       | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Diomedea epomophora</a><br>Southern Royal Albatross [89221]                                               | Vulnerable          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Diomedea exulans</a><br>Wandering Albatross [89223]                                                       | Vulnerable          | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |
| <a href="#">Diomedea sanfordi</a><br>Northern Royal Albatross [64456]                                                 | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Halobaena caerulea</a><br>Blue Petrel [1059]                                                              | Vulnerable          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Leipoa ocellata</a><br>Malleefowl [934]                                                                   | Vulnerable          | Species or species habitat likely to occur within area             | In feature area     |
| <a href="#">Limosa lapponica menzbieri</a><br>Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432] | Endangered          | Species or species habitat known to occur within area              | In buffer area only |
| <a href="#">Limosa limosa</a><br>Black-tailed Godwit [845]                                                            | Endangered          | Roosting known to occur within area                                | In buffer area only |
| <a href="#">Macronectes giganteus</a><br>Southern Giant-Petrel, Southern Giant Petrel [1060]                          | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Macronectes halli</a><br>Northern Giant Petrel [1061]                                                     | Vulnerable          | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |



| Scientific Name                                                                                                                   | Threatened Category   | Presence Text                                                      | Buffer Status       |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------|---------------------|
| <a href="#">Numenius madagascariensis</a><br>Eastern Curlew, Far Eastern Curlew [847]                                             | Critically Endangered | Species or species habitat known to occur within area              | In feature area     |
| <a href="#">Pachyptila turtur subantarctica</a><br>Fairy Prion (southern) [64445]                                                 | Vulnerable            | Species or species habitat known to occur within area              | In buffer area only |
| <a href="#">Phaethon rubricauda westralis</a><br>Red-tailed Tropicbird (Indian Ocean), Indian Ocean Red-tailed Tropicbird [91824] | Endangered            | Species or species habitat known to occur within area              | In buffer area only |
| <a href="#">Pluvialis squatarola</a><br>Grey Plover [865]                                                                         | Vulnerable            | Roosting known to occur within area                                | In buffer area only |
| <a href="#">Pterodroma mollis</a><br>Soft-plumaged Petrel [1036]                                                                  | Vulnerable            | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Rostratula australis</a><br>Australian Painted Snipe [77037]                                                          | Endangered            | Species or species habitat known to occur within area              | In feature area     |
| <a href="#">Sternula nereis nereis</a><br>Australian Fairy Tern [82950]                                                           | Vulnerable            | Foraging, feeding or related behaviour known to occur within area  | In feature area     |
| <a href="#">Thalassarche carteri</a><br>Indian Yellow-nosed Albatross [64464]                                                     | Vulnerable            | Species or species habitat likely to occur within area             | In buffer area only |
| <a href="#">Thalassarche cauta</a><br>Shy Albatross [89224]                                                                       | Endangered            | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |
| <a href="#">Thalassarche impavida</a><br>Campbell Albatross, Campbell Black-browed Albatross [64459]                              | Vulnerable            | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Thalassarche melanophris</a><br>Black-browed Albatross [66472]                                                        | Vulnerable            | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |



| Scientific Name                                                                                                                                     | Threatened Category   | Presence Text                                          | Buffer Status       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------|---------------------|
| <a href="#">Thalassarche steadi</a><br>White-capped Albatross [64462]                                                                               | Vulnerable            | Species or species habitat may occur within area       | In buffer area only |
| <a href="#">Tringa nebularia</a><br>Common Greenshank, Greenshank [832]                                                                             | Endangered            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Xenus cinereus</a><br>Terek Sandpiper [59300]                                                                                           | Vulnerable            | Roosting known to occur within area                    | In buffer area only |
| <a href="#">Zanda baudinii listed as Calyptorhynchus baudinii</a><br>Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736] | Endangered            | Roosting known to occur within area                    | In feature area     |
| <a href="#">Zanda latirostris listed as Calyptorhynchus latirostris</a><br>Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]            | Endangered            | Breeding known to occur within area                    | In feature area     |
| INSECT                                                                                                                                              |                       |                                                        |                     |
| <a href="#">Leioproctus douglasiellus</a><br>a short-tongued bee [66756]                                                                            | Critically Endangered | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Neopasiphae simplicior</a><br>A native bee [66821]                                                                                      | Critically Endangered | Species or species habitat known to occur within area  | In buffer area only |
| MAMMAL                                                                                                                                              |                       |                                                        |                     |
| <a href="#">Balaenoptera musculus</a><br>Blue Whale [36]                                                                                            | Endangered            | Species or species habitat likely to occur within area | In buffer area only |
| <a href="#">Bettongia penicillata ogilbyi</a><br>Woylie [66844]                                                                                     | Endangered            | Species or species habitat likely to occur within area | In buffer area only |
| <a href="#">Dasyurus geoffroii</a><br>Chuditch, Western Quoll [330]                                                                                 | Vulnerable            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Eubalaena australis</a><br>Southern Right Whale [40]                                                                                    | Endangered            | Breeding known to occur within area                    | In buffer area only |



| Scientific Name                                                                                                        | Threatened Category   | Presence Text                                          | Buffer Status       |
|------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------|---------------------|
| <a href="#">Macroderma gigas</a><br>Ghost Bat [174]                                                                    | Vulnerable            | Species or species habitat may occur within area       | In buffer area only |
| <a href="#">Neophoca cinerea</a><br>Australian Sea-lion, Australian Sea Lion [22]                                      | Endangered            | Species or species habitat likely to occur within area | In buffer area only |
| <a href="#">Pseudocheirus occidentalis</a><br>Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911] | Critically Endangered | Species or species habitat likely to occur within area | In feature area     |
| <a href="#">Setonix brachyurus</a><br>Quokka [229]                                                                     | Vulnerable            | Species or species habitat likely to occur within area | In buffer area only |
| OTHER                                                                                                                  |                       |                                                        |                     |
| <a href="#">Westralunio carteri</a><br>Carter's Freshwater Mussel, Freshwater Mussel [86266]                           | Vulnerable            | Species or species habitat known to occur within area  | In feature area     |
| PLANT                                                                                                                  |                       |                                                        |                     |
| <a href="#">Acacia anomala</a><br>Grass Wattle, Chittering Grass Wattle [8153]                                         | Vulnerable            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Acacia aphylla</a><br>Leafless Rock Wattle [13553]                                                         | Vulnerable            | Species or species habitat known to occur within area  | In buffer area only |
| <a href="#">Andersonia gracilis</a><br>Slender Andersonia [14470]                                                      | Endangered            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Anigozanthos viridis subsp. terraspectans</a><br>Dwarf Green Kangaroo Paw [3435]                           | Vulnerable            | Species or species habitat may occur within area       | In buffer area only |
| <a href="#">Anthocercis gracilis</a><br>Slender Tailflower [11103]                                                     | Vulnerable            | Species or species habitat known to occur within area  | In buffer area only |
| <a href="#">Austrostipa bronweniae listed as Austrostipa bronwenae</a><br>[92773]                                      | Endangered            | Species or species habitat known to occur within area  | In feature area     |



| Scientific Name                                                                                                  | Threatened Category                            | Presence Text                                          | Buffer Status       |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------|---------------------|
| <a href="#">Austrostipa jacobiana</a><br>[87809]                                                                 | Critically Endangered                          | Species or species habitat known to occur within area  | In buffer area only |
| <a href="#">Banksia mimica</a><br>Summer Honeypot [82765]                                                        | Endangered                                     | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Caladenia huegelii</a><br>King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]        | Endangered                                     | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Calytrix breviseta subsp. breviseta</a><br>Swamp Starflower [23879]                                  | Endangered                                     | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Chamelaucium lullfitzii listed as Chamelaucium sp. Gingin (N.G.Marchant 6)</a><br>Gingin Wax [92777] | Endangered (listed as Chamelaucium sp. Gingin) | Species or species habitat may occur within area       | In feature area     |
| <a href="#">Conospermum undulatum</a><br>Wavy-leaved Smokebush [24435]                                           | Vulnerable                                     | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Darwinia apiculata</a><br>Scarp Darwinia [8763]                                                      | Endangered                                     | Species or species habitat known to occur within area  | In buffer area only |
| <a href="#">Diplolaena andrewsii</a><br>[6601]                                                                   | Endangered                                     | Species or species habitat likely to occur within area | In feature area     |
| <a href="#">Diuris drummondii</a><br>Tall Donkey Orchid [4365]                                                   | Vulnerable                                     | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Diuris micrantha</a><br>Dwarf Bee-orchid [55082]                                                     | Vulnerable                                     | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Diuris purdiei</a><br>Purdie's Donkey-orchid [12950]                                                 | Endangered                                     | Species or species habitat known to occur within area  | In feature area     |



| Scientific Name                                                                                                           | Threatened Category   | Presence Text                                          | Buffer Status       |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------|---------------------|
| <a href="#">Drakaea elastica</a><br>Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753] | Endangered            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Drakaea micrantha</a><br>Dwarf Hammer-orchid [56755]                                                          | Vulnerable            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Eleocharis keigheryi</a><br>Keighery's Eleocharis [64893]                                                     | Vulnerable            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Eremophila glabra subsp. chlorella</a><br>[84927]                                                             | Endangered            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Eucalyptus x balanites</a><br>Cadda Road Mallee, Cadda Mallee [87816]                                         | Endangered            | Species or species habitat likely to occur within area | In feature area     |
| <a href="#">Goodenia arthrotricha</a><br>[12448]                                                                          | Endangered            | Species or species habitat known to occur within area  | In buffer area only |
| <a href="#">Grevillea curviloba subsp. incurva</a><br>Narrow curved-leaf Grevillea [64909]                                | Endangered            | Species or species habitat likely to occur within area | In feature area     |
| <a href="#">Grevillea flexuosa</a><br>Zig Zag Grevillea [2957]                                                            | Vulnerable            | Species or species habitat may occur within area       | In buffer area only |
| <a href="#">Grevillea thelemanniana</a><br>Spider Net Grevillea [32835]                                                   | Critically Endangered | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Lepidosperma rostratum</a><br>Beaked Lepidosperma [14152]                                                     | Endangered            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Macarthuria keigheryi</a><br>Keighery's Macarthuria [64930]                                                   | Endangered            | Species or species habitat known to occur within area  | In feature area     |



| Scientific Name                                                          | Threatened Category   | Presence Text                                          | Buffer Status       |
|--------------------------------------------------------------------------|-----------------------|--------------------------------------------------------|---------------------|
| <a href="#">Morelotia australiensis listed as Tetraria australiensis</a> |                       |                                                        |                     |
| Southern Tetraria [92784]                                                | Vulnerable            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Ptilotus pyramidatus</a>                                     |                       |                                                        |                     |
| Pyramid Mulla-mulla [18216]                                              | Critically Endangered | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Synaphea sp. Fairbridge Farm (D.Papenfus 696)</a>            |                       |                                                        |                     |
| Selena's Synaphea [82881]                                                | Critically Endangered | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Synaphea sp. Pinjarra Plain (A.S.George 17182)</a>           |                       |                                                        |                     |
| [86878]                                                                  | Endangered            | Species or species habitat may occur within area       | In feature area     |
| <a href="#">Synaphea sp. Serpentine (G.R.Brand 103)</a>                  |                       |                                                        |                     |
| [86879]                                                                  | Critically Endangered | Species or species habitat may occur within area       | In buffer area only |
| <a href="#">Thelymitra dedmaniarum</a>                                   |                       |                                                        |                     |
| Cinnamon Sun Orchid [65105]                                              | Endangered            | Species or species habitat may occur within area       | In feature area     |
| <a href="#">Thelymitra stellata</a>                                      |                       |                                                        |                     |
| Star Sun-orchid [7060]                                                   | Endangered            | Species or species habitat known to occur within area  | In feature area     |
| <a href="#">Trithuria occidentalis</a>                                   |                       |                                                        |                     |
| Swan Hydatella [42224]                                                   | Endangered            | Species or species habitat likely to occur within area | In buffer area only |

| REPTILE                         |            |                                                                   |                     |
|---------------------------------|------------|-------------------------------------------------------------------|---------------------|
| <a href="#">Caretta caretta</a> |            |                                                                   |                     |
| Loggerhead Turtle [1763]        | Endangered | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Chelonia mydas</a>  |            |                                                                   |                     |
| Green Turtle [1765]             | Vulnerable | Foraging, feeding or related behaviour known to occur within area | In buffer area only |



| Scientific Name                                                                                                                          | Threatened Category    | Presence Text                                                     | Buffer Status       |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------|---------------------|
| <a href="#">Dermochelys coriacea</a><br>Leatherback Turtle, Leathery Turtle, Luth [1768]                                                 | Endangered             | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Natator depressus</a><br>Flatback Turtle [59257]                                                                             | Vulnerable             | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| SHARK                                                                                                                                    |                        |                                                                   |                     |
| <a href="#">Carcharias taurus (west coast population)</a><br>Grey Nurse Shark (west coast population) [68752]                            | Vulnerable             | Species or species habitat likely to occur within area            | In buffer area only |
| <a href="#">Carcharodon carcharias</a><br>White Shark, Great White Shark [64470]                                                         | Vulnerable             | Species or species habitat known to occur within area             | In buffer area only |
| <a href="#">Pristis pristis</a><br>Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756] | Vulnerable             | Species or species habitat may occur within area                  | In feature area     |
| <a href="#">Rhincodon typus</a><br>Whale Shark [66680]                                                                                   | Vulnerable             | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Sphyrna lewini</a><br>Scalloped Hammerhead [85267]                                                                           | Conservation Dependent | Species or species habitat known to occur within area             | In buffer area only |
| Listed Migratory Species                                                                                                                 |                        | [ <a href="#">Resource Information</a> ]                          |                     |
| Scientific Name                                                                                                                          | Threatened Category    | Presence Text                                                     | Buffer Status       |
| Migratory Marine Birds                                                                                                                   |                        |                                                                   |                     |
| <a href="#">Anous stolidus</a><br>Common Noddy [825]                                                                                     |                        | Species or species habitat likely to occur within area            | In buffer area only |
| <a href="#">Apus pacificus</a><br>Fork-tailed Swift [678]                                                                                |                        | Species or species habitat likely to occur within area            | In feature area     |
| <a href="#">Ardenna carneipes</a><br>Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]                                           |                        | Species or species habitat likely to occur within area            | In buffer area only |



| Scientific Name                                                                              | Threatened Category | Presence Text                                                      | Buffer Status       |
|----------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------|---------------------|
| <a href="#">Ardena grisea</a><br>Sooty Shearwater [82651]                                    | Vulnerable          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Diomedea amsterdamensis</a><br>Amsterdam Albatross [64405]                       | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Diomedea dabbenena</a><br>Tristan Albatross [66471]                              | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Diomedea epomophora</a><br>Southern Royal Albatross [89221]                      | Vulnerable          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Diomedea exulans</a><br>Wandering Albatross [89223]                              | Vulnerable          | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |
| <a href="#">Diomedea sanfordi</a><br>Northern Royal Albatross [64456]                        | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Hydroprogne caspia</a><br>Caspian Tern [808]                                     |                     | Foraging, feeding or related behaviour known to occur within area  | In buffer area only |
| <a href="#">Macronectes giganteus</a><br>Southern Giant-Petrel, Southern Giant Petrel [1060] | Endangered          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Macronectes halli</a><br>Northern Giant Petrel [1061]                            | Vulnerable          | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |
| <a href="#">Onychoprion anaethetus</a><br>Bridled Tern [82845]                               |                     | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |



| Scientific Name                                                                                      | Threatened Category | Presence Text                                                      | Buffer Status       |
|------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------|---------------------|
| <a href="#">Sterna dougallii</a><br>Roseate Tern [817]                                               |                     | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |
| <a href="#">Sternula albifrons</a><br>Little Tern [82849]                                            |                     | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Thalassarche carteri</a><br>Indian Yellow-nosed Albatross [64464]                        | Vulnerable          | Species or species habitat likely to occur within area             | In buffer area only |
| <a href="#">Thalassarche cauta</a><br>Shy Albatross [89224]                                          | Endangered          | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |
| <a href="#">Thalassarche impavida</a><br>Campbell Albatross, Campbell Black-browed Albatross [64459] | Vulnerable          | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Thalassarche melanophris</a><br>Black-browed Albatross [66472]                           | Vulnerable          | Foraging, feeding or related behaviour likely to occur within area | In buffer area only |
| <a href="#">Thalassarche steadi</a><br>White-capped Albatross [64462]                                | Vulnerable          | Species or species habitat may occur within area                   | In buffer area only |
| Migratory Marine Species                                                                             |                     |                                                                    |                     |
| <a href="#">Balaenoptera edeni</a><br>Bryde's Whale [35]                                             |                     | Species or species habitat may occur within area                   | In buffer area only |
| <a href="#">Balaenoptera musculus</a><br>Blue Whale [36]                                             | Endangered          | Species or species habitat likely to occur within area             | In buffer area only |
| <a href="#">Caperea marginata</a><br>Pygmy Right Whale [39]                                          |                     | Species or species habitat may occur within area                   | In buffer area only |



| Scientific Name                                                                                 | Threatened Category | Presence Text                                                     | Buffer Status       |
|-------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------|---------------------|
| <a href="#">Carcharhinus longimanus</a><br>Oceanic Whitetip Shark [84108]                       |                     | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Carcharias taurus</a><br>Grey Nurse Shark [64469]                                   |                     | Species or species habitat likely to occur within area            | In buffer area only |
| <a href="#">Carcharodon carcharias</a><br>White Shark, Great White Shark [64470]                | Vulnerable          | Species or species habitat known to occur within area             | In buffer area only |
| <a href="#">Caretta caretta</a><br>Loggerhead Turtle [1763]                                     | Endangered          | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Chelonia mydas</a><br>Green Turtle [1765]                                           | Vulnerable          | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Dermochelys coriacea</a><br>Leatherback Turtle, Leathery Turtle, Luth [1768]        | Endangered          | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Eubalaena australis as Balaena glacialis australis</a><br>Southern Right Whale [40] | Endangered          | Breeding known to occur within area                               | In buffer area only |
| <a href="#">Lamna nasus</a><br>Porbeagle, Mackerel Shark [83288]                                |                     | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Megaptera novaeangliae</a><br>Humpback Whale [38]                                   |                     | Species or species habitat known to occur within area             | In buffer area only |
| <a href="#">Mobula alfredi as Manta alfredi</a><br>Reef Manta Ray, Coastal Manta Ray [90033]    |                     | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Mobula birostris as Manta birostris</a><br>Giant Manta Ray [90034]                  |                     | Species or species habitat may occur within area                  | In buffer area only |



| Scientific Name                                                                                                                          | Threatened Category   | Presence Text                                                     | Buffer Status       |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------|---------------------|
| <a href="#">Natator depressus</a><br>Flatback Turtle [59257]                                                                             | Vulnerable            | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Orcinus orca</a><br>Killer Whale, Orca [46]                                                                                  |                       | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Pristis pristis</a><br>Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756] | Vulnerable            | Species or species habitat may occur within area                  | In feature area     |
| <a href="#">Rhincodon typus</a><br>Whale Shark [66680]                                                                                   | Vulnerable            | Species or species habitat may occur within area                  | In buffer area only |
| Migratory Terrestrial Species                                                                                                            |                       |                                                                   |                     |
| <a href="#">Motacilla cinerea</a><br>Grey Wagtail [642]                                                                                  |                       | Species or species habitat may occur within area                  | In feature area     |
| Migratory Wetlands Species                                                                                                               |                       |                                                                   |                     |
| <a href="#">Actitis hypoleucos</a><br>Common Sandpiper [59309]                                                                           |                       | Species or species habitat known to occur within area             | In feature area     |
| <a href="#">Arenaria interpres</a><br>Ruddy Turnstone [872]                                                                              | Vulnerable            | Roosting known to occur within area                               | In buffer area only |
| <a href="#">Calidris acuminata</a><br>Sharp-tailed Sandpiper [874]                                                                       | Vulnerable            | Roosting known to occur within area                               | In feature area     |
| <a href="#">Calidris alba</a><br>Sanderling [875]                                                                                        |                       | Roosting known to occur within area                               | In buffer area only |
| <a href="#">Calidris canutus</a><br>Red Knot, Knot [855]                                                                                 | Vulnerable            | Species or species habitat known to occur within area             | In feature area     |
| <a href="#">Calidris ferruginea</a><br>Curlew Sandpiper [856]                                                                            | Critically Endangered | Species or species habitat known to occur within area             | In feature area     |



| Scientific Name                                                                          | Threatened Category | Presence Text                                         | Buffer Status       |
|------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------|---------------------|
| <a href="#">Calidris melanotos</a><br>Pectoral Sandpiper [858]                           | Vulnerable          | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Calidris pugnax as Philomachus pugnax</a><br>Ruff [91256]                    |                     | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Calidris ruficollis</a><br>Red-necked Stint [860]                            |                     | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Calidris subminuta</a><br>Long-toed Stint [861]                              |                     | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Calidris tenuirostris</a><br>Great Knot [862]                                |                     | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Charadrius bicinctus</a><br>Double-banded Plover [895]                       | Vulnerable          | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Charadrius dubius</a><br>Little Ringed Plover [896]                          |                     | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Charadrius leschenaultii</a><br>Greater Sand Plover, Large Sand Plover [877] |                     | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Charadrius mongolus</a><br>Lesser Sand Plover, Mongolian Plover [879]        | Endangered          | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Gallinago megala</a><br>Swinhoe's Snipe [864]                                |                     | Roosting likely to occur within area                  | In buffer area only |
| <a href="#">Gallinago stenura</a><br>Pin-tailed Snipe [841]                              |                     | Roosting likely to occur within area                  | In buffer area only |
| <a href="#">Limicola falcinellus</a><br>Broad-billed Sandpiper [842]                     |                     | Species or species habitat known to occur within area | In buffer area only |
| <a href="#">Limosa lapponica</a><br>Bar-tailed Godwit [844]                              |                     | Species or species habitat known to occur within area | In buffer area only |



| Scientific Name                                                                       | Threatened Category   | Presence Text                                         | Buffer Status       |
|---------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------|---------------------|
| <a href="#">Limosa limosa</a><br>Black-tailed Godwit [845]                            | Endangered            | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Numenius madagascariensis</a><br>Eastern Curlew, Far Eastern Curlew [847] | Critically Endangered | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Numenius minutus</a><br>Little Curlew, Little Whimbrel [848]              |                       | Roosting likely to occur within area                  | In buffer area only |
| <a href="#">Numenius phaeopus</a><br>Whimbrel [849]                                   |                       | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Pandion haliaetus</a><br>Osprey [952]                                     |                       | Breeding known to occur within area                   | In feature area     |
| <a href="#">Phalaropus lobatus</a><br>Red-necked Phalarope [838]                      |                       | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Pluvialis fulva</a><br>Pacific Golden Plover [25545]                      |                       | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Pluvialis squatarola</a><br>Grey Plover [865]                             | Vulnerable            | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Tringa brevipes</a><br>Grey-tailed Tattler [851]                          |                       | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Tringa glareola</a><br>Wood Sandpiper [829]                               |                       | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Tringa nebularia</a><br>Common Greenshank, Greenshank [832]               | Endangered            | Species or species habitat known to occur within area | In feature area     |
| <a href="#">Tringa stagnatilis</a><br>Marsh Sandpiper, Little Greenshank [833]        |                       | Roosting known to occur within area                   | In buffer area only |
| <a href="#">Tringa totanus</a><br>Common Redshank, Redshank [835]                     |                       | Roosting known to occur within area                   | In buffer area only |



| Scientific Name                | Threatened Category | Presence Text                       | Buffer Status       |
|--------------------------------|---------------------|-------------------------------------|---------------------|
| <a href="#">Xenus cinereus</a> |                     |                                     |                     |
| Terek Sandpiper [59300]        | Vulnerable          | Roosting known to occur within area | In buffer area only |

### Other Matters Protected by the EPBC Act

|                    |                                          |
|--------------------|------------------------------------------|
| Commonwealth Lands | [ <a href="#">Resource Information</a> ] |
|--------------------|------------------------------------------|

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

| Commonwealth Land Name                            | State | Buffer Status       |
|---------------------------------------------------|-------|---------------------|
| Defence                                           |       |                     |
| Defence - AIRTC CANNINGTON [50232]                | WA    | In buffer area only |
| Defence - AIRTC CANNINGTON [50233]                | WA    | In buffer area only |
| Defence - AIRTC CANNINGTON [50230]                | WA    | In buffer area only |
| Defence - AIRTC CANNINGTON [50231]                | WA    | In buffer area only |
| Defence - AIRTC CANNINGTON [50229]                | WA    | In buffer area only |
| Defence - ARTILLERY BARRACKS - FREMANTLE [50155]  | WA    | In buffer area only |
| Defence - BUSHMEAD RIFLE RANGE [50143]            | WA    | In buffer area only |
| Defence - BUSHMEAD TRAINING AREA [50259]          | WA    | In buffer area only |
| Defence - BUSHMEAD TRAINING AREA [50258]          | WA    | In buffer area only |
| Defence - BUSHMEAD TRAINING AREA [50260]          | WA    | In buffer area only |
| Defence - EAST FREMANTLE SMALL CRAFT BASE [50118] | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50210]               | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50217]               | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50213]               | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50211]               | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50212]               | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50216]               | WA    | In buffer area only |



| Commonwealth Land Name                              | State | Buffer Status       |
|-----------------------------------------------------|-------|---------------------|
| Defence - HOLDFAST BARRACKS [50218]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50219]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50214]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50215]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50209]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50208]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50207]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50206]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50202]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50228]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50205]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50223]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50222]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50221]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50220]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50225]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50227]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50224]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50226]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50203]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50204]                 | WA    | In buffer area only |
| Defence - HOLDFAST BARRACKS [50201]                 | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50148] | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50147] | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50146] | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50149] | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50154] | WA    | In buffer area only |



| Commonwealth Land Name                              | State | Buffer Status       |
|-----------------------------------------------------|-------|---------------------|
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50150] | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50152] | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50151] | WA    | In buffer area only |
| Defence - LEEUWIN BARRACKS - EAST FREMANTLE [50153] | WA    | In buffer area only |
| Defence - PALMER BARRACKS - SOUTH GUILDFORD [50180] | WA    | In buffer area only |
| Defence - PALMER BARRACKS - SOUTH GUILDFORD [50179] | WA    | In buffer area only |
| Defence - PALMER BARRACKS - SOUTH GUILDFORD [50176] | WA    | In buffer area only |
| Defence - PALMER BARRACKS - SOUTH GUILDFORD [50177] | WA    | In buffer area only |
| Defence - PALMER BARRACKS - SOUTH GUILDFORD [50178] | WA    | In buffer area only |
| Defence - PRESTON POINT TRAINING DEPOT [50174]      | WA    | In buffer area only |
| Defence - PRESTON POINT TRAINING DEPOT [50172]      | WA    | In buffer area only |
| Defence - PRESTON POINT TRAINING DEPOT [50173]      | WA    | In buffer area only |
| Unknown                                             |       |                     |
| Commonwealth Land - [51122]                         | WA    | In buffer area only |
| Commonwealth Land - [51125]                         | WA    | In buffer area only |
| Commonwealth Land - [51356]                         | WA    | In feature area     |
| Commonwealth Land - [51357]                         | WA    | In feature area     |
| Commonwealth Land - [51350]                         | WA    | In feature area     |
| Commonwealth Land - [51351]                         | WA    | In buffer area only |
| Commonwealth Land - [51358]                         | WA    | In buffer area only |
| Commonwealth Land - [51359]                         | WA    | In buffer area only |
| Commonwealth Land - [51426]                         | WA    | In buffer area only |
| Commonwealth Land - [51355]                         | WA    | In buffer area only |
| Commonwealth Land - [51277]                         | WA    | In buffer area only |
| Commonwealth Land - [51274]                         | WA    | In buffer area only |
| Commonwealth Land - [51273]                         | WA    | In buffer area only |
| Commonwealth Land - [51270]                         | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51378] | WA    | In buffer area only |
| Commonwealth Land - [51276] | WA    | In buffer area only |
| Commonwealth Land - [51376] | WA    | In buffer area only |
| Commonwealth Land - [51375] | WA    | In buffer area only |
| Commonwealth Land - [50672] | WA    | In buffer area only |
| Commonwealth Land - [51272] | WA    | In buffer area only |
| Commonwealth Land - [51128] | WA    | In buffer area only |
| Commonwealth Land - [51901] | WA    | In feature area     |
| Commonwealth Land - [51900] | WA    | In feature area     |
| Commonwealth Land - [51907] | WA    | In buffer area only |
| Commonwealth Land - [51906] | WA    | In buffer area only |
| Commonwealth Land - [51909] | WA    | In buffer area only |
| Commonwealth Land - [51908] | WA    | In buffer area only |
| Commonwealth Land - [51364] | WA    | In buffer area only |
| Commonwealth Land - [50671] | WA    | In buffer area only |
| Commonwealth Land - [51371] | WA    | In buffer area only |
| Commonwealth Land - [51370] | WA    | In buffer area only |
| Commonwealth Land - [51373] | WA    | In buffer area only |
| Commonwealth Land - [51372] | WA    | In buffer area only |
| Commonwealth Land - [51126] | WA    | In buffer area only |
| Commonwealth Land - [51298] | WA    | In buffer area only |
| Commonwealth Land - [51299] | WA    | In buffer area only |
| Commonwealth Land - [51292] | WA    | In buffer area only |
| Commonwealth Land - [51293] | WA    | In buffer area only |
| Commonwealth Land - [51291] | WA    | In buffer area only |
| Commonwealth Land - [51227] | WA    | In buffer area only |
| Commonwealth Land - [51224] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51226] | WA    | In buffer area only |
| Commonwealth Land - [51515] | WA    | In buffer area only |
| Commonwealth Land - [51516] | WA    | In buffer area only |
| Commonwealth Land - [51518] | WA    | In buffer area only |
| Commonwealth Land - [51514] | WA    | In buffer area only |
| Commonwealth Land - [50877] | WA    | In buffer area only |
| Commonwealth Land - [50878] | WA    | In buffer area only |
| Commonwealth Land - [51200] | WA    | In buffer area only |
| Commonwealth Land - [50688] | WA    | In buffer area only |
| Commonwealth Land - [50677] | WA    | In buffer area only |
| Commonwealth Land - [50950] | WA    | In buffer area only |
| Commonwealth Land - [51342] | WA    | In buffer area only |
| Commonwealth Land - [51354] | WA    | In feature area     |
| Commonwealth Land - [50690] | WA    | In buffer area only |
| Commonwealth Land - [51353] | WA    | In buffer area only |
| Commonwealth Land - [51220] | WA    | In buffer area only |
| Commonwealth Land - [51221] | WA    | In buffer area only |
| Commonwealth Land - [51228] | WA    | In buffer area only |
| Commonwealth Land - [51229] | WA    | In buffer area only |
| Commonwealth Land - [51225] | WA    | In buffer area only |
| Commonwealth Land - [51222] | WA    | In buffer area only |
| Commonwealth Land - [51223] | WA    | In buffer area only |
| Commonwealth Land - [51203] | WA    | In buffer area only |
| Commonwealth Land - [51202] | WA    | In buffer area only |
| Commonwealth Land - [51205] | WA    | In buffer area only |
| Commonwealth Land - [51204] | WA    | In buffer area only |
| Commonwealth Land - [51201] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51275] | WA    | In buffer area only |
| Commonwealth Land - [51207] | WA    | In buffer area only |
| Commonwealth Land - [51206] | WA    | In buffer area only |
| Commonwealth Land - [51209] | WA    | In buffer area only |
| Commonwealth Land - [51208] | WA    | In buffer area only |
| Commonwealth Land - [51977] | WA    | In buffer area only |
| Commonwealth Land - [50850] | WA    | In buffer area only |
| Commonwealth Land - [50859] | WA    | In buffer area only |
| Commonwealth Land - [51271] | WA    | In buffer area only |
| Commonwealth Land - [50853] | WA    | In buffer area only |
| Commonwealth Land - [50779] | WA    | In buffer area only |
| Commonwealth Land - [51494] | WA    | In buffer area only |
| Commonwealth Land - [50751] | WA    | In buffer area only |
| Commonwealth Land - [50809] | WA    | In buffer area only |
| Commonwealth Land - [50755] | WA    | In buffer area only |
| Commonwealth Land - [50750] | WA    | In buffer area only |
| Commonwealth Land - [51257] | WA    | In buffer area only |
| Commonwealth Land - [50870] | WA    | In buffer area only |
| Commonwealth Land - [50873] | WA    | In buffer area only |
| Commonwealth Land - [50872] | WA    | In buffer area only |
| Commonwealth Land - [50874] | WA    | In buffer area only |
| Commonwealth Land - [50754] | WA    | In buffer area only |
| Commonwealth Land - [50756] | WA    | In buffer area only |
| Commonwealth Land - [51322] | WA    | In buffer area only |
| Commonwealth Land - [51321] | WA    | In buffer area only |
| Commonwealth Land - [51320] | WA    | In buffer area only |
| Commonwealth Land - [51327] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51193] | WA    | In buffer area only |
| Commonwealth Land - [51194] | WA    | In buffer area only |
| Commonwealth Land - [51191] | WA    | In buffer area only |
| Commonwealth Land - [51192] | WA    | In buffer area only |
| Commonwealth Land - [51294] | WA    | In buffer area only |
| Commonwealth Land - [51190] | WA    | In buffer area only |
| Commonwealth Land - [51296] | WA    | In buffer area only |
| Commonwealth Land - [51295] | WA    | In buffer area only |
| Commonwealth Land - [51290] | WA    | In buffer area only |
| Commonwealth Land - [51297] | WA    | In buffer area only |
| Commonwealth Land - [51195] | WA    | In buffer area only |
| Commonwealth Land - [51196] | WA    | In buffer area only |
| Commonwealth Land - [51197] | WA    | In buffer area only |
| Commonwealth Land - [51198] | WA    | In buffer area only |
| Commonwealth Land - [51199] | WA    | In buffer area only |
| Commonwealth Land - [50708] | WA    | In buffer area only |
| Commonwealth Land - [50707] | WA    | In buffer area only |
| Commonwealth Land - [50686] | WA    | In buffer area only |
| Commonwealth Land - [50792] | WA    | In buffer area only |
| Commonwealth Land - [51345] | WA    | In buffer area only |
| Commonwealth Land - [50793] | WA    | In buffer area only |
| Commonwealth Land - [51328] | WA    | In buffer area only |
| Commonwealth Land - [51329] | WA    | In buffer area only |
| Commonwealth Land - [51305] | WA    | In buffer area only |
| Commonwealth Land - [51269] | WA    | In buffer area only |
| Commonwealth Land - [51307] | WA    | In buffer area only |
| Commonwealth Land - [51927] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51304] | WA    | In buffer area only |
| Commonwealth Land - [51972] | WA    | In buffer area only |
| Commonwealth Land - [51306] | WA    | In buffer area only |
| Commonwealth Land - [51115] | WA    | In buffer area only |
| Commonwealth Land - [51116] | WA    | In buffer area only |
| Commonwealth Land - [51288] | WA    | In buffer area only |
| Commonwealth Land - [51289] | WA    | In buffer area only |
| Commonwealth Land - [51326] | WA    | In buffer area only |
| Commonwealth Land - [51325] | WA    | In buffer area only |
| Commonwealth Land - [51324] | WA    | In buffer area only |
| Commonwealth Land - [51498] | WA    | In buffer area only |
| Commonwealth Land - [51266] | WA    | In buffer area only |
| Commonwealth Land - [51267] | WA    | In buffer area only |
| Commonwealth Land - [51260] | WA    | In buffer area only |
| Commonwealth Land - [51261] | WA    | In buffer area only |
| Commonwealth Land - [51308] | WA    | In buffer area only |
| Commonwealth Land - [51268] | WA    | In buffer area only |
| Commonwealth Land - [51300] | WA    | In buffer area only |
| Commonwealth Land - [51301] | WA    | In buffer area only |
| Commonwealth Land - [51265] | WA    | In buffer area only |
| Commonwealth Land - [51264] | WA    | In buffer area only |
| Commonwealth Land - [50731] | WA    | In buffer area only |
| Commonwealth Land - [50730] | WA    | In buffer area only |
| Commonwealth Land - [51928] | WA    | In buffer area only |
| Commonwealth Land - [50949] | WA    | In buffer area only |
| Commonwealth Land - [51309] | WA    | In buffer area only |
| Commonwealth Land - [50785] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [50836] | WA    | In buffer area only |
| Commonwealth Land - [50782] | WA    | In buffer area only |
| Commonwealth Land - [50784] | WA    | In buffer area only |
| Commonwealth Land - [50837] | WA    | In buffer area only |
| Commonwealth Land - [50786] | WA    | In buffer area only |
| Commonwealth Land - [50787] | WA    | In buffer area only |
| Commonwealth Land - [50781] | WA    | In buffer area only |
| Commonwealth Land - [50735] | WA    | In buffer area only |
| Commonwealth Land - [50736] | WA    | In buffer area only |
| Commonwealth Land - [50833] | WA    | In buffer area only |
| Commonwealth Land - [50832] | WA    | In buffer area only |
| Commonwealth Land - [50732] | WA    | In buffer area only |
| Commonwealth Land - [50733] | WA    | In buffer area only |
| Commonwealth Land - [50734] | WA    | In buffer area only |
| Commonwealth Land - [50788] | WA    | In buffer area only |
| Commonwealth Land - [50838] | WA    | In buffer area only |
| Commonwealth Land - [50789] | WA    | In buffer area only |
| Commonwealth Land - [50834] | WA    | In buffer area only |
| Commonwealth Land - [50839] | WA    | In buffer area only |
| Commonwealth Land - [50780] | WA    | In buffer area only |
| Commonwealth Land - [50835] | WA    | In buffer area only |
| Commonwealth Land - [51146] | WA    | In feature area     |
| Commonwealth Land - [51147] | WA    | In buffer area only |
| Commonwealth Land - [51922] | WA    | In buffer area only |
| Commonwealth Land - [51923] | WA    | In buffer area only |
| Commonwealth Land - [51920] | WA    | In buffer area only |
| Commonwealth Land - [51921] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51142] | WA    | In buffer area only |
| Commonwealth Land - [51143] | WA    | In buffer area only |
| Commonwealth Land - [51144] | WA    | In buffer area only |
| Commonwealth Land - [51145] | WA    | In buffer area only |
| Commonwealth Land - [51363] | WA    | In buffer area only |
| Commonwealth Land - [51362] | WA    | In buffer area only |
| Commonwealth Land - [51361] | WA    | In buffer area only |
| Commonwealth Land - [51360] | WA    | In buffer area only |
| Commonwealth Land - [51365] | WA    | In buffer area only |
| Commonwealth Land - [50666] | WA    | In buffer area only |
| Commonwealth Land - [51910] | WA    | In buffer area only |
| Commonwealth Land - [51911] | WA    | In buffer area only |
| Commonwealth Land - [51912] | WA    | In buffer area only |
| Commonwealth Land - [51913] | WA    | In buffer area only |
| Commonwealth Land - [51975] | WA    | In buffer area only |
| Commonwealth Land - [51287] | WA    | In buffer area only |
| Commonwealth Land - [51284] | WA    | In buffer area only |
| Commonwealth Land - [51283] | WA    | In buffer area only |
| Commonwealth Land - [51286] | WA    | In buffer area only |
| Commonwealth Land - [51285] | WA    | In buffer area only |
| Commonwealth Land - [51280] | WA    | In buffer area only |
| Commonwealth Land - [51971] | WA    | In buffer area only |
| Commonwealth Land - [51282] | WA    | In buffer area only |
| Commonwealth Land - [51281] | WA    | In buffer area only |
| Commonwealth Land - [51915] | WA    | In buffer area only |
| Commonwealth Land - [51916] | WA    | In buffer area only |
| Commonwealth Land - [51914] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51183] | WA    | In buffer area only |
| Commonwealth Land - [51182] | WA    | In buffer area only |
| Commonwealth Land - [51917] | WA    | In buffer area only |
| Commonwealth Land - [51918] | WA    | In buffer area only |
| Commonwealth Land - [51187] | WA    | In buffer area only |
| Commonwealth Land - [51341] | WA    | In buffer area only |
| Commonwealth Land - [51181] | WA    | In buffer area only |
| Commonwealth Land - [51180] | WA    | In buffer area only |
| Commonwealth Land - [51163] | WA    | In buffer area only |
| Commonwealth Land - [51160] | WA    | In feature area     |
| Commonwealth Land - [51161] | WA    | In buffer area only |
| Commonwealth Land - [51166] | WA    | In buffer area only |
| Commonwealth Land - [51263] | WA    | In buffer area only |
| Commonwealth Land - [51262] | WA    | In buffer area only |
| Commonwealth Land - [51243] | WA    | In buffer area only |
| Commonwealth Land - [51162] | WA    | In buffer area only |
| Commonwealth Land - [51242] | WA    | In buffer area only |
| Commonwealth Land - [51169] | WA    | In buffer area only |
| Commonwealth Land - [50763] | WA    | In buffer area only |
| Commonwealth Land - [50762] | WA    | In buffer area only |
| Commonwealth Land - [50761] | WA    | In buffer area only |
| Commonwealth Land - [50812] | WA    | In buffer area only |
| Commonwealth Land - [51167] | WA    | In buffer area only |
| Commonwealth Land - [51164] | WA    | In buffer area only |
| Commonwealth Land - [51165] | WA    | In buffer area only |
| Commonwealth Land - [50817] | WA    | In buffer area only |
| Commonwealth Land - [51168] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [50816] | WA    | In buffer area only |
| Commonwealth Land - [51186] | WA    | In buffer area only |
| Commonwealth Land - [51185] | WA    | In buffer area only |
| Commonwealth Land - [51184] | WA    | In buffer area only |
| Commonwealth Land - [51189] | WA    | In buffer area only |
| Commonwealth Land - [51188] | WA    | In buffer area only |
| Commonwealth Land - [51343] | WA    | In buffer area only |
| Commonwealth Land - [51210] | WA    | In buffer area only |
| Commonwealth Land - [51211] | WA    | In buffer area only |
| Commonwealth Land - [51217] | WA    | In buffer area only |
| Commonwealth Land - [50517] | WA    | In buffer area only |
| Commonwealth Land - [50814] | WA    | In buffer area only |
| Commonwealth Land - [50885] | WA    | In buffer area only |
| Commonwealth Land - [50862] | WA    | In buffer area only |
| Commonwealth Land - [51352] | WA    | In buffer area only |
| Commonwealth Land - [50516] | WA    | In buffer area only |
| Commonwealth Land - [51421] | WA    | In buffer area only |
| Commonwealth Land - [51924] | WA    | In buffer area only |
| Commonwealth Land - [51425] | WA    | In buffer area only |
| Commonwealth Land - [51213] | WA    | In buffer area only |
| Commonwealth Land - [51148] | WA    | In buffer area only |
| Commonwealth Land - [51212] | WA    | In buffer area only |
| Commonwealth Land - [51149] | WA    | In buffer area only |
| Commonwealth Land - [51249] | WA    | In buffer area only |
| Commonwealth Land - [51248] | WA    | In buffer area only |
| Commonwealth Land - [50742] | WA    | In buffer area only |
| Commonwealth Land - [51245] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [50745] | WA    | In buffer area only |
| Commonwealth Land - [51244] | WA    | In buffer area only |
| Commonwealth Land - [50740] | WA    | In buffer area only |
| Commonwealth Land - [51247] | WA    | In buffer area only |
| Commonwealth Land - [50743] | WA    | In buffer area only |
| Commonwealth Land - [51246] | WA    | In buffer area only |
| Commonwealth Land - [50749] | WA    | In buffer area only |
| Commonwealth Land - [50741] | WA    | In buffer area only |
| Commonwealth Land - [51241] | WA    | In buffer area only |
| Commonwealth Land - [50864] | WA    | In buffer area only |
| Commonwealth Land - [51501] | WA    | In buffer area only |
| Commonwealth Land - [50866] | WA    | In buffer area only |
| Commonwealth Land - [50865] | WA    | In buffer area only |
| Commonwealth Land - [50860] | WA    | In buffer area only |
| Commonwealth Land - [50867] | WA    | In buffer area only |
| Commonwealth Land - [50861] | WA    | In buffer area only |
| Commonwealth Land - [51333] | WA    | In buffer area only |
| Commonwealth Land - [51330] | WA    | In buffer area only |
| Commonwealth Land - [51332] | WA    | In buffer area only |
| Commonwealth Land - [51338] | WA    | In buffer area only |
| Commonwealth Land - [51339] | WA    | In buffer area only |
| Commonwealth Land - [50683] | WA    | In buffer area only |
| Commonwealth Land - [51344] | WA    | In buffer area only |
| Commonwealth Land - [51334] | WA    | In buffer area only |
| Commonwealth Land - [51335] | WA    | In buffer area only |
| Commonwealth Land - [51336] | WA    | In buffer area only |
| Commonwealth Land - [51337] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51347] | WA    | In feature area     |
| Commonwealth Land - [51346] | WA    | In buffer area only |
| Commonwealth Land - [50687] | WA    | In buffer area only |
| Commonwealth Land - [50684] | WA    | In buffer area only |
| Commonwealth Land - [51438] | WA    | In buffer area only |
| Commonwealth Land - [51340] | WA    | In buffer area only |
| Commonwealth Land - [50685] | WA    | In buffer area only |
| Commonwealth Land - [51155] | WA    | In buffer area only |
| Commonwealth Land - [51156] | WA    | In buffer area only |
| Commonwealth Land - [51349] | WA    | In feature area     |
| Commonwealth Land - [51348] | WA    | In feature area     |
| Commonwealth Land - [51150] | WA    | In feature area     |
| Commonwealth Land - [51152] | WA    | In buffer area only |
| Commonwealth Land - [51151] | WA    | In buffer area only |
| Commonwealth Land - [51153] | WA    | In buffer area only |
| Commonwealth Land - [51158] | WA    | In buffer area only |
| Commonwealth Land - [51159] | WA    | In buffer area only |
| Commonwealth Land - [51238] | WA    | In buffer area only |
| Commonwealth Land - [51231] | WA    | In buffer area only |
| Commonwealth Land - [51230] | WA    | In buffer area only |
| Commonwealth Land - [51233] | WA    | In buffer area only |
| Commonwealth Land - [51232] | WA    | In buffer area only |
| Commonwealth Land - [50669] | WA    | In buffer area only |
| Commonwealth Land - [51427] | WA    | In buffer area only |
| Commonwealth Land - [51368] | WA    | In buffer area only |
| Commonwealth Land - [51369] | WA    | In buffer area only |
| Commonwealth Land - [51215] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51216] | WA    | In buffer area only |
| Commonwealth Land - [51219] | WA    | In buffer area only |
| Commonwealth Land - [51214] | WA    | In buffer area only |
| Commonwealth Land - [51367] | WA    | In buffer area only |
| Commonwealth Land - [51366] | WA    | In buffer area only |
| Commonwealth Land - [50710] | WA    | In buffer area only |
| Commonwealth Land - [51303] | WA    | In buffer area only |
| Commonwealth Land - [51302] | WA    | In buffer area only |
| Commonwealth Land - [50819] | WA    | In buffer area only |
| Commonwealth Land - [50766] | WA    | In buffer area only |
| Commonwealth Land - [51255] | WA    | In buffer area only |
| Commonwealth Land - [51278] | WA    | In buffer area only |
| Commonwealth Land - [51256] | WA    | In buffer area only |
| Commonwealth Land - [51279] | WA    | In buffer area only |
| Commonwealth Land - [51251] | WA    | In buffer area only |
| Commonwealth Land - [51252] | WA    | In buffer area only |
| Commonwealth Land - [51253] | WA    | In buffer area only |
| Commonwealth Land - [51254] | WA    | In buffer area only |
| Commonwealth Land - [50796] | WA    | In buffer area only |
| Commonwealth Land - [51178] | WA    | In buffer area only |
| Commonwealth Land - [51179] | WA    | In buffer area only |
| Commonwealth Land - [51250] | WA    | In buffer area only |
| Commonwealth Land - [51218] | WA    | In buffer area only |
| Commonwealth Land - [51374] | WA    | In buffer area only |
| Commonwealth Land - [51236] | WA    | In buffer area only |
| Commonwealth Land - [51415] | WA    | In buffer area only |
| Commonwealth Land - [50670] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [51417] | WA    | In buffer area only |
| Commonwealth Land - [51414] | WA    | In buffer area only |
| Commonwealth Land - [51895] | WA    | In buffer area only |
| Commonwealth Land - [51416] | WA    | In buffer area only |
| Commonwealth Land - [51894] | WA    | In buffer area only |
| Commonwealth Land - [51899] | WA    | In buffer area only |
| Commonwealth Land - [51259] | WA    | In buffer area only |
| Commonwealth Land - [51258] | WA    | In buffer area only |
| Commonwealth Land - [50822] | WA    | In buffer area only |
| Commonwealth Land - [51235] | WA    | In buffer area only |
| Commonwealth Land - [51234] | WA    | In buffer area only |
| Commonwealth Land - [51237] | WA    | In buffer area only |
| Commonwealth Land - [51176] | WA    | In buffer area only |
| Commonwealth Land - [51171] | WA    | In buffer area only |
| Commonwealth Land - [50790] | WA    | In buffer area only |
| Commonwealth Land - [51174] | WA    | In buffer area only |
| Commonwealth Land - [51177] | WA    | In buffer area only |
| Commonwealth Land - [51172] | WA    | In buffer area only |
| Commonwealth Land - [50797] | WA    | In buffer area only |
| Commonwealth Land - [50826] | WA    | In buffer area only |
| Commonwealth Land - [51170] | WA    | In buffer area only |
| Commonwealth Land - [50791] | WA    | In buffer area only |
| Commonwealth Land - [51173] | WA    | In buffer area only |
| Commonwealth Land - [50824] | WA    | In buffer area only |
| Commonwealth Land - [50798] | WA    | In buffer area only |
| Commonwealth Land - [50829] | WA    | In buffer area only |
| Commonwealth Land - [50828] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [50795] | WA    | In buffer area only |
| Commonwealth Land - [51175] | WA    | In buffer area only |
| Commonwealth Land - [51323] | WA    | In buffer area only |
| Commonwealth Land - [50774] | WA    | In buffer area only |
| Commonwealth Land - [50799] | WA    | In buffer area only |
| Commonwealth Land - [50845] | WA    | In buffer area only |
| Commonwealth Land - [50844] | WA    | In buffer area only |
| Commonwealth Land - [50827] | WA    | In buffer area only |
| Commonwealth Land - [51523] | WA    | In buffer area only |
| Commonwealth Land - [51525] | WA    | In buffer area only |
| Commonwealth Land - [50847] | WA    | In buffer area only |
| Commonwealth Land - [50721] | WA    | In buffer area only |
| Commonwealth Land - [50725] | WA    | In buffer area only |
| Commonwealth Land - [50794] | WA    | In buffer area only |
| Commonwealth Land - [50729] | WA    | In buffer area only |
| Commonwealth Land - [51981] | WA    | In buffer area only |
| Commonwealth Land - [50842] | WA    | In buffer area only |
| Commonwealth Land - [51986] | WA    | In buffer area only |
| Commonwealth Land - [50848] | WA    | In buffer area only |
| Commonwealth Land - [50849] | WA    | In buffer area only |
| Commonwealth Land - [50843] | WA    | In buffer area only |
| Commonwealth Land - [50841] | WA    | In buffer area only |
| Commonwealth Land - [51318] | WA    | In buffer area only |
| Commonwealth Land - [51412] | WA    | In buffer area only |
| Commonwealth Land - [51413] | WA    | In buffer area only |
| Commonwealth Land - [50820] | WA    | In buffer area only |
| Commonwealth Land - [50821] | WA    | In buffer area only |



| Commonwealth Land Name      | State | Buffer Status       |
|-----------------------------|-------|---------------------|
| Commonwealth Land - [50676] | WA    | In buffer area only |
| Commonwealth Land - [51319] | WA    | In buffer area only |
| Commonwealth Land - [50722] | WA    | In buffer area only |
| Commonwealth Land - [51316] | WA    | In buffer area only |
| Commonwealth Land - [51317] | WA    | In buffer area only |
| Commonwealth Land - [51311] | WA    | In buffer area only |
| Commonwealth Land - [51310] | WA    | In buffer area only |
| Commonwealth Land - [51315] | WA    | In buffer area only |
| Commonwealth Land - [51314] | WA    | In buffer area only |
| Commonwealth Land - [51313] | WA    | In buffer area only |
| Commonwealth Land - [51312] | WA    | In buffer area only |

| Commonwealth Heritage Places              |       |              | [ Resource Information ] |
|-------------------------------------------|-------|--------------|--------------------------|
| Name                                      | State | Status       | Buffer Status            |
| Historic                                  |       |              |                          |
| <a href="#">Artillery Barracks</a>        | WA    | Listed place | In buffer area only      |
| <a href="#">South Perth Post Office</a>   | WA    | Listed place | In buffer area only      |
| <a href="#">Victoria Park Post Office</a> | WA    | Listed place | In buffer area only      |

| Listed Marine Species                                                          |                     |                                                        | [ Resource Information ] |
|--------------------------------------------------------------------------------|---------------------|--------------------------------------------------------|--------------------------|
| Scientific Name                                                                | Threatened Category | Presence Text                                          | Buffer Status            |
| Bird                                                                           |                     |                                                        |                          |
| <a href="#">Actitis hypoleucos</a><br>Common Sandpiper [59309]                 |                     | Species or species habitat known to occur within area  | In feature area          |
| <a href="#">Anous stolidus</a><br>Common Noddy [825]                           |                     | Species or species habitat likely to occur within area | In buffer area only      |
| <a href="#">Anous tenuirostris melanops</a><br>Australian Lesser Noddy [26000] | Vulnerable          | Species or species habitat may occur within area       | In buffer area only      |



| Scientific Name                                                                                                     | Threatened Category   | Presence Text                                                              | Buffer Status       |
|---------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------|---------------------|
| <a href="#">Apus pacificus</a><br>Fork-tailed Swift [678]                                                           |                       | Species or species habitat likely to occur within area overfly marine area | In feature area     |
| <a href="#">Ardena carneipes as Puffinus carneipes</a><br>Flesh-footed Shearwater, Fleshy-footed Shearwater [82404] |                       | Species or species habitat likely to occur within area                     | In buffer area only |
| <a href="#">Ardena grisea as Puffinus griseus</a><br>Sooty Shearwater [82651]                                       | Vulnerable            | Species or species habitat may occur within area                           | In buffer area only |
| <a href="#">Arenaria interpres</a><br>Ruddy Turnstone [872]                                                         | Vulnerable            | Roosting known to occur within area                                        | In buffer area only |
| <a href="#">Bubulcus ibis as Ardea ibis</a><br>Cattle Egret [66521]                                                 |                       | Species or species habitat may occur within area overfly marine area       | In feature area     |
| <a href="#">Calidris acuminata</a><br>Sharp-tailed Sandpiper [874]                                                  | Vulnerable            | Roosting known to occur within area                                        | In feature area     |
| <a href="#">Calidris alba</a><br>Sanderling [875]                                                                   |                       | Roosting known to occur within area                                        | In buffer area only |
| <a href="#">Calidris canutus</a><br>Red Knot, Knot [855]                                                            | Vulnerable            | Species or species habitat known to occur within area overfly marine area  | In feature area     |
| <a href="#">Calidris ferruginea</a><br>Curlew Sandpiper [856]                                                       | Critically Endangered | Species or species habitat known to occur within area overfly marine area  | In feature area     |
| <a href="#">Calidris melanotos</a><br>Pectoral Sandpiper [858]                                                      |                       | Species or species habitat known to occur within area overfly marine area  | In feature area     |
| <a href="#">Calidris pugnax as Philomachus pugnax</a><br>Ruff [91256]                                               |                       | Roosting known to occur within area overfly marine area                    | In buffer area only |



| Scientific Name                                                                          | Threatened Category | Presence Text                                           | Buffer Status       |
|------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------|---------------------|
| <a href="#">Calidris ruficollis</a><br>Red-necked Stint [860]                            | Vulnerable          | Roosting known to occur within area overfly marine area | In buffer area only |
| <a href="#">Calidris subminuta</a><br>Long-toed Stint [861]                              |                     | Roosting known to occur within area overfly marine area | In buffer area only |
| <a href="#">Calidris tenuirostris</a><br>Great Knot [862]                                |                     | Roosting known to occur within area overfly marine area | In buffer area only |
| <a href="#">Charadrius bicinctus</a><br>Double-banded Plover [895]                       |                     | Roosting known to occur within area overfly marine area | In buffer area only |
| <a href="#">Charadrius dubius</a><br>Little Ringed Plover [896]                          | Vulnerable          | Roosting known to occur within area overfly marine area | In buffer area only |
| <a href="#">Charadrius leschenaultii</a><br>Greater Sand Plover, Large Sand Plover [877] |                     | Species or species habitat known to occur within area   | In feature area     |
| <a href="#">Charadrius mongolus</a><br>Lesser Sand Plover, Mongolian Plover [879]        |                     | Roosting known to occur within area                     | In buffer area only |
| <a href="#">Charadrius ruficapillus</a><br>Red-capped Plover [881]                       |                     | Roosting known to occur within area overfly marine area | In buffer area only |
| <a href="#">Diomedea amsterdamensis</a><br>Amsterdam Albatross [64405]                   | Endangered          | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Diomedea dabbenena</a><br>Tristan Albatross [66471]                          | Endangered          | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Diomedea epomophora</a><br>Southern Royal Albatross [89221]                  | Vulnerable          | Species or species habitat may occur within area        | In buffer area only |



| Scientific Name                                                               | Threatened Category | Presence Text                                                                | Buffer Status       |
|-------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------|---------------------|
| <a href="#">Diomedea exulans</a><br>Wandering Albatross [89223]               | Vulnerable          | Foraging, feeding or related behaviour likely to occur within area           | In buffer area only |
| <a href="#">Diomedea sanfordi</a><br>Northern Royal Albatross [64456]         | Endangered          | Species or species habitat may occur within area                             | In buffer area only |
| <a href="#">Gallinago megala</a><br>Swinhoe's Snipe [864]                     |                     | Roosting likely to occur within area<br>overfly marine area                  | In buffer area only |
| <a href="#">Gallinago stenura</a><br>Pin-tailed Snipe [841]                   |                     | Roosting likely to occur within area<br>overfly marine area                  | In buffer area only |
| <a href="#">Haliaeetus leucogaster</a><br>White-bellied Sea-Eagle [943]       |                     | Species or species habitat known to occur within area                        | In feature area     |
| <a href="#">Halobaena caerulea</a><br>Blue Petrel [1059]                      | Vulnerable          | Species or species habitat may occur within area                             | In buffer area only |
| <a href="#">Himantopus himantopus</a><br>Pied Stilt, Black-winged Stilt [870] |                     | Roosting known to occur within area<br>overfly marine area                   | In buffer area only |
| <a href="#">Hydroprogne caspia as Sterna caspia</a><br>Caspian Tern [808]     |                     | Foraging, feeding or related behaviour known to occur within area            | In buffer area only |
| <a href="#">Larus pacificus</a><br>Pacific Gull [811]                         |                     | Foraging, feeding or related behaviour may occur within area                 | In buffer area only |
| <a href="#">Limicola falcinellus</a><br>Broad-billed Sandpiper [842]          |                     | Species or species habitat known to occur within area<br>overfly marine area | In buffer area only |



| Scientific Name                                                                              | Threatened Category   | Presence Text                                                        | Buffer Status       |
|----------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------|---------------------|
| <a href="#">Limosa lapponica</a><br>Bar-tailed Godwit [844]                                  |                       | Species or species habitat known to occur within area                | In buffer area only |
| <a href="#">Limosa limosa</a><br>Black-tailed Godwit [845]                                   | Endangered            | Roosting known to occur within area overfly marine area              | In buffer area only |
| <a href="#">Macronectes giganteus</a><br>Southern Giant-Petrel, Southern Giant Petrel [1060] | Endangered            | Species or species habitat may occur within area                     | In buffer area only |
| <a href="#">Macronectes halli</a><br>Northern Giant Petrel [1061]                            | Vulnerable            | Foraging, feeding or related behaviour likely to occur within area   | In buffer area only |
| <a href="#">Merops ornatus</a><br>Rainbow Bee-eater [670]                                    |                       | Species or species habitat may occur within area overfly marine area | In feature area     |
| <a href="#">Motacilla cinerea</a><br>Grey Wagtail [642]                                      |                       | Species or species habitat may occur within area overfly marine area | In feature area     |
| <a href="#">Numenius madagascariensis</a><br>Eastern Curlew, Far Eastern Curlew [847]        | Critically Endangered | Species or species habitat known to occur within area                | In feature area     |
| <a href="#">Numenius minutus</a><br>Little Curlew, Little Whimbrel [848]                     |                       | Roosting likely to occur within area overfly marine area             | In buffer area only |
| <a href="#">Numenius phaeopus</a><br>Whimbrel [849]                                          |                       | Roosting known to occur within area                                  | In buffer area only |
| <a href="#">Onychoprion anaethetus as Sterna anaethetus</a><br>Bridled Tern [82845]          |                       | Foraging, feeding or related behaviour likely to occur within area   | In buffer area only |
| <a href="#">Pachyptila turtur</a><br>Fairy Prion [1066]                                      |                       | Species or species habitat known to occur within area                | In buffer area only |



| Scientific Name                                                                                                  | Threatened Category | Presence Text                                                             | Buffer Status       |
|------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------|---------------------|
| <a href="#">Pandion haliaetus</a><br>Osprey [952]                                                                |                     | Breeding known to occur within area                                       | In feature area     |
| <a href="#">Phalaropus lobatus</a><br>Red-necked Phalarope [838]                                                 |                     | Roosting known to occur within area                                       | In buffer area only |
| <a href="#">Pluvialis fulva</a><br>Pacific Golden Plover [25545]                                                 |                     | Roosting known to occur within area                                       | In buffer area only |
| <a href="#">Pluvialis squatarola</a><br>Grey Plover [865]                                                        | Vulnerable          | Roosting known to occur within area overfly marine area                   | In buffer area only |
| <a href="#">Pterodroma mollis</a><br>Soft-plumaged Petrel [1036]                                                 | Vulnerable          | Species or species habitat may occur within area                          | In buffer area only |
| <a href="#">Puffinus assimilis</a><br>Little Shearwater [59363]                                                  |                     | Foraging, feeding or related behaviour known to occur within area         | In buffer area only |
| <a href="#">Recurvirostra novaehollandiae</a><br>Red-necked Avocet [871]                                         |                     | Roosting known to occur within area overfly marine area                   | In buffer area only |
| <a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a><br>Australian Painted Snipe [77037] | Endangered          | Species or species habitat known to occur within area overfly marine area | In feature area     |
| <a href="#">Stercorarius antarcticus as Catharacta skua</a><br>Brown Skua [85039]                                |                     | Species or species habitat may occur within area                          | In buffer area only |
| <a href="#">Sterna dougallii</a><br>Roseate Tern [817]                                                           |                     | Foraging, feeding or related behaviour likely to occur within area        | In buffer area only |
| <a href="#">Sternula albifrons as Sterna albifrons</a><br>Little Tern [82849]                                    |                     | Species or species habitat may occur within area                          | In buffer area only |



| Scientific Name                                                                                         | Threatened Category | Presence Text                                                             | Buffer Status       |
|---------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------|---------------------|
| <a href="#">Thalassarche carteri</a><br>Indian Yellow-nosed Albatross [64464]                           | Vulnerable          | Species or species habitat likely to occur within area                    | In buffer area only |
| <a href="#">Thalassarche cauta</a><br>Shy Albatross [89224]                                             | Endangered          | Foraging, feeding or related behaviour likely to occur within area        | In buffer area only |
| <a href="#">Thalassarche impavida</a><br>Campbell Albatross, Campbell Black-browed Albatross [64459]    | Vulnerable          | Species or species habitat may occur within area                          | In buffer area only |
| <a href="#">Thalassarche melanophris</a><br>Black-browed Albatross [66472]                              | Vulnerable          | Foraging, feeding or related behaviour likely to occur within area        | In buffer area only |
| <a href="#">Thalassarche steadi</a><br>White-capped Albatross [64462]                                   | Vulnerable          | Species or species habitat may occur within area                          | In buffer area only |
| <a href="#">Thinornis cucullatus as Thinornis rubricollis</a><br>Hooded Plover, Hooded Dotterel [87735] |                     | Species or species habitat known to occur within area overfly marine area | In feature area     |
| <a href="#">Tringa brevipes as Heteroscelus brevipes</a><br>Grey-tailed Tattler [851]                   |                     | Roosting known to occur within area                                       | In buffer area only |
| <a href="#">Tringa glareola</a><br>Wood Sandpiper [829]                                                 |                     | Roosting known to occur within area overfly marine area                   | In buffer area only |
| <a href="#">Tringa nebularia</a><br>Common Greenshank, Greenshank [832]                                 | Endangered          | Species or species habitat known to occur within area overfly marine area | In feature area     |
| <a href="#">Tringa stagnatilis</a><br>Marsh Sandpiper, Little Greenshank [833]                          |                     | Roosting known to occur within area overfly marine area                   | In buffer area only |
| <a href="#">Tringa totanus</a><br>Common Redshank, Redshank [835]                                       |                     | Roosting known to occur within area overfly marine area                   | In buffer area only |



| Scientific Name                                                                                                               | Threatened Category | Presence Text                                           | Buffer Status       |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------|---------------------|
| <a href="#">Xenus cinereus</a><br>Terek Sandpiper [59300]                                                                     | Vulnerable          | Roosting known to occur within area overfly marine area | In buffer area only |
| Fish                                                                                                                          |                     |                                                         |                     |
| <a href="#">Acentronura australe</a><br>Southern Pygmy Pipehorse [66185]                                                      |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Campichthys galei</a><br>Gale's Pipefish [66191]                                                                  |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Heraldia nocturna</a><br>Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227] |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Hippocampus angustus</a><br>Western Spiny Seahorse, Narrow-bellied Seahorse [66234]                               |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Hippocampus breviceps</a><br>Short-head Seahorse, Short-snouted Seahorse [66235]                                  |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Hippocampus subelongatus</a><br>West Australian Seahorse [66722]                                                  |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Histiogamphelus cristatus</a><br>Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]           |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Lissocampus caudalis</a><br>Australian Smooth Pipefish, Smooth Pipefish [66249]                                   |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Lissocampus fatiloquus</a><br>Prophet's Pipefish [66250]                                                          |                     | Species or species habitat may occur within area        | In buffer area only |
| <a href="#">Lissocampus runa</a><br>Javelin Pipefish [66251]                                                                  |                     | Species or species habitat may occur within area        | In buffer area only |



| Scientific Name                                                                                       | Threatened Category | Presence Text                                    | Buffer Status       |
|-------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------|---------------------|
| <a href="#">Maroubra perserrata</a><br>Sawtooth Pipefish [66252]                                      |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Mitotichthys meraculus</a><br>Western Crested Pipefish [66259]                            |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Nannocampus subosseus</a><br>Bonyhead Pipefish, Bony-headed Pipefish [66264]              |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Phycodurus eques</a><br>Leafy Seadragon [66267]                                           |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Phyllopteryx taeniolatus</a><br>Common Seadragon, Weedy Seadragon [66268]                 |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Pugnaso curtirostris</a><br>Pugnose Pipefish, Pug-nosed Pipefish [66269]                  |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Solegnathus lettiensis</a><br>Gunther's Pipehorse, Indonesian Pipefish [66273]            |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Stigmatopora argus</a><br>Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]       |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Stigmatopora nigra</a><br>Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277] |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Urocampus carinirostris</a><br>Hairy Pipefish [66282]                                     |                     | Species or species habitat may occur within area | In buffer area only |
| <a href="#">Vanacampus margaritifer</a><br>Mother-of-pearl Pipefish [66283]                           |                     | Species or species habitat may occur within area | In buffer area only |



| Scientific Name                                                                                                               | Threatened Category | Presence Text                                                     | Buffer Status       |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------|---------------------|
| <a href="#">Vanacampus phillipi</a><br>Port Phillip Pipefish [66284]                                                          |                     | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Vanacampus poecilolaemus</a><br>Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285] |                     | Species or species habitat may occur within area                  | In buffer area only |
| Mammal                                                                                                                        |                     |                                                                   |                     |
| <a href="#">Arctocephalus forsteri</a><br>Long-nosed Fur-seal, New Zealand Fur-seal [20]                                      |                     | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Neophoca cinerea</a><br>Australian Sea-lion, Australian Sea Lion [22]                                             | Endangered          | Species or species habitat likely to occur within area            | In buffer area only |
| Reptile                                                                                                                       |                     |                                                                   |                     |
| <a href="#">Caretta caretta</a><br>Loggerhead Turtle [1763]                                                                   | Endangered          | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Chelonia mydas</a><br>Green Turtle [1765]                                                                         | Vulnerable          | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Dermochelys coriacea</a><br>Leatherback Turtle, Leathery Turtle, Luth [1768]                                      | Endangered          | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| <a href="#">Hydrophis kingii as Disteira kingii</a><br>Spectacled Sea Snake [93511]                                           |                     | Species or species habitat may occur within area                  | In buffer area only |
| <a href="#">Natator depressus</a><br>Flatback Turtle [59257]                                                                  | Vulnerable          | Foraging, feeding or related behaviour known to occur within area | In buffer area only |
| Whales and Other Cetaceans                                                                                                    |                     | [ <a href="#">Resource Information</a> ]                          |                     |
| Current Scientific Name                                                                                                       | Status              | Type of Presence                                                  | Buffer Status       |
| Mammal                                                                                                                        |                     |                                                                   |                     |



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







| Protected Area Name          | Reserve Type      | State | Buffer Status       |
|------------------------------|-------------------|-------|---------------------|
| Swan Estuary                 | Marine Park       | WA    | In buffer area only |
| Swan Estuary - Alfred Cove   | Marine Park       | WA    | In buffer area only |
| Swan Estuary - Milyu         | Marine Park       | WA    | In buffer area only |
| Swan Estuary - Pelican Point | Marine Park       | WA    | In buffer area only |
| Swan River                   | Management Area   | WA    | In buffer area only |
| Thomsons Lake                | Nature Reserve    | WA    | In buffer area only |
| Unnamed WA23076              | Nature Reserve    | WA    | In buffer area only |
| Unnamed WA24657              | Conservation Park | WA    | In buffer area only |
| Unnamed WA29815              | 5(1)(h) Reserve   | WA    | In buffer area only |
| Unnamed WA36440              | Management Area   | WA    | In buffer area only |
| Unnamed WA37997              | Nature Reserve    | WA    | In feature area     |
| Unnamed WA39584              | Conservation Park | WA    | In buffer area only |
| Unnamed WA39752              | Conservation Park | WA    | In buffer area only |
| Unnamed WA42469              | Nature Reserve    | WA    | In buffer area only |
| Unnamed WA44414              | 5(1)(g) Reserve   | WA    | In buffer area only |
| Unnamed WA45106              | 5(1)(g) Reserve   | WA    | In buffer area only |
| Unnamed WA48291              | Conservation Park | WA    | In buffer area only |
| Unnamed WA49079              | Nature Reserve    | WA    | In buffer area only |
| Unnamed WA49220              | Conservation Park | WA    | In buffer area only |
| Unnamed WA49299              | Nature Reserve    | WA    | In buffer area only |
| Unnamed WA49362              | Nature Reserve    | WA    | In buffer area only |
| Unnamed WA49363              | Conservation Park | WA    | In buffer area only |
| Unnamed WA49561              | Conservation Park | WA    | In buffer area only |
| Unnamed WA53313              | Conservation Park | WA    | In feature area     |
| Unnamed WA53632              | Conservation Park | WA    | In buffer area only |
| Unnamed WA53649              | Nature Reserve    | WA    | In buffer area only |



Regional Forest Agreements

[ Resource Information ]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

|                                   |                   |                     |
|-----------------------------------|-------------------|---------------------|
| RFA Name                          | State             | Buffer Status       |
| <a href="#">South West WA RFA</a> | Western Australia | In buffer area only |

Nationally Important Wetlands

[ Resource Information ]

|                                               |       |                     |
|-----------------------------------------------|-------|---------------------|
| Wetland Name                                  | State | Buffer Status       |
| <a href="#">Booragoon Swamp</a>               | WA    | In buffer area only |
| <a href="#">Brixton Street Swamps</a>         | WA    | In feature area     |
| <a href="#">Forrestdale Lake</a>              | WA    | In buffer area only |
| <a href="#">Gibbs Road Swamp System</a>       | WA    | In buffer area only |
| <a href="#">Perth Airport Woodland Swamps</a> | WA    | In buffer area only |
| <a href="#">Swan-Canning Estuary</a>          | WA    | In buffer area only |
| <a href="#">Thomsons Lake</a>                 | WA    | In buffer area only |

EPBC Act Referrals

[ Resource Information ]

|                                                                                               |            |                  |                   |                     |
|-----------------------------------------------------------------------------------------------|------------|------------------|-------------------|---------------------|
| Title of referral                                                                             | Reference  | Referral Outcome | Assessment Status | Buffer Status       |
| <a href="#">119 Hammond Road Residential Development</a>                                      | 2023/09541 |                  | Completed         | In buffer area only |
| <a href="#">Beale Park Redevelopment</a>                                                      | 2022/09297 |                  | Assessment        | In buffer area only |
| <a href="#">Cockburn Surf Park</a>                                                            | 2022/09267 |                  | Completed         | In buffer area only |
| <a href="#">Fremantle District Police Complex Project</a>                                     | 2022/09345 |                  | Completed         | In buffer area only |
| <a href="#">Hammond Park Mixed Use Development</a>                                            | 2024/09820 |                  | Assessment        | In buffer area only |
| <a href="#">Industrial Development MKSEA Precinct 1</a>                                       | 2023/09760 |                  | Completed         | In buffer area only |
| <a href="#">Jandakot Airport Expansion, Commercial Development and Clearing of Vegetation</a> | 2009/4796  |                  | Approval          | In feature area     |
| <a href="#">JANDAKOT EASTERN LINK ROAD</a>                                                    | 2022/09401 |                  | Completed         | In feature area     |
| <a href="#">Jandakot Horse Agistment</a>                                                      | 2022/09280 |                  | Assessment        | In buffer area only |



| Title of referral                                                                                       | Reference  | Referral Outcome  | Assessment Status           | Buffer Status       |
|---------------------------------------------------------------------------------------------------------|------------|-------------------|-----------------------------|---------------------|
| <a href="#">Kwinana Alumina Refinery ? Future Residue Storage Area</a>                                  | 2023/09454 |                   | Completed                   | In buffer area only |
| <a href="#">Land Clearing for Light Industrial Development</a>                                          | 2022/09419 |                   | Completed                   | In buffer area only |
| <a href="#">Land clearing for limestone quarry</a>                                                      | 2023/09558 |                   | Completed                   | In buffer area only |
| <a href="#">Lot 16 Barfield Road: Residential Development</a>                                           | 2023/09450 |                   | Approval                    | In buffer area only |
| <a href="#">Residential Development, Wattleup Road, Hammond Park, WA</a>                                | 2021/8933  |                   | Post-Approval               | In buffer area only |
| <a href="#">Residential subdivision of Lot 126 Lawnbrook Road, Walliston</a>                            | 2021/9105  |                   | Completed                   | In buffer area only |
| <a href="#">Roe Highway and Great Eastern Highway Bypass Grade Separation Interchange, Hazelmere WA</a> | 2020/8784  |                   | Post-Approval               | In buffer area only |
| <a href="#">Southern Link Road Stage 3 City of Canning</a>                                              | 2020/8809  |                   | Assessment                  | In buffer area only |
| <a href="#">Talbot Road Asbestos Water Supply Pipe Decommissioning Project</a>                          | 2023/09661 |                   | Completed                   | In buffer area only |
| <a href="#">Tree removal for road widening - Eighth Road, Armadale, WA</a>                              | 2023/09563 |                   | Completed                   | In buffer area only |
| <a href="#">Vegetation clearing (Cwlth land), Jandakot Airport, Cockburn, WA</a>                        | 2013/7032  |                   | Post-Approval               | In buffer area only |
| Controlled action                                                                                       |            |                   |                             |                     |
| <a href="#">Airport &amp; Freight Access Gateway</a>                                                    | 2010/5384  | Controlled Action | Post-Approval               | In feature area     |
| <a href="#">Alcoa Bauxite Residue Storage Area Extension</a>                                            | 2011/5878  | Controlled Action | Further Information Request | In buffer area only |
| <a href="#">Bushmead Residential Development, Hazelmere, WA</a>                                         | 2015/7414  | Controlled Action | Post-Approval               | In buffer area only |
| <a href="#">Clearing for orchard expansion, Lot 400 Canning Road, Carmel, WA</a>                        | 2016/7647  | Controlled Action | Completed                   | In buffer area only |
| <a href="#">Clearing of Lots 2 and 10 Rowley Road, Mandogalup WA</a>                                    | 2018/8182  | Controlled Action | Assessment Approach         | In buffer area only |
| <a href="#">Construction of Fiona Stanley Hospital</a>                                                  | 2008/3970  | Controlled Action | Post-Approval               | In buffer area only |



| Title of referral                                                                                           | Reference | Referral Outcome  | Assessment Status | Buffer Status       |
|-------------------------------------------------------------------------------------------------------------|-----------|-------------------|-------------------|---------------------|
| Controlled action                                                                                           |           |                   |                   |                     |
| <a href="#">Construction of Residential Dwelling, Ozone Terrace, Kalamunda</a>                              | 2006/3147 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">Development of an Integrated Aged Care Facility, Kalumunda, WA</a>                              | 2013/6990 | Controlled Action | Completed         | In buffer area only |
| <a href="#">Development of Kwinana Quay port facility</a>                                                   | 2008/4387 | Controlled Action | Completed         | In buffer area only |
| <a href="#">Extension of Beeliar Drive between the junction of Mayor and Fawcett Roads an...</a>            | 2003/1029 | Controlled Action | Completed         | In buffer area only |
| <a href="#">Garden Street road extension, Huntingdale, city of Gosnells, WA</a>                             | 2016/7735 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">Hammond Park Secondary School development, WA</a>                                               | 2016/7741 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">Honeywood Estate Development</a>                                                                | 2010/5476 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">Keane Road Strategic Link, proposed construction central portion of Keane Road</a>              | 2009/5035 | Controlled Action | Completed         | In buffer area only |
| <a href="#">Latitude 32-industrial development of various lots, Ashley and Sayer Roads, Hope Valley, WA</a> | 2016/7695 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">Lots 13, 14 &amp; 18 Barfield Rd &amp; Lots 48-51 Rowley Rd, Hammond Park</a>                   | 2012/6524 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">Mandogalup Urban Development, Mandogalup, WA</a>                                                | 2014/7308 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">National Lifestyle Village, Lot 97 Adelaide Street</a>                                          | 2009/5141 | Controlled Action | Post-Approval     | In buffer area only |
| <a href="#">Native vegetation clearing of Lot 21 Webster Road for Industrial Development</a>                | 2011/6186 | Controlled Action | Post-Approval     | In feature area     |
| <a href="#">Natural Gas Pipeline Expansion</a>                                                              | 2006/2813 | Controlled Action | Post-Approval     | In feature area     |
| <a href="#">Nava-1 Cable System</a>                                                                         | 2001/510  | Controlled Action | Completed         | In buffer area only |
| <a href="#">Ranford Road Residential Development</a>                                                        | 2002/549  | Controlled Action | Post-Approval     | In feature area     |
| <a href="#">Residential development and bushfire protection within part Lot</a>                             | 2016/7846 | Controlled Action | Post-Approval     | In buffer area only |



| Title of referral                                                                                  | Reference | Referral Outcome      | Assessment Status           | Buffer Status       |
|----------------------------------------------------------------------------------------------------|-----------|-----------------------|-----------------------------|---------------------|
| <b>Controlled action</b>                                                                           |           |                       |                             |                     |
| <a href="#">9006 Reilly Road, Harrisdale, WA</a>                                                   |           |                       |                             |                     |
| <a href="#">Residential Development Lot 131 Jandakot Road, Treeby WA</a>                           | 2018/8205 | Controlled Action     | Further Information Request | In buffer area only |
| <a href="#">Residential developmnt, Lots 11 and 74 Beenyup Road, Banjup, WA</a>                    | 2017/7923 | Controlled Action     | Post-Approval               | In buffer area only |
| <a href="#">Residential Estate at Lot 1580 Warton Road, Southern River</a>                         | 2004/1471 | Controlled Action     | Post-Approval               | In buffer area only |
| <a href="#">Residential Estate Development, Lot 682 Rowley Road, Mandogalup, Western Australia</a> | 2014/7126 | Controlled Action     | Post-Approval               | In buffer area only |
| <a href="#">Roe Highway and Kalamunda Road Interchange upgrade, WA</a>                             | 2018/8316 | Controlled Action     | Post-Approval               | In buffer area only |
| <a href="#">Roe Highway extension, Kwinana Freeway to Stock Road, WA</a>                           | 2009/5031 | Controlled Action     | Post-Approval               | In feature area     |
| <a href="#">Roe Hwy Extension</a>                                                                  | 2003/972  | Controlled Action     | Post-Approval               | In feature area     |
| <a href="#">Shenton Park Subdivision</a>                                                           | 2004/1479 | Controlled Action     | Completed                   | In buffer area only |
| <a href="#">Thornlie-Cockburn Link Project, WA</a>                                                 | 2018/8188 | Controlled Action     | Post-Approval               | In feature area     |
| <a href="#">To grade separate three intersections on Tonkin Highway, WA</a>                        | 2014/7385 | Controlled Action     | Post-Approval               | In buffer area only |
| <a href="#">Tonkin Highway Grade Separated Interchanges</a>                                        | 2019/8529 | Controlled Action     | Post-Approval               | In feature area     |
| <a href="#">Warders Hotel, Block 1 Warders Cottages, Fremantle, WA</a>                             | 2018/8144 | Controlled Action     | Post-Approval               | In buffer area only |
| <b>Not controlled action</b>                                                                       |           |                       |                             |                     |
| <a href="#">'Looping 10' gas transmission pipeline from Kwinana to Hopelands</a>                   | 2005/2212 | Not Controlled Action | Completed                   | In buffer area only |
| <a href="#">Armadale Road Duplication - Tapper to Anstey Road</a>                                  | 2017/7972 | Not Controlled Action | Completed                   | In buffer area only |
| <a href="#">Armadale Road to North Lake Road Bridge development, Jandakot, WA</a>                  | 2018/8284 | Not Controlled Action | Completed                   | In buffer area only |
| <a href="#">Berkshire Road and Roe Highway Interchange, Forrestfield, East Perth, WA</a>           | 2014/7243 | Not Controlled Action | Completed                   | In buffer area only |



| Title of referral                                                                                        | Reference | Referral Outcome      | Assessment Status | Buffer Status       |
|----------------------------------------------------------------------------------------------------------|-----------|-----------------------|-------------------|---------------------|
| Not controlled action                                                                                    |           |                       |                   |                     |
| <a href="#">Bibra Lake Aboriginal Cultural Centre Development</a>                                        | 2020/8642 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Burslem Drive Bridge Duplication Over Canning River, Maddington, WA</a>                      | 2014/7115 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Bushfire hazard reduction, Lot 37 Barfield Road, Hammond Park, WA</a>                        | 2018/8204 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Calleya Residential Development, Banjup, WA</a>                                              | 2016/7708 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Canning Mills Road Improvement Project, Martin, WA</a>                                       | 2015/7426 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Clearing and development of 220 and 234 Wattleup Rd, Wattleup, WA</a>                        | 2016/7738 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Clearing of Lot 400 Canning Road, Carmel, WA</a>                                             | 2017/7979 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Clearing of Native Vegetation, Hammond Park, WA</a>                                          | 2011/6041 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Commercial development of Lot 106 Wright Road, Forrestdale WA</a>                            | 2003/1255 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">Community Centre Project, Kalamunda, WA</a>                                                  | 2019/8473 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Construction of Hammond Road Primary School, Hammond Park, WA</a>                            | 2012/6619 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Construction of international rowing course and commercial/residential areas</a>             | 2003/1034 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">Construction of Pawsey High Performance Computing Centre</a>                                 | 2010/5560 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Construction of the Perth Stadium and associated infrastructure</a>                          | 2013/6740 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Curtin Main Street Project - Transformation of Bentley Campus to a major urban centre WA</a> | 2013/7044 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Denny Avenue Level Crossing Removal, Kelmscott WA</a>                                        | 2018/8377 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Development of Crown Towers Five Star Quality Hotel</a>                                      | 2012/6695 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Development of Lots 100-101 Sayer Road, Hope Valley, WA</a>                                  | 2019/8399 | Not Controlled Action | Completed         | In buffer area only |



| Title of referral                                                                                                   | Reference | Referral Outcome      | Assessment Status | Buffer Status       |
|---------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|-------------------|---------------------|
| Not controlled action                                                                                               |           |                       |                   |                     |
| <a href="#">Disposal of residential properties, Fremantle, WA</a>                                                   | 2019/8593 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Eradication of the European House Borer, Perth metropolitan area, WA</a>                                | 2009/5027 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">extensions to minerals laboratory</a>                                                                   | 2005/2285 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Forrestfield Airport Link, WA</a>                                                                       | 2015/7399 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Frankland Parks Oval project, Hammond Park, WA</a>                                                      | 2018/8369 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Fremantle Ports Inner Harbour Capital Dredging Proposal</a>                                             | 2005/2477 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Gas-fired Power Station</a>                                                                             | 2005/2213 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Grazing of stock and associated works on Lot 1790 Passmore Street, Southern River Western Australia</a> | 2018/8176 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Hammond West Urban Development, Hammond Park, WA</a>                                                    | 2017/7917 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Hartfield Park Sporting Field Extension</a>                                                             | 2013/7008 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">Hazard reduction and site access, Lot 682 Rowley Road, Mandogalup, WA</a>                               | 2018/8186 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">High Street Upgrade, Fremantle, WA</a>                                                                  | 2018/8315 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Hope Valley-Wattleup Redevelopment Project</a>                                                          | 2020/8644 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>        | 2015/7522 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">INDIGO Central Submarine Telecommunications Cable</a>                                                   | 2017/8127 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">Industrial Development (multiple lots) Edward Street, Kenwick, WA</a>                                   | 2018/8231 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">Industrial development 105 Sayer Road, Hope Valley, WA</a>                                              | 2014/7261 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Industrial Development Lot 64 Ashley Road, Hope Valley, WA</a>                                          | 2014/7238 | Not Controlled Action | Completed         | In buffer area only |



| Title of referral                                                                                                 | Reference | Referral Outcome      | Assessment Status | Buffer Status       |
|-------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|-------------------|---------------------|
| Not controlled action                                                                                             |           |                       |                   |                     |
| <a href="#">Jandakot Road Widening, Solomon Road to Berrigan Drive, Jandakot, WA</a>                              | 2020/8728 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Kwinana Fwy southbound widening Roe Hwy to Armadale Rd and construction of farrington Rd off-ramp</a> | 2013/7062 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">Kwinana Gas-Fired Power Station</a>                                                                   | 2005/2101 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Latitude 32 industrial development 6A, Cockburn, WA</a>                                               | 2018/8193 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Lot 28 157 Barfield Road, Hammond Park - Proposed Residential Development</a>                         | 2021/9063 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Lot 29 Barfield Road, Hammond Park</a>                                                                | 2017/7948 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Lot 2 Nicholson Road, Forrestdale</a>                                                                 | 2012/6561 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Lots 12, 13 and 18 Hammond Road, Lot 80 Beeliar Drive and Lot 500 Hird Road</a>                       | 2012/6576 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Murdoch University Sports Precinct, Melville, WA</a>                                                  | 2016/7823 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Office &amp; Electronic Assembly Building, Lot 106 Watts Place, Bentley, WA</a>                       | 2012/6440 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Perth Seawater Desalination Project: Thomsons Lake to Kogolup Pipeline</a>                            | 2005/1971 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Pipeline Extension, Hazelmere and Helena Valley, WA</a>                                               | 2018/8239 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Redevelopment of Purvis Street school site, Hamilton Hill, WA</a>                                     | 2018/8255 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential Development, Lot 12 Lyon Road, Aubin Grove, WA</a>                                        | 2013/6852 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential development, Lot 13 Lyon Road, Aubin Grove, WA</a>                                        | 2014/7151 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential development, Lot 33 Barfield Road, Hammond Park, WA</a>                                   | 2015/7548 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential development, Lot 74 Wattleup Road, Hammond Park, WA</a>                                   | 2018/8273 | Not Controlled Action | Completed         | In buffer area only |



| Title of referral                                                                                                  | Reference | Referral Outcome      | Assessment Status | Buffer Status       |
|--------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|-------------------|---------------------|
| Not controlled action                                                                                              |           |                       |                   |                     |
| <a href="#">Residential development, Lots 124 and 125, Wattleup Road, Hammond Park, WA</a>                         | 2015/7519 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential Development Lot 4225 North Lake Road, Kardinya, WA</a>                                     | 2015/7505 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential Development - Lot 608 Dixon Road, Kalamundah, WA</a>                                       | 2014/7389 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential development of Lots 302, 308, 320 and part of Lot 9502, Hawtin Rd, Forrestfield, WA</a>    | 2016/7770 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential Development of Lots 76 and 107 Wattleup Road, Hamond Park</a>                              | 2020/8865 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Residential development on part of Lot 2 Fanstone Avenue, Beeliar, WA</a>                              | 2016/7726 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Ridge Hill Road intersection modification and offsite water main installation, Gooseberry Hill, WA</a> | 2020/8842 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Road widening - Eighth Road Armadale between Gribble Avenue and Armadale Road</a>                      | 2021/8964 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Roe Highway - Karel Avenue to Hope Road Bridge Project</a>                                             | 2005/2061 | Not Controlled Action | Completed         | In feature area     |
| <a href="#">Roe Highway Noise Wall, High Wycombe, WA</a>                                                           | 2014/7149 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Southern River Mixed Business Precinct F, City of Gosnells, WA</a>                                     | 2013/6813 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Southern River Precinct 3E</a>                                                                         | 2017/7900 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">South Metropolitan Crop Research Hub, Murdoch WA</a>                                                   | 2018/8201 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Stages 2-5 of primary school and assoc facilities development, Hammond Park, WA</a>                    | 2015/7407 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">To develop a residential development at Glyde Road, Lesmurdie, WA</a>                                  | 2013/7096 | Not Controlled Action | Completed         | In buffer area only |
| <a href="#">Tonkin Highway Extension</a>                                                                           | 2001/470  | Not Controlled Action | Completed         | In buffer area only |



| Title of referral                                                                                    | Reference | Referral Outcome                          | Assessment Status | Buffer Status       |
|------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------|-------------------|---------------------|
| Not controlled action                                                                                |           |                                           |                   |                     |
| <a href="#">Tonkin Highway Upgrade, Guildford Road to Great Eastern Highway, WA</a>                  | 2019/8545 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Translocation of orchids (Caladenia huegelii) from Roe Hway Reserve</a>                  | 2002/781  | Not Controlled Action                     | Completed         | In feature area     |
| <a href="#">Urban development, Lot 109 Wattleup Road, Hammond Park, WA</a>                           | 2015/7425 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Urban development of Lot 107 Wattleup Road, Hammond Park, WA</a>                         | 2017/7890 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Urban developmnet &amp; associated infrastructure, Lot 4 Armadale Road, Banjup WA</a>    | 2013/7049 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Warders' Cottages Block 2 'W2'</a>                                                       | 2022/9148 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Warders' Cottages W2 minor works, Fremantle, WA</a>                                      | 2018/8185 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Wentworth West residential development, Bartram Road, Success, WA</a>                    | 2014/7245 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Wungong Transfer Mains Project</a>                                                       | 2007/3532 | Not Controlled Action                     | Completed         | In buffer area only |
| <a href="#">Yule Brook Main Drain Flood Mitigation Works</a>                                         | 2019/8572 | Not Controlled Action                     | Completed         | In feature area     |
| Not controlled action (particular manner)                                                            |           |                                           |                   |                     |
| <a href="#">City of Cockburn Sporting Facilities</a>                                                 | 2005/2139 | Not Controlled Action (Particular Manner) | Post-Approval     | In feature area     |
| <a href="#">Commercial Estate and Aeronautical Infrastructure Development, Precincts 2A &amp; 2B</a> | 2006/3021 | Not Controlled Action (Particular Manner) | Post-Approval     | In buffer area only |
| <a href="#">Extension of Spearwood Ave, from Barrington Rd to Miguel Rd</a>                          | 2009/5140 | Not Controlled Action (Particular Manner) | Post-Approval     | In buffer area only |
| <a href="#">INDIGO Marine Cable Route Survey (INDIGO)</a>                                            | 2017/7996 | Not Controlled Action (Particular Manner) | Post-Approval     | In feature area     |



| Title of referral                                                                            | Reference | Referral Outcome                          | Assessment Status    | Buffer Status       |
|----------------------------------------------------------------------------------------------|-----------|-------------------------------------------|----------------------|---------------------|
| Not controlled action (particular manner)                                                    |           |                                           |                      |                     |
| <a href="#">Sale of ABC Sound Broadcasting and Television Studios</a>                        | 2008/3951 | Not Controlled Action (Particular Manner) | Post-Approval        | In buffer area only |
| <a href="#">South West Metropolitan Railway Project</a>                                      | 2003/1175 | Not Controlled Action (Particular Manner) | Post-Approval        | In feature area     |
| <a href="#">State Football Centre</a>                                                        | 2020/8824 | Not Controlled Action (Particular Manner) | Post-Approval        | In feature area     |
| Referral decision                                                                            |           |                                           |                      |                     |
| <a href="#">AIC Forrestdale Campus, Educational Establishment</a>                            | 2021/9134 | Referral Decision                         | Referral Publication | In buffer area only |
| <a href="#">Commercial development of Lot 414 Grove Road, Kenwick</a>                        | 2021/9022 | Referral Decision                         | Referral Publication | In feature area     |
| <a href="#">Rezoning of Crown Reserve 39181 to facilitate future residential development</a> | 2005/2096 | Referral Decision                         | Completed            | In feature area     |

| Biologically Important Areas           |                               | [ Resource Information ] |                     |
|----------------------------------------|-------------------------------|--------------------------|---------------------|
| Scientific Name                        | Behaviour                     | Presence                 | Buffer Status       |
| Seabirds                               |                               |                          |                     |
| <a href="#">Ardenna pacifica</a>       |                               |                          |                     |
| Wedge-tailed Shearwater [84292]        | Foraging (in high numbers)    | Known to occur           | In buffer area only |
| <a href="#">Eudyptula minor</a>        |                               |                          |                     |
| Little Penguin [1085]                  | Foraging (provisioning young) | Known to occur           | In buffer area only |
| <a href="#">Hydroprogne caspia</a>     |                               |                          |                     |
| Caspian Tern [808]                     | Foraging (provisioning young) | Known to occur           | In buffer area only |
| <a href="#">Larus pacificus</a>        |                               |                          |                     |
| Pacific Gull [811]                     | Foraging (in high numbers)    | Former Range             | In buffer area only |
| <a href="#">Onychoprion anaethetus</a> |                               |                          |                     |
| Bridled Tern [82845]                   | Foraging (in high numbers)    | Known to occur           | In buffer area only |



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



# Caveat

## 1 PURPOSE

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

The report contains the mapped locations of:

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

## 2 DISCLAIMER

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

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

## 3 DATA SOURCES

### Threatened ecological communities

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

### Threatened, migratory and marine species

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

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

## 4 LIMITATIONS

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

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

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

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

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

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



# Acknowledgements

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

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

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



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

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# Appendix D

## Fauna data

Survey sites

Species list

Site photos

Likelihood of occurrence assessment



### Target search Carters Mussel (*Westralunio carteri*) and Rakali Rat (*Hydromys chrysogaster*)

| Object ID No. | Date      | Site name         | Habitat type                                                                                                                        | Assessment notes                                                                                                                                                                                                                                               | Northing | Eastings |
|---------------|-----------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| 3             | 3/10/2024 | Transect point 1  | Drainage area.<br>Canning Rv, within development envelope.<br>Suitable habitat for Carter's Freshwater Mussel and Rakali Water Rat. | No mussels detected, slight flow from recent rain/runoff causing high turbidity and low visibility to detect mussels.<br>Freshwater, 1-2 m deep, 10-20m wide, no crustaceans or fish seen. No evidence of Rakail i.e. footprints, crustacean or mussel shells. | 6454610  | 401352   |
| 4             | 3/10/2024 | Transect point 2  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454616  | 401345   |
| 5             | 3/10/2024 | Transect point 3  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454631  | 401331   |
| 6             | 3/10/2024 | Transect point 4  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454641  | 401324   |
| 7             | 3/10/2024 | Transect point 5  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454652  | 401312   |
| 8             | 3/10/2024 | Transect point 6  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454602  | 401357   |
| 9             | 3/10/2024 | Transect point 7  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454622  | 401338   |
| 10            | 3/10/2024 | Transect point 8  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454663  | 401305   |
| 11            | 3/10/2024 | Transect point 9  |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454613  | 401349   |
| 12            | 3/10/2024 | Transect point 10 |                                                                                                                                     |                                                                                                                                                                                                                                                                | 6454635  | 401328   |

### SRE Trapdoor spider Transect (*Idiosoma sigillatum*)

| Object ID No. | Transect | Date       | Location             | Habitat                             | Northing | Eastings |
|---------------|----------|------------|----------------------|-------------------------------------|----------|----------|
| 2             | T1       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450112  | 394235   |
| 3             | T1       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450086  | 394194   |
| 4             | T2       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450196  | 394319   |
| 5             | T2       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450224  | 394356   |
| 6             | T3       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450350  | 394453   |
| 7             | T3       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450384  | 394488   |
| 8             | T4       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450585  | 394650   |
| 9             | T4       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450549  | 394615   |
| 10            | T5       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450741  | 394785   |
| 11            | T5       | 26/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450783  | 394815   |
| 17            | T6       | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449589  | 393316   |
| 18            | T6       | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449609  | 393363   |
| 19            | T7       | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449646  | 393481   |



|    |      |            |                      |                                     |         |        |
|----|------|------------|----------------------|-------------------------------------|---------|--------|
| 20 | T7   | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449668 | 393529 |
| 21 | T9   | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449750 | 393654 |
| 22 | T9   | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449776 | 393703 |
| 23 | T10  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449908 | 393966 |
| 24 | T10  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449944 | 393996 |
| 12 | T11  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6450031 | 394126 |
| 13 | T11  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449999 | 394086 |
| 14 | T12  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449665 | 393278 |
| 15 | T12  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449645 | 393233 |
| 16 | T13  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449719 | 393406 |
| 25 | T13  | 27/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449701 | 393361 |
| 26 | T16  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449090 | 391552 |
| 27 | T16  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449127 | 391588 |
| 30 | T17  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449429 | 392639 |
| 31 | T17  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449447 | 392679 |
| 38 | T18  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6448754 | 391461 |
| 40 | T19a | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449196 | 391721 |
| 41 | T19a | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449201 | 391771 |
| 42 | T19b | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449227 | 392343 |
| 43 | T19b | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449239 | 392395 |
| 28 | T20  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449297 | 392641 |
| 29 | T20  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449263 | 392606 |
| 44 | T21  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449264 | 392480 |
| 45 | T21  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449269 | 392530 |
| 48 | T22  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449511 | 392862 |
| 49 | T22  | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449521 | 392912 |
| 50 | T23  | 1/10/2024  | Development envelope | Banksia woodland, 2 x 50 m transect | 6449489 | 391626 |
| 51 | T23  | 1/10/2024  | Development envelope | Banksia woodland, 2 x 50 m transect | 6449528 | 391590 |
| 52 | T24  | 1/10/2024  | Development envelope | Banksia woodland, 2 x 50 m transect | 6449371 | 391764 |



|    |     |            |                      |                                     |         |        |
|----|-----|------------|----------------------|-------------------------------------|---------|--------|
| 53 | T24 | 1/10/2024  | Development envelope | Banksia woodland, 2 x 50 m transect | 6449400 | 391723 |
| 46 | T25 | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449410 | 392873 |
| 47 | T25 | 30/09/2024 | Development envelope | Banksia woodland, 2 x 50 m transect | 6449427 | 392920 |
| 32 | T14 | 30/09/2024 | Road Offset Area     | Banksia woodland, 2 x 50 m transect | 6449170 | 391881 |
| 33 | T14 | 30/09/2024 | Road Offset Area     | Banksia woodland, 2 x 50 m transect | 6449150 | 391834 |
| 34 | T15 | 30/09/2024 | Road Offset Area     | Banksia woodland, 2 x 50 m transect | 6449044 | 391701 |
| 35 | T15 | 30/09/2024 | Road Offset Area     | Banksia woodland, 2 x 50 m transect | 6449019 | 391657 |
| 36 | T16 | 30/09/2024 | Road Offset Area     | Banksia woodland, 2 x 50 m transect | 6448988 | 391624 |
| 37 | T16 | 30/09/2024 | Road Offset Area     | Banksia woodland, 2 x 50 m transect | 6449001 | 391574 |

#### Fieldnote data

| Object ID No. | Date       | Field notes                     | Survey area portion  | Northings | Eastings |
|---------------|------------|---------------------------------|----------------------|-----------|----------|
| 1             | 26/09/2024 | Gate access                     | Development envelope | 6449473   | 392611   |
| 2             | 26/09/2024 | access                          | Development envelope | 6449278   | 392754   |
| 5             | 26/09/2024 | Underground bunker              | Development envelope | 6449898   | 393945   |
| 6             | 26/09/2024 | Battery and exhaust lead issue? | Development envelope | 6449719   | 393404   |
| 9             | 26/09/2024 | Rubbish                         | Development envelope | 6449182   | 391681   |
| 10            | 27/09/2024 | Rabbit den                      | Development envelope | 6449327   | 392697   |
| 11            | 27/09/2024 | Acacia takes over               | Development envelope | 6449924   | 391424   |
| 12            | 27/09/2024 | Prickly pear                    | Development envelope | 6449965   | 391448   |
| 13            | 27/09/2024 | Acacia overtaking banksia       | Development envelope | 6449890   | 391450   |
| 15            | 27/09/2024 | dying trees                     | Development envelope | 6451273   | 395078   |
| 16            | 27/09/2024 | field note                      | Development envelope | 6453100   | 399152   |
| 17            | 27/09/2024 | field note                      | Development envelope | 6453443   | 399772   |
| 18            | 27/09/2024 | field note                      | Development envelope | 6453476   | 399824   |
| 19            | 27/09/2024 | field note                      | Development envelope | 6453668   | 400035   |
| 20            | 27/09/2024 | field note                      | Development envelope | 6453648   | 400047   |
| 21            | 27/09/2024 | field note                      | Development envelope | 6454379   | 401000   |
| 22            | 27/09/2024 | A lot of dead banksia           | Development envelope | 6454261   | 400800   |



| Object ID No. | Date       | Field notes                                                        | Survey area portion  | Northings | Eastings |
|---------------|------------|--------------------------------------------------------------------|----------------------|-----------|----------|
| 24            | 11/11/2024 | B. menz scattered                                                  | Development envelope | 6457932   | 402895   |
| 25            | 11/11/2024 | sf photo. marri                                                    | Development envelope | 6458613   | 402957   |
| 27            | 11/11/2024 | dominated by allocas, scattered b. attenuata, and e.camaldulensis? | Development envelope | 6459983   | 403770   |
| 28            | 11/11/2024 | gate access                                                        | Development envelope | 6459881   | 403703   |
| 29            | 11/11/2024 | b. attenuata and b. menz 15%                                       | Development envelope | 6460270   | 404072   |
| 30            | 11/11/2024 | thick gated, and Mel. heugeli.                                     | Development envelope | 6460120   | 404353   |
| 31            | 11/11/2024 | scattered thin stands of corymbia                                  | Development envelope | 6460097   | 404378   |
| 32            | 11/11/2024 | scattered b. menz and a few Pinus sp.                              | Development envelope | 6460059   | 404411   |
| 33            | 11/11/2024 | scattered b. menz and a few Pinus sp.                              | Development envelope | 6459984   | 404488   |
| 34            | 11/11/2024 | scattered b. menz and a few Pinus sp.                              | Development envelope | 6459961   | 404502   |
| 35            | 11/11/2024 | E. camal? scattered and planted Euc. over weeds                    | Development envelope | 6459926   | 404542   |
| 36            | 11/11/2024 | Pinus sp.                                                          | Development envelope | 6459026   | 403291   |
| 37            | 11/11/2024 | scattered marri over Mel. heugeli and other shrubs                 | Development envelope | 6458245   | 403022   |
| 38            | 11/11/2024 | scattered E. camal                                                 | Development envelope | 6457547   | 402933   |
| 39            | 11/11/2024 | Corymbia                                                           | Development envelope | 6457110   | 402930   |
| 40            | 11/11/2024 | field note                                                         | Development envelope | 6458660   | 402908   |
| 42            | 12/11/2024 | planted eucs in drainage line ,, lots weeds                        | Development envelope | 6460267   | 403921   |
| 43            | 12/11/2024 | sf photo. 30% cover over 50x50 b. menz. 6m tall.                   | Development envelope | 6460567   | 403962   |
| 44            | 12/11/2024 | sf photo. 30% cover over 50x50 b. menz. 6m tall.                   | Development envelope | 6460546   | 403929   |
| 45            | 12/11/2024 | sf photo. 10% cover over 50x50 b. menz. 8m tall.                   | Development envelope | 6460587   | 403966   |
| 46            | 12/11/2024 | sf photo. 15% cover over 50x50 b. menz. 6-8m tall. occasional b.   | Development envelope | 6460611   | 403962   |



| Object ID No. | Date       | Field notes                                                                        | Survey area portion  | Northings | Eastings |
|---------------|------------|------------------------------------------------------------------------------------|----------------------|-----------|----------|
|               |            | attenuata only young 1.5 m tall.<br>a few plants of Hakea as well                  |                      |           |          |
| 47            | 12/11/2024 | sf photo. 15% cover over<br>100x100 m b. menz. 4 to 6 to<br>8m tall.               | Development envelope | 6460633   | 403932   |
| 48            | 12/11/2024 | paperbark Mel.                                                                     | Development envelope | 6460657   | 403919   |
| 49            | 12/11/2024 | b. menz over 100 x 100m about<br>30%cover and 4 to 5 m tall.<br>grass trees.       | Development envelope | 6460641   | 403897   |
| 50            | 12/11/2024 | paperbark Mel.                                                                     | Development envelope | 6460686   | 403876   |
| 51            | 12/11/2024 | b. menz over 100 x 100m about<br>25%cover and 5 to 6 m tall.<br>Nuytsia scattered. | Development envelope | 6460555   | 403892   |
| 52            | 30/09/2024 | Sun Moth sp - not signif sp.<br>Banksia w.l.                                       | Development envelope | 6449264   | 392598   |
| 7             | 26/09/2024 | Rubbish dumped car seats                                                           | Road Offset Area     | 6449746   | 393339   |
| 8             | 26/09/2024 | Dog tracks                                                                         | Road Offset Area     | 6449473   | 392611   |



### Habitat assessment data

| ID No. | Date       | Habitat type      | Description                                                                     | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|-------------------|---------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 1      | 26/09/2024 | Banksia shrubland | b.menzeizii,<br>b.attenuata,<br>b.illicifolia 40-60% cover                      | Development envelope | 30-70%           | 10+           | Very Good            | 6450108  | 394231   |
| 2      | 26/09/2024 | Banksia shrubland | b.menzeizii,<br>b.attenuata,<br>20-30-% cover                                   | Development envelope | 10-30%           | 10+           | Very Good            | 6450249  | 394376   |
| 3      | 26/09/2024 | Banksia shrubland | b.menzeizii,<br>b.attenuata,<br>30% cover                                       | Development envelope | 10-30%           | 10+           | Very Good            | 6450442  | 394523   |
| 4      | 26/09/2024 | Banksia shrubland | r.todtiana,<br>b.menzeizii,<br>b.attenuata,<br>30% cover                        | Development envelope | 10-30%           | 10+           | Very Good            | 6450590  | 394656   |
| 5      | 26/09/2024 | Banksia shrubland | frazeriana,<br>b.menzeizii,<br>b.attenuata,<br>30% cover                        | Development envelope | 30-70%           | 10+           | Very Good            | 6450804  | 394832   |
| 6      | 26/09/2024 | Banksia shrubland | frazeriana,<br>b.menzeizii,<br>b.attenuata,<br>10% cover                        | Development envelope | 30-70%           | 10+           | Very Good            | 6450980  | 394972   |
| 7      | 27/09/2024 | Banksia shrubland | b.menzeizii,<br>b.attenuata,<br>grass tree,<br>woolly bush,<br>30% cover        | Development envelope | 30-70%           | 10+           | Very Good            | 6449326  | 392818   |
| 8      | 27/09/2024 | Banksia shrubland | b.menzeizii,<br>b.illicifolia,<br>b.attenuata,<br>20-3040% cover                | Development envelope | 10-30%           | 10+           | Very Good            | 6449516  | 393171   |
| 9      | 27/09/2024 | Banksia shrubland | b.menzeizii,<br>b.illicifolia,<br>b.attenuata,<br>euc.todtiana,<br>30-40% cover | Development envelope | 10-30%           | 10+           | Very Good            | 6449704  | 393580   |



| ID No. | Date       | Habitat type                 | Description                                                                               | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|------------------------------|-------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 10     | 27/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.illicifolia,<br>b.attenuata,<br>euc.todtiana,<br>50-60% cover           | Development envelope | 10-30%           | 10+           | Very Good            | 6449812  | 393798   |
| 11     | 27/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.illicifolia,<br>b.attenuata,<br>euc.todtiana,<br>50-60% cover           | Development envelope | 30-70%           | 10+           | Very Good            | 6449945  | 393998   |
| 12     | 27/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.illicifolia,<br>b.attenuata,<br>20-40% cover                            | Development envelope | 10-30%           | 10+           | Very Good            | 6449620  | 393153   |
| 13     | 27/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.illicifolia,<br>b.attenuata,<br>euc. todtiana,<br>nyitsia, 20-40% cover | Development envelope | 10-30%           | 10+           | Very Good            | 6449721  | 393420   |
| 16     | 30/09/2024 | Native and introduced shrubs | woolly bush<br>reveg shrubs                                                               | Development envelope |                  |               | Degraded             | 6449370  | 392689   |
| 17     | 27/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>woolly bush,<br>15% cover                                 | Development envelope | 5-10%            |               | Very Good            | 6449471  | 392738   |
| 18     | 27/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>woolly bush,<br>20% cover                                 | Development envelope | 30-70%           |               | Very Good            | 6449558  | 392746   |
| 19     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>Leptospermum,<br>woolly bush, 30-40% cover                | Development envelope | 10-30%           |               | Very Good            | 6449848  | 391439   |
| 20     | 27/09/2024 | Banksia shrubland            | Acacia,<br>leptospermum,<br>young marri<br>5%                                             | Development envelope | 30-70%           |               | Very Good            | 6449925  | 391435   |



| ID No. | Date       | Habitat type                 | Description                                                              | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|------------------------------|--------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |            |                              | b.menzeizii,<br>b.attenuata,<br>woolly bush,<br>5% cover                 |                      |                  |               |                      |          |          |
| 21     | 30/09/2024 | Native and introduced shrubs | native plantings                                                         | Development envelope | 1-5%             |               | Degraded             | 6449223  | 391893   |
| 24     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>30-40% cover<br>occasional jarrah, tuart | Development envelope | 10-30%           | 10+           | Very Good            | 6448973  | 391485   |
| 26     | 30/09/2024 | Other (manual entry)         | native plantings                                                         | Development envelope | 1-5%             |               | Degraded             | 6449085  | 391498   |
| 27     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>30% cover                                | Development envelope | 10-30%           | 10+           | Very Good            | 6449136  | 391599   |
| 29     | 30/09/2024 | Native and introduced shrubs | native plantings not foraging value                                      | Development envelope | 1-5%             |               | Degraded             | 6449226  | 392093   |
| 30     | 30/09/2024 | Native and introduced shrubs | native plantings                                                         | Development envelope | 1-5%             |               | Degraded             | 6449238  | 392273   |
| 31     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>30% cover                                | Development envelope | 10-30%           | 10+           | Very Good            | 6449258  | 392463   |
| 32     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>30-40% cover                             | Development envelope | 10-30%           | 10+           | Very Good            | 6449290  | 392658   |
| 33     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>20-30% cover                             | Development envelope | 10-30%           | 10+           | Very Good            | 6449440  | 392915   |
| 34     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,20 - 30% cover                               | Development envelope | 10-30%           | 10+           | Very Good            | 6449521  | 392922   |
| 35     | 30/09/2024 | Native and introduced shrubs | native plantings                                                         | Development envelope | 1-5%             |               | Degraded             | 6449446  | 392694   |
| 36     | 30/09/2024 | Native and introduced shrubs | native plantings                                                         | Development envelope | 1-5%             |               | Degraded             | 6449618  | 392845   |



| ID No. | Date       | Habitat type                 | Description                                                                                | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|------------------------------|--------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 37     | 30/09/2024 | Native and introduced shrubs | native plantings                                                                           | Development envelope | 1-5%             |               | Degraded             | 6449562  | 392976   |
| 38     | 30/09/2024 | Native and introduced shrubs | native plantings                                                                           | Development envelope | 5-10%            |               | Degraded             | 6449433  | 392569   |
| 39     | 30/09/2024 | Native and introduced shrubs | native plantings                                                                           | Development envelope | 5-10%            |               | Degraded             | 6449321  | 392307   |
| 40     | 30/09/2024 | Banksia shrubland            | Marri, Jarrah<br>b.menzeizii,<br>b.attenuata,<br>Leptospermum, woolly bush, 20-30% cover   | Development envelope | 10-30%           |               | Very Good            | 6449652  | 391420   |
| 41     | 30/09/2024 | Banksia shrubland            | Sparse small banksia<br>b.menzeizii,<br>b.attenuata,<br>Leptospermum, woolly bush, 2%cover | Development envelope | 5-10%            |               | Good                 | 6449463  | 391536   |
| 42     | 1/10/2024  | Native and introduced shrubs | Leptospermum, woolly bush, grasses reveg shrubs and flowers                                | Development envelope | 1-5%             |               | Degraded             | 6449310  | 391667   |
| 43     | 30/09/2024 | Banksia shrubland            | Jarrah,<br>casuarina,b.menzeizii,<br>b.attenuata,<br>woolly bush, 20-30% cover             | Development envelope |                  |               | Very Good            | 6449208  | 391518   |
| 44     | 30/09/2024 | Banksia shrubland            | b.menzeizii,<br>b.attenuata,<br>Leptospermum, acacia,<br>marri,woolly bush, 20% cover      | Development envelope | 10-30%           |               | Very Good            | 6449971  | 391337   |



| ID No. | Date       | Habitat type                 | Description                                                                              | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|------------------------------|------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 45     | 30/09/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, B. Littoral is, Leptospermum, woolly bush, 20-30%cover         | Development envelope | 5-10%            |               | Very Good            | 6449544  | 391332   |
| 46     | 1/10/2024  | Native and introduced shrubs | Leptospermum, woolly bush, reveg                                                         | Development envelope | 1-5%             |               | Good                 | 6449494  | 391294   |
| 47     | 30/09/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, B. Littoral is, Leptospermum, woolly bush, 20-30%cover         | Development envelope | 5-10%            |               | Very Good            | 6449708  | 391345   |
| 48     | 30/09/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, Leptospermum, woolly bush, 20-30%cover                         | Development envelope | 5-10%            |               | Very Good            | 6449802  | 391309   |
| 49     | 1/10/2024  | Banksia shrubland            | b.menzeizii, b.attenuata, Leptospermum, woolly bush, 30-40% cover                        | Development envelope | 10-30%           |               | Very Good            | 6449695  | 391476   |
| 50     | 1/10/2024  | Banksia shrubland            | b.menzeizii, b.attenuata, xanthorrhoea Leptospermum, sparse stunted jarrah, 30-40% cover | Development envelope | 10-30%           |               | Very Good            | 6449552  | 391570   |
| 51     | 1/10/2024  | Banksia shrubland            | b.menzeizii, b.attenuata, xanthorrhoea Leptospermum, sparse                              | Development envelope | 10-30%           |               | Very Good            | 6449409  | 391713   |



| ID No. | Date      | Habitat type                 | Description                                                                                              | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|----------------------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |           |                              | stunted jarrah, allocasuarina humulis, 30-40% cover                                                      |                      |                  |               |                      |          |          |
| 52     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, xanthorrhoea, Leptospermum, sparse stunted jarrah, allocasuarina. 25-30% cover | Development envelope | 10-30%           |               | Very Good            | 6449313  | 391938   |
| 53     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, 25-30% cover                                                                   | Development envelope | 1-5%             |               | Very Good            | 6449657  | 391284   |
| 54     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, 25-30% cover                                                                   | Development envelope | 1-5%             |               | Very Good            | 6449551  | 391196   |
| 55     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449556  | 391079   |
| 56     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449540  | 390892   |
| 57     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, sparse marri, allocasuarina 30% cover                                          | Development envelope | 10-30%           | 10+           | Very Good            | 6448820  | 391339   |
| 58     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                                         | Development envelope | 1-5%             |               | Degraded             | 6448970  | 391331   |
| 59     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449479  | 390822   |
| 60     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449397  | 391280   |
| 61     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449234  | 391304   |
| 62     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449355  | 391496   |



| ID No. | Date      | Habitat type                 | Description                                                                              | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 63     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449309  | 391205   |
| 64     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                         | Development envelope | 1-5%             |               | Degraded             | 6449455  | 391086   |
| 65     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, xanthorrhoea Leptospermum, sparse stunted jarrah, 30-40% cover | Development envelope | 10-30%           |               | Very Good            | 6449517  | 391459   |
| 66     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, 30-40% cover, and marri trees                                  | Development envelope | 10-30%           | 10+           | Good                 | 6450158  | 394155   |
| 67     | 1/10/2024 | Naturalised and native trees | exotic euc plantings, rehab area                                                         | Development envelope |                  |               | Degraded             | 6450223  | 394194   |
| 68     | 1/10/2024 | Naturalised and native trees | exotic euc plantings, rehab area                                                         | Development envelope |                  |               | Degraded             | 6450322  | 394310   |
| 69     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, b.illicifolia 40-50% cover                                     | Development envelope | 30-70%           | 10+           | Very Good            | 6450503  | 394486   |
| 70     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, b.illicifolia 30% cover                                        | Development envelope | 30-70%           | 10+           | Very Good            | 6450799  | 394724   |
| 71     | 1/10/2024 | Naturalised and native trees | exotic euc plantings, rehab area                                                         | Development envelope |                  |               | Degraded             | 6450943  | 394836   |
| 72     | 1/10/2024 | Melaleuca dampland           | open melaleuca, dense myrtaceous shrubs, xanthorrhoea,                                   | Development envelope | 30-70%           |               | Degraded             | 6451935  | 395716   |



| ID No. | Date      | Habitat type                 | Description                                                                     | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|---------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |           |                              | nyitsia, occasional b.illicifolia & B.attenuata 5% cover                        |                      |                  |               |                      |          |          |
| 73     | 1/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, b.illicifolia, 30% cover                              | Development envelope | 30-70%           | 10+           | Very Good            | 6451690  | 395472   |
| 74     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                | Development envelope | 1-5%             |               | Degraded             | 6451619  | 395379   |
| 75     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                | Development envelope | 1-5%             |               | Degraded             | 6451497  | 395254   |
| 76     | 1/10/2024 | Native and introduced shrubs | native plantings                                                                | Development envelope | 1-5%             |               | Degraded             | 6451431  | 395245   |
| 80     | 1/10/2024 | Native and introduced shrubs | Woolly bush, casuarina fraseri?, grass, shrubs                                  | Development envelope | 30-70%           |               | Good                 | 6451115  | 394963   |
| 81     | 1/10/2024 | Naturalised and native trees | Planted eucs, Melaleuca, casuarina, Woolly bush,                                | Development envelope | 10-30%           |               | Degraded             | 6451172  | 395046   |
| 82     | 1/10/2024 | Naturalised and native trees | Planted eucs, Melaleuca, reveg, grevillia, casuarina, Woolly bush,              | Development envelope | 10-30%           |               | Degraded             | 6451331  | 395157   |
| 84     | 1/10/2024 | Naturalised and native trees | Callistomon, Planted eucs, Melaleuca, reveg, grevillia, casuarina, Woolly bush, | Development envelope | 10-30%           |               | Degraded             | 6451377  | 395129   |
| 85     | 1/10/2024 | Banksia shrubland            | Banksia shrubland, frazeriana,                                                  | Development envelope |                  |               | Good                 | 6451178  | 395019   |



| ID No. | Date      | Habitat type                 | Description                                                                                                                       | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |           |                              | b.menzeizii,<br>b.attenuata,<br>15% cover<br>woolly bush                                                                          |                      |                  |               |                      |          |          |
| 86     | 1/10/2024 | Banksia shrubland            | frazeriana,<br>b.menzeizii,<br>b.attenuata,<br>15% cover<br>woolly bush                                                           | Development envelope | 10-30%           |               | Very Good            | 6451266  | 395055   |
| 87     | 1/10/2024 | Banksia shrubland            | frazeriana,<br>b.menzeizii,<br>marri,<br>b.attenuata,<br>10-20% cover<br>woolly bush                                              | Development envelope | 10-30%           |               | Very Good            | 6450992  | 394882   |
| 88     | 1/10/2024 | Naturalised and native trees | Planted eucs mixed, marri, Banksia shrubland, frazeriana, b.menzeizii, b.attenuata, 10% cover woolly bush aloe casuarina, acacia, | Development envelope | 10-30%           |               | Degraded             | 6452395  | 396233   |
| 89     | 1/10/2024 | Banksia woodland             | Banksia shrubland, frazeriana, b.menzeizii, b.attenuata, 10% cover woolly bush aloe casuarina, grass tree                         | Development envelope | 10-30%           |               | Very Good            | 6452321  | 396147   |
| 90     | 1/10/2024 | Naturalised and native trees | Planted eucs mixed, marri 40%, tuart,                                                                                             | Development envelope | 10-30%           |               | Very Good            | 6452344  | 396124   |



| ID No. | Date      | Habitat type                 | Description                                                                                                                       | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |           |                              | shrubs, acacia,                                                                                                                   |                      |                  |               |                      |          |          |
| 92     | 1/10/2024 | Naturalised and native trees | Planted eucs mixed, marri, Banksia shrubland, frazeriana, b.menzeizii, b.attenuata, 10% cover woolly bush aloe casuarina, acacia, | Development envelope | 10-30%           |               | Degraded             | 6452450  | 396270   |
| 93     | 1/10/2024 | Banksia shrubland            | Banksia shrubland, b.menzeizii, b.attenuata, wooly bush, 10% cover woolly bush aloe casuarina, acacia,                            | Development envelope | 10-30%           |               | Good                 | 6452462  | 396307   |
| 94     | 1/10/2024 | Naturalised and native trees | Acacia, Planted eucs mixed, marri 30%, sparse banksia, woolly bush                                                                | Development envelope | 10-30%           |               | Degraded             | 6452555  | 396387   |
| 95     | 3/10/2024 | Banksia shrubland            | sparse Banksia cover woolly bush, planted exotics, eucs, melaleuca, acacia,                                                       | Development envelope | 30-70%           |               | Good                 | 6452556  | 396403   |
| 96     | 1/10/2024 | Banksia woodland             | All casuarina, , Banksia shrubland, frazeriana, b.menzeizii,                                                                      | Development envelope | 10-30%           |               | Very Good            | 6452633  | 396460   |



| ID No. | Date      | Habitat type                 | Description                                                                                      | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|--------------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |           |                              | b.attenuata, 15% cover woolly bush,                                                              |                      |                  |               |                      |          |          |
| 98     | 1/10/2024 | Banksia woodland             | All casuarina, , Banksia shrubland, frazeriana, b.menzeizii, b.attenuata, 15% cover woolly bush, | Development envelope | 10-30%           |               | Very Good            | 6452822  | 396560   |
| 99     | 1/10/2024 | Naturalised and native trees | Planted eucs, pine, melaleuca, grevillia                                                         | Development envelope | 10-30%           |               | Good                 | 6452826  | 396629   |
| 100    | 1/10/2024 | Naturalised and native trees | Casuarina Fraseriana, acacia, some marri                                                         | Development envelope | 10-30%           |               | Good                 | 6452840  | 396627   |
| 101    | 3/10/2024 | Naturalised and native trees | Grevillia, Acacia, planted eucs, melaleuca, sparse banksia                                       | Development envelope | 10-30%           |               | Very Good            | 6452861  | 396724   |
| 102    | 3/10/2024 | native plantings             | Casuarina and shrubs                                                                             | Development envelope |                  |               | Degraded             | 6452859  | 396572   |
| 103    | 3/10/2024 | native plantings             | native plantings                                                                                 | Development envelope | 1-5%             |               | Degraded             | 6451235  | 395170   |
| 104    | 3/10/2024 | Naturalised and native trees | exotic euc plant ings                                                                            | Development envelope |                  |               | Degraded             | 6451249  | 395255   |
| 105    | 3/10/2024 | native plantings             | native plantings                                                                                 | Development envelope | 1-5%             |               | Degraded             | 6451412  | 395321   |
| 106    | 3/10/2024 | native plantings             | native plantings                                                                                 | Development envelope | 1-5%             |               | Degraded             | 6451307  | 395307   |
| 107    | 3/10/2024 | Naturalised and native trees | exotic euc plant ings                                                                            | Development envelope |                  |               | Degraded             | 6451484  | 395420   |



| ID No. | Date      | Habitat type                 | Description                                                                                      | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|--------------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 108    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6451578  | 395499   |
| 109    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6451829  | 395736   |
| 110    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6452042  | 395911   |
| 111    | 3/10/2024 | Banksia woodland             | Banksia shrubland,,<br>b.menzeizii,<br>b.attenuata,<br>b.illicifolia<br>15% cover<br>woolly bush | Development envelope |                  |               | Degraded             | 6452125  | 396049   |
| 112    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6452318  | 396258   |
| 113    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6452583  | 396624   |
| 114    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6452640  | 396600   |
| 115    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6452673  | 396705   |
| 116    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value                                                           | Development envelope | 1-5%             |               | Degraded             | 6452722  | 396693   |



| ID No. | Date      | Habitat type                 | Description                                       | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|---------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 117    | 3/10/2024 | Native and introduced shrubs | native plantings, low-mod forage value            | Development envelope | 1-5%             |               | Degraded             | 6452822  | 396741   |
| 118    | 3/10/2024 | Native and introduced shrubs | nativeshrub/tree plantings, low-mod forage value, | Development envelope | 5-10%            |               | Degraded             | 6452929  | 397065   |
| 119    | 3/10/2024 | Native and introduced shrubs | nativeshrub/tree plantings, low-mod forage value, | Development envelope | 5-10%            |               | Degraded             | 6452958  | 397676   |
| 120    | 3/10/2024 | Native and introduced shrubs | nativeshrub/tree plantings, low-mod forage value, | Development envelope | 5-10%            |               | Degraded             | 6452981  | 397710   |
| 121    | 3/10/2024 | Native and introduced shrubs | nativeshrub/tree plantings, low-mod forage value, | Development envelope | 5-10%            |               | Degraded             | 6452950  | 398444   |
| 122    | 3/10/2024 | Native and introduced shrubs | nativeshrub/tree plantings, low-mod forage value, | Development envelope | 5-10%            |               | Degraded             | 6453009  | 398890   |
| 123    | 3/10/2024 | Naturalised and native trees | exotic euc plantings, rehab area                  | Development envelope |                  |               | Degraded             | 6453008  | 399097   |
| 124    | 3/10/2024 | Naturalised and native trees | nativeshrub/tree plantings, low-mod forage value, | Development envelope | 5-10%            |               | Degraded             | 6453068  | 399077   |
| 125    | 3/10/2024 | Naturalised and native trees | nativeshrub/tree plantings, low-mod forage value, | Development envelope | 5-10%            |               | Degraded             | 6453007  | 399181   |
| 126    | 3/10/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, xanthorrhoea sparse     | Development envelope | 10-30%           |               | Good                 | 6453398  | 399761   |



| ID No. | Date       | Habitat type                 | Description                                                                                 | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|------------------------------|---------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |            |                              | stunted jarrah, 20% cover                                                                   |                      |                  |               |                      |          |          |
| 127    | 3/10/2024  | Naturalised and native trees | nativeshrub/tree plantings, low-mod forage value,                                           | Development envelope | 5-10%            |               | Degraded             | 6453418  | 399735   |
| 128    | 3/10/2024  | Melaleuca dampland           | open melaleuca, myrtaceous tea tree shrubs, occasional e.rudis, sedges low-mod forage value | Development envelope | 10-30%           |               | Degraded             | 6453235  | 399497   |
| 129    | 3/10/2024  | Naturalised and native trees | nativeshrub/tree plantings, with sparse marri, low-mod forage value,                        | Development envelope | 5-10%            |               | Degraded             | 6453473  | 399868   |
| 130    | 3/10/2024  | Naturalised and native trees | exotic euc plantings, rehab area                                                            | Development envelope |                  |               | Degraded             | 6454246  | 400927   |
| 131    | 3/10/2024  | Naturalised and native trees | nativeshrub/tree plantings, low-mod forage value,                                           | Development envelope | 5-10%            |               | Degraded             | 6454043  | 400560   |
| 132    | 26/09/2024 | Banksia shrubland            | b.menzeizii, b.attenuata, b.prinotes 20-30% cover                                           | Development envelope | 10-30%           | 10+           | Good                 | 6454382  | 401051   |
| 133    | 3/10/2024  | Banksia shrubland            | b.menzeizii, b.attenuata, b.prinotes 15-20% cover                                           | Development envelope | 10-30%           | 10+           | Degraded             | 6454506  | 401216   |
| 134    | 3/10/2024  | Major drainage line          | rudis, melaleuca, severely weed                                                             | Development envelope | 10-30%           | 10+           | Completely Degraded  | 6454655  | 401305   |



| ID No. | Date      | Habitat type                 | Description                                                                                  | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|----------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |           |                              | infested, Canning Rv, Carter's mussel habitat                                                |                      |                  |               |                      |          |          |
| 136    | 3/10/2024 | Naturalised and native trees | eucs, shrubs, grevillia                                                                      | Development envelope |                  |               |                      | 6453040  | 397365   |
| 137    | 3/10/2024 | Naturalised and native trees | Myrtle shrubs                                                                                | Development envelope |                  |               |                      | 6452994  | 397457   |
| 138    | 3/10/2024 | Banksia woodland             | B. Spinulosa.<br>B. Mezeisii,<br>b. Attenuata<br>10%, marri<br>10%, shrubs,<br>Myrtle, grass | Development envelope | 30-70%           |               |                      | 6453032  | 397619   |
| 139    | 3/10/2024 | Marri woodland               | Marri, eucs                                                                                  | Development envelope |                  |               |                      | 6453022  | 397912   |
| 140    | 3/10/2024 | Marri woodland               | Marri, eucs, casuarina,                                                                      | Development envelope |                  |               |                      | 6453006  | 397918   |
| 141    | 3/10/2024 | Marri woodland               | Marri 15-%, eucs, casuarina, scattered sparse banksia                                        | Development envelope |                  |               |                      | 6453094  | 398855   |
| 142    | 3/10/2024 | Naturalised and native trees | Casuarina and planted eucs , marri, river gum, paperbark                                     | Development envelope |                  |               |                      | 6453337  | 399116   |
| 143    | 3/10/2024 | Naturalised and native trees | Casuarina and planted eucs grevillia, paperbark                                              | Development envelope |                  |               |                      | 6453236  | 399136   |
| 144    | 3/10/2024 | Naturalised and native trees | Planted eucs, shrubs, grass, 1 banksia menziesii                                             | Development envelope |                  |               |                      | 6453183  | 399140   |



| ID No. | Date      | Habitat type                 | Description                                                                              | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 145    | 3/10/2024 | Naturalised and native trees | Marri, Casuarina, sparse banksia menziesii, and planted eucs grevillia, pine, river gums | Development envelope |                  |               |                      | 6453208  | 399072   |
| 146    | 3/10/2024 | Naturalised and native trees | Casuarina, and planted eucs, pine, river gums                                            | Development envelope |                  |               |                      | 6453265  | 399064   |
| 147    | 3/10/2024 | Naturalised and native trees | Peppermint, Paperbark, Casuarina, and planted eucs, pine, river gums                     | Development envelope |                  |               |                      | 6453158  | 398963   |
| 148    | 3/10/2024 | Naturalised and native trees | Paperbark, Casuarina, and planted eucs, river gums                                       | Development envelope |                  |               |                      | 6453135  | 398946   |
| 150    | 3/10/2024 | Naturalised and native trees | Acacia, spotted gum, planted eucs, grass weeds                                           | Development envelope |                  |               |                      | 6453940  | 400372   |
| 151    | 3/10/2024 | Naturalised and native trees | Grass and a few planted eucs                                                             | Development envelope |                  |               |                      | 6454048  | 400505   |
| 152    | 3/10/2024 | Naturalised and native trees | Spotted gum, planted eucs, casuarina, shrubs,                                            | Development envelope |                  |               |                      | 6454056  | 400529   |
| 153    | 3/10/2024 | Native and introduced shrubs | Reveg, Myrtle, shrubs,                                                                   | Development envelope |                  |               |                      | 6454060  | 400583   |
| 154    | 3/10/2024 | Marri woodland               | Marri 15%                                                                                | Development envelope |                  |               |                      | 6454155  | 400759   |



| ID No. | Date      | Habitat type                 | Description                                                                                 | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|-----------|------------------------------|---------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 155    | 3/10/2024 | Naturalised and native trees | Spotted gum, planted eucs, casuarina, marri, banksia ilicifolia, shrubs, acacia, grevillia, | Development envelope |                  |               |                      | 6454182  | 400687   |
| 156    | 3/10/2024 | Naturalised and native trees | Marri, planted eucs, myrtle,                                                                | Development envelope | 30-70%           |               |                      | 6453330  | 399528   |
| 157    | 3/10/2024 | Marri woodland               | Marri 25%, planted eucs, myrtle, shrubs, acacia                                             | Development envelope | 30-70%           |               | Very Good            | 6453428  | 399694   |
| 158    | 3/10/2024 | Marri woodland               | Marri 15%, planted eucs, myrtle, shrubs, acacia                                             | Development envelope | 30-70%           |               |                      | 6453372  | 399581   |
| 159    | 3/10/2024 | Marri woodland               | Marri 15%, planted eucs, myrtle, shrubs, acacia                                             | Development envelope | 30-70%           |               |                      | 6453267  | 399353   |
| 160    | 3/10/2024 | Naturalised and native trees | Planted eucs, wooly bush,                                                                   | Development envelope |                  |               | Very Good            | 6453533  | 399859   |
| 161    | 3/10/2024 | Naturalised and native trees | Marri 10%, grevillia, planted eucs, myrtle, shrubs, wooly bush                              | Development envelope | 30-70%           |               | Very Good            | 6453722  | 400092   |
| 162    | 3/10/2024 | Naturalised and native trees | Marri, planted eucs, shrubs, Myrtle, acacia                                                 | Development envelope | 30-70%           |               | Very Good            | 6453656  | 400000   |
| 163    | 3/10/2024 | Naturalised and native trees | Spotted gum, planted eucs, casuarina, marri, shrubs, acacia, grevillia,                     | Development envelope |                  |               | Good                 | 6454381  | 400819   |



| ID No. | Date       | Habitat type                 | Description                                                                                                  | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
| 164    | 3/10/2024  | Naturalised and native trees | planted eucs, marri, shrubs,                                                                                 | Development envelope |                  |               | Very Good            | 6454364  | 400874   |
| 165    | 3/10/2024  | Naturalised and native trees | planted eucs, marri, shrubs, sparse b. Illicifolia, b. Menzessisii, acacia                                   | Development envelope | 10-30%           |               | Very Good            | 6454370  | 400908   |
| 166    | 3/10/2024  | Naturalised and native trees | planted eucs, casuarina, woolly bush, marri, shrubs, acacia                                                  | Development envelope | 30-70%           |               | Very Good            | 6454350  | 400909   |
| 167    | 3/10/2024  | Naturalised and native trees | planted eucs, marri, shrubs, wooly bush, grevillia sparse b. Illicifolia, b. Attenuata, acacia               | Development envelope | 10-30%           |               | Very Good            | 6454431  | 401003   |
| 168    | 3/10/2024  | Naturalised and native trees | planted eucs, marri, shrubs, wooly bush, grevillia b. Illicifolia, b. Mezesisii,b. Attenuata 5-10%, acacia   | Development envelope | 10-30%           |               | Very Good            | 6454295  | 400833   |
| 169    | 3/10/2024  | Naturalised and native trees | planted eucs, marri 10%, shrubs, wooly bush, grevillia b. Illicifolia, b. Mezesisii,b. Attenuata10% , acacia | Development envelope | 10-30%           |               | Very Good            | 6454243  | 400761   |
| 170    | 11/11/2024 | Naturalised and native trees | Spotted gum, melaleuca, grass, palm,                                                                         | Development envelope | 10-30%           |               |                      | 6454557  | 401170   |



| ID No. | Date       | Habitat type                 | Description                                                            | Survey area portion  | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|------------------------------|------------------------------------------------------------------------|----------------------|------------------|---------------|----------------------|----------|----------|
|        |            |                              | small native shrubs                                                    |                      |                  |               |                      |          |          |
| 171    | 11/11/2024 | Native and introduced shrubs | Calothamenis, shrubs                                                   | Development envelope |                  |               |                      | 6454521  | 401187   |
| 172    | 11/11/2024 | Naturalised and native trees | Calathamenis, eucs planted,                                            | Development envelope |                  |               |                      | 6454627  | 401279   |
| 173    | 11/11/2024 | Banksia shrubland            | B. attenuatta, allocasuarina trees. Nuytsia, jacaranda . planted Eucs. | Development envelope |                  | 10+           | Degraded             | 6458697  | 402887   |
| 174    | 11/11/2024 | Banksia shrubland            | B. attenuatta , b. menz dominated. C. callophylla                      | Development envelope |                  | 10+           | Very Good            | 6460587  | 403941   |
| 175    | 11/11/2024 | Dampland                     | Paperbark lined wetland. b.littoralis                                  | Development envelope |                  |               |                      | 6458465  | 403094   |
| 179    | 11/11/2024 | Marri woodland               | Marri, acacia, shrubs grass                                            | Development envelope |                  |               |                      | 6459882  | 403709   |
| 185    | 12/11/2024 | Banksia shrubland            | B. attenuatta , b. menz dominated. C. callophylla                      | Development envelope |                  | 10+           | Very Good            | 6460516  | 403915   |
| 186    | 12/11/2024 | Banksia shrubland            | b. attenuatta trees 10%. 6 to 8 m tall                                 | Development envelope | 30-70%           | 10+           | Very Good            | 6448768  | 391342   |
| 190    | 12/11/2024 | Banksia shrubland            | Some big banksia dieing a lot have yellow leaves                       | Development envelope |                  |               |                      | 6460578  | 403881   |
| 193    | 11/11/2024 | Banksia shrubland            | scattered B. menz . euc woodland. E. camal?                            | Development envelope |                  | 6             |                      | 6454833  | 401662   |
| 14     | 27/09/2024 | Banksia shrubland            | b.menzeizii, b.illicifolia,                                            | Road Offset Area     | 30-70%           | 10+           | Very Good            | 6449826  | 393579   |



| ID No. | Date       | Habitat type      | Description                                                                               | Survey area portion | Litter cover (%) | Fire age (yr) | Vegetation condition | Northing | Eastings |
|--------|------------|-------------------|-------------------------------------------------------------------------------------------|---------------------|------------------|---------------|----------------------|----------|----------|
|        |            |                   | b.attenuata,<br>euc. todtiana,<br>nyitsia, 20-40% cover                                   |                     |                  |               |                      |          |          |
| 15     | 27/09/2024 | Banksia shrubland | b.menzeizii,<br>b.illicifolia,<br>b.attenuata,<br>euc. todtiana,<br>nyitsia, 20-30% cover | Road Offset Area    | 10-30%           | 10+           | Very Good            | 6449742  | 393333   |
| 22     | 30/09/2024 | Banksia shrubland | b.menzeizii,<br>b.attenuata,<br>30% cover                                                 | Road Offset Area    | 10-30%           | 10+           | Very Good            | 6449146  | 391817   |
| 23     | 30/09/2024 | Banksia shrubland | b.menzeizii,<br>b.attenuata,<br>30-40% cover<br>occasional<br>jarrah, tuart               | Road Offset Area    | 10-30%           | 10+           | Very Good            | 6449007  | 391648   |
| 28     | 30/09/2024 | Banksia shrubland | b.menzeizii,<br>b.attenuata,<br>30% cover                                                 | Road Offset Area    | 10-30%           | 10+           | Very Good            | 6449072  | 391636   |



## Significant fauna recorded

| Object ID No. | Date       | Species                                  | Observation type | Habitat type      | Survey area portion  | Eastings | Northings |
|---------------|------------|------------------------------------------|------------------|-------------------|----------------------|----------|-----------|
| 1             | 26/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6450199  | 394323    |
| 2             | 26/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6450371  | 394477    |
| 3             | 26/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | footprints       | Banksia shrubland | Development envelope | 6450680  | 394731    |
| 4             | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449533  | 393210    |
| 5             | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449588  | 393324    |
| 6             | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449655  | 393499    |
| 7             | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449701  | 393572    |
| 8             | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449842  | 393854    |
| 9             | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449893  | 393929    |
| 10            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449939  | 393997    |
| 11            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6450029  | 394119    |
| 12            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449937  | 394043    |
| 13            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449731  | 393691    |
| 14            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | scat             | Banksia shrubland | Development envelope | 6449652  | 393244    |
| 15            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449694  | 393353    |
| 17            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449688  | 393618    |



| Object ID No. | Date       | Species                                  | Observation type | Habitat type      | Survey area portion  | Eastings | Northings |
|---------------|------------|------------------------------------------|------------------|-------------------|----------------------|----------|-----------|
| 18            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449923  | 393963    |
| 19            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449950  | 394028    |
| 20            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449620  | 393152    |
| 23            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449267  | 392513    |
| 24            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449519  | 392909    |
| 25            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | dead remains     | Cleared land      | Development envelope | 6449525  | 392719    |
| 26            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449427  | 392573    |
| 27            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449354  | 392413    |
| 28            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449313  | 392306    |
| 29            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449291  | 392053    |
| 30            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | footprints       | Banksia shrubland | Development envelope | 6449792  | 391461    |
| 31            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449730  | 391479    |
| 32            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | footprints       | Banksia shrubland | Development envelope | 6449703  | 391501    |
| 33            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449463  | 391632    |
| 34            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | runnels          | Banksia shrubland | Development envelope | 6449384  | 391775    |
| 35            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449419  | 391703    |
| 36            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland | Development envelope | 6449318  | 391931    |



| Object ID No. | Date       | Species                                  | Observation type | Habitat type       | Survey area portion  | Eastings | Northings |
|---------------|------------|------------------------------------------|------------------|--------------------|----------------------|----------|-----------|
| 37            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | native plantings   | Development envelope | 6449523  | 390964    |
| 38            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | native plantings   | Development envelope | 6449515  | 391099    |
| 39            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | runnels          | Banksia shrubland  | Development envelope | 6450578  | 394539    |
| 40            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | footprints       | Banksia shrubland  | Development envelope | 6450804  | 394743    |
| 41            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | runnels          | Banksia shrubland  | Development envelope | 6450881  | 394791    |
| 42            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | runnels          | Banksia shrubland  | Development envelope | 6451956  | 395727    |
| 43            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland  | Development envelope | 6451824  | 395591    |
| 44            | 1/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland  | Development envelope | 6451529  | 395307    |
| 45            | 3/10/2024  | Quenda ( <i>Isoodon fusciventer</i> ) P4 | runnels          | Melaleuca dampland | Development envelope | 6453305  | 399638    |
| 16            | 27/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland  | Road Offset Area     | 6449803  | 393439    |
| 22            | 30/09/2024 | Quenda ( <i>Isoodon fusciventer</i> ) P4 | foraging digs    | Banksia shrubland  | Road Offset Area     | 6449185  | 391772    |



## Opportunistic fauna observations

| Common name (status)                          | Scientific name                     | Record type                |
|-----------------------------------------------|-------------------------------------|----------------------------|
| <b>Birds</b>                                  |                                     |                            |
| Australian Magpie                             | <i>Gymnorhina tibicen</i>           | observed                   |
| Australian Raven                              | <i>Corvus coronoides</i>            | observed                   |
| Australian Ringneck Parrot                    | <i>Barnardius zonarius</i>          | heard call                 |
| Australian White Ibis                         | <i>Threskiornis molucca</i>         | observed                   |
| Black-faced Cuckoo-shrike                     | <i>Coracina novaehollandiae</i>     | observed                   |
| Brown Honeyeater                              | <i>Lichmera indistincta</i>         | observed                   |
| Carnaby's Cockatoo (Endangered)               | <i>Zanda latirostris</i>            | observed, foraging residue |
| Common Bronzewing Pigeon                      | <i>Phaps chalcoptera</i>            | observed                   |
| Fairy Martin                                  | <i>Petrochelidon ariel</i>          | observed                   |
| Feral Pigeon (introduced)                     | <i>Columba livia domestica</i>      | observed                   |
| Forest Red-tailed Black Cockatoo (Vulnerable) | <i>Calyptorhynchus banksii naso</i> | observed, foraging residue |
| Galah                                         | <i>Eolophus roseicapilla</i>        | observed                   |
| Grey Shrike-thrush                            | <i>Colluricincla harmonica</i>      | heard call                 |
| Mudlark                                       | <i>Grallina cyanoleuca</i>          | observed                   |
| New Holland Honeyeater                        | <i>Phylidonyris novaehollandiae</i> | observed                   |
| Rainbow Lorikeet (introduced)                 | <i>Trichoglossus moluccanus</i>     | observed                   |
| Red Wattlebird                                | <i>Anthochaera carunculata</i>      | heard call                 |
| Red-capped Parrot                             | <i>Purpureicephalus spurius</i>     | observed                   |
| Rufous Whistler                               | <i>Pachycephala rufiventris</i>     | heard call                 |
| Senegal Dove (introduced)                     | <i>Spilopelia senegalensis</i>      | observed                   |
| Shining Bronze Cuckoo                         | <i>Chrysococcyx lucidus</i>         | heard call                 |
| Silvereye                                     | <i>Zosterops lateralis</i>          | heard call                 |
| Singing Honeyeater                            | <i>Gavicalis virescens</i>          | heard call                 |
| Splendid Fairywren                            | <i>Malurus splendens</i>            | heard call                 |
| Striated Pardalote                            | <i>Pardalotus striatus</i>          | heard call                 |
| Straw-necked Ibis                             | <i>Threskiornis spinicollis</i>     | observed                   |



| Common name (status)     | Scientific name                      | Record type                           |
|--------------------------|--------------------------------------|---------------------------------------|
| Eurasian Coot            | <i>Fulica atra</i>                   | observed                              |
| Weebil                   | <i>Smicrornis brevirostris</i>       | heard call                            |
| Western Gerygone         | <i>Gerygone fusca</i>                | heard call                            |
| White-cheeked Honeyeater | <i>Phylidonyris niger</i>            | observed                              |
| Willie Wagtail           | <i>Rhipidura leucophrys</i>          | observed                              |
| Rainbow Bee-eater        | <i>Merops ornatus</i>                | observed                              |
| Grey Butcherbird         | <i>Cracticus torquatus</i>           | heard call                            |
| Grey Currawong           | <i>Strepera versicolor</i>           | observed                              |
| Crested Pigeon           | <i>Ocyphaps lophotes</i>             | observed                              |
| <b>Mammal</b>            |                                      |                                       |
| Cat (introduced)         | <i>Felis cattus</i>                  | observed                              |
| Dog (introduced)         | <i>Canis lupus familiaris</i>        | observed                              |
| Quenda (Priority 4)      | <i>Isodon fusciventer</i>            | digs, scat, footprints, runs, remains |
| Rabbit (introduced)      | <i>Oryctolagus cuniculus</i>         | digs, scat, remains                   |
| Western Grey Kangaroo    | <i>Macropus fuliginosus melanops</i> | scat                                  |
| Fox (introduced)         | <i>Vulpes vulpes</i>                 | Den, footprints                       |
| Black Rat (introduced)   | <i>Rattus rattus</i>                 | observed                              |
| <b>Reptiles</b>          |                                      |                                       |
| Sandplain Worm Lizard    | <i>Aprasia repens</i>                | observed                              |
| Burton's Legless Lizard  | <i>Lialis burtonis</i>               | observed                              |
| Bobtail                  | <i>Tiliqua rugosa</i>                | observed                              |
| Common Dwarf Skink       | <i>Menetia greyii</i>                | observed                              |
| Snake-eyed Skink         | <i>Cryptoblepharus buechananii</i>   | observed                              |
| Two-toed Earless Skink   | <i>Hemiergis quadrilineata</i>       | observed                              |
| Elegant Slider           | <i>Lerista elegans</i>               | observed                              |
| <b>Amphibians</b>        |                                      |                                       |
| Sandplain Froglet        | <i>Crinia insignifera</i>            | heard calling                         |
| Glauert's Froglet        | <i>Crinia glauerti</i>               | heard calling                         |



## Site photos



Quenda (*Isoodon fusciventer*) footprints



Quenda forage digging sign



## Likelihood of occurrence assessment guidelines

| Assessment outcome | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Present            | Species recorded during the field survey or from recent, reliable records from within or close proximity to the survey area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Likely             | <p>Species are likely to occur in the survey area where there is suitable habitat within the survey area and there are recent records of occurrence of the species in close proximity to the survey area.</p> <p>OR</p> <p>Species known distribution overlaps with the survey area and there is suitable habitat within the survey area.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Unlikely           | <p>Species assessed as unlikely include those species previously recorded within 10 km of the survey area however:</p> <p>There is limited (i.e. the type, quality and quantity of the habitat is generally poor or restricted) habitat in the survey area.</p> <p>The suitable habitat within the survey area is isolated from other areas of suitable habitat and the species has no capacity to migrate into the survey area.</p> <p>OR</p> <p>Those species that have a known distribution overlapping with the survey area however:</p> <p>There is limited habitat in the survey area (i.e. the type, quality and quantity of the habitat is generally poor or restricted).</p> <p>The suitable habitat within the survey area is isolated from other areas of suitable habitat and the species has no capacity to migrate into the survey area.</p> |
| Highly unlikely    | <p>Species that are considered highly unlikely to occur in the survey area include:</p> <p>Those species that have no suitable habitat within the survey area.</p> <p>Those species that have become locally extinct or are not known to have ever been present in the region of the survey area.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Definitions

| Term               | Description                                                        |
|--------------------|--------------------------------------------------------------------|
| study area         | a 20 km buffer around the survey area                              |
| survey area        | the area subject to the current survey including Road Offset Areas |
| locality           | the area within an approximate 20 km radius of the survey area     |
| Conservation codes |                                                                    |
| CR                 | Critically endangered. Listed under BC Act and EPBC Act            |



| Term | Description                                                                                                                           |
|------|---------------------------------------------------------------------------------------------------------------------------------------|
| EN   | Endangered. Listed under BC Act and EPBC Act                                                                                          |
| VU   | Vulnerable. Listed under BC Act and EPBC Act                                                                                          |
| MI   | Migratory. Listed under an international agreement                                                                                    |
| CD   | Conservation dependant. Listed under BC Act                                                                                           |
| OS   | Other specially protected fauna. Listed under BC Act                                                                                  |
| P1   | Priority 1. Poorly known taxa. Not formally listed under BC Act but recognised as significant                                         |
| P2   | Priority 2. Poorly known taxa. Not formally listed under BC Act but recognised as significant                                         |
| P3   | Priority 3. Poorly known taxa. Not formally listed under BC Act but recognised as significant                                         |
| P4   | Priority 4 Rare, Near Threatened and other taxa in need of monitoring. Not formally listed under BC Act but recognised as significant |

#### Likelihood of occurrence assessment of conservation significant fauna

| Taxon                     | Common Name      | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pre-survey likelihood                                                                                                                                                                                                                                                                                                                                                                         | Post-survey likelihood                                                                                                                                                                                                                                                                                 | Source                |
|---------------------------|------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                           |                  | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |                       |
| BIRDS                     |                  |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |                       |
| <i>Actitis hypoleucos</i> | Common Sandpiper | MI       | MI     | The species utilizes a wide range of coastal wetlands and some inland wetlands, with varying levels of salinity, and is mostly found around muddy margins or rocky shores and rarely on mudflats. The Common Sandpiper has been recorded in estuaries and deltas of streams, as well as on banks farther upstream; around lakes, pools, billabongs, reservoirs, dams and claypans, and occasionally piers and jetties. Broadly the species forages in shallow water and on bare soft mud at the edges of wetlands; often where obstacles project from substrate, e.g. rocks or mangrove roots. Birds sometimes venture into grassy areas adjoining wetlands (Higgins & Davies 1996). | <b>Unlikely</b><br>This species known to occur locally from database records including The Spectacles wetland reserve located approximately 4km southwest of the survey area. Based on preliminary assessment of aerial imagery, the survey area is unlikely to have suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. | <b>Unlikely.</b><br>The survey area is lacking specific habitat requirements such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence would be limited to occasional flyover during the seasonal occurrence of birds visiting local wetlands. | PMST, Naturemap, DBCA |



| Taxon                     | Common Name               | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Pre-survey likelihood                                                                                                                                                                                                                         | Post-survey likelihood                                                                                                                                                                                                  | Source                |
|---------------------------|---------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                           |                           | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                               |                                                                                                                                                                                                                         |                       |
| <i>Apus pacificus</i>     | Fork-tailed Swift         | MI       | MI     | The Fork-tailed Swift is common in coastal and sub coastal areas between Carnarvon and Augusta including near and offshore islands. There are scattered records along south coast from Denmark east to Cocklebiddy on the Great Australian Bight, and sparsely scattered records inland. They are found across a range of habitats, from inland open plains to wooded areas. They are most often observed over inland plains in Australia, but sometimes recorded over coastal cliffs and beaches as well as urban areas. They have been recorded well out to sea as well as from offshore islands especially when on passage from Indonesia. This species is almost exclusively aerial (DCCEEW 2022). | <b>Unlikely.</b><br>Occurs locally on occasional/sporadic basis and only as aerial foraging.                                                                                                                                                  | <b>Unlikely.</b><br>Occurs locally on occasional basis however only aerial foraging or fly-over.                                                                                                                        | PMST, NatureMap, DBCA |
| <i>Arenaria interpres</i> | Ruddy Turnstone           | MI       | MI     | The Ruddy Turnstone breeds in summer in the Arctic northern tundra areas of North America and Eurasia. During the Arctic winter (non-breeding season, it migrates to coastal southern and mid-latitude areas across the planet including many areas of the Australia coastline, and occasionally recorded in Perth-Peel area.                                                                                                                                                                                                                                                                                                                                                                          | <b>Unlikely.</b><br>There are Database records for Woodman Point located approximately 11 km southwest of the survey area. Based on preliminary assessment from aerial imagery, the survey area is expected to lack suitable coastal habitat. | <b>Unlikely.</b><br>The survey area lacks suitable habitat namely coastal or near-coastal tidal shoreline. Occurrence would be limited to occasional flyover during the seasonal occurrence of birds within the region. | DBCA                  |
| <i>Botaurus dubius</i>    | Australian Little Bittern | -        | P4     | In Australia, Australian Little Bitterns are found mostly in the lower Murray-Darling Basin (especially along the Murray River), but occasionally also elsewhere in the Murray-Darling Basin, up to south-eastern QLD. Occasionally they are also found in the Great Dividing Range and along the South and East coast of the continent, from about Cairns, QLD, in the North to about Adelaide, SA, in the South. There is also a small population on the south-western tip of WA,                                                                                                                                                                                                                    | <b>Unlikely.</b><br>Based on preliminary assessment of aerial imagery, the survey area is expected to lack suitable habitat namely wetland with extensive dense emergent native reeds vegetation. There is a local record from South          | <b>Unlikely.</b><br>Based on the field assessment, the survey area lacks suitable habitat namely wetland with dense emergent native vegetation.                                                                         |                       |



| Taxon                         | Common Name            | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Pre-survey likelihood                                                                                                                                                                                                                                 | Post-survey likelihood                                                                                                                                                                                                          | Source                |
|-------------------------------|------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                               |                        | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                 |                       |
|                               |                        |          |        | including Perth, and there are some reports of vagrants in various locations along the continent's North coast. Australian Little Bitterns are usually found in freshwater habitats, mostly in reeds around freshwater lakes, but also in reedbeds and other dense vegetation along creeks and in swamps. Sometimes they are also found in wetlands with brackish and saline water.                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Lake approximately 4 km southwest of survey area.                                                                                                                                                                                                     |                                                                                                                                                                                                                                 |                       |
| <i>Botaurus poiciloptilus</i> | Australasian Bittern   | EN       | EN     | The Australasian Bittern's preferred habitat is wetlands with tall dense vegetation. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds (e.g. <i>Phragmites</i> , <i>Cyperus</i> , <i>Eleocharis</i> , <i>Juncus</i> , <i>Typha</i> , <i>Baumea</i> , <i>Bolboschoenus</i> ) or cutting grass ( <i>Gahnia</i> ) growing over a muddy or peaty substrate. In the South-West, the Bittern is largely confined to coastal areas, especially along the south coast. It also occurs around swamps, lakes, pools, rivers and channels fringed with lignum <i>Muehlenbeckia</i> , cane grass <i>Eragrostis</i> or other dense vegetation (Marchant 1990). They can be found in reed beds near Two Peoples Bay, in lakes near Mt Manypeaks, and the Lake Muir area (Nevill 2013). | <b>Unlikely.</b><br>Based on preliminary assessment of aerial imagery, the survey area is expected to lack suitable habitat namely wetland with extensive emergent native reeds vegetation Historical record (1981) from Approx. 7 km NE survey area. | <b>Unlikely.</b><br>The survey area lacks suitable habitat namely wetland with extensive emergent native vegetation.                                                                                                            | PMST, Naturemap, DBCA |
| <i>Calidris acuminata</i>     | Sharp-tailed Sandpiper | VU, MI   | VU, MI | In Australasia, the Sharp-tailed Sandpiper prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, salt pans and hypersaline salt lakes inland. They also occur in saltworks and sewage farms. They use flooded paddocks, sedgelands and other ephemeral wetlands, but leave when they dry (DCCEEW 2022).                                                                                                                                                                                                                                                                                                                     | <b>Unlikely</b><br>This species occurs locally during non-breeding season from database records including Thomsons Lake located approximately 7 km southwest of the survey area. and historical records from North Coogee.                            | <b>Unlikely.</b><br>The survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence would be limited to seasonal flyover of birds visiting local wetlands. | PMST, Naturemap, DBCA |



| Taxon                   | Common Name | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pre-survey likelihood                                                                                                                                                                                                                                                         | Post-survey likelihood                                                                                                                                                             | Source                |
|-------------------------|-------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                         |             | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                    |                       |
| <i>Calidris alba</i>    | Sanderling  | MI       | MI     | The Sanderling occurs in coastal areas around Australia during its non-breeding summer migration. Inland records are uncommon although the species may fly over the continental interior areas on its way to coastal areas (Higgins & Davis 1996). Prefers to forage along coastlines of open sandy beaches wave-wash zone and amongst rotting seaweed. Also forages on exposed sandbars and spits and wave-washed rocky shores. It is gregarious usually observed in small to large flocks and will forage with other waders. Migrating flock tend to be less than a thousand (Higgins & Davies 1996). It is known for ability to accumulate fat reserves as much as 60% of its post-migration body mass, in preparation for long-distance migration flights they make between breeding and non-breeding foraging grounds (Pringle 1987).                                                                                     | <b>Unlikely.</b><br>There are historical records from Coogee area, approximately 9 km southwest of the survey area and known to occur in the region, however pending on-ground assessment, the survey area is expected to lack suitable shoreline habitat given the location. | <b>Unlikely.</b><br>The survey area lacks suitable shoreline habitat. Occurrence would be limited to seasonal flyover of birds visiting coastal areas along the Perth-Peel region. | DBCA                  |
| <i>Calidris canutus</i> | Red Knot    | MI, EN   | MI, EN | The Red Knot is a highly medium-small sized, highly migratory wading shorebird, with a wingspan of 45 - 54 cm, and weighing approximately 120g. Both sexes appear similar, but the female is slightly larger, less evenly chestnut-red on the underbody, and has a greater amount of white on the rear belly. The species shows marked seasonal variation and juveniles are distinctive from adults.<br><br>Red knots are widespread around the Australian coast. Very large numbers are regularly recorded in north-west Australia, with Eighty Mile Beach and Roebuck Bay being strongholds for the species. Small numbers visit Tasmania and its offshore islands (BirdLife Australia, 2021), and the species is occasionally recorded inland in all regions. The species is less numerous in southwest Australia. The only places where the species is not found in significant numbers are the northern part of the Great | <b>Unlikely.</b><br>There are historical records from Coogee area approximately 9 km southwest of the survey area, and known to occur in the region, however pending on-ground assessment, the survey area is expected to lack suitable shoreline habitat given the location. | <b>Unlikely.</b><br>The survey area lacks suitable shoreline habitat. Occurrence would be limited to seasonal flyover of birds visiting coastal areas along the Perth-Peel region. | PMST, DBCA, Naturemap |



| Taxon                       | Common Name            | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Pre-survey likelihood                                                                                                                                                                                                                                                                                                                                               | Post-survey likelihood                                                                                                                                                                                                                                                             | Source                |
|-----------------------------|------------------------|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                             |                        | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                    |                       |
|                             |                        |          |        | <p>Australian Bight in South Australia and Western Australia, and along much of the New South Wales coast, where shorebird habitat is scarce.</p> <p>Whilst in Australia, the species mainly inhabits intertidal mudflats, sandflats, and sandy beaches of sheltered coasts, estuaries, bays, inlets, lagoons, and harbours. They are occasionally seen on terrestrial saline wetlands near the coast and have been recorded on sewage ponds and saltworks.</p>                                                                               |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                    |                       |
| <i>Calidris falcinellus</i> | Broad-billed Sandpiper | MI       | MI     | <p>A small migratory wader species spending the non-breeding season from easternmost Africa, through south and south-east Asia to Australasia. It is highly gregarious and will form flocks with other waders. It forages for food in soft coastal and estuarine muddy flats and shallow, mainly picking up insects and other small invertebrates.</p>                                                                                                                                                                                        | <p><b>Unlikely.</b></p> <p>Recorded at Thomsons Lake approximately 4 km southwest of survey area. There are historical coastal records from Coogee area, and known to occur in the region, however pending on-ground assessment, the survey area is expected to lack suitable coastal shoreline habitat given the location.</p>                                     | <p><b>Unlikely.</b></p> <p>The survey area lacks suitable shoreline habitat. Occurrence would be limited to seasonal flyover of birds visiting local wetlands and coastal areas along the Perth-Peel region.</p>                                                                   | DBCA                  |
| <i>Calidris ferruginea</i>  | Curlew Sandpiper       | CR, MI   | CR, MI | <p>Curlew Sandpipers mainly occur on intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and also around non-tidal swamps, lakes and lagoons near the coast, and ponds in saltworks and sewage farms. They are also recorded inland, though less often, including around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters. Occasionally they are recorded around floodwaters (DCCEEW 2023).</p> | <p><b>Unlikely</b></p> <p>Known to occur locally from database records including Thompsons Lake located approximately 4 km southwest of the survey area. However, the survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Bore drains associated with road</p> | <p><b>Unlikely.</b></p> <p>The survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence would be limited to seasonal flyover of birds visiting local wetlands. Sumps associated with road drainage may</p> | PMST, Naturemap, DBCA |



| Taxon                      | Common Name        | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pre-survey likelihood                                                                                                                                                                                                                                                                                     | Post-survey likelihood                                                                                                                                                                                                                                           | Source                |
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|                            |                    | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                  |                       |
|                            |                    |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | infrastructure may represent marginal habitat.                                                                                                                                                                                                                                                            | represent marginal foraging habitat.                                                                                                                                                                                                                             |                       |
| <i>Calidris melanotos</i>  | Pectoral Sandpiper | MI       | MI     | In Australasia, the Pectoral Sandpiper prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands. The species is usually found in coastal or near coastal habitat but occasionally found further inland. It prefers wetlands that have open fringing mudflats and low, emergent or fringing vegetation, such as grass or samphire. The species has also been recorded in swamp overgrown with lignum. They forage in shallow water or soft mud at the edge of wetlands (Higgins & Davies 1996). | <b>Unlikely</b><br>Known to occur locally from database records such as Yangebup Lake – Beeliar Regional Park regionally located 4 km southwest of the survey area. The survey area is expected to lack suitable habitat. Bore drains associated with road infrastructure may represent marginal habitat. | <b>Unlikely.</b><br>Based on the site assessment, the survey area lacks extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence may be limited to seasonal flyover during bird's visitation of local wetlands. | PMST, Naturemap, DBCA |
| <i>Calidris pugnax</i>     | Ruff               | MI       | MI     | The Ruff is a medium sized wader of the Calidridinae family that is a regular seasonal but rare visitor to Australia. Its preferred habitat in Australia is fresh, brackish or saline wetlands with exposed mudflats, lakes, swamps, pools, lagoons, tidal rivers, shallow swampy fields. The Ruff is insectivorous throughout the breeding grounds however, it is omnivorous elsewhere during non-breeding season including Australia where it also feeds on plant material such as moss and seeds (Higgins and Davies 1996). It is both diurnal and nocturnal.                                                                                     | <b>Unlikely</b><br>There are occasional and historical records for the Perth-Peel region such as Coogee Beach. The survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines.                               | <b>Unlikely.</b><br>The survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands.             | PMST, DBCA, Naturemap |
| <i>Calidris ruficollis</i> | Red-necked Stint   | MI       | MI     | The Red-necked Stint breeds in north-eastern Siberia and northern and western Alaska. It follows the East Asian-Australasian Flyway to spend the southern summer months in Australia. It is found widely in Australia, except in the arid inland. In Australia, Red-necked Stints are found on the coast, in sheltered inlets, bays, lagoons,                                                                                                                                                                                                                                                                                                        | <b>Unlikely</b><br>Known to occur in local wetlands including several database records from Beeliar Regional Park wetlands and Thompsons Lake Nature Reserve areas located 7 km                                                                                                                           | <b>Unlikely.</b><br>However, the survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine                                                                                                                       | Naturemap, DBCA       |



| Taxon                        | Common Name     | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Pre-survey likelihood                                                                                                                                                                                                                                                                                                                         | Post-survey likelihood                                                                                                                                                                                                                               | Source                 |
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|                              |                 | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                      |                        |
|                              |                 |          |        | estuaries, intertidal mudflats and protected sandy or coralline shores (Pizzey and Knight 2012).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | southwest of the survey area. The survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines.                                                                                                                                                    | shorelines. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands.                                                                                                                                   |                        |
| <i>Calidris subminuta</i>    | Long-toed Stint | MI       | MI     | In WA the species is found mainly along the coast, with a few scattered inland records. On the south coast the Long-toed Stint is found from Esperance to Albany and inland to Lake Cassencarry and Dumbleyung. On the south-west coast the species is known from the Vasse River estuary, Guraga Lake and the Namming Nature Reserve. The species has occasionally been recorded in the Gascoyne Region, around Lake Wooleen, Meeberrie Station and McNeill Claypan. It is widespread around the Pilbara region and the Kimberley Division between Karratha and Wyndham-Kununurra (DEE 2019b). It occurs in a variety of terrestrial wetlands. They prefer shallow freshwater or brackish wetlands including lakes, swamps, river floodplains, streams, lagoons and sewage ponds. | <b>Unlikely</b><br>This species known to occur locally such as recent record from Kogolup Lake in Beeliar Regional Park located approximately 5 km southwest of the survey area. The survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. | <b>Unlikely.</b><br>The survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands. | Naturemap, DBCA        |
| <i>Calidris tenuirostris</i> | Great Knot      | MI       | MI     | The great knot is a medium sized, bulky shorebird, with a wingspan of approximately 58 cm, and weigh around 155g. Both sexes are similar in appearance, though females are slightly larger and tend to have less chestnut colouring in their scapulars whilst in breeding plumage. The great knot has been recorded around the entirety of the Australian coast, with a few scattered records inland. The greatest numbers of individuals are found in northern Australia; where the species is common on the coasts of the Pilbara and Kimberley, and in the Northern Territory from Darwin to the south-east Gulf of Carpentaria. Other important                                                                                                                                | <b>Unlikely.</b><br>Known to occur locally from historical coastal records from Coogee Beach area approximately 10 km southwest of the survey area.                                                                                                                                                                                           | <b>Unlikely.</b><br>The survey area is lacking preferred coastal shoreline habitat. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands.                                                           | PMST, DBCA, Naturemap. |



| Taxon                               | Common Name                      | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Pre-survey likelihood                                                                            | Post-survey likelihood                                                                                                     | Source                |
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|                                     |                                  |          |        | <p>sites include the Broad Sound-Shoalwater Bay area, the Mackay region, and Moreton Bay in Queensland. The species is much less common in south-west Australia, South Australia, Victoria, and Tasmania (Higgins &amp; Davies 1996).</p> <p>Habitat critical to the survival of great knot includes a mosaic of feeding and roosting habitat. The species may be highly selective about foraging environments due to its specialised feeding techniques. Feeding habitat includes exposed sandy or soft mud substrates on intertidal flats and beaches. In general, feeding takes place over the whole tidal range; however, like most migratory shorebird species, upper tidal flats may be especially important.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                  |                                                                                                                            |                       |
| <i>Calyptorhynchus banksii naso</i> | Forest Red-tailed Black-Cockatoo | VU       | VU     | <p>The Forest Red-tailed Black Cockatoo inhabits the dense jarrah, karri, and marri forests receiving more than 600 mm annual average rainfall but also occurs in a range of other forest and woodland types, including Blackbutt (<i>E. patens</i>), Wandoo (<i>E. wandoo</i>), Tuart (<i>E. gomphocephala</i>), Albany Blackbutt (<i>E. staeri</i>), Yate (<i>E. cornuta</i>), and Flooded Gum (<i>E. rudis</i>) (DEE 2017). Habitats tend to have an understorey of balga (<i>Xanthorrhoea</i> spp.), kingia (<i>Kingia australis</i>), snottygobble (<i>Persoonia</i> spp.), parrot bush (<i>Banksia sessilis</i>), holly-leaved mirbelia (<i>Mirbelia dilatata</i>), bull banksia (<i>B. grandis</i>), bullich (<i>Taxandria</i> spp.) and sheoak (<i>Allocasuraina fraseriana</i>). They are most common in the jarrah forest region of the northern Darling Range from Collie north to Mundaring and are very local throughout the lower south-west. They can be found on the Swan Coastal Plain, mainly in search of food the exotic white cedar (<i>Melia azedarach</i>). There are also several small, isolated populations in the eastern parts of its range (DAWE 2022).</p> | <p><b>Known.</b></p> <p>Confirmed local occurrence based on numerous local database records.</p> | <p><b>Known.</b></p> <p>Confirmed based on observations of birds and extensive foraging signs during the field survey.</p> | PMST, Naturemap, DBCA |



| Taxon                           | Common Name          | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                            | Pre-survey likelihood                                                                                                                                                                                                                                                                                                                                                 | Post-survey likelihood                                                                                                                                                                                                                                                   | Source                 |
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| <i>Chariadris cucullatus</i>    | Hooded Plover        | -        | P4     | The hooded plover is a small Australian beach nesting bird. It mainly occurs on wide beaches backed by dunes with large amounts of seaweed and jetsam, creek mouths and inlet entrances. Nests are found above the high-water mark on flat beaches, on stony terraces, or on sparsely vegetated dunes. As the hooded plover occurs on beaches, it is easily disturbed by human activities, particularly off-leash domestic dogs.                                                | <b>Unlikely</b><br>There are occasional and historical local records from coastal areas approximately 10 km southwest of the survey area, however based on preliminary assessment of aerial imagery, the survey area lacks suitable wetland habitat such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. | <b>Unlikely.</b><br>This species known to occur regionally however the field assessment confirmed that the survey area is lacking suitable coastal habitat. Occurrence may be limited to occasional vagrant visitation, or flyover.                                      | DBCA                   |
| <i>Charadrius dubius</i>        | Little Ringed Plover | MI       | MI     | While the majority of the population of Little Ringed Plovers will spend the northern winters in Africa, southward of the Sinatra desert, a small number will migrate to northern Australia. In Australia they are occasionally found along the coastline, mostly of the northern part of the continent. Outside the breeding season Little Ringed Plovers have a preference for beaches with sand dunes and marshes. They are also regularly found in sewage treatment plants. | <b>Unlikely</b><br>This species known to occur locally from database records such as Yangebup Lake 4 km southwest of the survey area. The survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines.                                                         | <b>Unlikely.</b><br>However, the survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands. | PMST, DBCA, Naturemap. |
| <i>Charadrius leschenaultii</i> | Greater Sand Plover  | VU, MI   | VU, MI | In Australia, the Greater Sand Plover occurs in coastal areas in all states, though the greatest numbers occur in northern Australia, especially the north-west (Marchant & Higgins 1993). In northern Australia, the species is especially widespread between North West Cape and Roebuck Bay in WA; there are sparsely scattered records from the largely inaccessible area between Roebuck Bay and Darwin, but it often occurs in the                                        | <b>Unlikely</b><br>There are historical records from km the Swan River to the north of the survey area. The survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows                                                                                                                                 | <b>Unlikely.</b><br>This species known to occur regionally however the survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal                                                                              | PMST, DBCA             |



| Taxon                         | Common Name        | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Pre-survey likelihood                                                                                                                                                                                                                     | Post-survey likelihood                                                                                                                                                                                            | Source                |
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|                               |                    |          |        | Top End of the Northern Territory, including on Groote Eylandt (DCCEEW 2022).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | or tidal estuarine or coastal shorelines.                                                                                                                                                                                                 | shorelines. Occurrence may be limited to occasional vagrant at best.                                                                                                                                              |                       |
| <i>Charadrius mongolus</i>    | Lesser Sand Plover | MI       | MI     | Within Australia, the Lesser Sand-Plover is widespread in coastal regions and has been recorded in all states. It mainly occurs in northern and eastern Australia, in southeastern parts of the Gulf of Carpentaria, western Cape York Peninsula and islands in Torres Strait, and along the entire east coast, though it occasionally also occurs inland. It is most numerous in Queensland and NSW. The species has also been recorded on Lord Howe Island, Norfolk Island and Christmas Island, Indian Ocean. In non-breeding grounds in Australia, this species usually occurs in coastal littoral and estuarine environments. It inhabits large intertidal sandflats or mudflats in sheltered bays, harbors and estuaries, and occasionally sandy ocean beaches, coral reefs, wave-cut rock platforms and rocky outcrops. It also sometime occurs in short saltmarsh or among mangroves. The species also inhabits saltworks and near-coastal salt pans, brackish swamps and sandy or silt islands in riverbeds (Marchant & Higgins 1993). In north-western Australia, the species appears to use the Port Hedland saltworks in preference to nearby beaches. | <b>Unlikely</b><br>This species known to occur regionally however the survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. | <b>Unlikely.</b><br>The survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. Occurrence may be limited to occasional vagrant at best. | PMST, DBCA, Naturemap |
| <i>Chlidonias leucopterus</i> | White-winged Tern  | MI       | MI     | White-winged Black Terns are non-breeding migrants to Australia from the North. They arrive anywhere along the tropical coast of Australia and disperse around basically the entire Australian seaboard, including the East coast of Tasmania and many small offshore islands. They can be found farther inland, in parts of the Great Dividing Range and in particular in the central part of the Murray-Darling Basin near the NSW/VIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Unlikely</b><br>This species known to occur locally including database record at Bibra Lake approximately 2km west of survey area. The survey area is expected to lack suitable habitat: such                                          | <b>Unlikely.</b><br>The survey area is lacking expansive lake or coastal wetland habitat. Occurrence may be limited to occasional fly-over                                                                        | DBCA, Naturemap       |



| Taxon                   | Common Name       | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Pre-survey likelihood                                                                                                                                                                               | Post-survey likelihood                                                                                                                                  | Source          |
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|                         |                   | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                     |                                                                                                                                                         |                 |
|                         |                   |          |        | border. There are also White-winged Black Terns in an area around Perth, WA. Elsewhere on the continent White-winged Black Terns are found only rarely, and never in the great deserts of WA/SA/NT or the Nullarbor. White-winged Black Terns live around lakes including ephemeral lakes, in estuaries and in coastal waters.                                                                                                                                                                                                                                                                                                                                                                                                                                            | as extensive lakes or flooded shallows.                                                                                                                                                             | or vagrant visitation.                                                                                                                                  |                 |
| <i>Falco peregrinus</i> | Peregrine Falcon  | -        | OS     | The Peregrine Falcon is uncommon but wide ranging across Australia. Found everywhere from woodlands to open grasslands and coastal cliffs – though less frequently in desert regions – it feeds almost entirely on other birds. It also eats rabbits and other moderate sized mammals, bats and reptiles. The Peregrine Falcon is very territorial during breeding season, the male courting the female with an impressive display of aerobatics (DEE 2019b, Morcombe 2004).                                                                                                                                                                                                                                                                                              | <b>Likely.</b><br>Known to occur locally from regular sightings and there are local database records including Bibra lake area 4 km southwest, and along Canning Rv 3.5km northwest of survey area. | <b>Likely.</b><br>Trees within the survey area represent marginal nesting habitat. Likely to hunt within survey area on an occasional to regular basis. | DBCA, Naturemap |
| <i>Leipoa ocellata</i>  | Malleefowl        | VU       | VU     | The Malleefowl generally occurs in semi-arid areas of Western Australia, in shrublands and low woodlands that are dominated by mallee vegetation, as well as native pine Callitris woodlands, Acacia shrublands, paperbark, sheoak, Broombush <i>Melaleuca uncinata</i> vegetation, eucalypt woodlands, or coastal heathlands. Mostly they are found where there are sandy or gravel soils. The nest is a large mound of sand or soil and organic matter (Jones and Goth 2008; Morcombe 2004; Nevill 2013). In WA they are found from the southwest Nullarbor to Albany, north, and then west from Moore River up to Shark Bay, past Cue, across to Wiluna and east to the northern Victoria Desert south of the Blackstone Ranges (Nevill 2013; Pizzey and Knight 2012). | <b>Highly unlikely.</b><br>Locally and regionally extinct. Survey area lies beyond the species' current range.                                                                                      | <b>Highly unlikely.</b><br>Locally and regionally extinct. Survey area lies beyond the species' current range.                                          | PMST            |
| <i>Limosa lapponica</i> | Bar-tailed Godwit | MI       | MI     | The Bar-tailed Godwit is a large migratory wading and shorebird with a wingspan of 62–75 cm and a weight between 250–450 g. The bird has a long neck with a very long                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Unlikely</b><br>Occurs locally based on two records from Swan River approx. 8 km NW of                                                                                                           | <b>Unlikely.</b><br>This species known to occur regionally however the survey                                                                           | PMST            |



| Taxon                | Common Name         | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Pre-survey likelihood                                                                                                                                                                                                                                                                                        | Post-survey likelihood                                                                                                                                                                                | Source                |
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|                      |                     |          |        | upturned bill. The bill is characterized by a dark tip and pinkish base. It is distinguishable from other Godwits by the dark barring on the lower white rump, upper tail and lining of the underwing (Marchant & Higgins, 1993). The Bar-tailed Godwit has been recorded in the coastal areas of all Australian states                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | the survey area, and historical record from Coogee area Based on survey are location and preliminary aerial image assessment, the survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shoreline          | area is lacking suitable coastal shorelines. Occurrence may be limited to occasional fly-over.                                                                                                        |                       |
| <i>Limosa limosa</i> | Black-tailed godwit | EN, MI   | EN, MI | <p>Black-tailed Godwits arrive in Australia each year in August from breeding grounds in the northern hemisphere. Birds are more numerous in northern Australia. Black-tailed Godwits inhabit estuarine mudflats, beaches and mangroves. They are common in coastal areas around Australia. They are social birds and are often seen in large flocks and in the company of other waders (Birdlife Australia 2019).</p> <p>In Western Australia it is widespread around the coast, from Eyre to Derby, with a few scattered records elsewhere in the Kimberley Division. Populations have also been recorded in the Top End, from Darwin and Melville Island, east to the Alligator River and Croker Island (Marchant &amp; Higgins, 1990).</p> <p>The Bar-tailed Godwit is found mainly in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It is found often around beds of seagrass and, sometimes, in nearby saltmarsh. It has been sighted in coastal sewage farms and saltworks, saltlakes and brackish wetlands near coasts, sandy ocean beaches, rock platforms, and coral reef-flats.</p> | <p><b>Unlikely.</b></p> <p>Occurs locally based on historical record from Coogee area Based on survey are location and preliminary aerial image assessment, the survey area is expected to lack suitable habitat: such as extensive shallow wetlands, mudflats or tidal estuarine or coastal shorelines.</p> | <p><b>Unlikely.</b></p> <p>This species known to occur regionally however the survey area is lacking suitable coastal and estuarine shorelines. Occurrence may be limited to occasional fly-over.</p> | Naturemap, DBCA, PMST |



| Taxon                            | Common Name              | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pre-survey likelihood                                                                                                                                                       | Post-survey likelihood                                                                                                          | Source          |
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|                                  |                          | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                             |                                                                                                                                 |                 |
| <i>Motacilla cinerea</i>         | Grey Wagtail             | MI       | MI     | A European and Asian species. Migrates in winter south to Indonesia and New Guinea. Rarely reaches Australia. Occurs usually near fresh streams, but also on mown grass, ploughed land or near sewerage ponds. The Grey Wagtail is an opportunistic migrant to Australia. The species typically migrates to Indonesia occasionally landing in Australia. Most records for the species are from Northern Australia and South Australia (Morcombe 2004). The non-breeding habitat only of the Grey Wagtail has a strong association with water, particularly rocky substrates along water courses but also lakes and marshes (DAWE 2021e). It can be found mainly in banks and rocks in fast-running freshwater habitats: rivers, creeks, streams, and around waterfalls, both in forest and open country; but occurs almost anywhere during migration (Johnstone & Storr 2004). | <b>Unlikely.</b><br>A vagrant visitor to southern Australia. Rarely recorded locally.                                                                                       | <b>Unlikely.</b><br>A vagrant visitor to southern Australia. Rarely recorded locally.                                           | PMST            |
| <i>Ninox connivens connivens</i> | Barking Owl (South-West) | -        | P3     | The barking owl is a medium-sized hawk-owl endemic to Australia. It is twice the size and wingspan of the more common Southern Boobook owl and with distinctive bright yellow eyes without surrounding eye patches (Pizzey & Knight, 2012). The South-west population is widely separated from the eastern population of <i>connivens</i> and mostly inhabits dry open sclerophyll woodland such as Wandoo and Jarrah-Marri open forest across its southwest range, and is usually associated with watercourses, wetlands and forest edges (Loyn et al. 2021). It is considered scarce and in small numbers throughout the range (Pizzey & Knight, 2012). Home range studies have indicated owl pairs forage over 1400 to 2500 ha in south-eastern Australia Kavanagh and Stanton (2009), and (Schedvin, 2007).                                                                | <b>Unlikely.</b><br>Records on the Swan Coastal Plain are scarce and historical. The survey area location can be considered marginal, and beyond the species current range. | <b>Unlikely.</b><br>The survey area location can be considered marginal, and the habitat is too small, degraded and fragmented. | DBCA, Naturemap |



| Taxon                           | Common Name        | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Pre-survey likelihood                                                                                                                                                                                                  | Post-survey likelihood                                                                                                                                                                   | Source                 |
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|                                 |                    | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                        |                                                                                                                                                                                          |                        |
| <i>Numenius madagascarensis</i> | Far Eastern Curlew | CR, MI   | CR, MI | The Eastern Curlew is most commonly associated with sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal mudflats or sandflats, often with beds of seagrass. Occasionally, the species occurs on ocean beaches (often near estuaries), and coral reefs, rock platforms, or rocky islets. The birds are often recorded among saltmarsh and on mudflats fringed by mangroves, sometimes within the mangroves, and in coastal saltworks and sewage farms. In the South-West, Eastern Curlews are recorded from Eyre, and there are scattered records from Stokes Inlet to Peel Inlet (Marchant & Higgins 1993). They are uncommon further south of Geraldton, but can be spotted in Alfred Cove, Peel Inlet and the Albany region (Nevill 2013). | <b>Unlikely.</b><br>Occasional and historical records from the Peel Inlet area.                                                                                                                                        | <b>Unlikely.</b><br>The survey area is lacking suitable coastal or estuarine shoreline. Occurrence may be limited to occasional fly-over.                                                | PMST, DBCA, Naturemap. |
| <i>Oxyura australis</i>         | Blue-billed Duck   | -        | P4     | The blue-billed Duck is a small Australian almost entirely aquatic duck, with both the male and female growing to a length of 40 cm. The male has a slate-blue bill which changes to bright blue during the breeding season. The Blue-billed Duck is endemic to Australia's temperate regions, ranging from the South-West of WA, extending to southern Queensland, through New South Wales and Victoria, to Tasmania. The species is readily seen on freshwater lakes and billabongs where deep fresh water is present (Morcombe 2004).                                                                                                                                                                                                                                                           | <b>Likely.</b><br>There are several local records from freshwater lakes and upper Canning River about 2km north of survey area.                                                                                        | <b>Likely.</b><br>The section of Canning River that intersects with survey area has sufficient open fresh water for suitable foraging habitat. Likely to occur on at least occasionally. | Naturemap, DBCA        |
| <i>Pandion haliaetus</i>        | Osprey             | MI       | MI     | Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands. They are mostly found in coastal areas but occasionally travel inland along major rivers, particularly in northern Australia. They require extensive areas of open fresh, brackish or saline water for foraging (Marchant & Higgins 1993). They frequent a variety of wetland habitats                                                                                                                                                                                                                                                                                                                                                                   | <b>Unlikely.</b><br>There are numerous local records from local wetlands in proximity of the survey area including Bibra, Thompsons and Beeliar Lakes, although the survey area is unlikely to have suitably extensive | <b>Unlikely.</b><br>The survey area lacks extensive wetland habitat. Occurrence would be limited to seasonal flyover of birds visiting local wetlands.                                   | PMST, Naturemap, DBCA  |



| Taxon                                    | Common Name                         | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Pre-survey likelihood                                                                                                                                                                                            | Post-survey likelihood                                                                                                                                                                                                  | Source          |
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|                                          |                                     | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                  |                                                                                                                                                                                                                         |                 |
|                                          |                                     |          |        | including inshore waters, reefs, bays, coastal cliffs, beaches, estuaries, mangrove swamps, broad rivers, reservoirs and large lakes and waterholes. They exhibit a preference for coastal cliffs and elevated islands in some parts of their range, but may also occur on low sandy, muddy or rocky shores and over coral cays.                                                                                                                                                                            | water bodies, pending the site assessment.                                                                                                                                                                       |                                                                                                                                                                                                                         |                 |
| <i>Platycercus icterotis xanthogenys</i> | Western Rosella (inland subspecies) |          | P4     | This subspecies of Western Rosella occurs in the dryers areas east of Perth from the Wheatbelt and Goldfields and Great Southern regions. Preferred habitat is a range of eucalypt woodlands such as Wandoo (Nevill, 2008). Considered a rare vagrant on the Swan Coastal Plain.                                                                                                                                                                                                                            | <b>Unlikely.</b><br>The location of the survey area is considered marginal at best as it is located beyond the western edge of geographic range.                                                                 | <b>Unlikely.</b><br>The location of survey area is considered marginal at best as it is located beyond the western edge of geographic range.                                                                            |                 |
| <i>Plegadis falcinellus</i>              | Glossy Ibis                         | MI       | MI     | The Glossy Ibis' preferred habitat for foraging and breeding are freshwater marshes at the edges of lakes and rivers, lagoons, flood-plains, wet meadows, swamps, reservoirs, sewage ponds, rice-fields and cultivated areas under irrigation. The species is occasionally found in coastal locations such as estuaries, deltas, saltmarshes, and coastal lagoons. Within Australia, the largest contiguous areas of prime habitat are in inland and northern floodplain areas (Marchant and Higgins 1990). | <b>Likely.</b><br>Known to occur locally on regular basis with records from lakes and Swan River within 4 km of the survey area.                                                                                 | <b>Unlikely.</b><br>The survey area lacks suitable shallow wetland habitat. Road-side drainage sumps associated with the Roe Hwy are considered marginal habitat and species' occurrence will be occasional to vagrant. | DBCA, Naturemap |
| <i>Pluvialis fulva</i>                   | Pacific Golden Plover               | MI       | MI     | The Pacific Golden Plover breeds on the Arctic tundra in western Alaska. It winters in South America and islands of the Pacific Ocean to India, Indonesia and Australia. In Australia it is widespread along the coastline. Pacific Golden Plovers usually occur on beaches, mudflats and sandflats (sometimes in vegetation such as mangroves, low saltmarsh such as Sarcocornia, or beds of seagrass) in sheltered areas including harbours, estuaries and lagoons, and also in                           | <b>Unlikely.</b><br>Known to occur locally from database records including Thompsons Lake located approximately 4 km southwest of the survey area. Survey area is not unlikely to have suitable coastal or tidal | <b>Unlikely.</b><br>The survey area is lacks extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence would be limited to                                              | DBCA, Naturemap |



| Taxon                       | Common Name    | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Pre-survey likelihood                                                                                                                                                                                                                                                                                                                                      | Post-survey likelihood                                                                                                                                                                                                                  | Source                |
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|                             |                | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                         |                       |
|                             |                |          |        | evaporation ponds in saltworks. The species is also sometimes recorded on islands, sand and coral cays and exposed reefs and rocks (DEE 2019b).                                                                                                                                                                                                                                                                                                                                                           | shoreline habitat based on location.                                                                                                                                                                                                                                                                                                                       | seasonal flyover of birds visiting local wetlands. Sumps associated with road drainage may represent marginal foraging habitat.                                                                                                         |                       |
| <i>Pluvialis squatarola</i> | Grey Plover    | MI       | MI     | The Grey Plover breeds around the Arctic regions and migrates to the southern hemisphere, being a regular summer migrant to Australia, mostly to the west and south coasts. It is generally sparse but not uncommon in some areas. It is occasionally found inland. It is almost entirely coastal, being found mainly on marine shores, inlets, estuaries and lagoons with large tidal mudflats or sandflats for feeding, sandy beaches for roosting, and also on rocky coasts (Birdlife Australia 2019). | <b>Unlikely.</b><br>Occurs locally from database records such as Yangebup Lake – Beeliar Regional Park regionally located 4 km south-west but survey area is unlikely to have suitable coastal or tidal shoreline habitat based on location.                                                                                                               | <b>Unlikely.</b><br>The survey area is lacking extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine shorelines. Occurrence may be limited to seasonal flyover during bird's visitation of local wetlands. | DBCA, Naturemap       |
| <i>Thalasseus bergii</i>    | Crested Tern   | MI       | MI     | Crested Terns occur singularly or in flocks in coastal areas, estuaries, inlets, islands and occasionally on large inland lakes or rivers. They are often seen perching with gulls on beaches, sand spits or jetties. Crested Terns are widespread from the south coast of Africa north to Asia, south to Australia and east to Polynesia. They also occur on many islands in the Indian and Pacific Oceans (DEE 2018).                                                                                   | <b>Unlikely.</b><br>Local database records of this species from open water habitat such as Swan River and freshwater lakes such as Beeliar Regional Park wetlands and Thompsons Lake Nature Reserve areas located within 3-4 km of the survey area. Based on preliminary aerial imagery, the survey area is not expected to have suitable wetland habitat. | <b>Unlikely.</b><br>The survey area is lacking extensive open water for this species. Occurrence may be limited to occasional flyover of birds visiting local wetlands.                                                                 | DBCA, Naturemap       |
| <i>Tringa glareola</i>      | Wood Sandpiper | MI       | MI     | The Wood Sandpiper uses well-vegetated, shallow, freshwater wetlands, such as swamps, billabongs, lakes, pools and waterholes. Wood Sandpipers are more numerous in the north than the south of                                                                                                                                                                                                                                                                                                           | <b>Unlikely.</b><br>This species known to occur locally from database records such as                                                                                                                                                                                                                                                                      | <b>Unlikely.</b><br>The survey area found to be lacking extensive shallow                                                                                                                                                               | Naturemap, DBCA, PMST |



| Taxon                     | Common Name       | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pre-survey likelihood                                                                                                                                                                                                                                                                 | Post-survey likelihood                                                                                                                                                                                                                                                             | Source               |
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|                           |                   | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                    |                      |
|                           |                   |          |        | Australia and are also found in New Guinea, Africa, the Indian subcontinent and South-east Asia. They breed widely across the north of Europe and Asia, mostly in Scandinavia, Baltic countries and Russia. They are the most abundant migratory wader in non-coastal areas of Asia (DEE 2019b).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | occasionally within Peel region. The survey area not likely to have suitable shoreline habitat.                                                                                                                                                                                       | wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands.                                                                                     |                      |
| <i>Tringa nebularia</i>   | Common Greenshank | EN, MI   | EN, MI | <p>The Common Greenshank is a heavily built, elegant wader, 30–35 cm in length, with a wingspan of 55–65 cm and weight up to 190 g for both males and females. The bill is long and slightly upturned, and the legs are long and yellow-green. In flight, all plumages show uniformly dark upper wing and contrasting white rump extending in a white wedge up the back, whitish tail and tips of toes projecting slightly beyond the tip of the tail. The sexes are alike (Higgins &amp; Davies 1996).</p> <p>The species is seen singly or in small to large flocks (sometimes hundreds) in a variety of coastal and inland wetlands. The Common Greenshank does not breed in Australia; however, the species occurs in all types of wetlands and has the widest distribution of any shorebird in Australia (Higgins &amp; Davies 1996). It occurs around most of the coast from Cape Arid in the south to Carnarvon in the north-west. In the Kimberley it is recorded in the south-west and the north-east, with isolated records from the Bonaparte Archipelago (Higgins &amp; Davies 1996).</p> | <p><b>Unlikely.</b></p> <p>This species known to occur locally from database records such as Swan River and Thomsons Lake. However, the survey area is expected to lack extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines.</p> | <p><b>Unlikely.</b></p> <p>The survey area found to be lacking suitable shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands.</p> | PMST Naturemap, DBCA |
| <i>Tringa stagnatilis</i> | Marsh Sandpiper   | MI       | MI     | The Marsh Sandpiper lives in permanent or ephemeral wetlands of varying salinity, including swamps, lagoons, billabongs, salt pans, saltmarshes, estuaries, pools on inundated floodplains, and intertidal mudflats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p><b>Unlikely.</b></p> <p>This species known to occur locally from database records such as</p>                                                                                                                                                                                      | <p><b>Unlikely.</b></p> <p>The survey area found to be lacking extensive shallow</p>                                                                                                                                                                                               | Naturemap, DBCA      |



| Taxon                    | Common Name              | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Pre-survey likelihood                                                                                                                                                                                   | Post-survey likelihood                                                                                                                                                                                                                                                        | Source                |
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|                          |                          | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                               |                       |
|                          |                          |          |        | and also regularly at sewage farms and saltworks. They are recorded less often at reservoirs, waterholes, soaks, bore-drain swamps and flooded inland lakes. In north Australia they prefer intertidal mudflats (Higgins & Davies 1996), although surveys in Kakadu National Park recorded more birds around shallow freshwater lakes than in areas influenced by tide. At the Top End they often use ephemeral pools on inundated freshwater and tidal floodplains (Higgins & Davies 1996). They are found infrequently around mangroves (Higgins & Davies 1996).                                                          | Yangebup Lake 4 km southwest of the survey area. However, the survey area is expected to lack extensive shallow wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. | wetlands, mudflats, seasonal flooded shallows or tidal estuarine or coastal shorelines. Occurrence may be limited to occasional flyover of birds during the seasonal local visits to wetlands.                                                                                |                       |
| <i>Zanda baudinii</i>    | Baudin's Black Cockatoo  | EN       | EN     | Baudin's Black Cockatoo mainly occurs in eucalypt forests, especially jarrah, marri and karri forest that receives 750 mm of annual rainfall. The species is less frequently in woodlands of wandoo ( <i>E. wandoo</i> ), blackbutt ( <i>E. patens</i> ), flooded gum ( <i>E. rudis</i> ), yate ( <i>E. cornuta</i> ), partly cleared farmlands and urban areas. The range of the species extends from Albany northward to Gidgegannup and Mundaring (east of Perth), and inland to the Stirling Ranges and near Kojonup. Preferred roosts are in areas with a dense canopy close to permanent sources of water (DEE 2017). | <b>Likely.</b><br>Known to occur locally on the Swan Coastal Plain including Perth Peel region however not known to nest within or in proximity of the survey area.                                     | <b>Likely.</b><br>Not recorded during the survey however occurs locally and foraging habitat (Marri woodland) occurs within the survey area. The survey area is located on the western edge of current known foraging distribution and lies outside the known breeding range. | PMST, Naturemap, DBCA |
| <i>Zanda latirostris</i> | Carnaby's Black Cockatoo | EN       | EN     | Carnaby's Cockatoo occurs in uncleared or remnant native eucalypt woodlands, especially those that contain salmon gum, wandoo, marri, jarrah and karri, and in shrubland or kwongan heathland dominated by Hakea, Dryandra, Banksia and Grevillea species. Breeding activity is restricted to eucalypt woodlands mainly in the semiarid and subhumid interior, from Kalbarri in the north, Three Springs District south to the Stirling Range, west to Cockleshell Gully and                                                                                                                                                | <b>Known.</b><br>Known to occur within the survey area based on numerous database records.                                                                                                              | <b>Known.</b><br>Recorded during the field survey within survey area at several locations including birds sighted and extensive foraging evidence.                                                                                                                            | PMST, Naturemap, DBCA |

| Taxon                               | Common Name | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Pre-survey likelihood                                                                                                                                                                                                      | Post-survey likelihood                                                                                                                                                            | Source                |
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|                                     |             | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                            |                                                                                                                                                                                   |                       |
|                                     |             |          |        | east to Manmanning. The species has expanded its breeding range westward and south into the jarrah-marri forests of the Darling Scarp and into the tuart forests of the Swan Coastal Plain, including the Yanchep area, Lake Clifton and near Bunbury. It nests in trees older than 120-150 years (DEE 2017).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                            |                                                                                                                                                                                   |                       |
| <b>MAMMALS</b>                      |             |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                            |                                                                                                                                                                                   |                       |
| <i>Bettongia penicillata ogibyi</i> | Woylie      | CR       | EN     | Preferred habitat for the Woylie includes dense undergrowth, logs and rock-cavities and occasionally in burrows (Burbidge 2004). Scattered Woylie populations may be found throughout the Jarrah Forest in the south-west corner of WA. Extant naturally occurring populations of the species are restricted to three small wheatbelt reserves – Dryandra Woodland, Tutanning Nature Reserve and Perup Forest. All are characterised by the presence of thickets of the plant <i>Gastrolobium</i> (Van Dyck and Strahan 2008). The species is now restricted to forests and areas where predation has been controlled (or excluded). It rests during the day in a well-concealed nest, built over a shallow depression. The nest is most commonly built using long strands, of grasses, but other material such as strips of bark are also used (in the forest) or dried seagrass and/or triodia (in arid coastal areas) (Freegard 2007). | <b>Unlikely.</b><br>The survey area is located outside the species' current range. The closest record is historical from Lesmurdie in the Darling Scarp approximately 5 km east.                                           | <b>Highly unlikely.</b><br>Survey area is outside current distribution, and no suitable habitat present.                                                                          | PMST, Naturemap, DBCA |
| <i>Dasyurus geoffroii</i>           | Chuditch    | VU       | VU     | The Chuditch inhabits eucalypt forest (especially Jarrah, <i>E. marginata</i> ), dry woodland, mallee shrublands, heaths, and desert, particularly in the south coast of WA. They also occur at lower densities in drier woodland and mallee shrubland in the goldfields and wheatbelt, as well as in Kalbarri National Park (translocated). Chuditch require adequate numbers of suitable den and refuge sites (horizontal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Unlikely.</b><br>There is a database record from the vicinity of Jandakot Regional Park approximately 3 km south of the survey area. This species is re-appearing in some areas of its former range in the wider Perth- | <b>Unlikely.</b><br>Site assessment confirms lack of extensive and connected suitable habitat on local scale precludes species' occurrence within survey area, although may occur | PMST, Naturemap, DBCA |



| Taxon                           | Common Name               | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pre-survey likelihood                                                                                                                                                                             | Post-survey likelihood                                                                                                                                                                          | Source          |
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|                                 |                           | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                   |                                                                                                                                                                                                 |                 |
|                                 |                           |          |        | hollow logs or earth burrows) to survive (DEC 2012). In Jarrah Forest, Chuditch populations occur in both moist, densely vegetated, steeply sloping forest and drier, open, gently sloping forest (Van Dyck and Strahan 2008). The species can travel large distances, and for this reason requires habitats that are of a suitable size and not excessively fragmented.                                                                                                                                                                                                                                                       | Peel area due to feral predator control.                                                                                                                                                          | as transient of vagrant visitation.                                                                                                                                                             |                 |
| <i>Falsistrellus mackenziei</i> | Western False Pipistrelle | -        | P4     | The Western False Pipistrelle occurs in wet sclerophyll forest dominated by Karri ( <i>Eucalyptus diversicolor</i> ), and in the high rainfall zones of the Jarrah ( <i>E. marginata</i> ) and Tuart ( <i>E. gomphocephala</i> ) forests. The species is restricted to areas in or adjacent to stands of old growth forest. It has also been recorded in mixed Tuart-Jarrah tall woodlands on the adjacent coastal plain. Marri ( <i>E. calophylla</i> ), Sheoak ( <i>Casuarina huegeliana</i> ) and Peppermint ( <i>Agonis flexuosa</i> ) trees are often co-dominant at its collection localities (Churchill, 2008).         | <b>Unlikely.</b><br>There are occasional and historic local database records such as Harry Waring Marsupial Park. The survey area represents the north-western edge of the species' range.        | <b>Unlikely.</b><br>The survey area lacks suitable old growth forest favoured by this species. However, it is highly mobile and may occur occasional as vagrant fly-over, or transient forager. | DBCA, Naturemap |
| <i>Hydromys chrysogaster</i>    | Rakali, Water-rat         | -        | P4     | The Water Rat (Rakali) lives in the vicinity of permanent bodies of fresh, brackish, or marine water, lakes and farm dams, and on sheltered coastal beaches, mangroves and offshore islands. In the south-west of WA they have been shown to prefer areas with riparian vegetation, better water quality and a degree of habitat complexity. Woody debris, rock ledges and wetland islands are likely to be important areas for feeding and refuge (DEC 2012). It is an occasional vagrant to temporary waters. Water Rat's dens are made at the end of tunnels in banks and occasionally in logs (Van Dyck and Strahan 2008). | <b>Likely.</b><br>There are local database records associated with the Swan and Canning Rivers. The survey area intersects with Canning. Therefore, suitable riparian habitat is likely to occur. | <b>Likely.</b><br>Riparian habitat is suitable at Canning River and likely to occur.                                                                                                            | DBCA, Naturemap |
| <i>Isodon fusciventer</i>       | Quenda                    | -        | P4     | The Quenda prefers dense scrubby, often swampy, vegetation with dense cover up to one metre high. However, it also occurs in woodlands and may use less ideal habitat                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Known.</b><br>Numerous local DBCA records including locations within the survey area.                                                                                                          | <b>Known.</b><br>Recorded during field survey from several foraging                                                                                                                             | Naturemap, DBCA |

| Taxon                                 | Common Name             | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Pre-survey likelihood                                                                                                                                                | Post-survey likelihood                                                                                                                                                 | Source          |
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|                                       |                         | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                      |                                                                                                                                                                        |                 |
|                                       |                         |          |        | where this habitat occurs adjacent to the thicker, more desirable vegetation. The species often feeds in adjacent forest and woodland that is burnt on a regular basis and in areas of pasture and cropland close to dense cover (Van Dyck & Strahan 2008).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                      | digs, footprints, scat and runnels.                                                                                                                                    |                 |
| <i>Myrmecobius fasciatus</i>          | Numbat                  | EN       | EN     | Current Numbat populations occupy several different habitat types: upland Jarrah Forest, open eucalypt woodland, banksia woodland and tall closed shrubland. The only remaining original subpopulations are at Dryandra Woodland and the Upper Warren area (including Tone Perup Nature Reserve, Greater Kingston National Park, and adjoining State Forest). In WA there are nine translocation sites, including Boyagin Nature Reserve, Tutanning Nature Reserve, Batalling block and Karroun Hill Nature Reserve (see DPaW 2015 for complete list and details). At Dryandra, numbats inhabit brown mallet ( <i>Eucalyptus astringens</i> ) plantations. Habitats usually have an abundance of termites in the soil, and hollow logs, tree hollows, burrows and branches for shelter (DEE, 2017; Van Dyck & Strahan, 2008). | <b>Highly Unlikely.</b><br>There are historical regional records, although the survey area is beyond the current range the species.                                  | <b>Highly Unlikely.</b><br>There are historical regional records, although the survey area is beyond the current range the species, and lack of suitable habitat.      | Naturemap, DBCA |
| <i>Notamacropus irma</i>              | Western Brush Wallaby   | -        | P4     | The Western Brush Wallaby occurs in 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, and is uncommon in karri forest (DEC, 2012b; Van Dyck & Strahan, 2008). It is commonly seen in the Jarrah Forests east of Perth and in Remnant Banksia woodland or the Swan Coastal Plain but relies on bushland connectivity to persist.                                                                                                                                                                                                                                                                                                                                                                  | <b>Likely.</b><br>There are regional database records, including recent local records within Ken Hurst Park which straddles the southern portion of the survey area. | <b>Likely.</b><br>Recent local records within Ken Hurst Park which straddles the southern portion of the survey area. Likely to occur on occasional to frequent basis. | Naturemap, DBCA |
| <i>Phascogale tapoatafa wambenger</i> | Brush-tailed Phascogale | -        | CD     | This species favours dry sclerophyll forests and open woodlands with a generally sparse ground-storey, which contain suitable nesting resources such as tree hollows,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Unlikely.</b><br>There is a historical local record from Harry Warring Marsupial Reserve 4 km                                                                     | <b>Unlikely.</b><br>The survey area lacks sufficient extensive                                                                                                         | DBCA, Naturemap |



| Taxon                             | Common Name             | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pre-survey likelihood                                                                               | Post-survey likelihood                                                                                                         | Source |
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|                                   |                         | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                     |                                                                                                                                |        |
|                                   |                         |          |        | rotted stumps and tree cavities (Van Dyck and Strahan, 2008). It occurs more rarely in wetter forests. Dated sub-fossil remains (up to 300 years BP) from Balladonia (WA) and an isolated record from Kalgoorlie (WA) implies that its previous extent of occurrence was more extensive than currently thought in Wildlife Australia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | southwest of the survey area.                                                                       | connected bushland to support this species. Any occurrence would be vagrant or occasional at best.                             |        |
| <i>Pseudocheirus occidentalis</i> | Western Ringtail Possum | CR       | CR     | The Western Ringtail Possum occurs in and near coastal Peppermint Tree ( <i>Agonis flexuosa</i> ) forest and Tuart ( <i>Eucalyptus gomphocephala</i> ) dominated forest with a Peppermint Tree understorey from Bunbury to Albany. Also occurs in Jarrah ( <i>Eucalyptus marginata</i> ) forest and Jarrah-Marri ( <i>Corymbia calophylla</i> ) forest associated with Peppermint Tree (Van Dyck & Strahan 2008).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Highly Unlikely.</b><br>There are no local records and survey area is beyond the species' range. | <b>Highly Unlikely.</b><br>Suitable habitat is absent, and survey area is beyond the species' range.                           | PMST   |
| <i>Setonix brachyurus</i>         | Quokka                  | VU       | VU     | The current distribution of the Quokka includes Rottnest and Bald Islands, and at least twenty-five sites on the mainland, including Two Peoples Bay Nature Reserve and Torndirrup, Mt Manypeaks and Walpole-Nornalup National Parks, and swamp areas through the south-west forests from Jarrahdale to Walpole. The last known population on the Swan Coastal Plain occurs in Muddy Lakes near Bunbury. Quokkas have also been reintroduced to Karakamia Sanctuary (DEC 2012). They occupy dense forests and thickets, streamside vegetation, heaths, shrublands, <i>Agonis linearifolia</i> -dominated swamps in the Jarrah ( <i>Eucalyptus marginata</i> ) forest, and sometimes tea-tree thickets on sandy soils along creek systems. The northern extent on the mainland is in the Jarrah forest immediately south-east of the Perth metropolitan area, from where it extends southward through the southern Jarrah, Marri and Karri forests to the south coast, but largely confined throughout to areas receiving an annual rainfall of 1,000 | <b>Highly Unlikely.</b><br>There are no local records and survey area is beyond the species' range. | <b>Highly Unlikely.</b><br>There is no extant suitable habitat, no local records and survey area is beyond the species' range. | PMST,  |

| Taxon                       | Common Name          | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pre-survey likelihood                                                                                                                                                | Post-survey likelihood                                                                                                                                                                          | Source          |
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|                             |                      | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                      |                                                                                                                                                                                                 |                 |
|                             |                      |          |        | mm or more (DEC 2012; Van Dyck and Strahan 2008).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                      |                                                                                                                                                                                                 |                 |
| <b>REPTILES</b>             |                      |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                      |                                                                                                                                                                                                 |                 |
| <i>Lerista lineata</i>      | Perth Slider         | -        | P3     | A slender species of skink endemic to Western Australia with two digits on forelimbs, three on hindlimbs, fused eyelids and broad, black lateral stripe. This species has a strong habitat preference for sandy, coastal heath and shrubland, particularly between Perth and Mandurah (Wilson & Swan, 2013).                                                                                                                                                                                                                                                                                                                   | <b>Likely.</b><br>Several database records near survey area from Jandakot located 2km south. Suitable remnant bushland habitat likely to occur within survey area.   | <b>Likely.</b><br>Suitable remnant bushland habitat occurs in survey area such as Banksia woodland in the southwest portion.                                                                    | Naturemap, DBCA |
| <i>Neelaps calonotos</i>    | Black Striped Snake  | -        | P3     | A small species of burrowing, mildly venomous elapid snake species, reaching a maximum length of 280mm with a distinct black vertical stripe down the length of the body in between a bright orange coloured body (Wilson & Swan, 2013).<br><br>Given the strong burrowing characteristics of the species, it is restricted to sandy, dune eco-systems and sand plains, in areas which are dominated by Eucalypt and Banksia woodlands (Wilson & Swan, 2013), and has a distribution range endemic to the South-West WA coast, from Mandurah to Lancelin (Wilson & Swan, 2013).                                                | <b>Likely.</b><br>Known to occur locally including recent database record 5km NE of the survey area.                                                                 | <b>Likely.</b><br>Locally recorded and suitable habitat occurs in the southwest portion of survey area where native vegetation may be of adequate size to support a population of this species. | Naturemap, DBCA |
| <i>Pseudemydura umbrina</i> | Western Swamp Turtle | CR       | CR     | The Western Swamp Turtle is a small, brown, winter-breeding freshwater Terrapin growing up to 150 mm in length with a roundish carapace, flat broad plastron (lower shell) and short neck with small horny casque at base of head (Cogger, 2000). Males do not exceed a carapace length of 155 mm or a weight of 550 g; females are smaller and do not grow beyond 135 mm carapace length or a weight of 410 g (Burbidge & Kuchling, 2004). The Western Swamp Tortoise has an extremely restricted geographic range, currently limited to wetlands on scattered localities in a narrow strip (3–5 km wide) of the Swan Coastal | <b>Unlikely.</b><br>There is a single recent database record from 2013 from Perth Airport with a dead terrapin found at approximately 1 km north of the survey area. | <b>Unlikely.</b><br>The survey area lacks suitable habitat: extensive ephemeral freshwater swamp wetland with dense vegetation.                                                                 | DBCA            |



| Taxon                           | Common Name          | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Pre-survey likelihood                                                                                                                     | Post-survey likelihood                                                                                  | Source |
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|                                 |                      | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                           |                                                                                                         |        |
|                                 |                      |          |        | Plain, Western Australia, roughly parallel with the Darling Range. The range spans from Perth Airport at Guildford to near Pearce Royal Australian Air Force Base at Bullsbrook (Burbidge & Kuchling, 2004), although attempts are being made to establish new sub-populations from captive bred animals. Habitat critical for the survival of this species includes land within the fox-proof fenced areas at Twin Swamps Nature Reserve and Ellen Brook Nature Reserve; all land within Mogumber Nature Reserve; land in which surface water catchments extend outside of the nature reserves; any land where wild populations are detected in the future; and land targeted for the introduction or reintroduction of this species (Burbidge & Kuchling, 2004).                                                                                                                                                                                                                                |                                                                                                                                           |                                                                                                         |        |
| <b>INVERTEBRATES</b>            |                      |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                           |                                                                                                         |        |
| <i>Australotomurus morbidus</i> | Guildford Springtail | -        | P3     | This species of invertebrate was described by Greenslade et.al (2014) attains a length of about 5 mm. Very little is known about the species' ecology. It occurs in heath remnants on the Swan Coastal Plain. All other species to date are only known from south-eastern Australia and are distributed patchily in native heathland, grassland or dry sclerophyllous woodland habitats at low and high altitudes (DCCEEW, 2023; Greenslade & Jordana, 2014). This species is allopatric and most abundant in summer, none are found in arid or semi-arid regions, low rainfall appears to limit distributions (Greenslade & Jordana, 2014). Prior to 1999, this species was ranked as Critically Endangered in WA, known only from the South Guildford cemetery and based upon a single specimen collected and identified (WAM, 1999). In 1999, as part of a broader ground fauna survey in the Perth urban area 349 specimens of Australotomurus sp. were recorded using wet pitfall traps over | <b>Likely.</b><br>Recorded locally within Perth metropolitan area. Habitat may occur within the survey area, pending the site assessment. | <b>Unlikely.</b><br>Given local occurrence and Banksia woodland habitat present, it is likely to occur. | DBCA   |

| Taxon                            | Common Name                             | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Pre-survey likelihood                                                                                                  | Post-survey likelihood                                                                                                                   | Source          |
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|                                  |                                         | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                        |                                                                                                                                          |                 |
|                                  |                                         |          |        | 12months (WAM, 1999). As a result, the conservation listing for this species was downgraded as this species was more widespread than previously assumed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                        |                                                                                                                                          |                 |
| <i>Leioproctus bilobatus</i>     | Short-tongued bee species               | -        | P2     | The bee <i>Leioproctus</i> ( <i>Glossurocolletes</i> ) <i>bilobatus</i> , is associated with Jarrah/Wandoo Forest nominally to the east of the Swan Coastal. <i>Leioproctus</i> ( <i>Glossurocolletes</i> ) <i>bilobatus</i> has so far been collected solely from the yellow flowering pea, <i>Gompholobium aristatum</i> (Houston 2018).                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Unlikely.</b><br>Based on distribution and preferred habitat, unlikely to occur.                                    | <b>Unlikely.</b><br>The survey area lacks preferred Jarrah-Wandoo habitat for the species.                                               | DBCA            |
| <i>Idiosoma sigillatum</i>       | Swan Coastal Plain Shield-backed Spider | -        | P3     | This spider was recently described as part of a revision of Shield-back Trapdoor spider group (Rix et.al 2018). It has a relatively widespread distribution along the Swan Coastal Plain (SCP) of south-western Western Australia, from Dalyellup north to at least Ledge Point (including Rottnest Island and Garden Island. The eastern limit of its range along the sandy foothills of the Darling Escarpment, from Boyanup north to at least Gingin. Preferred habitat appears to be Banksia woodland and heathland on sandy soils. The vertical burrows are enhanced with a typical 'moustache-like' arrangement of twig-lines. There are many early WAM since 1939 spread widely across the SCP but expansion of Perth has significantly reduced and fragmented former habitat area | <b>Likely.</b><br>Several local and regional records including Beeliar area located 4 km southwest of the survey area. | <b>Likely.</b><br>The survey area intersects with suitable Banksia woodland habitat in the southern portion in the vicinity of Jandakot. | DBCA, Naturemap |
| <i>Leioproctus douglasiellus</i> | Short-tongued bee species               | CR       | EN     | <i>Leioproctus douglasiellus</i> , is a small black bee which belongs to a group of species characterised by short tongues. Female specimens are 8 mm in length, with a wing length of almost 5 mm (DEC, 2009). <i>L. douglasiellus</i> is now thought to occur in three locations within the Perth metropolitan area ranging from Cannington to Forrestdale, as reported in the 2006-2008 Rare Native Bee Survey results conducted by the Western Australian Department of Environment and Conservation (DEC) (Swan Region) (DEC,                                                                                                                                                                                                                                                        | <b>Unlikely.</b><br>The host/food plants unlikely to occur within the survey area, pending the site assessment.        | <b>Unlikely.</b><br>The host/food plants unlikely to occur within the survey area, based on the site habitat assessment.                 | DBCA, PMST      |



| Taxon                         | Common Name               | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Pre-survey likelihood                                                                                     | Post-survey likelihood                                                                                                                                                                     | Source          |
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|                               |                           | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                           |                                                                                                                                                                                            |                 |
|                               |                           |          |        | 2009). The current extent of occurrence is 24.3 km <sup>2</sup> , the area of occupancy is 0.2 km <sup>2</sup> , and there has been an inferred decline of suitable habitat since surveys undertaken in 1954 due to a large portion of the Swan Coastal Plain being significantly altered, especially around the Perth metropolitan area where the only known populations of the species occur (DEC, 2009). Specimens of <i>L. douglasiellus</i> have been collected on two plant species, both of which are on the DEC Priority Flora list: <i>Goodenia filiformis</i> and <i>Anthotium junciforme</i> (DEC, 2009).                                                                                                                              |                                                                                                           |                                                                                                                                                                                            |                 |
| <i>Neopasiphae simplicior</i> | Short-tongued bee species | CR       | EN     | <i>Neopasiphae simplicior</i> is a very rare, black short-tongued bee that is of a smaller size and has less-modified antennae and legs than other species belonging to the same genus (congeneric). Males are 7 mm in length, with a wing length of 5 mm (Michener 1965). <i>Neopasiphae simplicior</i> is highly restricted in range, and is thought to only occur in a single location within the bushland of the Forrestdale Lake Nature Reserve, with a total occupancy of one square kilometre (100 ha). Habitat preferences for the species appear to include banksia woodlands with sandy soils and specific flower species of the Thread-leaved Goodenia ( <i>Goodenia filiformis</i> ), and Slender Lobelia ( <i>Lobelia tenuior</i> ). | <b>Unlikely.</b><br>Based on restricted range, the survey area is beyond the current mapped distribution. | <b>Unlikely.</b><br>Based on restricted range, the survey area is beyond the current mapped distribution.                                                                                  | DBCA            |
| <i>Synemon gratiosa</i>       | Graceful Sun Moth         | -        | P4     | This sun moth is endemic to the Swan Coastal Plain. Previously thought to be restricted to the Perth-Peel, its range has been extended from about Bunbury to Kalbarri. Host plants include <i>Lomandra hermaphrodita</i> found in <i>Banksia</i> woodlands of Bassendean Dunes, and <i>Lomandra matitima</i> which is common on coastal Quindalup Dunes. The moth completes its metamorphosis and emerges as adult moth in early Autumn (early March) and is active for several weeks to mate and complete life                                                                                                                                                                                                                                   | <b>Likely</b><br>Several local records from Perth-Peel region in areas of remnant Banksia woodland.       | <b>Likely.</b><br>Host plants species namely <i>Lomandra hermaphrodita</i> recorded within the survey area in the southern portion in the vicinity of Jandakot. Therefore likely to occur. | DBCA, Naturemap |

| Taxon                      | Common Name                | Status   |        | Description and Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pre-survey likelihood                                                                                                                               | Post-survey likelihood                                                                                                                                                     | Source                |
|----------------------------|----------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                            |                            | EPBC Act | BC Act |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                     |                                                                                                                                                                            |                       |
|                            |                            |          |        | cycle before mortality. Eggs are laid on host plants, and the larvae (grubs) remain in the plant for several years before reaching maturity.                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                     |                                                                                                                                                                            |                       |
| <i>Westralunio carteri</i> | Carter's Freshwater Mussel | VU       | VU     | Carter's Freshwater Mussel is usually found in freshwater river pools. They are most common in areas with muddy, silty and sandy bottoms and flowing permanent water. Environmental tolerances of <i>W. carteri</i> are not precisely known but they can be found where water temperatures range from 4° C to over 30° C. Formerly this species occurred widely through the southwest including interior rivers of southwest such as Avon, Murray and Blackwood, however Salination of many waterways has severely reduced this species distribution. | <b>Likely.</b><br>Recent database records confirm species' occurrence locally within the Canning River, upstream and downstream of the survey area. | <b>Likely.</b><br>Not recorded during the field survey. However, based on species local occurrence, it is likely to occur where the survey area bisects the Canning River. | PMST, Naturemap, DBCA |





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