# Djarindjin-Aalga Goolil Solar Project

Fauna Surveys 2025

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# Djarindjin-Aalga Goolil Solar Project

## Fauna Survey 2025

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# Executive Summary

Western Environmental Approvals Pty Ltd (WEPL) was commissioned by Right Foot Forward (RFF) to undertake a targeted fauna survey to support the proposed Aalga Goolil Djarindjin Community Power Pty Ltd Solar Project (the Project) within Lot 297 on Deposited Plan 83256 (the Survey Area).

The biological surveys included:

- A desktop assessment of relevant databases and previous surveys.
- Targeted surveys for Bilby and Northern Brushtail Possum.
- A basic fauna survey and Likelihood of Occurrence assessment for threatened or priority fauna.

Biological surveys were undertaken across four person days sampling fauna habitats from 5th August and 6th August 2025.

### *Basic Fauna Survey*

Database searches identified 58 conservation listed fauna species that potentially occur, or habitat likely occurs within the Survey Area, comprising:

- Three species had a high likelihood of occurrence.
    - *Erythrura gouldiae* (Gouldian finch) P4/EN
    - *Falco peregrinus* (peregrine falcon) OS
    - *Tiliqua scincoides intermedia* (northern blue-tongued Skink) C
- Five species had a medium likelihood of occurrence.
    - *Ozimops cobourgianus* (northern coastal free-tailed bat) P1
    - *Macrotis lagotis* (bilby) VU
    - *Trichosurus vulpecula arnhemensis* (northern brushtail possum) P4
    - *Lerista separanda* (Dampier plain slider) P2
    - *Simoselaps minimus* (Dampier burrowing snake) P2
- Fifty species had a low likelihood of occurrence. These were primarily marine species and pelagic seabirds.

One fauna habitat type was described. The habitat comprises an open eucalypt woodland.

No species of conservation significance were recorded within the Survey Area.

### *Threatened Fauna Survey*

No evidence or sightings of bilby or Northern Brushtail Possum were detected within the Survey Area. None of the habitat within the Survey Area is considered significant for bilby. The habitat within the Survey Area is considered supporting habitat for Northern Brushtail Possum.

Given that neither signs nor individuals of these two species were recorded during the targeted survey it is considered that they do not utilise the Survey Area.

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# 1. Introduction

## 1.1 Project Background

Western Environmental Approvals Pty Ltd (WEPL) was commissioned by Right Foot Forward (RFF) to undertake a targeted fauna survey to support the proposed Aalga Goolil Djarindjin Community Power Pty Ltd Solar Project (the Project) within Lot 297 on Deposited Plan 83256 (the Survey Area).

A previous fauna survey was undertaken in 2023 by GHD on behalf of Horizon Power which covers a portion of the current Survey Area. In WEPL's recent experience in the Broome region, regulators have flagged survey deficiencies for greater bilby (hereby referred to as bilby) and northern brushtail possum (hereby referred to as NBP). Deficiencies cited have been:

- Currency of bilby surveys: Surveys several years ago are not considered suitable to accurately identify current quality and availability of the bilby's resources as well as the activity, distribution and status of the bilby's breeding burrows within the proposed action area.
- Method: Targeted surveys for bilby via plot based and widely spaced transect searches not being of sufficient detail to satisfy guidelines such as the *Survey Guidelines for Australia's Threatened Mammals* (DSEWPaC, 2011).
- Assessment by habitat mapping alone: Targeted surveys for northern brushtail possum not being of sufficient detail to satisfy guidelines such as the *Survey Guidelines for Australia's Threatened Mammals* (DSEWPaC, 2011). Assessments undertaken by habitat mapping alone are not considered sufficient.

## 1.2 Location

The Survey Area is located within the Djarindjin Community, at the intersection of Djarindjin and Lombadina Roads and Chile Creek Road on the Dampier Peninsula. The Survey Area is located 190 km northwest of the town of Broome in the west of the Kimberley region. The Survey Area is 7.6 hectares in total. WEPL understand that Aalga Goolil Djarindjin Community Power Pty Ltd will be the developer and owner of the Project.

## 1.3 Objectives and Scope of Work

The objective of the survey was to delineate key fauna values as well as determine the value of the Survey Area to support bilby (*Macrotis lagotis*) and NBP (*Trichosurus vulpecula arnhemensis*).

The scope of work included:

- Desktop assessment of State and Commonwealth databases and other sources.

- Basic fauna survey consistent with Environmental Protection Authority (EPA) Fauna Survey Technical Guidance. *Technical Guidance - Terrestrial vertebrate fauna surveys for environmental impact assessment* (EPA, 2020)

- Targeted bilby survey consistent with the *Survey guidelines for Australia's Threatened Mammals* (DSEWPaC, 2011), and the Department of Biodiversity, Conservation and Attractions' *Guidelines for survey to detect the presence of bilbies, and assess the importance of habitat in Western Australia* (DBCA, 2017)

- Targeted NBP survey consistent with the *Survey guidelines for Australia's threatened mammals* (DSEWPaC, 2011).

- Technical report including the results of the desktop assessment.

This report presents the results of the desktop assessment and field survey undertaken to support the above objectives.










# Figure 1: Survey Area

N

0 50 100 150 m

| | |
|---|---|
| SCALE: 1:2,800 | SHEET SIZE: A3 COLOUR |
| COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50 | |
| DATA SOURCE: LANDGATE AERIAL IMAGERY NOW | |

| | | |
|---|---|---|
| PROJECT/REPORT NAME: Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025 Lombadina | | |
| CLIENT: RFF | | |
| PROJECT NUMBER: A25.029 | VERSION: 0 | |
| DRAWN BY / REVIEWED BY: JP/JR | DATE: 16/9/2025 | |

Legend

- Survey Area
- Cadastre (No Attributes) (LGATE-001)

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 16/9/2025 |

NOTES:

Cadastral boundary (LGATE-002). Base map ESRI Topo. Townsites (LGATE-248).

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## 1.4 Relevant Legislation and Guidance

This environmental assessment was conducted in accordance with Commonwealth and State legislation and guidelines:

- *Commonwealth Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act).
- *Western Australian Environmental Protection Act* 1986 (EP Act).
- *Western Australian Biodiversity Conservation Act* 2016 (BC Act).
- *Western Australian Biodiversity Conservation Regulations* 2018.
- Department of the Environment (DotE). (2013). *Matters of National Environmental Significance. Significant Impact Guidelines 1.1 - Environment Protection and Biodiversity Conservation Act* 1999.
- Department of Sustainability, Environment, Population and Communities (DSEWPaC). (2011). *Survey Guidelines for Australia's Threatened Mammals*. Canberra, Australia.
- Department of Agriculture, Water and the Environment (DAWE). (2021) *Conservation Advice - Trichosurus vulpecula arnhemensis Northern Brushtail Possum*.
- Department of Agriculture, Water and the Environment (DAWE) (2016) Conservation Advice - Macrotis lagotis - Greater Bilby.
- Department of the Environment Water Heritage and the Arts (DEWHA) (2010). *Survey Guidelines for Australia's Threatened Birds.*
- Department of Biodiversity, Conservation and Attractions (DBCA) (2017) *Guidelines for survey to detect the presence of bilbies, and assess the importance of habitat in Western Australia*
- Environmental Protection Authority (2020) *Terrestrial vertebrate fauna surveys for environmental impact assessment*. Known herein as the 'Fauna Survey Technical Guidance'.

A short description of key legislation is provided in Appendix A. Other definitions, including species and ecological community conservation categories, are provided in Appendix B.

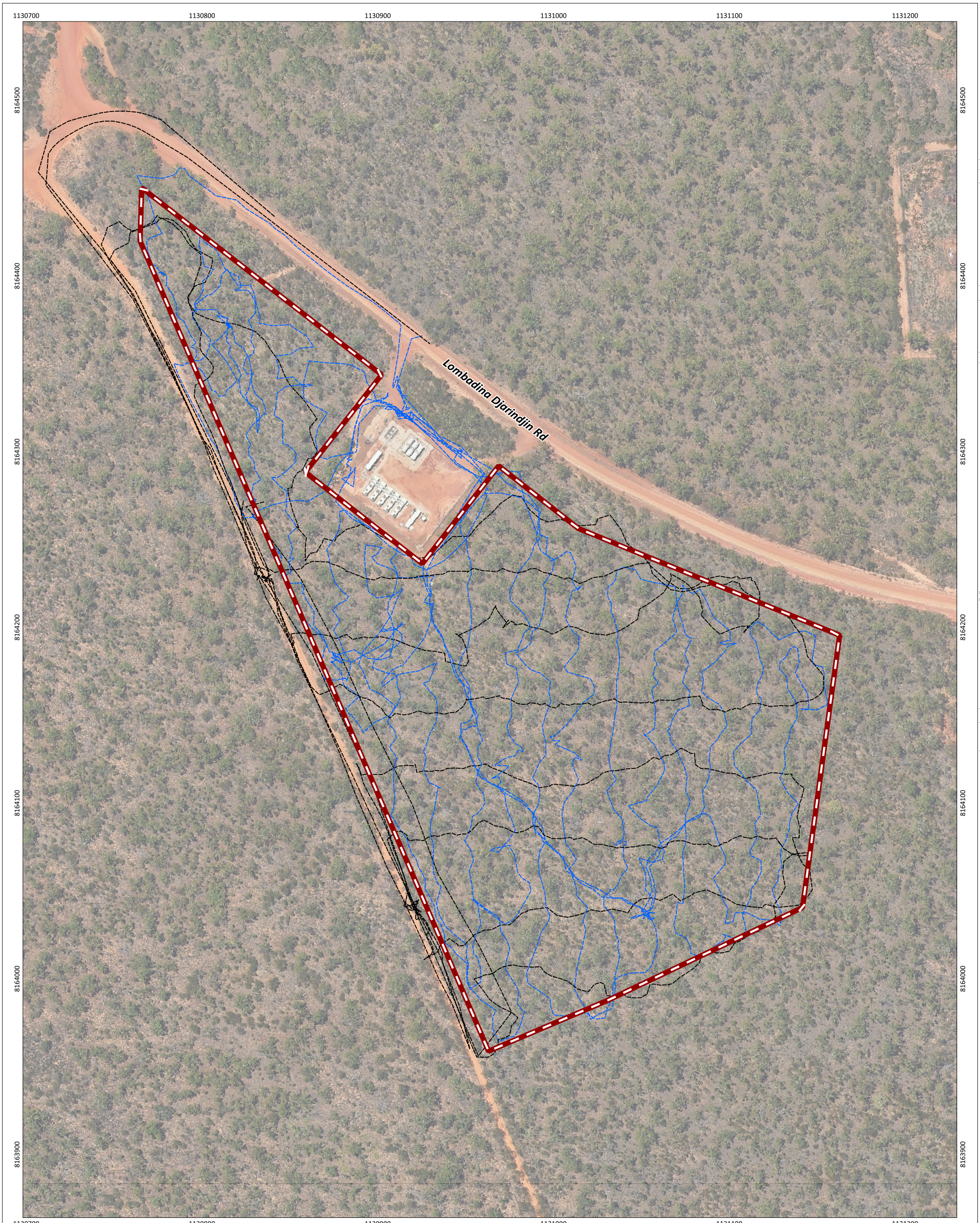
## 1.5 Survey Limitations and Constraints

Limitations and constraints of the fauna survey as outlined in the Fauna Survey Technical Guidance (EPA, 2020) are detailed below in Table 1.

## Table 1: Limitations and Constraints of the Flora, Vegetation and Fauna Survey

| Possible Limitation | Degree of Limitation (Significant, Moderate or Negligible) | Potential Constraints on Survey Outcomes |
|---|---|---|
| **Survey Level/ Scope** | Negligible | The Targeted bilby and NBP surveys and basic fauna survey is considered suitable based on species expected to be present and the extent and condition of vegetation/habitat present within the Survey Area. The level of information collected was suitable to provide information required to inform and support approvals and referrals. |
| **Availability of contextual information at a regional and local scale** | Negligible | All data required to complete the scope of works including regional and local contextual information was available. DBCA data was requested as part of the desktop assessment. |
| **Site Access** | Negligible | The entire Survey Area was readily accessed by vehicle and on foot. |
| **Survey Intensity and Extent** | Negligible | Suitable survey effort by experienced ecologists was applied. Survey effort included:<br>Two person days for Targeted bilby, NBP and basic fauna survey.<br>All planned Survey Areas were adequately sampled in line with the project scope of works.<br><br>See Figure 2 for survey effort represented by tracklogs |
| **Experience** | Negligible | The ecologist leading the field survey (Sam Lostrom) has been conducting Targeted Fauna surveys in Western Australia for over 8 years.<br>The second field ecologist the fauna field survey (Jack Rogers) has been conducting fauna targeted assessments in Western Australia as well as Targeted Ornithological Surveys in the UK, with over 4 years' experience. Back-office support was provided by senior ecologists who have worked in the region for over 10 years. |
| **Timing, weather, season** | Negligible | Bilby and NBP do not have hibernation periods within the Kimberly region, as such there is not a preferable season for surveying for these species. Bilby diggings, scat and burrows can persist in the environment for multiple years and as such timing is not considered a significant limitation to the Survey.<br><br>The temperatures and weather experienced during the field survey was warm and dry (typically 28 ℃ in the day and 18 ℃ at night) not considered a limitation to the survey and did not affect the ability to record fauna or habitats. |
| **Proportion of the fauna recorded and/or collected, and any identification issues** | Negligible | A total of 18 vertebrate fauna species were recorded, including 2 introduced species. The number of species identified was considered good for this region. There were no other factors considered a limitation to the survey.<br><br>Species sampling was in line with the Technical Guidance for a basic fauna survey. |

| Possible Limitation | Degree of Limitation (Significant, Moderate or Negligible) | Potential Constraints on Survey Outcomes |
|---|---|---|
| **Mapping Reliability** | Negligible | The entirety of the Survey Areas was traversed by foot and mapping reliability is considered high.<br>Mapping accuracy and reliability was not considered a limitation. |
| **Disturbances (fire, flood etc.)** | Negligible | There was no evidence of clearing and some historical evidence of fire which is not considered a limitation to the field survey. However, post survey (before 3rd of September 2025) all vegetation within the Survey Area was burnt by a bushfire. This is not considered a limitation to the Survey as it occurred post Survey. |




# Figure 2: Survey Effort

0 15 30 45 60 m

N

| | | |
|---|---|---|
| PROJECT/REPORT NAME: Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025 Lombadina | | |
| SCALE: 1:2,000 | SHEET SIZE: A3 COLOUR | CLIENT: RFF |
| COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50 | PROJECT NUMBER: A25.029 | VERSION: 0 |
| DATA SOURCE: LANDGATE AERIAL IMAGERY NOW | DRAWN BY / REVIEWED BY: JP/JR | DATE: 18/9/2025 |

Legend

- Survey Area

Tracklog

- Daytime
- Nighttime

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 18/9/2025 |

NOTES:

Cadastral boundary (LGATE-002). Label corresponds to the vegetation association number.

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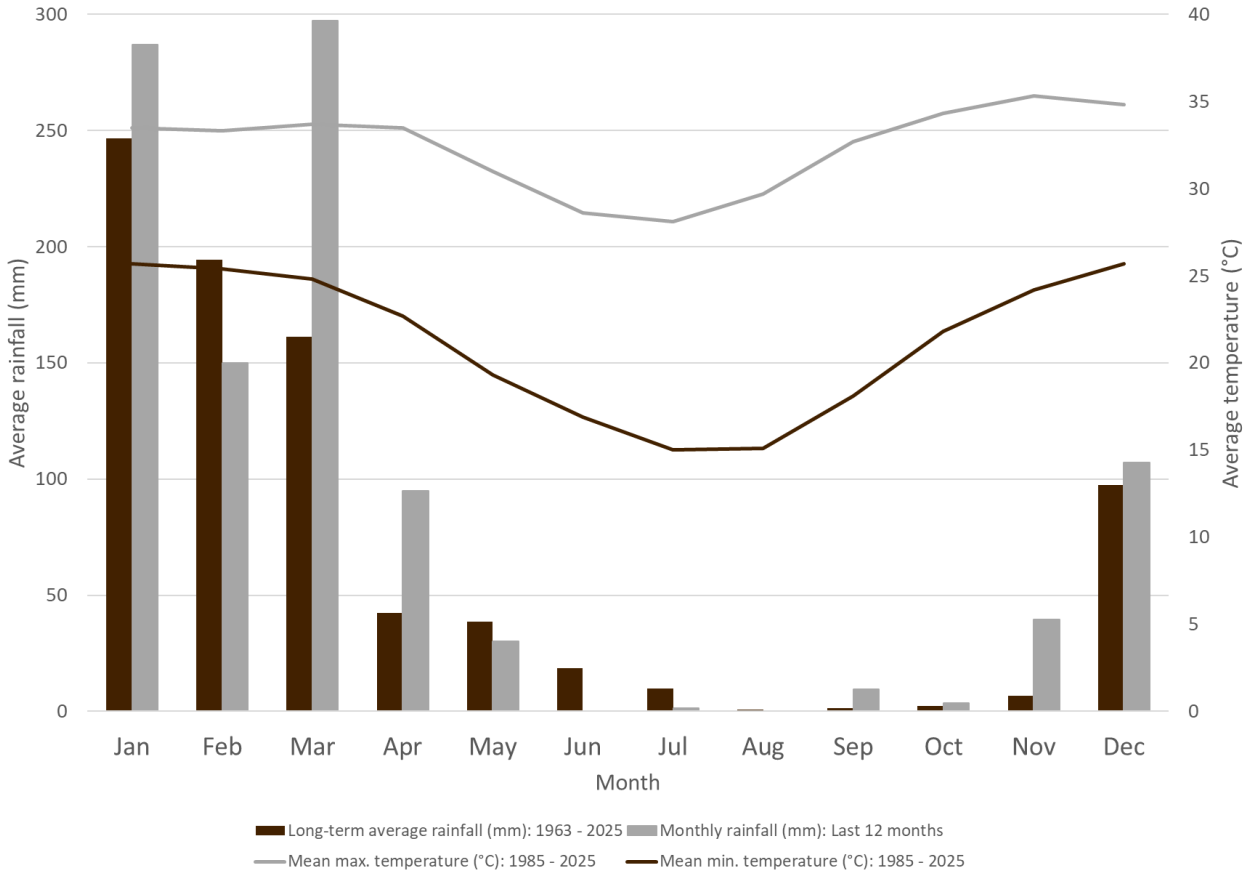
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# 2. Existing Environment

## 2.1 Climate and Rainfall

The Dampier Peninsula is characterized by a semi-arid climate which experiences warm/dry winters and hot/humid summers with occasional tropical cyclones in the summer months. The majority of rainfall occurs in the summer months followed by an average of five to six cooler months of low rainfall. The Bureau of Meteorology (BoM) Cygnet Bay Station (ID-003057) provides the closest and most consistent long term weather data for the site (1985-2025). Mean daily maximum temperatures ranges from 28.1 in June to 35.3 in November (BoM, 2025). Summary of daily temperature statistics below in Graph 1.

The mean annual rainfall for Cygnet Bay Bureau Station is 820.2 mm and in the 2024/2025 season presurvey was 1019.9 mm (199.7mm above average). Rainfall primarily falls during the months of October-April. Mean monthly rainfall ranges between 0.9 mm in August to 246.5 mm in January (BoM, 2025). Summary of monthly rainfall statistics below in Graph 1.




**Graph 1: Long-term and Monthly Total Rainfall, Maximum and Minimum Temperatures for Cygnet Bay (ID-003057) (BOM, 2025)**

## 2.2 Interim Biogeographic Regionalisation for Australia

The Interim Biogeographic Regionalisation of Australia (IBRA) divides Australia into 89 bioregions based on major biological, geographical and geological attributes. These bioregions are subdivided into 419 subregions as part of a refinement of the IBRA framework (DSEWPaC, 2012). The Survey Area occurs within the Dampier land Biogeographic Region, subregion Pindanland (DAL02).

## 2.3 Geology and Soils

### 2.3.1 Geology systems

The soil landscape mapping units by the Department of Primary Industries and Regional Development (DPIRD) (DPIRD-027) intersecting the Survey Areas are listed below in Table 2 and shown in Figure 3.

**Table 2: Geology Systems Intersecting the Survey Area (DPIRD-027)**

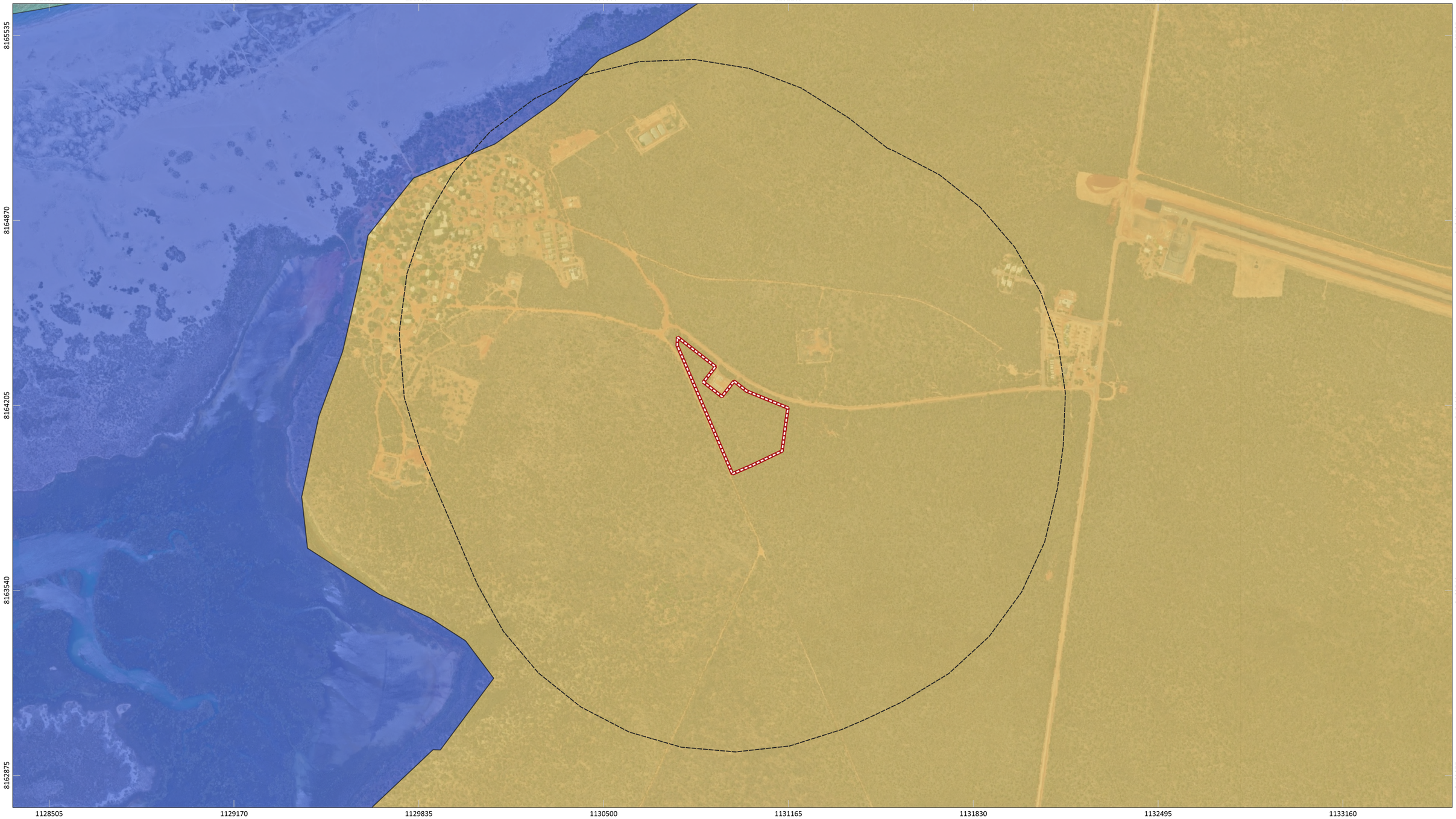
| Mapping Unit Symbol | Map Unit Name | Description |
|---|---|---|
| **335Ye** | Yeeda system | Red sandplains supporting pindan vegetation with dense acacia shrubs, scattered bloodwood and grey box trees and curly spinifex and ribbon grass |

### 2.3.2 Soil Landscape Mapping

Soil Landscape Mapping Zones by DPIRD (DPIRD-017) indicates that the Site is mapped as being within of the De Grey-Roebourne Lowlands Zone of the Pilbara soil-landscapes (Table 3).

**Table 3: Soil Systems Intersecting the Survey Area (DPIRD-017)**

| Mapping Unit Zone | Map Unit Name | Description |
|---|---|---|
| **335** | Dampier Peninsula Sandplain Zone | Sandplains and dunes (with some sandy plateaux and coastal mudflats) on sedimentary rocks of the Canning Basin with Red deep sands and some Yellow sandy earths and Tidal soils. |




# Figure 3: Geology and Soils

N

0 175 350 525 700 m

| | | |
|---|---|---|
| PROJECT/REPORT NAME: Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025 Lombadina | | |
| SCALE: 1:13,300 | SHEET SIZE: A3 COLOUR | CLIENT: RFF |
| COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50 | PROJECT NUMBER: A25.029 | VERSION: 0 |
| DATA SOURCE: LANDGATE AERIAL IMAGERY NOW | DRAWN BY / REVIEWED BY: JP / JR | DATE: 16/9/2025 |

Legend

- Survey Area
- 1km Buffer

Soil Landscape Mapping - Best Available (DPIRD-027)

- 335Cr_2
- 335Ye

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 16/9/2025 |

NOTES:

Cadastral boundary from LANDGATE 2022. UFID stands for Unique Identifier

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## 2.4 Pre-European Vegetation

### 2.4.1 Vegetation Association Mapping

During the 1970s, John Beard and associates conducted a systematic survey of native vegetation, describing the vegetation systems in Western Australia at a scale of 1:250 000 in the south-west and at a scale of 1:1,000,000 in less developed areas (Beard, 1976).

Beard's mapping attempted to depict the native vegetation as it was presumed to be at the time of settlement and is known as the pre-European vegetation type and extent. Beard's vegetation maps are maintained in digital form by Department of Primary Industries and Resource Development (DPIRD), in the DPIRD-006 (2019) dataset. Extents are updated periodically by Department of Biodiversity, Conservation and Attractions (DBCA, 2019). Pre-European vegetation associations are shown in Figure 4 and summarised in Table 4.

**Table 4: Pre-European Vegetation Intersecting the Survey Area (DPIRD-006)**

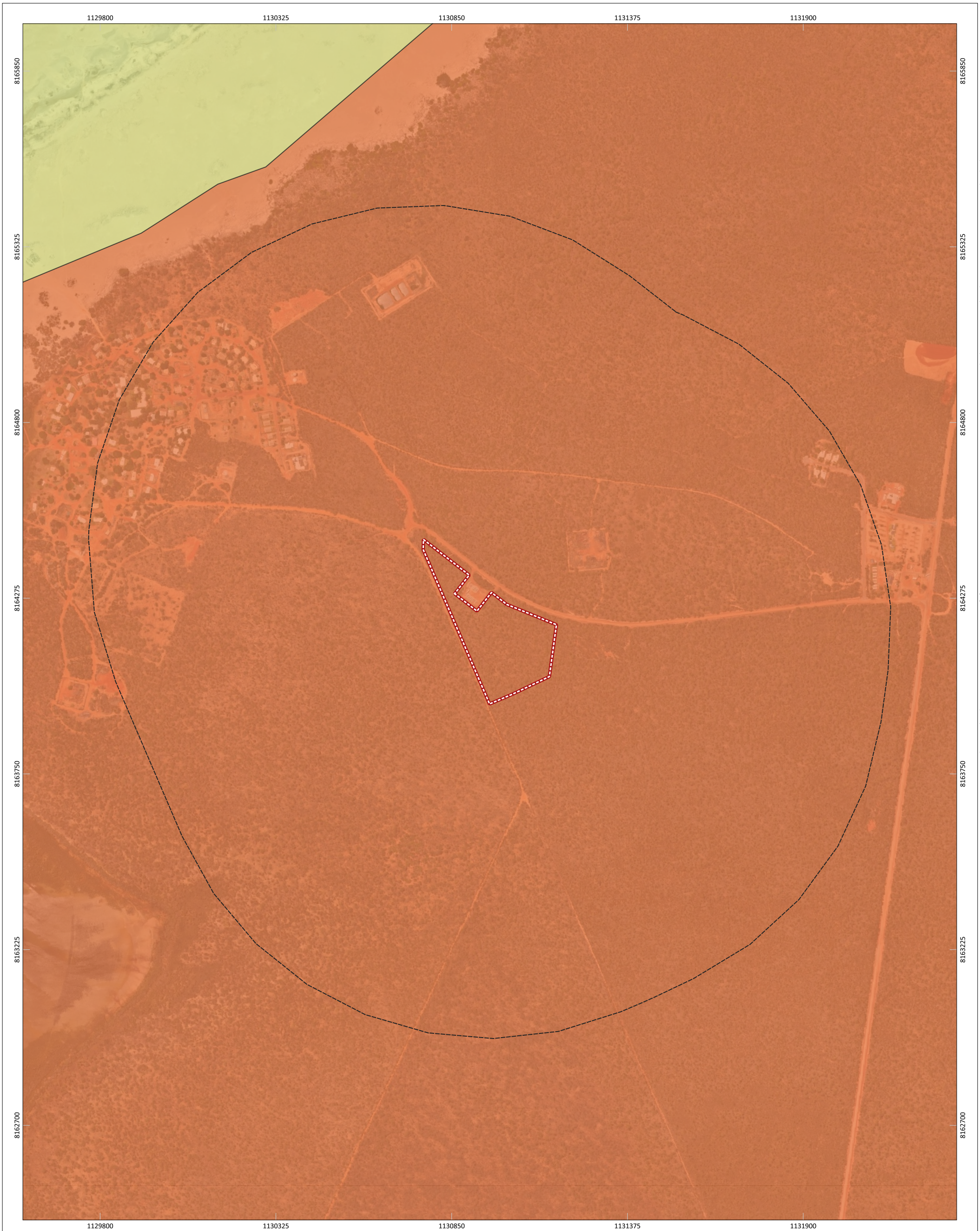
| Vegetation Type | Description |
|---|---|
| **DAMPIERLAND_750** | Acacia thicket with eucalypt woodland over spinifex, *Acacia tumida, Eucalyptus tectifica, Corymbia grandifolia, Triodia pungens, T. bitextura* |

The pre-European vegetation associations identified as intersecting the Survey Areas and their pre-European and current extents are listed in Table 5 (DBCA, 2018).

**Table 5: Pre-European Vegetation Association Representation**

| Vegetation Association | Original Extent (ha) | Current Extent (ha) | % Remaining | % Managed for Conservation |
|---|---|---|---|---|
| **DAMPIERLAND_750** | 195,860.89 | 191,711.41 | 97.88 | - |

*Percentage managed for conservation not available.




# Figure 4: Pre-European Vegetation Types

0 75 150 225 300 m

N

| | |
|---|---|
| SCALE | 1:10,500 |
| SHEET SIZE | A3 COLOUR |
| PROJECT/REPORT NAME | Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025 Lombadina |
| CLIENT | RFF |
| COORDINATE REFERENCE SYSTEM | GDA2020 / MGA zone 50 |
| PROJECT NUMBER | A25.029 |
| VERSION | 0 |
| DATA SOURCE | LANDGATE AERIAL IMAGERY NOW |
| DRAWN BY / REVIEWED BY | JP/JR |
| DATE | 16/9/2025 |

Legend

- Survey Area
- 1km Buffer

Pre-European Vegetation (DPIRD-006)

- DAMPIERLAND_129
- DAMPIERLAND_750

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 16/9/2025 |

NOTES:

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## 2.5 Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are declared by the Department of Water and Environmental Regulation (DWER) to prevent the degradation of important environmental values such as Threatened Flora, Threatened Ecological Communities (TECs) or significant wetlands.

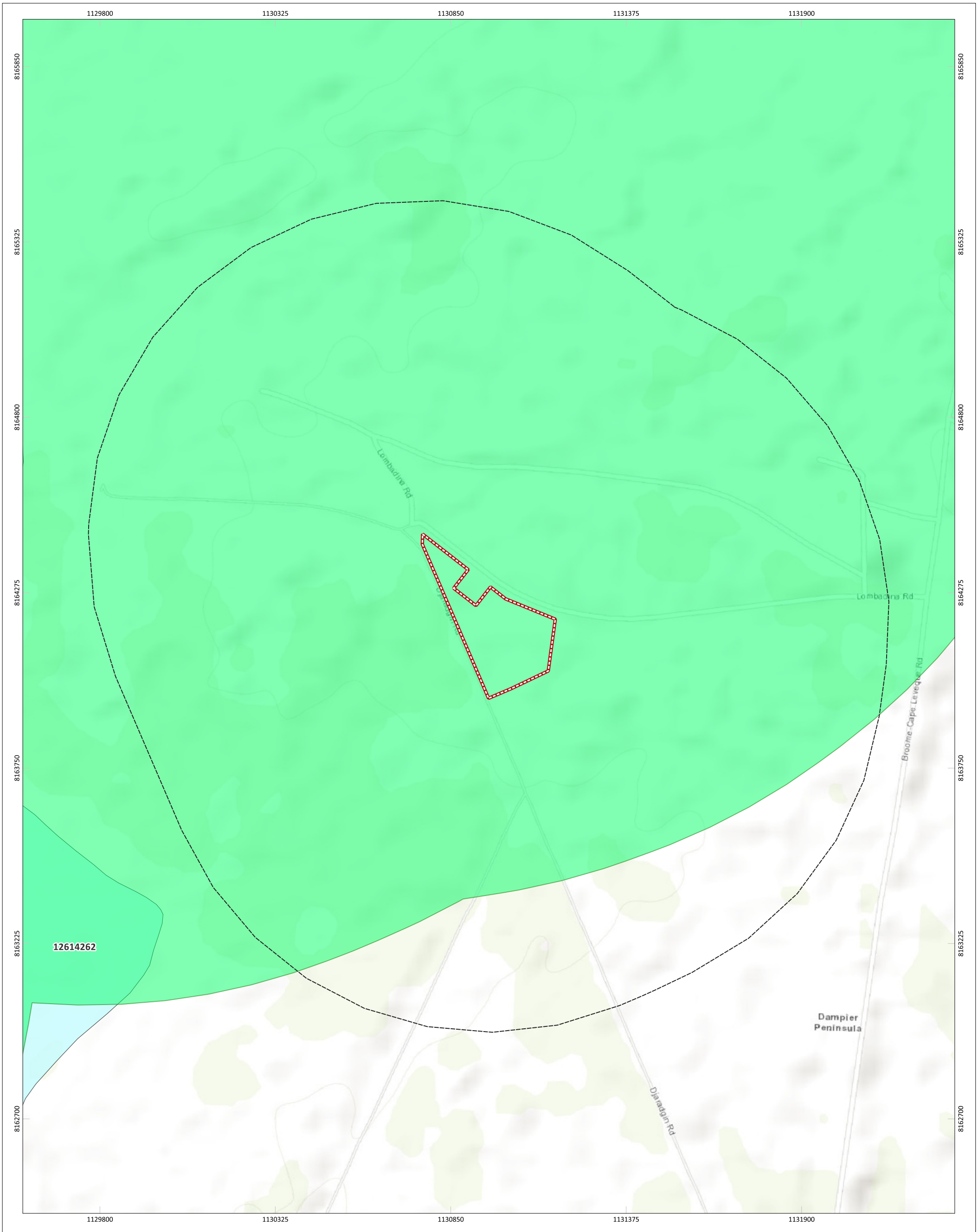
The entire Survey Area occurs within an Environmentally Sensitive Area (DWER-046). The nearest ESAs and Conservation Areas to the Survey Area are shown in Figure 5.

## 2.6 Wetlands and Hydrology

The Survey Area does not intersect any wetlands listed under the Directory of Important Wetlands in Australia (DBCA-045). According to DWER Hydrography linear (DWER-031) the coastal waterline hydrology feature is 2 km northeast of the Survey Area and does not interact hydrologically with the Survey Area.

DWER Hydrology Catchment Tool (DWER-027) indicates that the Survey Area is within the Cape Leveque Coast catchment (Basin No.801), and within the groundwater subareas (DWER-083) of Canning-Kimberley.

The nearest hydrological features to the Survey Area are shown in Figure 6.




# Figure 5: Environmentally Sensitive Areas

N

0 75 150 225 300 m

| | | |
|---|---|---|
| PROJECT/REPORT NAME: Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025 Lombadina | | |
| SCALE: 1:10,500 | SHEET SIZE: A3 COLOUR | CLIENT: RFF |
| COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50 | PROJECT NUMBER: A25.029 | VERSION: 0 |
| DATA SOURCE: ESRI Topographic Map | DRAWN BY / REVIEWED BY: JP/JR | DATE: 16/9/2025 |

Legend

- Survey Area
- 1km Buffer
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)

DBCA - Legislated Lands and Waters (DBCA-011)

- Marine Park

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 16/9/2025 |

NOTES:

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# Figure 6: Surface Water Features and Geomorphic Wetlands

0 150 300 450 600 m

N

| | |
|---|---|
| PROJECT/REPORT NAME | Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025<br>Lombadina |
| SCALE | 1:20,000 |
| SHEET SIZE | A3 COLOUR |
| CLIENT | RFF |
| COORDINATE REFERENCE SYSTEM | GDA2020 / MGA zone 50 |
| PROJECT NUMBER | A25.029 |
| VERSION | 0 |
| DATA SOURCE | LANDGATE AERIAL IMAGERY NOW |
| DRAWN BY / REVIEWED BY | JP/JR |
| DATE | 16/9/2025 |

Legend

- Survey Area
- 1km Buffer

Hydrography Linear (Hierarchy) (DWER-031)

- Coastal Waterline

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 16/9/2025 |

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# 3. Methodology

## 3.1 Desktop Assessment

### 3.1.1 Database Searches

Database searches of DBCA records were undertaken to compile a list of potential conservation significant flora, fauna and ecological communities previously recorded within or surrounding the Survey Areas (Table 6). In addition, an EPBC Act Protected Matters Search Tool (PMST) was undertaken to identify the potential for Matters of National Environmental Significance (MNES) to occur within or surrounding the Survey Area (DCCEEW, 2025).

**Table 6: Database Searches**

| Database Name | Date Received and Reference Number | Search Type | Search Area |
|---|---|---|---|
| **DBCA *Threatened and Priority Fauna* database search** | 21/01/2025<br>48-0125FA | Threatened and Priority Fauna | 50 km buffer around the Survey Areas |
| **Protected Matters Search Tool** | 15/08/2025 | Commonwealth listed, fauna | 50 km buffer around the Survey Areas |

### 3.1.2 Likelihood of Occurrence

Conservation listed flora, fauna and ecological communities identified from the desktop assessment were assessed to determine the likelihood of their occurrence within the Survey Area, both prior to and post field survey. The assessment was completed based on the likelihood of occurrence criteria presented in Table 7.

Only species either recorded within the Survey Area or considered as having a high or medium likelihood of occurrence in post field survey assessment will be discussed in detail. Species classified as having a low likelihood of occurrence will not be discussed unless a justification for this classification is required.

The likelihood of occurrence assessment is contained within Appendix C.

**Table 7: Likelihood of Occurrence Criteria**

| Likelihood | Criteria |
|---|---|
| **Recorded** | Recorded in the Survey Area from database searches, previous survey by others or by current survey. |
| **High** | Records of fauna species <10 km from the Survey Area. With record <20 years old; or<br>For species with well understood and specific habitat preference/requirements, when specific habitat is present in the Survey Area, and records present <10 km from the Survey Area.<br>Species with general habitat preference, which is present in the Survey Area, and records present <5 km from the Survey Area. |

| Likelihood | Criteria |
|---|---|
| **Medium** | There are records <10 km from the Survey Area, however:<br>The species is strongly linked to a specific habitat, which is marginally suitable or small in extent in the Survey Area or<br>Species has a general habitat preference, but small extent of suitable habitat is present.<br>There is suitable habitat in the Survey Area, but records are >10 km from Survey Area. |
| **Low** | Records are historical only or are pre mapping procedures (e.g. records assigned to towns or place names).<br>The species has well understood and specific habitat preference/requirements, which are absent from the Survey Area; or<br>Suitable habitat is present, however there are no existing records of the species from the region despite reasonable previous search effort; or<br>There is some suitable habitat in the Survey Area, however the species is very infrequently recorded in the locality (e.g. migratory bird species). |

## 3.2 Basic Fauna Survey

The basic fauna survey incorporated a number of survey techniques as per the *Terrestrial Fauna Technical Guidance* (EPA, 2020). A basic survey is a low-intensity survey, conducted at the local scale to gather broad fauna and habitat information. The primary objectives are to verify the overall adequacy of the desktop study, and to map and describe habitats, with a focus on habitat for conservation listed fauna.

Fauna species were identified by active searches, secondary evidence such as scats, tracks, calls, remains, diggings and other signs. A fauna inventory was not compiled as part of this survey (not required under basic level survey) however observations are used to inform the fauna habitat type assessment.

The fauna survey was undertaken by two ecologists on the 5th and 6th of August 2025, totalling a four-person day effort (including time allowed for travel to site).

Potential habitats for conservation listed species were identified and evaluated and the likelihood of occurrence assessed.

### 3.2.1 Fauna Habitat Type Assessment

The fauna habitat types present within the Survey Area were defined considering landform, vegetation, structure such as rockpiles and logs and fauna assemblage occupying the area.

The following information was used to define and map all fauna habitat types within the Survey Area at specific fauna habitat assessment points and during traverses of the Survey Area:

- Land systems and landform.
- Vegetation type and condition mapping.
- Soil characteristics.
- Structure such as rockpiles and logs.
- Fauna assemblage information from desktop assessment and field observations.
- Aerial imagery and historic imagery.

Each fauna habitat type is described considering suitability for various fauna species groups or conservation listed species. In addition, the fauna habitat type's likelihood to harbour specialised fauna species which are not found in adjacent areas was taken into consideration. Habitat types were delineated in the field and digitised upon return from the field survey.

### 3.2.2 Fauna Taxonomy

Terrestrial vertebrate fauna taxa were identified in the field by an experienced ecologist.

Taxonomy and nomenclature follow the *Checklist of the Terrestrial Vertebrate Fauna of Western Australia* (Western Australian Museum [WAM], 2025). Conservation status follows DBCA *Threatened and Priority Fauna List* (DBCA, 2025). Where required verification of identification of secondary evidence (tracks, scats, diggings) may be undertaken by a relevant species group expert.

An Inventory of all vertebrate fauna identified within or over the Survey Area was prepared.

### 3.2.3 Targeted Transect Searches for Bilby and NBP

Targeted transect searches were undertaken to search for evidence of bilby and NBP presence.

#### *Bilby survey*

Bilby are reliably detected from their foraging and denning evidence (scats, digging evidence and burrow entrances). With sufficient survey coverage, absence of foraging and denning evidence of bilby is a reliable metric for determining species absence within an area (DAWE, 2016). Targeted searches comprised of regularly spaced transects being walked at approximately 20 metre spacing through the most likely habitat for this species. Transects were walked twice, once during the morning (between 8 am and 11 am), and again at nighttime between 8 pm and 11 pm. Any evidence of bilby was recorded as a GPS point. Survey effort for fauna transects is presented in Figure 2.

#### *NBP survey*

NBP are primarily nocturnal and are reliably detected by spotlight searching for individual animals within eucalypt trees. NBP are relatively large (30-50cm body length not including 20-40cm tail length) animals and can be detected by spotlight because of the presence of *Tapetum lucidum*, which is a layer of tissue behind the retina that allows greater vision in dimmer light and is present in many vertebrates. This layer brightly reflects visible light, a trait known as 'eyeshine', and detection of eyeshine is a reliable way of detecting individual animals during nocturnal survey. With sufficient survey coverage, absence of individual NBP observations is a reliable metric for determining species absence within an area (DAWE, 2021). Targeted searches comprised of regularly spaced transects walked at approximately 30-40 metres through appropriate habitat for this species. This spacing allowed observation of the canopy and trunk of every tree within the surveyor's torch beams. Transects were walked during the nighttime after last light (8pm to 11pm), during the time that NBP are more likely to be active and observed in surveyor torch beams. Observations of dreys (NBP nests, comprising rough spheres of vegetation), tree hollows, and foraging evidence were opportunistically recorded during the diurnal transect survey (see Bilby survey above). Survey effort for fauna transects is presented in Figure 2.

# 4. Results

## 4.1 Fauna Desktop Assessment

### 4.1.1 Fauna assemblage

A desktop assessment of expected conservation significant fauna assemblage was undertaken through searches of DBCA database records and the EPBC Act PMST, shown in Figure 7. Results are summarised in Appendix C.

Database searches identified 58 conservation listed fauna species that potentially occur, or whose habitat likely occurs within the Survey Area, comprising:

- Forty-seven bird species.
- Six mammal species.
- Five reptile species.

Species listed as Marine only under the EPBC Act (e.g. sharks, whales, turtles) as well as pelagic seabirds (Albatrosses, petrels, prions, shearwaters and frigatebirds) have been excluded from the likelihood of occurrence list as there is no marine habitat present within the Survey Area.

### 4.1.2 Fauna likelihood of Occurrence

The likelihood of occurrence for conservation listed fauna species found that:

- Three species had a high likelihood of occurrence.
- Five species had a medium likelihood of occurrence.
- Fifty species had a low likelihood of occurrence.

The three species that had a high likelihood of occurrence were:

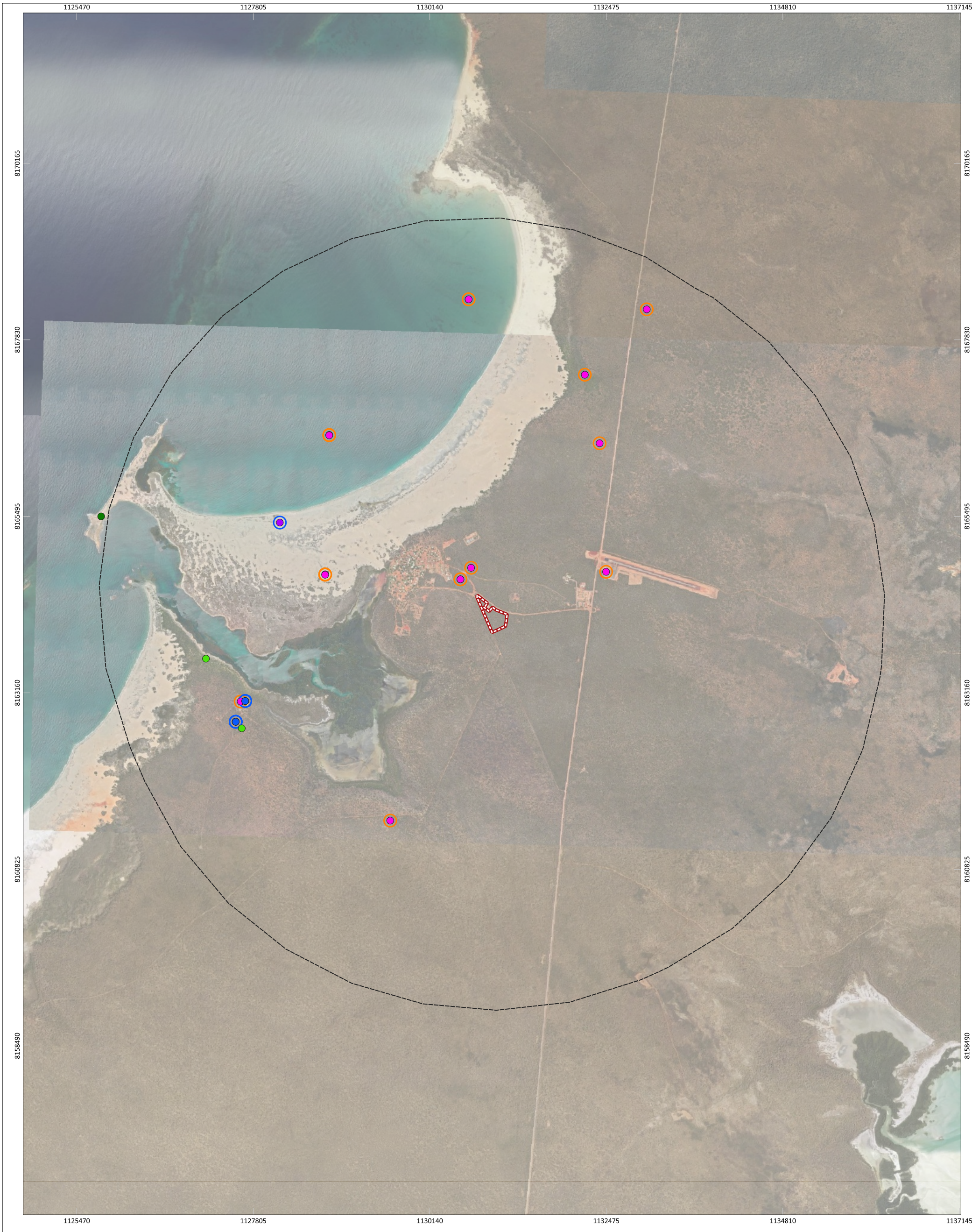
- *Erythrura gouldiae* (Gouldian Finch) P4/EN
- *Falco peregrinus* (peregrine Falcon) OS
- *Tiliqua scincoides intermedia* (northern blue-tongued Skink) CR

The species that had a medium likelihood of occurrence were:

- *Ozimops cobourgianus* (northern coastal free-tailed bat) P1

- *Macrotis lagotis* (bilby) VU
- *Trichosurus vulpecula arnhemensis* (NBP) P4
- *Lerista separanda* (Dampier plain slider) P2
- *Simoselaps minimus* (Dampier burrowing snake) P2

The species assessed as low likelihood of occurrence are species that are locally extinct, have no recent records or for which no suitable habitat is present (e.g. wading birds). Species recorded or assessed as having a high or medium likelihood of occurrence are discussed in detail in Section 4.2.2.




# Figure 7: DBCA Database Search Results Fauna

N

0 500 1,000 1,500 m

| | | |
|---|---|---|
| PROJECT/REPORT NAME: Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025 Lombadina | | |
| SCALE: 1:46,700 | SHEET SIZE: A3 COLOUR | CLIENT: RFF |
| COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50 | PROJECT NUMBER: A25.029 | VERSION: 0 |
| DATA SOURCE: LANDGATE AERIAL IMAGERY NOW | DRAWN BY / REVIEWED BY: JP/JR | DATE: 16/9/2025 |

Legend

- Survey Area
- 5km Buffer

DBCA Threatened and Priority Fauna (EPBC Status)

- Endangered species
- Migratory species

DBCA Threatened and Priority Fauna (WA Status)

- Migratory species
- Migratory species and Priority 4
- Priority 1
- Priority 2
- Priority 4

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 16/9/2025 |

NOTES:

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## 4.2 Fauna Field Survey

### 4.2.1 Fauna Habitat Types

The entire Survey Area consists of one fauna habitat type. The fauna habitat types are described below in Table 8 and shown in Figure 8.

For possibly occurring conservation listed fauna species, habitat types are assessed as either core, supporting or non-significant habitat. As per *Commonwealth Matters of National Environmental Significance – Significant Impact Guidelines 1.1* "core" habitat is defined as that critical to the survival of the species and considered to contain denning/breeding sites, primary foraging areas and refuge from drought, fire and other stresses (DEWHA, 2013). "Supporting" habitat is defined as that which is likely used for foraging and dispersing/ connective purposes but is not essential habitat for the continuation of a local population. "Non-significant" habitat is that which would be used only very infrequently for foraging or dispersing.

## Table 8: Fauna Habitat Type Description within the Survey Area.

| Fauna Habitat Type | Habitat Description | Total Area, Proportion of the Survey Area (ha) | Representative Photo |
|---|---|---|---|
| **FHT-01**<br><br>**Open Eucalypt woodland** | Open eucalypt woodland dominated by *Corymbia greeniana* and *Eucalyptus miniata*. Canopy dominated by moderate combined cover of 30% *C. greeniana* and *E. miniata,* with occasional *Acacia*, open midstory, mostly saplings, high ground cover of tussock grass. light leaf litter cover with exposed soil, brown red pindan sand with high burrowing suitability, moderate cover of woody debris, moderate presence of small to medium tree hollows (<10 cm diameter), low presence of large (>10 cm diameter) tree hollows, isolated large rocks on ground. Habitat within the Survey Area is contiguous with approximately 170 ha of the same habitat bounded by sand/dirt tracks approximately 5 - 15 m wide.<br>From a review of aerial images, a grove of mangroves and an extensive area of sand dunes occur approximately 1.5 km west of the Survey Area. Due to this proximity, mangrove and dune specialist species have been assigned a medium likelihood of occurrence<br><br>**Core habitat for:**<br>*Tiliqua scincoides intermedia* (Northern blue tongued skink)<br><br>**Supporting habitat for:**<br>*Erythrura gouldiae* (Gouldian Finch)<br>*Trichosurus vulpecula arnhemensis* (NBP) | 7.6 ha<br><br>100 % |  |

| Fauna Habitat Type | Habitat Description | Total Area, Proportion of the Survey Area (ha) | Representative Photo |
|---|---|---|---|
| | **Not significant habitat for:**<br>*Falco peregrinus* (peregrine falcon)<br>*Macrotis lagotis* (bilby)<br>*Ozimops cobourgianus* (northern coastal free-tailed bat)<br>*Lerista separanda* (Dampier plain slider)<br>*Simoselaps minimus* (Dampier burrowing snake) | | |
| **Total** | | 7.6 ha | |

### 4.2.2 Threatened and Priority Fauna

There were no observations of, or secondary evidence recorded for threatened and priority fauna within the Survey Area. Discussion of habitat type suitability for species identified as having a high or medium likelihood of occurrence is presented below in Table 9.

## Table 9: Threatened and Priority Fauna

| Scientific Name | Common Name | Habitat significance in Survey Area (ha) | | | Post Survey likelihood of occurrence | Habitat use and species description |
|---|---|---|---|---|---|---|
| | | Core | Supporting | not significant | | |
| ***Erythrura gouldiae*** | Gouldian finch | 0 | 7.6 | 0 | High | Gouldian finch are small granivorous (seed eating) birds. They are widespread but uncommon in a number of habitats in the Kimberley region. Core habitat for this species is eucalypt woodland over dense grasses on stony plain, and usually near fresh water. Although habitat within the Survey Area was eucalypt woodland, the ground cover of grasses was not considered dense enough to constitute core foraging habitat for Gouldian finch.<br>There are 11 records of this species within 50 km of the Survey Area within the previous 20 years, with a number of records in open eucalypt woodland 2km from the Survey Area. |
| ***Falco peregrinus*** | Peregrine falcon | 0 | 0 | 7.6 | High | This species is a common and wide-ranging raptor, occurring across most regions of Australia. It occupies an extremely diverse range of habitats of Australia. The species typically nests on cliff ledges, shallow hollows in tall trees, or artificial structures such as building ledges and communication towers.<br>The habitat within the Survey Area is not considered core or supporting for this species, however they may occasionally forage their preferred prey (other bird species) in or over the eucalypt woodland.<br>There are two records of this species within 50km of the Survey Area within the previous 20 years, the nearest record is of an individual sighting 13km north of the Survey Area in Kooljaman community. |
| ***Tiliqua scincoides intermedia*** | Northern blue-tongued skink (blue tongue) | 7.6 | 0 | 0 | High | Northern bluetongue skink is the northern subspecies of the abundant and common blue tongue skink, and occurs from Broome to Kununurra in WA.<br>Bluetongue skinks are relatively large slow-moving omnivores. There were no records of northern blue tongue returned by the DBCA database search; however they were identified by the PMST. |

| Scientific Name | Common Name | Habitat significance in Survey Area (ha) | | | Post Survey likelihood of occurrence | Habitat use and species description |
|---|---|---|---|---|---|---|
| | | Core | Supporting | not significant | | |
| | | | | | | Northern blue tongue was opportunistically sighted by the surveyors at Cygnet bay Pearl Farm, 13 km northeast of the Survey Area, in similar habitat (open *Acacia* and eucalypt woodland transitioning to rocky coastline). |
| ***Macrotis lagotis*** | Greater bilby, dalgyte, ninu | 0 | 0 | 7.6 | Medium | Bilby are medium sized nocturnal omnivores which forage for food by digging. Bilby are known to utilise a number of different habitat types; however, eucalypt woodland (FHT-01) is not considered core habitat for this species<br>Bilby are reliably surveyed for by searching for digging and foraging evidence and survey effort was considered sufficient to show that digging and foraging evidence as absent within the Survey Area<br>There are three records of Bilby within 50km of the Survey Area within the previous 20 years. The nearest record is of a sighting of an individual in similar habitat 40km southwest of the Survey Area.<br>The targeted transect survey effort is considered sufficient to determine that there was no foraging, denning or scat evidence within the Survey Area. |
| ***Trichosurus vulpecula arnhemensis*** | NBP | 0 | 7.6 | 0 | Medium | NBP are nocturnal arboreal omnivores that make nests within balls of vegetation (dreys) and large tree hollows. FHT-01 contained a number of large eucalypts with hollows, but none of them appeared suitable to support NBP nesting, these hollows were observed with head torches during the nocturnal survey, but no observations of NBP were made. NBP usually prefer dense eucalypt woodland or forest with a connected canopy, FHT-01 had an estimated canopy cover of 30% which is comparatively sparse, and as such FHT-01 does not constitute core habitat for this species.<br>There were no records of NBP returned by the DBCA database search; however, they were identified by the PMST. |

| Scientific Name | Common Name | Habitat significance in Survey Area (ha) | | | Post Survey likelihood of occurrence | Habitat use and species description |
|---|---|---|---|---|---|---|
| | | Core | Supporting | not significant | | |
| ***Ozimops cobourgianus*** | Northen coastal free-tailed bat | 0 | 0 | 7.6 | Medium | Northen coastal free-tailed bat are a mangrove specialist bat that roosts in mangrove hollows.<br>There are 10 records of this species within 50 km of the Survey Area within the previous 20 years. All records have been from mangrove habitat on the coast of Cape Leveque. The nearest mangrove habitat to the Survey Area is 1.5 km west, and as such it is possible that the species occasionally commutes or forages (for nocturnal insect prey) near or within the Survey Area, however roosting is unlikely.<br>Small bat species were observed foraging through the upper story of vegetation during the nocturnal field survey; however, they were not identified to species. |
| ***Lerista separanda*** | Dampierland plain slider, skink | 0 | 0 | 7.6 | Medium | Dampier plains slider are cryptic, nocturnal, subterranean reptiles endemic to the Dampier Peninsula. Due to these cryptic habits, very little is known about this species. All previous records of this species have been from sand dunes and dune adjacent habitat.<br>There are two records of this species within 50km of the Survey Area within the previous 20 years, both records were of individuals trapped on Packer Island, 15km east of the Survey Area.<br>*Lerista* tracks were detected in the sand road on western edge of the Survey Area |
| **Simoselaps minimus** | Dampierland burrowing snake | 0 | 0 | 7.6 | Medium | Dampier burrowing snake are cryptic, nocturnal, subterranean reptiles endemic to the Dampier Peninsula. Due to these cryptic habits, very little is known about this species. All previous records of this species have been from sand dunes and dune adjacent habitat. The Survey Area is approximately 1.5 km from a complex sand dune system.<br><br>There are two records of this species within 50km of the Survey Area within the previous 20 years, both records were of individuals trapped on Packer Island and Chile Creek area. |




# Figure 8: Fauna Habitat Types And Conservation Significant Fauna Observations

0 15 30 45 60 m

N

| | | |
|---|---|---|
| PROJECT/REPORT NAME: Dajarindjin-Aalga Goorlil Solar Project- Fauna Surveys 2025 Lombadina | | |
| SCALE: 1:1,900 | SHEET SIZE: A3 COLOUR | CLIENT: RFF |
| COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50 | PROJECT NUMBER: A25.029 | VERSION: 0 |
| DATA SOURCE: LANDGATE AERIAL IMAGERY NOW | DRAWN BY / REVIEWED BY: JP/JR | DATE: 16/9/2025 |

Legend

Survey Area

Fauna Habitat

FHT-01 - Open Eucalypt Woodland

| No | Description | Drawn | Approved | Date |
|---|---|---|---|---|
| A | Original issue | JP | JR | 16/9/2025 |

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# 5. Discussion

## 5.1 Fauna Habitat Significance

One fauna habitat type was described within the Survey Area. The habitat comprises open eucalypt woodland dominated by *Corymbia greeniana* and *Eucalyptus miniata*. The habitat type is present extensively surrounding the Survey Area.

Database searches identified 58 conservation listed fauna species that potentially occur, or whose habitat likely occurs, within the Survey Area, comprising:

- Forty-seven bird species.
- Six mammal species.
- Five reptile species.

A Likelihood of Occurrence Assessment concluded that of these 58 species:

- Three species had a high likelihood of occurrence, being (DBCA/EPBC conservation codes in brackets):
    - *Erythrura gouldiae* (Gouldian finch) (P4/EN)
    - *Falco peregrinus* (peregrine falcon) (OS)
    - *Tiliqua scincoides intermedia* (northern blue-tongued Skink) (CR/CR)
- Five species had a medium likelihood of occurrence, being:
    - *Ozimops cobourgianus* (northern coastal free-tailed bat) (P1/-)
    - *Macrotis lagotis* (bilby) (VU/VU)
    - *Trichosurus vulpecula arnhemensis* (NBP) (VU/VU)
    - *Lerista separanda* (Dampier plain slider) (P2/-)
    - *Simoselaps minimus* (Dampier burrowing snake) (P2/-)
- Fifty species had a low likelihood of occurrence. These are mainly marine species and pelagic birds.

No species of conservation significance were recorded within the Survey Area.

The extent of core and supporting habitat present within the Survey Area by species is summarised in Table 10

### Table 10: Summary of Habitat Values

| Species | Extent Core Habitat (ha) | Extent Supporting Habitat (ha) |
|---|---|---|
| ***Erythrura gouldiae*** | 0 | 7.6 |
| ***Falco peregrinus*** | 0 | 0 |
| ***Tiliqua scincoides intermedia*** | 7.6 | 0 |
| ***Macrotis lagotis*** | 0 | 0 |
| ***Trichosurus vulpecula arnhemensis*** | 0 | 7.6 |
| ***Ozimops cobourgianus*** | 0 | 0 |
| ***Lerista separanda*** | 0 | 0 |
| ***Simoselaps minimus*** | 0 | 0 |

## 5.2 Threatened Fauna Survey

No evidence or sightings of bilby or NBP were detected within the Survey Area. Of the habitat within the Survey Area, none is considered significant for bilby. However, it is all considered supporting habitat for NBP.

Given that neither signs or individuals of these two species were recorded during the targeted survey it is considered that they do not utilise the Survey Area.

# References

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# Appendix A
# Legislation

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

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) aims to protect matters of national environmental significance (MNES). Under the EPBC Act, the Commonwealth Department of Climate Change, Energy and the Environment lists Threatened species and communities in categories determined by criteria set out in the EPBC Act.

Projects likely to cause a significant impact on MNES should be referred to the DCCEEW for assessment under the EPBC Act.

### *Biodiversity Conservation Act 2016*

The Biodiversity Conservation Act 2016 aims to conserve and protect biodiversity and biodiversity components within the State and to promote ecologically sustainable use of biodiversity components in the State.

### *Environmental Protection Act 1986*

Declared Rare Flora (DRF) and Threatened Ecological Communities (TECs) are given special consideration in environmental impact assessments and have special status as Environmentally Sensitive Areas (ESAs) under the Environmental Protection Act, 1986 (EP Act) and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004. Exemptions for a clearing permit do not apply in an ESA. In addition, habitat necessary for the maintenance of indigenous fauna is considered in the clearing principles and assessed during consideration of applications for a clearing permit.

### *Department of Biodiversity, Conservation and Attractions Priority Lists*

Department of Biodiversity, Conservation and Attractions Priority Lists (DBCA Lists), sets out lists of 'Priority' flora and fauna that have not been assigned statutory protection as "Threatened" under the BC Act and are under consideration for declaration as Threatened. Flora and fauna assessed as Priority 1-3 are considered to be in urgent need of further survey. Priority 4 flora requires monitoring every 5 -10 years.

DBCA maintains a list of Priority Ecological Communities (PECs) which identifies plant communities that require further investigation before possible nomination for TEC status. Once listed, a community becomes a PEC and, when endorsed by the WA Minister for Environment, becomes a TEC and protected as an ESA under Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

### *Informal Recognition of Flora and Fauna*

Certain populations or communities of flora and/or fauna may be of local significance or interest because of their patterns of distribution and abundance. For example, specific locations of flora and may be locally significant because they are range extensions to the previously known distribution, or are newly discovered taxa (and have the potential to be of more than local significance). In addition, many species are in decline as a result of threatening processes (land clearing, grazing, and changed fire regimes) and relict populations of such species assume local importance for DBCA. It is not uncommon for DBCA to make comment on these species of interest.

# Appendix B
# Definitions and Criteria

## *EPBC Act Categories for Flora, Fauna and Ecological Communities*

| Category | Threatened Species | Threatened Ecological Communities |
|---|---|---|
| **Extinct** | A native species is eligible to be included in the extinct category at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died. | N/A. |
| **Extinct in the wild** | A native species is eligible to be included in the extinct in the wild category at a particular time if, at that time:<br>(a) it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or<br>(b) it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form. | N/A. |
| **Critically Endangered (CE)** | A native species is eligible to be included in the critically endangered category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria. | An ecological community is eligible to be included in the critically endangered category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria. |
| **Endangered (EN)** | A native species is eligible to be included in the endangered category at a particular time if, at that time:<br>(a) it is not critically endangered; and<br>(b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria. | An ecological community is eligible to be included in the endangered category at a particular time if, at that time:<br>(a) it is not critically endangered; and<br>(b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria. |
| **Vulnerable (VU)** | A native species is eligible to be included in the vulnerable category at a particular time if, at that time:<br>(a) it is not critically endangered or endangered; and<br>(b) it is facing a high risk of extinction in the wild in the medium term future, as determined in accordance with the prescribed criteria. | An ecological community is eligible to be included in the vulnerable category at a particular time if, at that time:<br>(a) it is not critically endangered or endangered; and (b) it is facing a high risk of extinction in the wild in the medium term future, as determined in accordance with the prescribed criteria. |
| **Conservation Dependent** | A native species is eligible to be included in the conservation dependent category at a particular time if, at that time:<br>(a) the species is the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered; or<br>(b) the following subparagraphs are satisfied:<br>(i) the species is a species of fish.<br>(ii) the species is the focus of a plan of management that provides for | N/A. |

| Category | Threatened Species | Threatened Ecological Communities |
|---|---|---|
| | management actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long-term survival in nature are maximised.<br>(iii) the plan of management is in force under a law of the Commonwealth or of a State or Territory.<br>(iv) cessation of the plan of management would adversely affect the conservation status of the species. | |

## *Conservation Codes for Western Australian Flora and Fauna (DBCA)*

| Conservation Codes for Western Australian Flora and Fauna | |
|---|---|
| **Threatened, Extinct and Specially Protected fauna or flora1 are species2 which have been adequately searched for and are deemed to be, in the wild, Threatened, extinct or in need of special protection, and have been gazetted as such.**<br>**The Wildlife Conservation (Specially Protected Fauna) Notice 2018 and the Wildlife Conservation (Rare Flora) Notice 2018 have been transitioned under regulations 170, 171 and 172 of the Biodiversity Conservation Regulations 2018 to be the lists of Threatened, Extinct and Specially Protected species under Part 2 of the Biodiversity Conservation Act 2016.**<br>**Categories of Threatened, Extinct and Specially Protected fauna and flora are:** | |
| **T** | Threatened species<br>Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as Threatened species under section 26(2) of the Biodiversity Conservation Act 2016 (BC Act).<br>Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for Threatened Fauna.<br>Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the Wildlife Conservation (Rare Flora) Notice 2018 for Threatened Flora.<br>The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using International Union for Conservation of Nature (IUCN) Red List categories and criteria as detailed below. |
| **CR** | Critically endangered species<br>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 undersection 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for critically endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for critically endangered flora. |
| **EN** | Endangered species<br>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. Published under schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for endangered flora. |
| **VU** | Vulnerable species |

| Conservation Codes for Western Australian Flora and Fauna | |
|---|---|
| | 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 undersection 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for vulnerable fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for vulnerable flora. |
| **Extinct species**<br>**Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.** | |
| **EX** | Extinct species<br>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).<br>Published as presumed extinct under schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for extinct fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for extinct flora. |
| **EW** | Extinct in the wild species<br>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).<br>Currently there are no Threatened fauna or Threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice. |
| **Specially protected species**<br>**Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting 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.**<br>**Species that are listed as Threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.** | |
| **MI** | Migratory species<br>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.<br>Published as migratory birds protected under an international agreement under schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018. |
| **CD** | Species of special conservation interest (conservation dependent fauna)<br>Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as Threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).<br>Published as conservation dependent fauna under schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018. |

| Conservation Codes for Western Australian Flora and Fauna | |
|---|---|
| **OS** | Other specially protected species<br>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).<br>Published as other specially protected fauna under schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018. |
| **P** | Priority species<br>Possibly Threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of Priority for survey and evaluation of conservation status so that consideration can be given to their declaration as Threatened fauna or flora.<br>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.<br>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. |
| **1** | Priority 1: Poorly-known species<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. |
| **2** | Priority 2: Poorly-known species<br>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. |
| **3** | Priority 3: Poorly-known species<br>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. |
| **4** | Priority 4: Rare, Near Threatened and other species in need of monitoring<br>(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently Threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.<br>(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.<br>(c) Species that have been removed from the list of Threatened species during the past five years for reasons other than taxonomy. |

1 The definition of flora includes algae, fungi and lichens.

# Appendix C
# Fauna Database Search Results and Likelihood of Occurrence

## *Fauna Database Search Results (DBCA Database Search using 50 Km Buffer, PMST 50 km buffer), Likelihood and Fauna Survey Records*

| Scientific Name | Common Name | Conservation Status | | Database Source | | Likelihood of Occurrence | Justification |
|---|---|---|---|---|---|---|---|
| | | WA | EPBC | DBCA | PMST | | |
| **Aves** | | | | | | | |
| ***Actitis hypoleucos*** | Common Sandpiper | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Anous stolidus (all sub-species)*** | Common Noddy | MI | MI | x | | Low | Pelagic species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Anous tenuirostris melanops*** | Australian Lesser Noddy | EN | VU | | x | Low | Pelagic species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Apus pacificus*** | Fork-tailed Swift | MI | MI | x | | Low | Uncommon fly over species, unlikely to stop and perch up within Survey Area |
| ***Arenaria interpres*** | Ruddy Turnstone | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Calidris acuminata*** | Sharp-tailed Sandpiper | MI | MI | X | x | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Calidris alba*** | Sanderling | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Calidris canutus*** | Red Knot, Knot | EN | VU | x | x | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Calidris ferruginea*** | Curlew Sandpiper | CR | CR | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Calidris ruficollis*** | Red-necked Stint | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Calidris tenuirostris*** | Great Knot | CR | CR | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |

| Scientific Name | Common Name | Conservation Status | | Database Source | | Likelihood of Occurrence | Justification |
|---|---|---|---|---|---|---|---|
| | | WA | EPBC | DBCA | PMST | | |
| ***Charadrius leschenaultii*** | Greater Sand Plover | VU | VU | x | x | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Charadrius mongolus*** | Lesser Sand Plover | EN | EN | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Chloebia gouldiae*** | Gouldian Finch | P4 | EN | x | x | High | Species not recorded within the Site |
| ***Erythrotriorchis radiatus*** | Red Goshawk | VU | VU | | x | Low | Very rare species, no records within 100km in DBCA data, however perching and foraging habitat is present within Survey Area |
| ***Falco hypoleucos*** | Grey Falcon | VU | VU | | x | Low | Common and widespread bird species, may perch and forage within Survey Area |
| ***Falco peregrinus*** | Peregrine Falcon | OS | | x | | High | Common and widespread bird species, may perch and forage within Survey Area |
| ***Fregata ariel*** | Lesser Frigatebird | MI | MI | x | | Low | Pelagic species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Gelochelidon nilotica*** | Gull-billed Tern | MI | MI | x | | Low | Coastal specialist, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Hydroprogne caspia*** | Caspian Tern | MI | MI | x | | Low | Coastal specialist, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Limnodromus semipalmatus*** | Asian Dowitcher | MI | VU, MI | | x | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Limosa lapponica (all subspecies)*** | Bar-tailed Godwit | MI | EN, MI | x | x | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Limosa limosa*** | Black-tailed Godwit | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |

| Scientific Name | Common Name | Conservation Status | | Database Source | | Likelihood of Occurrence | Justification |
|---|---|---|---|---|---|---|---|
| | | WA | EPBC | DBCA | PMST | | |
| ***Numenius madagascariensis*** | Eastern Curlew | CR | CR, MI | x | x | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Numenius minutus*** | Little Curlew, Little Whimbrel | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Numenius phaeopus*** | Whimbrel | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Onychoprion anaethetus*** | Bridled tern | MI | MI | x | | Low | Coastal specialist, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Pandion cristatus*** | Osprey, Eastern Osprey | MI | MI | x | | Low | Although likely to occur as Survey Area is 1km from coast, unlikely to utilise any habitat within Survey Area other than aa a flyover |
| ***Papasula abbotti*** | Abbott's Booby | MI | EN | | x | Low | Pelagic species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Pezoporus occidentalis*** | Night Parrot | CR | EN | | x | Low | Extremely rare and hard to detect species, no records within 100km in last 20 years |
| ***Phaethon lepturus fulvus*** | Christmas Island White-tailed Tropicbird, Golden Bosunbird | | EN, MI | | x | Low | Pelagic species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Phaethon rubricauda (all subspices)*** | Red-tailed Tropicbird | P4, MI | EN | x | x | Low | Pelagic species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Pluvialis fulva*** | Pacific Golden Plover | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Pluvialis squatarola*** | Grey Plover | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |

| Scientific Name | Common Name | Conservation Status | | Database Source | | Likelihood of Occurrence | Justification |
|---|---|---|---|---|---|---|---|
| | | WA | EPBC | DBCA | PMST | | |
| ***Rostratula australis*** | Australian Painted Snipe | EN | EN | | x | Low | Wetland species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Sterna dougallii (all sub-species)*** | Roseate Tern | MI | MI | x | | Low | Coastal specialist, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Sterna hirundo (all sub-species)*** | Common Tern | MI | MI | x | | Low | Coastal specialist, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Sternula albifrons*** | Little Tern | MI | MI | x | | Low | Coastal specialist, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Sula leucogaster (all sub-species)*** | Brown Booby | MI | MI | x | | Low | Pelagic species, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Thalasseus bergii*** | Crested Tern | MI | MI | x | | Low | Coastal specialist, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Tringa brevipes*** | Grey-tailed Tattler | P4 | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Tringa glareola*** | Wood Sandpiper | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Tringa nebularia*** | Common Greenshank, greenshank | MI | EN, MI | x | x | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Tringa stagnatilis*** | Marsh Sandpiper | MI | MA, MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| ***Tringa totanus*** | Common Redshank, redshank | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |

| Scientific Name | Common Name | Conservation Status | | Database Source | | Likelihood of Occurrence | Justification |
|---|---|---|---|---|---|---|---|
| | | WA | EPBC | DBCA | PMST | | |
| ***Tyto novaehollandiae kimberli*** | Masked Owl | P1 | VU | | x | Low | Appropriate habitat present within Survey Area, reasonably dense Eucalyptus and Corymbia woodland with sparse tree hollows, none detected during Survey |
| ***Xenus cinereus*** | Terek Sandpiper | MI | MI | x | | Low | Shorebird, Site is 1km from nearest coastline, however no utilisable habitat within Survey Area, unlikely to occur |
| **Mammals** | | | | | | | |
| ***Macroderma gigas*** | Ghost bat | VU | VU | | x | Low | Species requires caves to roost, no caves within or near Survey Area |
| ***Macrotis lagotis*** | Greater Bilby, Dalgyte, Ninu | VU | VU | x | x | Medium | Presence not detected during Survey, but has been recorded in habitat contiguous with Survey Area |
| ***Mormopterus cobourgianus*** | North-western free-tailed bat | P1 | | x | | Low | Species confined to mangroves, non-present within Survey Area, mangroves occur within 1 km of Survey Area, so species may be occasional flythrough |
| ***Ozimops cobourgianus*** | northen coastal free-tailed bat | P1 | | x | | Low | Same species as above |
| ***Saccolaimus saccolaimus nudicluniatus*** | Bare-rumped Sheath-tailed Bat, | P3 | VU | | x | Low | Species not present within 100km, unlikely to occur within Survey Area |
| ***Trichosurus vulpecula arnhemensis*** | Northern Brushtail Possum | VU | VU | | x | Medium | Appropriate habitat present within Survey Area, reasonably dense Eucalyptus and Corymbia woodland with sparse tree hollows, none detected during Survey |
| ***Xeromys myoides*** | Water Mouse, False Water Rat, Yirrkoo | | VU | | x | Low | Species almost always associated with water features, streams and dams, none present within the Survey Area |
| **Reptiles** | | | | | | | |
| ***Lerista separanda*** | Dampierland plain slider, skink | P2 | | x | | Medium | Species is a sand dune specialist, no habitat present within Surve Area |

| Scientific Name | Common Name | Conservation Status | | Database Source | | Likelihood of Occurrence | Justification |
|---|---|---|---|---|---|---|---|
| | | WA | EPBC | DBCA | PMST | | |
| ***Simoselaps minimus*** | Dampierland Burrowing snake | P2 | | x | | Medium | Species is a sand dune specialist, no habitat present within Surve Area |
| ***Tiliqua scincoides intermedia*** | Northern Blue-tongued Skink | CR | CR | | x | High | Species is widespread and has been known to associate with man made structure (present near or in Survey Area, although no evidence recorded in Survey, cannot discount potential presence in large area of connected habitat |
| ***Varanus mertensi*** | Mertens' Water Monitor, Mertens's Water Monitor | EN | EN | | x | Low | Species almost always associated with water features, streams and dams, none present within the Survey Area |
| ***Varanus mitchelli*** | Mitchell's Water Monitor | CR | CR | | x | Low | Species almost always associated with water features, streams and dams, none present within the Survey Area |