



Future Energy Systems: Dampier Peninsula and Warmun





Biological survey

Horizon Power

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→ The Power of Commitment



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GHD Pty Ltd | ABN 39 008 488 373

999 Hay Street, Level 10

Perth, Western Australia 6000, Australia

T +61 8 6222 8222 | **F** +61 8 6222 8555 | **E** permail@ghd.com | **ghd.com**

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Executive Summary

Horizon Power is proposing Future Energy Systems for five communities in the Kimberley region, Western Australia (WA). There are a total of seven individual sites (survey areas):

- Warmun (north and south)
- Ardyaloon (north and south)
- Beagle Bay
- Bidyadanga
- Djarindjin

GHD have been commissioned to undertake a detailed (single season) flora and vegetation survey and a basic and targeted fauna survey of the proposed survey areas. The total area of each survey area is:

- Warmun (north), approximately 5 ha
- Warmun (south), 4.25 ha
- Beagle Bay, 11.49 ha
- Ardyaloon (north), 10.08 ha
- Ardyaloon (south), 37.17 ha
- Djarindjin, 10.32 ha
- Bidyadanga, 28.19 ha.

The outcomes of the assessment will be used to inform the project design and provide information to support a native vegetation clearing permit application under Part V of the *Environmental Protection Act 1986*.

Key findings

Flora and vegetation

Seven vegetation types aligning with broad landforms were identified and described in the survey areas, not including cleared tracks. These have been summarised in the below table.

Survey Area	Vegetation Type
Warmun	VT01 – <i>Corymbia</i> Open Woodland on stony undulating plains VT02 – <i>Corymbia</i> / <i>Terminalia</i> Open Woodland on rocky hills and ridges VT03 - <i>Lophostemon</i> Open Woodland on minor drainage areas
Djarindjin	VT04 - <i>Eucalyptus miniata</i> and <i>Corymbia greeniana</i> woodland to isolated clumps of trees on Pindan red sand loam on low plain
Beagle Bay	VT04 - <i>Eucalyptus miniata</i> and <i>Corymbia greeniana</i> woodland to isolated clumps of trees on Pindan red sand loam on low plain VT05 - <i>Corymbia greeniana</i> and <i>Corymbia bella</i> isolated clumps of trees over <i>Melaleuca nervosa</i> subsp <i>crosslandiana</i> open woodland on silty loam over clay on drainage flats/floodplain
Ardyaloon	VT04 - <i>Eucalyptus miniata</i> and <i>Corymbia greeniana</i> woodland to isolated clumps of trees on Pindan red sand loam on low plain VT06 - <i>Corymbia greeniana</i> and <i>Corymbia</i> sp open woodland on sandy Pindan plain with occasional rocky outcrops.
Bidyadanga	VT07 - <i>Corymbia hamersleyana</i> and <i>Corymbia flavescens</i> open woodland on red brown sandplain

No TEC's listed under the *Environment Protection and Biodiversity Conservation Act 1999* or *Biodiversity Conservation Act 2016* were identified within the survey areas during the field survey. VT05 within the Beagle Bay survey area represents the Priority Ecological Community Kimberley Vegetation Association 67. VT05 is analogous with the Vegetation Association 67 based on species present, type and landform.

The condition of the vegetation within the survey area ranged from Excellent to Good. The vegetation structure was intact with limited signs of cattle/donkey activity and a low number of introduced flora were recorded for most of the survey areas. There are some tracks present, such as tracks along fencelines. The Warmun survey area recorded signs of previous clearing, edge effects, rubbish, fire and weeds.

One hundred and thirty-one flora taxa (including subspecies and varieties) representing 37 families and 97 genera were recorded from the Ardyaloon, Beagle Bay, Djarindjin and Bidyadanga survey areas during the field survey. One hundred and twenty flora taxa (including subspecies and varieties) representing 33 families and 87 genera were recorded from the Warmun survey areas during the field survey. None of the introduced/naturalised flora taxa identified during the survey are listed as a Declared Pest under the *Biosecurity and Management Act 2007* or a Weed of National Significance. All of the introduced flora have been previously recorded from the Dampierland and Central Kimberley bioregions.

No *Environment Protection and Biodiversity Conservation Act 1999* or *Biodiversity Conservation Act 2016* listed flora were recorded from the survey areas.

Three Department of Biodiversity, Conservation and Attractions Priority three listed taxa were recorded from the following survey areas:

- *Goodenia byrnesii* (Priority 3) – Warmun survey area
- *Triodia acutispicula* (Priority 3) – Ardyaloon survey area
- *Tephrosia andrewii* (Priority 3) – Bidyadanga survey area

The Priority three species *Goodenia byrnesii* was recorded from the Warmun survey area. This species was recorded opportunistically from five individuals in the southern survey area and represents a range extension. The Priority three species *Triodia acutispicula* was recorded from the north and south Ardyaloon survey areas. This species was recorded from 17 locations with a total of 149 individuals and ranged in percentage cover between 1 – 60% within VT06. The Priority three species *Tephrosia andrewii* was recorded from the Bidyadanga survey area. This species was recorded from 10 locations with a total of 121 individuals.

All other potential significant flora for all survey areas are considered unlikely to occur.

The following common species represent flora of interest as they represent range extensions recorded within the Warmun survey area:

- *Goodenia heterochila* – significant range extension of approximately 450 km north and first record within the Central Kimberley bioregions
- *Euphorbia drummondii* – significant range extension of approximately 350 km east and first record within the Central Kimberley bioregions
- *Pterocaulon verbascifolium* – range extension of approximately 150 km east and south

Fauna

Six broad fauna habitat types (not including cleared) were identified within the survey area based on the predominant landforms, soil and vegetation structure in the area. In total across all sites/regions 47 fauna species were identified, which included 24 birds, 10 reptiles, three mammals and two amphibians. Two of the species are introduced (Dog and Donkey).

No *Environment Protection and Biodiversity Conservation Act 1999* or *Biodiversity Conservation Act 2016* listed Threatened fauna or Priority listed fauna by the DBCA were recorded during the survey. One Marine listed species under the *Environment Protection and Biodiversity Conservation Act 1999*, the Rainbow Bee-eater (*Merops ornatus*), was recorded at the Ardyaloon site. This species is widespread across Australia and WA and occupies a wide variety of habitats. It is likely this species would be present across all the survey sites on the Dampier Peninsula and at Warmun.

No evidence of Greater Bilby (*Macrotis lagotis*) (Vulnerable) activity (footprints, foraging holes, burrows or scats) was recorded within the Dampier Peninsula survey areas.

The likelihood of occurrence of significant fauna species has been separated by each survey site:

Beagle Bay

- Five fauna species are considered likely to occur due to potentially suitable foraging and/or breeding habitat in the survey area and close proximity of previous records. These include Gouldian Finch (*Erythrura gouldiae*) (P4), Grey Falcon (*Falco hypoleucos*) (OS), Peregrine Falcon (*Falco peregrinus*) (OS), Oriental pratincole (*Glareola maldivarum*) (M1) and Greater Bilby (*Macrotis lagotis*) (VU).
- 15 species are considered unlikely to occur and 9 species are considered highly unlikely to occur.

Bidyadanga

- Four fauna taxa are considered Likely to occur due to potentially suitable foraging and/or breeding habitat in the survey area and close proximity of previous records. These include Oriental Pratincole (*Glareola maldivarum*) (M1), Grey Falcon (*Falco hypoleucos*) (VU), Rainbow Bee-eater (*Merops ornatus*) (MA) and Greater Bilby (*Macrotis lagotis*) (VU)
- Thirty-eight fauna taxa are considered Unlikely to occur
- Twenty fauna taxa are considered Highly Unlikely to occur

Ardyaloon

- Six fauna are considered likely to occur due to potentially suitable foraging and/or breeding habitat in the survey area and close proximity of previous records. These include Gouldian Finch (*Erythrura gouldiae*) (P4), Grey Falcon (*Falco hypoleucos*) (VU), Peregrine Falcon (*Falco peregrinus*) (OS), Greater Bilby (*Macrotis lagotis*) (VU), Dampierland Burrowing snake (*Simoselaps minimus*) (P2), and Dampierland plain slider (*Lerista separanda*) (P2)
- Forty six (46) fauna considered unlikely or highly unlikely to occur.

Djarindjin

- Gouldian Finch (*Erythrura gouldiae*) (P4), Peregrine Falcon (*Falco peregrinus*) (OS), Dampierland Burrowing snake (*Simoselaps minimus*) (P4), Dampierland plain slider (*Lerista separanda*) (P2) and Greater Bilby (*Macrotis lagotis*) (VU) are likely to occur,
- 14 unlikely to occur and
- 30 highly unlikely to occur.

Warmun

- Three species are Likely to occur: Gouldian Finch (*Erythrura gouldiae*) (P4), Peregrine Falcon (*Falco peregrinus*) (OS) and Grey Falcon (*Falco hypoleucos*) (VU)
- One is Highly Unlikely to occur
- 23 are Unlikely to occur

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1. Introduction

1.1 Project background

Horizon Power is proposing Future Energy Systems (FES) for five communities in the Kimberley region, Western Australia (WA). Each site is proposed to have solar/battery energy storage system and small thermal generators to achieve high renewable energy penetration. These areas need to be cleared of native vegetation plus connection to existing distribution lines. The land is to be secured via Lease from the Crown after extensive negotiation with Traditional Owners and Community councils. The subject land cannot be developed without obtaining native vegetation clearing permits (NVCP) that will be supported by detailed flora and fauna surveys and assessments.

There are a total of seven individual sites (survey areas):

- Warmun (two separate sites)
- Ardyaloon (north and south)
- Beagle Bay
- Bidyadanga
- Djarindjin

GHD Pty Ltd (GHD) has previously completed the following flora and fauna assessment at a site in Warmun, relevant to the project:

- GHD (2019) Horizon Power Site assessment for the proposed Warmun Solar Area, unpublished report prepared for Horizon Power, Western Australia.

GHD have also previously completed the following flora and fauna assessment at Ardyaloon, Beagle Bay, Bidyadanga and Djarindjin, relevant to the project:

- GHD (2021) Horizon Power 283 – West Kimberley Solar flora and fauna assessment, unpublished report prepared for Horizon Power, Western Australia.

GHD have been commissioned to undertake a detailed (single season) flora and vegetation survey and a basic and targeted fauna survey of the proposed sites (the survey area).

1.2 Purpose of this report

GHD Pty Ltd (GHD) was commissioned by Horizon Power to undertake a detailed and targeted flora and vegetation survey and a basic and targeted fauna survey for seven separate locations (survey areas) at Warmun, Ardyaloon, Beagle Bay, Bidyadanga and Djarindjin to support the environmental assessment and approval process. The purpose of the assessment is to define sensitive environmental values, in particular their spatial location and conservation significance, so the impacts of the proposed works can be managed to inform subsequent approvals and works to be undertaken. The outcomes of the assessment will be used to inform the project design and provide information to support a native vegetation clearing permit application under Part V of the *Environmental Protection Act 1986* (EP Act).

1.3 Location

1.3.1 Survey area

Five of the survey areas, Ardyaloon north, Ardyaloon south, Beagle Bay, Bidyadanga and Djarindjin, are located within the West Kimberley region of WA. The Warmun survey areas are located in the east Kimberley region of WA.

The total area of each survey area is:

- Warmun (north), approximately 5 ha
- Warmun (south), 4.25 ha

- Beagle Bay, 11.49 ha
- Ardyaloon (north), 10.08 ha
- Ardyaloon (south), 37.17 ha
- Djarindjin, 10.32 ha
- Bidyadanga, 28.19 ha.

The locations of each of the seven survey areas is shown on Figure 1, Figure 7, Figure 13, Figure 19 and Figure 25 (Appendix A).

1.3.2 Study area

A study area was defined for the desktop-based searches of the assessment and consists of a 20 km buffer of the survey areas.

1.4 Scope of works

The scope of works included the following:

- A desktop assessment of relevant literature, databases and spatial datasets to determine the environmental values that may be present within or in close proximity to the seven survey areas
- A detailed and targeted flora and vegetation survey
- A basic and targeted fauna survey
- A concise technical report (this document) outlining the method and compiling the results of the assessment

1.5 Relevant legislation, conservation codes and background information

In Western Australia (WA) significant communities, and flora and fauna are protected under both Federal and State Government legislation, including the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), *Environmental Protection Act 1986* (EP Act), *Biodiversity Conservation Act 2016* (BC Act) and the *Biosecurity and Agriculture Management Act 2007* (BAM Act).

In addition, regulatory bodies also provide a range of guidance and information on expected standards and protocols for environmental surveys. An overview of key legislation and guidelines, conservation codes and background information relevant to this Project are provided in Appendix B.

1.6 Report limitations and assumptions

This report has been prepared by GHD for Horizon Power and may only be used and relied on by Horizon Power for the purpose agreed between GHD and Horizon Power as set out in section 1.4 of this report.

GHD otherwise disclaims responsibility to any person other than Horizon Power 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 Horizon Power and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked

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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 the flora and fauna values within the survey area, as shown in the Locality figures in Appendix A for each location. Should the survey area change or be refined, further assessment may be required.

2. Methodology

2.1 Desktop assessment

A desktop assessment of the project areas to identify environmental values and constraints was undertaken by viewing geographic information system (GIS) spatial files largely sourced from Government of Western Australia (GoWA) (2022a) and reviewing publicly available, government managed databases. The information sources utilised in this assessment are presented in Table 1.

Table 1 Desktop information sources

Aspect	Information source
Climate	Bureau of Meteorology (BoM) Climate Data Online (2023)
Geology, landforms and soil	1:500 000 State linear structures layer (DMIRS-015) Soil Landscape Mapping – Systems (DPIRD-064) (GoWA 2022a)
Environmentally Sensitive Areas (ESAs)	Clearing Regulations - Environmentally Sensitive Areas (DWER-046) (GoWA 2022a)
Conservation reserves and areas	Department of Biodiversity, Conservation and Attractions (DBCA) – Legislated Lands and Waters (DBCA-011) DBCA – Lands of Interest (DBCA-012) (GoWA 2022a)
Hydrology	Public Drinking Water Source Areas (DWER-033) RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037) RIWI Act, Groundwater Areas (DWER-034) RIWI Act, Rivers (DWER-036) Waterways Conservation Act Management Areas (DWER-072) Ramsar Sites (DBCA-010) Directory of Important Wetlands in Australia - Western Australia (DBCA-045) (GoWA 2022a)
Vegetation	Pre-European Vegetation (DPIRD-006) Native Vegetation Extent (DPIRD-005) (GoWA 2022b) Statewide Vegetation Statistics (GoWA 2022b)
Threatened and Priority Ecological Communities (TECs and PECs)	DBCA Threatened Ecological Community (TEC) and Priority Ecological Community (PEC) spatial dataset Priority Ecological Communities for Western Australia Version 28 (DBCA 2023a)
Conservation significant flora and fauna	DBCA NatureMap database (DBCA 2007–) DBCA Threatened and Priority Flora database (TPFL) WA Herbarium database (WAHERB) (DBCA 2023b,c)
Matters of National Environmental Significance	EPBC Act Protected Matters Search Tool (PMST) (Department of Agriculture, Water and the Environment (DAWE 2023)

2.1.1 Flora and vegetation

Prior to the commencement of the field survey, a desktop assessment was undertaken to identify relevant environmental information pertaining to the survey areas and within 20 km (desktop study area). The flora and vegetation desktop assessment included a review of:

- The Department of Climate Change, Energy, the Environment and Water (DCCEEW) Protected Matters Search Tool (PMST) to identify communities and species listed under the EPBC Act potentially occurring within the study area (DCCEEW 2023). (Appendix C)
- The Department of Biodiversity Conservation and Attractions (DBCA) Threatened and Priority Ecological Community (TECs and PECs) database for conservation significant communities present in the desktop study area (DBCA 2023a)

- The DBCA Threatened and Priority Flora and WA Herbarium databases for Threatened flora listed under the BC Act and listed Priority by the DBCA previously recorded in the desktop study area (DBCA 2023b)
- The DBCA NatureMap database for flora and fauna species previously recorded within the desktop study area (DBCA 2007-) (Appendix C)
- Aerial photography, geology/soils, land systems and hydrology information to provide background information on the variability of the environment and likely vegetation and habitat types present
- A flora likelihood of occurrence assessment (Appendix D).

2.1.2 Fauna

The fauna desktop assessment included a review of:

- DCCEE PMST database to identify fauna species listed under the EPBC Act potentially occurring within the desktop study area (DCCEE 2023) (Appendix C)
- The DBCA Threatened and Priority Fauna database for the study area (DBCA 2023c)
- The DBCA NatureMap (DBCA 2007-) database for fauna species previously recorded within the study area (Appendix C). This database comprises the following composite datasets:
 - Atlas of Australian birds
 - Bird data – Birdlife Australia
 - Fauna Survey Returns Database
 - WA Museum (WAM) databases (mammals, birds, reptiles)
- Aerial photography, geology/soils, land systems and hydrology information to provide background information on the variability of the environment and likely habitat types present
- A fauna likelihood of occurrence assessment. For the purpose of this study, exclusively marine animals (fish, whales, turtles etc.) were excluded from the likelihood of occurrence assessment as they are not expected to interact with the project areas (Appendix E).

2.2 Field survey

2.2.1 Survey timing and personnel

The post-wet single season detailed and targeted flora and vegetation survey and basic and targeted fauna survey was undertaken from 20 - 24 February 2023 (Ardyaloon, Beagle Bay, Bidyadanga and Djarindjin survey areas) by GHD senior botanist/ecologist Joel Collins (flora licence no. FB62000200-2) and GHD zoologist Sarah Flemington.

The post-wet single season detailed and targeted flora and vegetation survey and basic and targeted fauna survey was undertaken from 20 - 22 February 2023 (Warmun survey areas) by GHD senior botanist Angela Benkovic (flora licence no. FB62000080-2) and GHD senior ecologist Erin Lynch (flora licence no. FB62000081-2).

2.2.2 Guiding documents

The survey methodology and data collection that GHD employed was consistent with:

- EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016)
- EPA Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA 2020)
- DAWE (2011a) Survey Guidelines for Australia's Threatened Mammals
- DAWE (2011b) Survey Guidelines for Australia's Threatened Reptiles
- DBCA Guidelines for surveys to detect the presence of bilbies, and assess the importance of habitat in Western Australia (DBCA 2017)
- Verifying Bilby presence and the systematic sampling of wild populations using sign based protocols – with notes on aerial and ground based techniques and asserting absence (Southgate et al 2018).

2.2.3 Data collection and storage

Field data collection for the flora, vegetation and fauna survey was undertaken using GPS enabled Samsung tablets using electronic forms in Collector and tailored to IBSA spatial data requirements. Data was synced to the cloud at the conclusion of each field day. Field photographs were stored and where applicable have been provided as part of the Project deliverables.

2.2.4 Detailed and targeted flora and vegetation survey

The field survey was undertaken to identify and describe the broad dominant vegetation types, assess vegetation condition, and high intensity sampling of vascular flora taxa present at the time of survey. Searches for significant ecological communities and flora species were also undertaken during the field survey.

Field survey methods involved a combination of high intensity quadrat sampling and traversing the survey area by foot. Quadrats were conducted with each survey area to describe the broad-scale vegetation and physical features. Existing quadrats from the previous survey (GHD 2021) that overlap with the survey areas were also incorporated. In total 17 quadrats and three relevé's were conducted throughout the survey areas with the locations of each quadrat presented in Appendix A.

The survey methodology employed by GHD was undertaken with reference to the Environmental Protection Authority (EPA) Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016a).

Data collection

Field data at each quadrat site was recorded on a pro-forma data sheet. Survey and quadrat data are provided in Appendix D. A flora inventory was compiled from taxa listed in the quadrats and from opportunistic floristic records throughout the survey areas.

The following information was recorded from each quadrat and relevé:

- Location – coordinates measured using a handheld Global Position Systems (GPS) (Map Grid of Australia (MGA) zone 50, Geocentric Datum of Australia (GDA) 94). One set of coordinates was taken from the centre of each relevé
- Recorder and date – personnel involved in sampling that location and the survey date
- Species – dominant vascular plant species present, including weed species
- Foliar cover – the estimated percentage cover for each dominant flora species
- Vegetation description – vegetation types were described according to level V of the National Vegetation Information System (NVIS) using NVIS sub-association level for structural descriptions (NVIS Technical Working Group 2017)
- Vegetation condition – as adapted in Environmental Protection Authority (EPA) for the Northern Botanical Province (EPA 2016a)
- Habitat – a broad description of the surrounding landscape based on landform, topography and soil
- Disturbance – records of any obvious disturbances such as fire, tracks, weed infestation, or grazing
- Photographs – a photograph was taken of each quadrat and relevé.

Vegetation units

Vegetation types were identified, and boundaries delineated using a combination of aerial photography, topographical features, and field data/observations.

Vegetation types were described based on structure, dominant taxa and cover characteristics as defined by quadrat data, relevé data and field observations. Vegetation type descriptions followed NVIS and consistent with NVIS level V (Association). At Level V up to three taxa per stratum are used to describe the association (NVIS Technical Working Group 2017).

Vegetation condition

The vegetation condition was assessed and mapped in accordance with the vegetation condition rating scale for the Northern Botanical Provinces (adapted by EPA (2016a)). The scale recognises the intactness of vegetation and consists of six rating levels. The vegetation condition rating scale is outlined in Appendix B.

2.2.5 Basic and targeted fauna survey

The Basic fauna and Targeted Bilby survey was completed in association with the flora and vegetation survey. The survey area was traversed by foot to identify and describe dominant fauna habitat types present, and their condition, assess habitat for significant fauna, and undertake Targeted Bilby assessment, and identify and record fauna occurring in the area.

Habitat assessment

A fauna habitat assessment was undertaken to document the type, value and extent of habitats within the survey area. The following information was recorded:

- Habitat structure (e.g. vegetation type, presence/absence of structural layers such as ground cover and midstorey)
- Presence/absence of refuge including density of ground covers, fallen timber (course woody debris), hollow-bearing trees and stags and rocks/boulder piles, and the type and extent of each refuge
- Presence/absence of waterways including type, extent and habitat quality within waterway
- 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 significant fauna
- Evaluation of the likelihood of occurrence of significant fauna within the habitat (based on presence of suitable habitat)
- A presentative photograph of each habitat-type.

Opportunistic fauna searches

Opportunistic fauna searches were conducted across the survey area. This included:

- Searching the survey area for tracks, scats, bones, diggings and feeding areas for native and feral species
- Searching through microhabitats including examining termite mounds, tree hollows and hollow logs and turning over leaf litter
- Visual and aural surveys, which accounted for all the bird species recorded utilising the habitats of the survey area at that time
- Recording GPS locations of significant fauna species.

Targeted Bilby searches

The Greater Bilby is recognised as a locally and regionally significant species in the Dampier Peninsula and wider area, that requires Targeted surveys. The sampling technique endorsed by the DAWE, references Southgate's methods of Greater Bilby Plot Assessments (Southgate et al. 2005), and the DBCA guidelines (DBCA 2017), which involves an assessment of 2 ha plots as a method of sampling a proportion of a given survey area.

Given the varying sizes of the survey sites, the approach for the survey was to undertake a combination of transects and plots, that would cover majority of the area, to detect any Greater Bilby activity, particularly any burrows of resident animals, but also secondary signs including tracks, scats and foraging digs.

The survey area was traversed on foot to detect signs of Greater Bilby activity that would indicate its presence, and other information that assesses the detectability of Greater Bilby in an area (Southgate method). Searching was undertaken by GHD ecologist Sarah Flemington. Linear transects were walked across the entirety of the

survey sites where vegetation density permitted, with space between transects approximately 30-50 m apart. The plot size was decided to be 50 by 400 meters (2 ha), so that two transects could be walked within a plot, across the survey area length to adequately search for Bilby and confirm habitat types. The transects are presented in Appendix A.

During the traverses, various information on the habitat characteristics was recorded in an excel spreadsheet on the handheld Tablet device to complete the Plot Assessments. The Plot Assessments when completed, provide two values that assess the trackability of Bilby, and the availability of Other Determining Signs (ODS), which will reflect if Bilby were able to be detected (if they were present) in the area. The plots provide an overall assessment of each of the survey sites.

The results and the information recorded for the Plot Assessments during the survey, is provided in Appendix E.

Fauna species identification

Identification of fauna species were made in the field using available field guides and electronic guides (e.g. Morcombe 2004). Nomenclature used in this report follows WAM as reported on NatureMap (DBCA 2021). This nomenclature is considered the most up to date species information for WA groups: reptiles, amphibians, invertebrates and mammals (including bats). All bird nomenclature follows Christidis and Boles (2008). Other reference materials used are presented in Table 2.

Table 2 Fauna references

Fauna group	Field Guide
Mammals	Menkhorst and Knight (2010), Van Dyck and Strahan (2008), Churchill (2008)
Birds	Christidis and Boles (2008), Morcombe (2004), Pizzey and Knight (2012)
Reptiles	Wilson and Swan (2020)
Amphibians	Tyler and Doughty (2009)

3. Desktop assessment – Warmun

3.1 Location

The Warmun survey area consists of two areas approximately 600 m apart located on the western side of the Great Northern Highway in Warmun. The northern survey area is approximately 5 ha and the southern survey area is approximately 4.25 ha (Figure 1, Appendix A).

3.2 Physical environment

Ecological and land use constraints for the Warmun survey area are presented on Figure 2, Appendix A.

3.2.1 Climate

The climate of the central Kimberley region is tropical monsoonal with a warm, dry season (April to November) and a wet season (December to March) (Graham 2001). Rainfall is generally received during the summer as a result of unpredictable tropical downpours and cyclonic low pressure systems. The closest BoM weather station with sufficient historical data is in Warmun (site number 002032).

Climate data from this station indicates the mean maximum temperature ranges from 29.2 °C in November to 29.6 °C in June/July. The mean minimum temperature ranges from 12.8 °C in July to 25.2 °C in December. The mean annual rainfall is 721.5 mm, with approximately 42.3 rain days a year (BoM 2023).

3.2.2 Land systems and soil

The Kimberley region has been surveyed by the Department of Primary Industries and Regional Development (DPIRD) and others for the purposes of land classification, mapping and resource evaluation. One hundred and eleven land systems have been described for the region, which are distinguished on the basis of topography, geology, soils and vegetation (Payne and Schoknecht 2011). The survey area intersects two land systems, predominantly the O'Donnell Land System, with a small area of the northern survey area intersecting the Richenda Land System. A brief description of the land systems is provided in Table 3.

Table 3 Land systems within the survey area

Land system	Description	Geology	Geomorphology
O'Donnell	Stony undulating country with scattered hills, loamy skeletal soils, open woodlands with short grasses and restricted cracking clay plains.	Gneiss, granite, and schist of Lower Proterozoic or Archaeozoic age.	Formed by partial dissection of the Fitzroy surface – undulating terrain: gently sloping low interfluves, scattered, rocky hills and ridges with restricted hill-footslopes, and local cracking clay plains; moderately dense rectangular pattern incised drainage; relief mainly less than 9 m.
Richenda	Inaccessible mountainous country, open stunted woodlands with curly spinifex, and grassy woodlands.	Granite, gneiss, and schist of lower Proterozoic or Archaeozoic age.	Mountain and hill ranges eroded below the Kimberley surface: mountain ranges in strike belts up to 26 km wide; with elongated gneiss hills, narrow schist ridges, and granite domes; dense rectangular pattern of incised tributary drainage and through-going strike-aligned alluvial floors; relief up to 150 m.

3.3 Land use

3.3.1 Conservation reserves and estates

No DBCA managed conservation areas occur within the survey area. The closest DBCA managed area is the Purnululu National Park, located approximately 30 km south/south-east.

3.3.2 Environmentally sensitive areas

No ESAs occur within or in the immediate vicinity of the survey area. The closest ESA is located approximately 5 km south-east of the survey area, which is likely to be associated with Purnululu National Park.

3.4 Hydrology

The GoWA (2022a) data layers identified the water resource aspects present in the survey area. These are detailed below in Table 4.

Table 4 Hydrology aspects within the study area

Aspect	Details	Results
Groundwater Areas	Groundwater areas proclaimed under the RIWI Act	Canning-Kimberley
Surface Water Areas	Surface water areas proclaimed under the RIWI Act	Ord River and Tributaries
Irrigation District	Irrigation Districts proclaimed under the RIWI Act	Ord Irrigation District
Rivers	Rivers proclaimed under the Rights in RIWI Act	None present
Public Drinking Water Source Areas (PDWSA)	PDWSA is a collective term used for the description of Water Reserves, Catchment Areas and Underground Pollution Control Areas declared (gazetted) under the provisions of the <i>Country Area Water Supply Act 1947</i>	None present
Waterways Management Areas	Areas proclaimed under <i>the Waterway Conservation Act 1976</i>	None present

3.4.1 Wetlands

There are no wetlands of significance located within or in close vicinity to the survey area. The closest significant wetlands are Lakes Argyle and Kununurra which area listed Wetlands of International Importance (Ramsar Wetlands). Both lakes are located more than 50 km downstream (NNE) of the survey area.

3.5 Vegetation and flora

3.5.1 Regional biogeography

The project area is located in the Central Kimberley bioregion and Hart sub-region as described by Interim Biogeographic Regionalisation of Australia (IBRA). The Central Kimberley bioregion comprises hilly to mountainous country with parallel siliceous ranges of Proterozoic sedimentary rocks with skeletal sandy soils supporting *Triodia* spp. hummock grasses with scattered tees, and with earths on Proterozoic volcanics in valleys supporting ribbon grass (*Chrysopogon* spp.) with scattered trees. Open forests of river gum (*Eucalyptus camaldulensis*) and *Pandanus* spp. occur along drainage lines (Graham 2001).

The subregion has a rugged topography dominated by Hart dolerite exposed along the eastern edge of the Kimberley Craton, where its basement members are folded and exposed. This is the driest part of the Central Kimberley bioregion with an annual rainfall of 600 to 700 mm. The vegetation is primarily savannah woodland over *Triodia* spp. and/or bunch grasses (Graham 2022).

3.5.2 Broad vegetation mapping and extent

Broad scale (1:1,000,000) pre-European vegetation mapping of the area was completed by Beard (1977) at an association level. The mapping indicates that one vegetation association is present across the survey area:

- Grasslands, tall bunch-grass savanna, Mitchell (*Astrebla* spp.) and blue grass (*Bothriochloa* spp.) (vegetation association 834).

The pre-European mapping has been adapted and digitised by Shepherd et al. (2002). The extent of vegetation associations have been determined by the state-wide vegetation remaining extent calculations maintained by DBCA (latest update March 2019 – GoWA 2022b). As shown in Table 5. The current extent remaining of vegetation association 834 is greater than 99% of their calculated pre-European extents at all scales (e.g. State, IBRA bioregion, IBRA subregion and Local Government Area (LGA)).

Table 5 Extent of pre-European vegetation association mapped within the survey area (DBCA 2019)

Vegetation association	Scale	Pre-European extent (ha)	Current extent (ha)	Remaining (%)	% Current extent in all DBCA managed land (proportion of Current Extent)
834	State: Western Australia	32,597.17	32,588.83	99.97	16.70
	IBRA bioregion: Central Kimberley	24,391.01	24,382.67	99.97	
	IBRA Subregion: Hart (CEK02)	24,391.01	24,382.67	99.97	
	LGA: Shire of Halls Creek	27,748.71	27,740.37	99.97	19.62

3.5.3 Significant ecological communities

The EPBC Act PMST did not identify any EPBC Act listed TECs within 20 km of the survey area. The DBCA TEC and PEC database identified two Priority 3 PECs occurring within 20 km of the survey area:

- Kimberley Vegetation Association 833 – Grasslands, short bunch grass savanna sparse low tree; scattered snappy gum over arid short grass on plains.
- Vegetation Association 834 – Grasslands, tall bunch grass savanna, mitchell and blue grass.

The survey area is located within the area mapped as the Priority 3 Kimberley Vegetation Association 834 PEC (Figure 2, Appendix A).

3.5.4 Flora diversity

The *NatureMap* database identified 449 flora taxa previously recorded within the study area (DBCA 2007-). The *NatureMap* database search for flora is provided in Appendix C.

3.5.5 Significant flora

The EPBC Act PMST and DBCA *NatureMap*, WAHERB and TPFL databases identified the presence/potential presence of 24 significant taxa within a 20 km buffer of the survey area. The desktop searches recorded:

- Nine Priority 1 taxa
- Eight Priority 2 taxa
- Six Priority 3 taxa
- One Priority 4 taxa

The locations of conservation significant flora registered on the DBCA databases are mapped in Figure 2, Appendix A.

3.6 Fauna

3.6.1 Fauna diversity

The *NatureMap* database identified 280 fauna species previously recorded within 20 km of the project area. This total comprised 172 birds, 75 reptiles, 22 mammals and 11 amphibians. The *NatureMap* database search is provided in Appendix C.

3.6.2 Significant fauna

The EPBC Act PMST and *NatureMap* database identified the presence/potential presence of 26 conservation significance fauna within the study area.

4. Desktop Assessment – Beagle Bay

4.1 Location

The Beagle Bay survey area is located on the Dampier Peninsula, adjacent to Beagle Bay Road. The survey area is approximately 0.6 km south west of the Beagle Bay community. The survey area is approximately 11.49 ha (Figure 7, Appendix A).

4.2 Physical environment

Ecological and land use constraints for the Beagle Bay survey area are presented on Figure 8, Appendix A.

4.2.1 Climate

The climate of the central Kimberley region is tropical monsoonal with a warm, dry season (April to November) and a wet season (December to March) (Graham 2001). Rainfall is generally received during the summer as a result of unpredictable tropical downpours and cyclonic low pressure systems. The closest BoM weather station with sufficient historical data is Cygnet Bay (site number 003057), located approximately 50 km north of the survey area.

Climate data from this station indicates the mean maximum temperature ranges from 35.3 °C in November to 28.2 °C in July. The mean minimum temperature ranges from 14.9 °C in July to 25.6 °C in December. The mean annual rainfall is 794.0 mm (BoM 2023).

4.2.2 Land systems and soil

The Kimberley region has been surveyed by the Department of Primary Industries and Regional Development (DPIRD) and others for the purposes of land classification, mapping and resource evaluation. One hundred and eleven land systems have been described for the region, which are distinguished on the basis of topography, geology, soils and vegetation (Payne and Schoknecht 2011). One land system is relevant within the survey area (Table 6).

Table 6 Land systems within the survey area

Land system	Description	Geology	Geomorphology
Wanganut	Low lying sandplains and dune fields with through going drainage supporting pindan acacia shrublands with emergent eucalypt trees	Quaternary aeolian	Sandplain and dunefields with through-going drainage: sandplain, mainly in the upper parts, with stable dunefields, low lying sandplain, and scattered pans and depressions; sparse to moderately dense branching drainage pattern; relief up to 9 m.

4.3 Land use

4.3.1 Conservation reserves and estates

No DBCA managed conservation areas occur within the survey area or wider study area.

4.3.2 Environmentally sensitive areas

No ESAs are located within the survey area. The closest ESA is located approximately 10 km north west; no.7278 and associated with the buffer for Monsoon thickets on coastal sand dunes Threatened Ecological Community (TEC) (Figure 8, Appendix A).

4.4 Hydrology

The GoWA (2022a) data layers identified the water resource aspects present in the survey area. These are detailed below in Table 7.

Table 7 Hydrology aspects within the study area

Aspect	Details	Results
Groundwater Areas	Groundwater areas proclaimed under the RIWI Act	Canning-Kimberley
Surface Water Areas	Surface water areas proclaimed under the RIWI Act	None present
Irrigation District	Irrigation Districts proclaimed under the RIWI Act	None present
Rivers	Rivers proclaimed under the Rights in RIWI Act	None present
Public Drinking Water Source Areas (PDWSA)	PDWSA is a collective term used for the description of Water Reserves, Catchment Areas and Underground Pollution Control Areas declared (gazetted) under the provisions of the <i>Country Area Water Supply Act 1947</i>	None present
Waterways Management Areas	Areas proclaimed under <i>the Waterway Conservation Act 1976</i>	None present

4.4.1 Wetlands

No Internationally (Ramsar) or nationally important wetlands are located within 20 km of the survey area.

4.5 Vegetation and flora

4.5.1 Regional biogeography

The survey area is located in the Dampierland bioregion and Pindanland sub-region as described by Interim Biogeographic Regionalisation of Australia (IBRA).

The Dampierland bioregion is characterised by extensive plains, ranges and spectacular gorges. The vegetation is characterised by acacia thickets with scattered trees and areas of grasslands and savannas. The bioregion contains Aboriginal land, pastoral leases and some conservation reserves. The main industries are beef cattle, horticulture and tourism. Major population centres are Broome, Derby and Fitzroy Crossing.

The Pindanland subregion comprises sandplains of the Dampier Peninsular and western part of Dampier Land, including the hinterland of the Eighty Mile Beach. It is a fine-textured sand-sheet with subdued dunes and includes the paleodelta of the Fitzroy River. The vegetation is described primarily as pindan. This is the coastal, semi-arid, north-western margin of the Canning Basin (Graham 2001).

4.5.2 Broad vegetation mapping and extent

Broad scale (1:1,000,000) pre-European vegetation mapping of the area was completed by Beard (1977) at an association level. The mapping indicates that two vegetation association is present across the survey area:

- Shrublands, pindan; *Acacia tumida* shrubland with grey box & cabbage gum medium woodland over ribbon grass & curly spinifex (association 750)
- Grasslands, tall bunch grass savanna, sparse low tree; ribbon grass & paperbarks (association 67).

The pre-European mapping has been adapted and digitised by Shepherd et al. (2002). The extent of vegetation associations have been determined by the state-wide vegetation remaining extent calculations maintained by

DBCA (latest update March 2019 – GoWA 2022b). As shown in The current extents remaining of all vegetation associations are greater than 99% of their calculated pre-European extents at all scales (e.g. State, IBRA bioregion, IBRA subregion and Local Government Area (LGA)).

The Native Vegetation Extent data layer indicates there has been no previous clearing within the survey area.

The current extents remaining of all vegetation associations are greater than 99% of their calculated pre-European extents at all scales (e.g. State, IBRA bioregion, IBRA subregion and Local Government Area (LGA)).

The Native Vegetation Extent data layer indicates there has been no previous clearing within the survey area.

Table 8 Extent of pre-European vegetation association mapped within the survey area (DBCA 2019)

Vegetation association	Scale	Pre-European extent (ha)	Current extent (ha)	Remaining (%)	%current extent in all DBCA managed land (proportion of current extent)
750	State: Western Australia	1,231,155.50	1,225,687.52	99.56	
	IBRA bioregion: Dampierland	1,229,182.16	1,225,280.52	99.68	2.78
	IBRA sub-region: Pindanland	1,221,734.45	1,217,843.72	99.68	2.80
	LGA: Shire of Broome	1,115,559.36	1,110,131.18	99.51	3.07
67	State: Western Australia	27,285.40	27,240.50	99.84	-
	IBRA bioregion: Dampierland	27,285.40	27,240.50	99.84	-
	IBRA sub-region: Pindanland	27,285.40	27,240.50	99.84	-
	LGA: Shire of Broome	23,775.29	23,730.39	99.81	-

4.5.3 Significant ecological communities

The DBCA TEC and PEC database identified one TEC and three State-listed PECs within the study area. The survey area is within the buffer of the PEC Kimberley Vegetation Association 67 as defined by John Beard’s Vegetation mapping for the Kimberley. Details on these communities are provided in Table 9 and mapped on Figure 8, Appendix A.

Table 9 Threatened and Priority Ecological Communities identified in the desktop searches

Community type	EPBC Act	BC Act/DBCA	Description (DBCA 2021a)
Assemblages of Lolly Well Springs wetland complex (PEC)		P3	Wetland complex containing numerous low organic mound springs with moats. Threats: recreational use, potential tourism developments, weed invasion, rubbish dumping, grazing and trampling (cattle).
Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula (TEC)	Endangered	Vulnerable	Unusual vine thicket community and Camaenid land snails assemblage located on Napier Range. Threats: frequent fires leading to vegetation changes; loss of vine thickets and leaf litter.
Kimberley Vegetation Association 37 (PEC)		P3	Shrublands; teatree thicket Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.

Community type	EPBC Act	BC Act/DBCA	Description (DBCA 2021a)
Kimberley Vegetation Association 67 (PEC)		P3	Grasslands, tall bunch grass savanna, sparse low tree; ribbon grass & paperbarks Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.

4.5.4 Flora diversity

The *NatureMap* database identified 220 flora taxa, representing 156 genera, previously recorded within the study area (DBCA 2007-). The most common genus's include *Melaleuca* (seven species), *Acacia* (six species), *Cyperus* (five species) and *Fimbristylis* (five species).

The *NatureMap* database search for flora is provided in Appendix C.

4.5.5 Significant flora

The EPBC Act PMST and DBCA NatureMap databases identified the presence/potential presence of 14 conservation significant taxa within a 20 km buffer of the survey area. The desktop searches recorded:

- Seven Priority 1 taxa
- Seven Priority 3 taxa

The locations of conservation significant flora registered on the DBCA databases are mapped in Figure 16, Appendix A.

4.6 Fauna

4.6.1 Fauna diversity

The *NatureMap* database identified 307 fauna species previously recorded within 20 km of the survey area. This total comprised 132 birds, 36 reptiles, 10 mammals, seven amphibians, 55 invertebrates and 67 fish.

The *NatureMap* database search is provided in Appendix C.

4.6.2 Significant fauna

The EPBC Act PMST, DBCA database and *NatureMap* database identified the presence/potential presence of 29 significant fauna within the study area. This total does not include those species that are exclusively marine as no marine habitat is present within the survey area or indirectly impacted by the project. The desktop searches recorded:

- Eighteen EPBC and/or DBCA (BC Act)- listed Threatened fauna taxa
- Nine EPBC-listed Migratory and/or Marine fauna taxa
- One DBCA Other Specially Protected (OS) fauna taxon
- One DBCA Priority 2 fauna taxon.

5. Desktop Assessment – Ardyaloon

5.1 Location

The Ardyaloon survey area consists of two areas. The Ardyaloon north survey area is located near the northern extent of the Dampier Peninsula, adjacent to One Arm Point Road. The survey area is approximately 2 km west of the One Arm Point community. The Ardyaloon south survey area is located near the northern extent of the Dampier Peninsula. The survey area is approximately 2 km west of the One Arm Point community and 0.5 km south west of One Arm Point Road. The northern survey area is approximately 10.08 ha and the southern survey area is approximately 37.17 ha (Figure 13, Appendix A).

5.2 Physical environment

Ecological and land use constraints for the Ardyaloon survey areas are presented on Figure 14, Appendix A.

5.2.1 Climate

The climate of the central Kimberley region is tropical monsoonal with a warm, dry season (April to November) and a wet season (December to March) (Graham 2001). Rainfall is generally received during the summer as a result of unpredictable tropical downpours and cyclonic low pressure systems. The closest BoM weather station with sufficient historical data is Cygnet Bay (site number 003057), located approximately 2 km west of the survey area.

Climate data from this station indicates the mean maximum temperature ranges from 35.3 °C in November to 28.2 °C in July. The mean minimum temperature ranges from 14.9 °C in July to 25.6 °C in December. The mean annual rainfall is 794.0 mm (BoM 2023).

5.2.2 Land systems and soil

The Kimberley region has been surveyed by the Department of Primary Industries and Regional Development (DPIRD) and others for the purposes of land classification, mapping and resource evaluation. One hundred and eleven land systems have been described for the region, which are distinguished on the basis of topography, geology, soils and vegetation (Payne and Schoknecht 2011). One land system is relevant within the survey areas (Table 10).

Table 10 Land systems within the survey area

Land system	Description	Geology	Geomorphology
Reeves	Sand plain with scattered hills and minor plateaux, reddish sandy soils, pindan.	Subhorizontal or gently dipping sandstone, sandy siltstone, and silicified quartz sandstone of Cretaceous age; Quaternary aeolian sand.	Formed by dissection of the Kimberley surface - hill lands: strike belts up to 4.8 km wide, with scattered hills, dip slopes with thin sand cover and local outcrop, and sandplain; sparse, branching drainage pattern; relief up to 60 m.

5.3 Land use

5.3.1 Conservation reserves and estates

No DBCA managed conservation area occur within the survey area. The closest is located approximately 9 km north; Swan Island Nature Reserve (Class A R 34257).

5.3.2 Environmentally sensitive areas

The northern and southern survey areas are located within ESA no. 7286, within the buffer for Monsoon thickets on coastal sand dunes TEC (Figure 14, Appendix A).

5.4 Hydrology

The GoWA (2022a) data layers identified the water resource aspects present in the survey area. These are detailed below in Table 11.

Table 11 Hydrology aspects within the study area

Aspect	Details	Results
Groundwater Areas	Groundwater areas proclaimed under the RIWI Act	Canning-Kimberley
Surface Water Areas	Surface water areas proclaimed under the RIWI Act	None present
Irrigation District	Irrigation Districts proclaimed under the RIWI Act	None present
Rivers	Rivers proclaimed under the Rights in RIWI Act	None present
Public Drinking Water Source Areas (PDWSA)	PDWSA is a collective term used for the description of Water Reserves, Catchment Areas and Underground Pollution Control Areas declared (gazetted) under the provisions of the <i>Country Area Water Supply Act 1947</i>	None present
Waterways Management Areas	Areas proclaimed under <i>the Waterway Conservation Act 1976</i>	None present

5.4.1 Wetlands

No Internationally (Ramsar) or nationally important wetlands are located within 20 km of the survey area.

5.5 Vegetation and flora

5.5.1 Regional biogeography

The survey area is located in the Dampierland bioregion and Pindanland sub-region as described by Interim Biogeographic Regionalisation of Australia (IBRA).

The Dampierland bioregion is characterised by extensive plains, ranges and spectacular gorges. The vegetation is characterised by acacia thickets with scattered trees and areas of grasslands and savannas. The bioregion contains Aboriginal land, pastoral leases and some conservation reserves. The main industries are beef cattle, horticulture and tourism. Major population centres are Broome, Derby and Fitzroy Crossing.

The Pindanland subregion comprises sandplains of the Dampier Peninsular and western part of Dampier Land, including the hinterland of the Eighty Mile Beach. It is a fine-textured sand-sheet with subdued dunes and includes the paleodelta of the Fitzroy River. The vegetation is described primarily as pindan. This is the coastal, semi-arid, north-western margin of the Canning Basin (Graham 2001).

5.5.2 Broad vegetation mapping and extent

Broad scale (1:1,000,000) pre-European vegetation mapping of the area was completed by Beard (1977) at an association level. The mapping indicates that one vegetation association is present across the two survey areas:

- Shrublands, pindan; *Acacia tumida* shrubland with ghost gum (*Eucalyptus papuana*) & *E. setosa* medium woodland over curly spinifex (association 771).

The pre-European mapping has been adapted and digitised by Shepherd et al. (2002). The extent of vegetation associations have been determined by the state-wide vegetation remaining extent calculations maintained by DBCA (latest update March 2019 – GoWA 2022b). As shown in Table 12. The current extents remaining of all vegetation associations are greater than 95% of their calculated pre-European extents at all scales (e.g. State, IBRA bioregion, IBRA subregion and Local Government Area (LGA)).

The Native Vegetation Extent data layer indicates there has been no previous clearing within the survey area.

Table 12 Extent of pre-European vegetation association mapped within the survey area (DBCA 2019)

Vegetation association	Scale	Pre-European extent (ha)	Current extent (ha)	Remaining (%)	%current extent in all DBCA managed land (proportion of current extent)
771	State: Western Australia	35,671.30	34,884.39	97.79	-
	IBRA bioregion: Dampierland	34,907.23	34,672.53	99.33	-
	IBRA sub-region: Pindanland	34,907.23	34,672.53	99.33	-
	LGA: Shire of Broome	35,671.30	34,884.39	97.79	-

5.5.3 Significant ecological communities

The DBCA TEC and PEC database identified one TEC within the study area. The survey area is within the buffer of the TEC Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula. One PEC was identified within the study area, Vegetation Association 37 as defined by John Beard’s Vegetation mapping for the Kimberley. Details on these communities are provided in Table 13 and mapped on Figure 14, Appendix A.

Table 13 Threatened and Priority Ecological Communities identified in the desktop searches

Community type	EPBC Act	DBCA	Description (DBCA 2021a)
Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula (TEC)	Endangered	Vulnerable	Unusual vine thicket community and Camaenid land snails assemblage located on Napier Range. Threats: frequent fires leading to vegetation changes; loss of vine thickets and leaf litter.
Vegetation Association 37 as defined by John Beard’s vegetation mapping for the Kimberley	-	Priority 3	Shrublands: teatree thicket Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion

5.5.4 Flora diversity

The *NatureMap* database identified 495 flora taxa previously recorded within the study area (DBCA 2007-). The most common genus’s include *Acacia* (14 species), *Tephrosia* (11 species) and *Cyperus* (nine species).

The *NatureMap* database search for flora is provided in Appendix C.

5.5.5 Significant flora

The EPBC Act PMST and DBCA NatureMap databases identified the presence/potential presence of 12 conservation significant taxa within a 20 km buffer of the survey area. The desktop searches recorded:

- Four Priority 1 taxa
- One Priority 2 taxa
- Seven Priority 3 taxa.

The locations of conservation significant flora registered on the DBCA databases are mapped in Figure 8, Appendix A.

5.6 Fauna

5.6.1 Fauna diversity

The *NatureMap* database identified 391 fauna species previously recorded within 20 km of the survey area. This total comprised 225 birds, 41 reptiles, 29 mammals, two amphibians, one invertebrate and 93 fish.

The *NatureMap* database search is provided in Appendix C.

5.6.2 Significant fauna

The EPBC Act PMST and *NatureMap* database identified the presence/potential presence of 52 conservation significance fauna within the study area. This total does not include those species that are exclusively marine as no marine habitat is present within the survey area or indirectly impacted by the project.

6. Desktop assessment – Djarindjin

6.1 Location

The Djarindjin survey area is located near the northern extent of the Dampier Peninsula. The survey area is approximately 0.52 km east of the Djarindjin community. The survey area is approximately 10.32 ha (Figure 19, Appendix A).

6.2 Physical environment

Ecological and land use constraints for the Djarindjin survey area is presented on Figure 20, Appendix A.

6.2.1 Climate

The climate of the central Kimberley region is tropical monsoonal with a warm, dry season (April to November) and a wet season (December to March) (Graham 2001). Rainfall is generally received during the summer as a result of unpredictable tropical downpours and cyclonic low pressure systems. The closest BoM weather station with sufficient historical data is Cygnet Bay (site number 003057), located approximately 15 km north of the survey area.

Climate data from this station indicates the mean maximum temperature ranges from 35.3 °C in November to 28.2 °C in July. The mean minimum temperature ranges from 14.9 °C in July to 25.6 °C in December. The mean annual rainfall is 794.0 mm (BoM 2023).

6.2.2 Land systems and soil

The Kimberley region has been surveyed by the Department of Primary Industries and Regional Development (DPIRD) and others for the purposes of land classification, mapping and resource evaluation. One hundred and eleven land systems have been described for the region, which are distinguished on the basis of topography, geology, soils and vegetation (Payne and Schoknecht 2011). One land system is relevant within the survey area (Table 14).

Table 14 Land system within the survey area

Land system	Description	Geology	Geomorphology
Yeeda	Sandplains with red and yellow sands supporting pindan acacia shrublands with emergent eucalypt trees	Quaternary aeolian sands	Sandplain and dunefields with little organised drainage; sandplain up to 16 km in extent, with shallow valleys, plains with thin sand cover, and scattered pans; limited surface drainage in zones of sheet-flow up to 3.2 km wide and extending up to 8 km downslope from adjacent uplands.

6.3 Land use

6.3.1 Conservation reserves and estates

No DBCA managed conservation area occur within the survey area or wider study area.

6.3.2 Environmentally sensitive areas

The survey area is located within ESA no. 7290, within the buffer for Monsoon thickets on coastal sand dunes TEC (Figure 20, Appendix A).

6.4 Hydrology

The GoWA (2022a) data layers identified the water resource aspects present in the survey area. These are detailed below in Table 15.

Table 15 Hydrology aspects within the study area

Aspect	Details	Results
Groundwater Areas	Groundwater areas proclaimed under the RIWI Act	Canning-Kimberley
Surface Water Areas	Surface water areas proclaimed under the RIWI Act	None present
Irrigation District	Irrigation Districts proclaimed under the RIWI Act	None present
Rivers	Rivers proclaimed under the Rights in RIWI Act	None present
Public Drinking Water Source Areas (PDWSA)	PDWSA is a collective term used for the description of Water Reserves, Catchment Areas and Underground Pollution Control Areas declared (gazetted) under the provisions of the <i>Country Area Water Supply Act 1947</i>	None present
Waterways Management Areas	Areas proclaimed under <i>the Waterway Conservation Act 1976</i>	None present

6.4.1 Wetlands

No Internationally (Ramsar) or nationally important wetlands are located within 20 km of the survey area.

6.5 Vegetation and flora

6.5.1 Regional biogeography

The survey area is located in the Dampierland bioregion and Pindanland sub-region as described by Interim Biogeographic Regionalisation of Australia (IBRA).

The Dampierland bioregion is characterised by extensive plains, ranges and spectacular gorges. The vegetation is characterised by acacia thickets with scattered trees and areas of grasslands and savannas. The bioregion contains Aboriginal land, pastoral leases and some conservation reserves. The main industries are beef cattle, horticulture and tourism. Major population centres are Broome, Derby and Fitzroy Crossing.

The Pindanland subregion comprises sandplains of the Dampier Peninsular and western part of Dampier Land, including the hinterland of the Eighty Mile Beach. It is a fine-textured sand-sheet with subdued dunes and includes the paleodelta of the Fitzroy River. The vegetation is described primarily as pindan. This is the coastal, semi-arid, north-western margin of the Canning Basin (Graham 2001).

6.5.2 Broad vegetation mapping and extent

Broad scale (1:1,000,000) pre-European vegetation mapping of the area was completed by Beard (1977) at an association level. The mapping indicates that one vegetation association is present within the survey area:

- Shrublands, pindan; *Acacia tumida* shrubland with grey box & cabbage gum medium woodland over ribbon grass & curly spinifex (association 750).

The pre-European mapping has been adapted and digitised by Shepherd et al. (2002). The extent of vegetation associations have been determined by the state-wide vegetation remaining extent calculations maintained by DBCA (latest update March 2019 – GoWA 2022b). As shown in Table 16. The current extents remaining of all

vegetation associations are greater than 99% of their calculated pre-European extents at all scales (e.g. State, IBRA bioregion, IBRA subregion and Local Government Area (LGA)).

The Native Vegetation Extent data layer indicates there has been no previous clearing within the survey area.

Table 16 Extent of pre-European vegetation association mapped within the survey area (DBCA 2019)

Vegetation association	Scale	Pre-European extent (ha)	Current extent (ha)	Remaining (%)	%current extent in all DBCA managed land (proportion of current extent)
750	State: Western Australia	1,231,155.50	1,225,687.52	99.56	
	IBRA bioregion: Dampierland	1,229,182.16	1,225,280.52	99.68	2.78
	IBRA sub-region: Pindanland	1,221,734.45	1,217,843.72	99.68	2.80
	LGA: Shire of Broome	1,115,559.36	1,110,131.18	99.51	3.07

6.5.3 Significant ecological communities

The DBCA TEC and PEC database identified one TEC within the study area. The survey area is within the buffer of the TEC Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula. One PEC was identified within the study area, Vegetation Association 37 as defined by John Beard’s Vegetation mapping for the Kimberly. Details on these communities are provided in Table 17 and mapped on Figure 20, Appendix A.

Table 17 Threatened and Priority Ecological Communities identified in the desktop searches

Community type	EPBC Act	DBCA	Description (DBCA 2021a)
Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula (TEC)	Endangered	Vulnerable	Unusual vine thicket community and Camaenid land snails assemblage located on Napier Range. Threats: frequent fires leading to vegetation changes; loss of vine thickets and leaf litter.
Vegetation Association 37 as defined by John Beard’s vegetation mapping for the Kimberley	-	Priority 3	Shrublands: teatree thicket Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion

6.5.4 Flora diversity

The *NatureMap* database identified 454 flora taxa previously recorded within the study area (DBCA 2007-). The most common genus’s include Fabaceae (54 taxa), Poaceae (44 taxa) and Malvaceae (26 taxa).

The *NatureMap* database search for flora is provided in Appendix C.

6.5.5 Significant flora

The EPBC Act PMST and DBCA NatureMap databases identified the presence/potential presence of six conservation significant taxa within a 20 km buffer of the survey area. The desktop searches recorded:

- Two Priority 1 taxa
- Four Priority 3 taxa.

The locations of conservation significant flora registered on the DBCA databases are mapped in Figure 20, Appendix A.

6.6 Fauna

6.6.1 Fauna diversity

The *NatureMap* database identified 248 fauna species previously recorded within 20 km of the survey area. This total comprised 178 birds, 39 reptiles, 21 mammals, four amphibians, one invertebrate and five fish.

The *NatureMap* database search is provided in Appendix C.

6.6.2 Significant fauna

The EPBC Act PMST and *NatureMap* database identified the presence/potential presence of 58 conservation significance fauna within the study area. This total does not include those species that are exclusively marine as no marine habitat is present within the survey area or indirectly impacted by the project.

7. Desktop assessment – Bidyadanga

7.1 Location

The Bidyadanga survey area is located approximately 90 km south west of Broome. The survey area is approximately 500 m north west of the Bidyadanga community. The survey area is approximately 28.19 ha (Figure 25, Appendix A).

7.2 Physical environment

Ecological and land use constraints for the Bidyadanga survey area is presented on Figure 26, Appendix A.

7.2.1 Climate

The climate of the central Kimberley region is tropical monsoonal with a warm, dry season (April to November) and a wet season (December to March) (Graham 2001). Rainfall is generally received during the summer as a result of unpredictable tropical downpours and cyclonic low pressure systems. The closest BoM weather station with sufficient historical data is Bidyadanga (site number 003030), located approximately 5 km east of the survey area.

Climate data from this station indicates. The mean maximum temperature ranges from 35.8 °C in April to 29.7 °C in July. Mean minimum temperature ranges from 14.2 °C in July to 26.0 °C in January. The mean annual rainfall is 484.2 mm (BoM 2023).

7.2.2 Land systems and soil

The Kimberley region has been surveyed by the Department of Primary Industries and Regional Development (DPIRD) and others for the purposes of land classification, mapping and resource evaluation. One hundred and eleven land systems have been described for the region, which are distinguished on the basis of topography, geology, soils and vegetation (Payne and Schoknecht 2011). One land system is relevant within the survey area (Table 18).

Table 18 Land system within the survey area

Land system	Description	Geology	Geomorphology
Yeeda	Sandplains with red and yellow sands supporting pindan acacia shrublands with emergent eucalypt trees	Quaternary aeolian sands	Sandplain and dunefields with little organised drainage; sandplain up to 16 km in extent, with shallow valleys, plains with thin sand cover, and scattered pans; limited surface drainage in zones of sheet-flow up to 3.2 km wide and extending up to 8 km downslope from adjacent uplands.

7.3 Land use

7.3.1 Conservation reserves and estates

No DBCA managed conservation area occur within the survey area or wider study area.

7.3.2 Environmentally sensitive areas

No ESAs are located within the survey or wider study area.

7.4 Hydrology

The GoWA (2022a) data layers identified the water resource aspects present in the survey area. These are detailed below in Table 19.

Table 19 Hydrology aspects within the study area

Aspect	Details	Results
Groundwater Areas	Groundwater areas proclaimed under the RIWI Act	Canning-Kimberley
Surface Water Areas	Surface water areas proclaimed under the RIWI Act	None present
Irrigation District	Irrigation Districts proclaimed under the RIWI Act	None present
Rivers	Rivers proclaimed under the Rights in RIWI Act	None present
Public Drinking Water Source Areas (PDWSA)	PDWSA is a collective term used for the description of Water Reserves, Catchment Areas and Underground Pollution Control Areas declared (gazetted) under the provisions of the <i>Country Area Water Supply Act 1947</i>	None present
Waterways Management Areas	Areas proclaimed under <i>the Waterway Conservation Act 1976</i>	None present

7.4.1 Wetlands

No Internationally (Ramsar) or nationally important wetlands are located within 20 km of the survey area.

7.5 Vegetation and flora

7.5.1 Regional biogeography

The survey area is located in the Dampierland bioregion and Pindanland sub-region as described by Interim Biogeographic Regionalisation of Australia (IBRA).

The Dampierland bioregion is characterised by extensive plains, ranges and spectacular gorges. The vegetation is characterised by acacia thickets with scattered trees and areas of grasslands and savannas. The bioregion contains Aboriginal land, pastoral leases and some conservation reserves. The main industries are beef cattle, horticulture and tourism. Major population centres are Broome, Derby and Fitzroy Crossing.

The Pindanland subregion comprises sandplains of the Dampier Peninsular and western part of Dampier Land, including the hinterland of the Eighty Mile Beach. It is a fine-textured sand-sheet with subdued dunes and includes the paleodelta of the Fitzroy River. The vegetation is described primarily as pindan. This is the coastal, semi-arid, north-western margin of the Canning Basin (Graham 2001).

7.5.2 Broad vegetation mapping and extent

Broad scale (1:1,000,000) pre-European vegetation mapping of the area was completed by Beard (1977) at an association level. The mapping indicates that one vegetation association is present within the survey area:

- Shrublands, pindan; *Acacia eripoda* shrubland with scattered low bloodwood (*Eucalyptus dicromophloia*) & *E. setosa* over soft & curly spinifex on sandplain (association 699).

The pre-European mapping has been adapted and digitised by Shepherd et al. (2002). The extent of vegetation associations have been determined by the state-wide vegetation remaining extent calculations maintained by DBCA (latest update March 2019 – GoWA 2022b). As shown in Table 20. The current extents remaining of all

vegetation associations are greater than 95% of their calculated pre-European extents at all scales (e.g. State, IBRA bioregion, IBRA subregion and Local Government Area (LGA)).

The Native Vegetation Extent data layer indicates there has been no previous clearing within the survey area.

Table 20 Extent of pre-European vegetation association mapped within the survey area (DBCA 2019)

Vegetation association	Scale	Pre-European extent (ha)	Current extent (ha)	Remaining (%)	%current extent in all DBCA managed land (proportion of current extent)
699	State: Western Australia	1,986,450.05	1,984,438.78	99.90	0.47
	IBRA bioregion: Dampierland	1,976,313.50	1,974,958.06	99.93	0.48
	IBRA sub-region: Pindanland	1,796,194.92	1,794,994.17	99.93	0.52
	LGA: Shire of Broome	1,628,642.72	1,626,791.54	99.89	0.58

7.5.3 Significant ecological communities

The DBCA TEC and PEC database identified no TECs within the study area. Three state listed PECs were identified within the study area. Details on these communities are provided in. Details on these communities are provided in Table 21 and mapped on Figure 26, Appendix A.

Table 21 Threatened and Priority Ecological Communities identified in the desktop searches

Community type	EPBC Act	DBCA	Description (DBCA 2021a)
Roebuck Land System	-	P3	Paleo-tidal coastal plains and tidal flats with saline soil supporting salt-water couch grasslands, samphire low shrublands, melaleuca thickets and mangroves. Threats: extensive threatening processes acting at landscape scales, namely frequent fires leading to loss of trees and shrubs, over grazing, and weed invasion (buffel grass).
Eighty Mile Land System	-	P3	Beach foredunes, longitudinal coastal dunes and sandy plains with tussock grasslands and spinifex grasslands. Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, erosion, and weed invasion (buffel grass).
Vegetation Association 37 as defined by John Beard’s vegetation mapping for the Kimberley	-	P3	Shrublands: teatree thicket Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion

7.5.4 Flora diversity

The *NatureMap* database identified 82 flora taxa previously recorded within the study area (DBCA 2007-). The most common genus’s include *Acacia* (12 species), *Heliotropium* (three species) and *Ptilotus* (three species).

The *NatureMap* database search for flora is provided in Appendix C.

7.5.5 Significant flora

The EPBC Act PMST and DBCA NatureMap databases identified the presence/potential presence of four conservation significant taxa within a 20 km buffer of the survey area. The desktop searches recorded:

- Four Priority 3 taxa

The locations of conservation significant flora registered on the DBCA databases are mapped in Figure 26, Appendix A.

7.6 Fauna

7.6.1 Fauna diversity

The *NatureMap* database identified 267 fauna species previously recorded within 20 km of the survey area. This total comprised 177 birds, 34 reptiles, 23 mammals, 3 amphibians, one invertebrate and 29 fish.

The *NatureMap* database search is provided in Appendix C.

7.6.2 Significant fauna

The EPBC Act PMST, DBCA database and *NatureMap* database identified the presence/potential presence of 62 significant fauna within the study area. This total does not include those species that are exclusively marine as no marine habitat is present within the survey area or indirectly impacted by the project. The database searches recorded:

- Twenty Threatened fauna taxa
- Forty Migratory and/or Marine- listed fauna taxa
- One Priority 1 taxon
- One Priority 4 taxon.

9. Field survey results

9.1 Flora and vegetation

9.1.1 Vegetation types

Seven vegetation types aligning with broad landforms were identified and described in the survey areas, not including cleared tracks:

Warmun survey area:

- VT01 – *Corymbia* Open Woodland on stony undulating plains
- VT02 – *Corymbia/Terminalia* Open Woodland on rocky hills and ridges
- VT03 – *Lophostemon* Open Woodland on minor drainage areas

Djarindjin, Beagle Bay and Ardyaloon survey area:

- VT04 - *Eucalyptus miniata* and *Corymbia greeniana* woodland to isolated clumps of trees on Pindan red sand loam on low plain

Beagle Bay survey area:

- VT05 - *Corymbia greeniana* and *Corymbia bella* isolated clumps of trees over *Melaleuca nervosa* subsp *crosslandiana* open woodland on silty loam over clay on drainage flats/floodplain. Analogous to PEC Kimberley Vegetation Association 67

Ardyaloon survey area:

- VT06 - *Corymbia greeniana* and *Corymbia sp* open woodland on sandy Pindan plain with occasional rocky outcrops.

Bidyadanga project area:

- VT07 - *Corymbia hamersleyana* and *Corymbia flavescens* open woodland on red brown sandplain.

The vegetation types are described in further detail in Table 22 and mapped in Figure 4, Figure 10, Figure 16, Figure 22 and Figure 28 (Appendix A).


9.1.2 Significant vegetation communities



No TEC's listed under the EPBC Act or BC Act were identified within the survey areas during the field survey. VT05 within the Beagle Bay survey area represents the PEC Kimberley Vegetation Association 67, with this pre-European association previously mapped within the survey area. VT05 is analogous with the Vegetation Association 67 based on species present, type and landform. The location of PEC Kimberley Vegetation Association 67 is shown on Figure 10, Appendix A.


The Ardyaloon and Djarindjin survey areas occur within the buffer of the TEC Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula, however, this TEC was not recorded as the landform (within or near coastal sand dunes) did not occur and many of the dominant species that represent the TEC Monsoon (vine) thickets did not occur.


The vegetation types recorded at the Warmun survey area did not represent the PEC Vegetation Association 834 as the dominant species that represent this PEC, such as Mitchell grass (*Astrebla* sp.) and Blue grass (*Bothriochloa* sp.), were not recorded in the survey area.


Table 22 Vegetation types within the survey area


Vegetation type	Vegetation Type Description	Extent (ha) and proportion of individual survey area (%)	Sampling sites	Photograph
VT01	<p><i>Corymbia ?greeniana</i> open woodland over <i>Acacia leptophleba</i> and <i>Hakea arborescens</i> isolated shrubs over <i>Triodia ?epactia</i>, <i>Eragrostis ?desertorum</i>, <i>Enneapogon ?purpurascens</i> and <i>Heteropogon contortus</i> tussock grassland over <i>Gomphrena canescens</i> subsp. <i>canescens</i> and <i>Indigofera colutea</i> sparse forbland on stony undulating plains.</p>	6.73 ha (71.2%)	War02, War04, War05 (Warmun)	

Vegetation type	Vegetation Type Description	Extent (ha) and proportion of individual survey area (%)	Sampling sites	Photograph
VT02	<p><i>Corymbia ?greeniana</i>, <i>Eucalyptus brevifolia</i> and <i>Terminalia canescens</i> open woodland over <i>Acacia leptophleba</i>, <i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i> and <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> isolated shrubs over <i>Triodia ?epactia</i>, <i>Sehima nervosum</i> and <i>Eriachne ciliata</i> tussock grassland over <i>Gomphrena canescens</i> subsp. <i>canescens</i>, <i>Tephrosia phaeosperma</i> and <i>Euphorbia ?trigonosperma</i> sparse forbland on skeletal soils on rocky hills and ridges.</p>	2.21 ha (23.4%)	War01, War03, War06 (Warmun)	
VT03	<p><i>Lophostemon grandifloras</i> subsp. <i>riparius</i> and <i>Lysiphillum cunninghamii</i> scattered trees to open woodland over <i>Acacia leptophleba</i> and/or <i>Sesbania cannabina</i> scattered shrubs over <i>*Cenchrus ciliaris</i>, <i>Heteropogon contortus</i> and <i>Dichanthium fecundum</i> open tussock grassland over <i>Ammannia multiflora</i>, <i>Crotalaria medicarginea</i> var. <i>neglecta</i> and <i>Alternanthera nodiflora</i> forbland to open forbland on minor drainage lines/floodplain.</p>	0.51 ha (5.4%)	RA1 and RA2 (Warmun)	

Vegetation type	Vegetation Type Description	Extent (ha) and proportion of individual survey area (%)	Sampling sites	Photograph
VT04	<p><i>Eucalyptus miniata</i> and <i>Corymbia greeniana</i> open woodland to isolated clumps of trees over <i>Acacia tumida</i> var. <i>kulparn</i> shrubland to open shrubland over <i>Wrightia saligna</i>, <i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i> and <i>Bauhinia cunninghamii</i> sparse shrubland over <i>Corchorus sidoides</i> subsp. <i>sidoides</i> and <i>Dodonaea hispidula</i> var. <i>arida</i> sparse shrubland over <i>Sorghum plumosum</i> and <i>Chrysopogon pallidus</i> tussock grassland over <i>Waltheria indica</i>, <i>Calandrinia strophiolata</i> and <i>Heliotropium leptaleum</i> open forbland on Pindan red sand loam on low plain.</p>	<p>Beagle Bay – 9.74 ha (84.77%)</p> <p>Ardyaloon north – 10.08 ha (100%)</p> <p>Djarindjin – 10.21 ha (99.90%)</p>	<p>Ard01-23, Beag_HP-05, Dja-HP-01, Dja_HP-02, Dja01-23 (Djarindjin, Beagle Bay and Ardyaloon)</p>	

Vegetation type	Vegetation Type Description	Extent (ha) and proportion of individual survey area (%)	Sampling sites	Photograph
VT05	<p><i>Corymbia greeniana</i> and <i>Corymbia bella</i> isolated clumps of trees over <i>Melaleuca nervosa</i> subsp <i>crosslandiana</i> open woodland over <i>Chrysopogon pallidus</i> open tussock grassland over <i>Fimbristylis rara</i>, <i>Fimbristylis cardiocarpa</i> and <i>Cyperus pulchellus</i> sparse sedgeland over <i>Scleromitron scleranthoides</i>, <i>Buchnera linearis</i> and <i>Indigofera hirsuta</i> open forbland on silty loam over clay on drainage flats/floodplain.</p> <p>Represents DBCA P3 PEC Kimberley Vegetation Association 67.</p>	1.62 ha (14.10%)	BB01-23 (Beagle Bay)	

Vegetation type	Vegetation Type Description	Extent (ha) and proportion of individual survey area (%)	Sampling sites	Photograph
VT06	<p><i>Corymbia greeniana</i> and <i>Corymbia sp</i> open woodland over <i>Acacia tumida</i> var. <i>kulparn</i>, <i>Acacia monticola</i> and <i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i> shrubland over <i>Ehretia saligna</i> var. <i>saligna</i>, <i>Grevillea pyramidalis</i> subsp. <i>Pyramidalis</i> and <i>Santalum lanceolata</i> open shrubland over <i>Chrysopogon pallidus</i> and <i>Sorghum plumosum</i> open tussock grassland over <i>Triodia acutispicula</i> (P3) isolated hummocks over <i>Zornia albiflora</i>, <i>Corchorus sidoides</i> subsp. <i>sidoides</i> and <i>Bonamia linearis</i> open forbland on sandy Pindan plain with occasional rocky outcrops.</p>	37.08 ha (99.76%)	Ard02-23, Ard03-23, Ard04-23 (Ardyaloon - south)	

Vegetation type	Vegetation Type Description	Extent (ha) and proportion of individual survey area (%)	Sampling sites	Photograph
VT07	<i>Corymbia hamersleyana</i> and <i>Corymbia flavescens</i> open woodland over <i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i> and <i>Acacia colei</i> var. <i>colei</i> sparse shrubland over <i>Indigofera monophylla</i> , <i>Acacia arida</i> and <i>Acacia adoxa</i> var. <i>subglabra</i> shrubland over <i>Triodia epactia</i> open hummock grassland over <i>Stylosanthes hamata</i> , <i>Indigofera linnaei</i> and <i>Calandrinia strophiolata</i> sparse forbland on red brown sandplain.	28.09 ha (99.64%)	Bid01-23, Bid02-23, Bid03-23 (Bidyadanga)	
Cleared	Areas devoid of native vegetation, such as cleared tracks	Beagle Bay – 0.12 ha (1.04%) Ardyaloon south – 0.09 ha (0.24%) Djarindjin – 0.01 ha (0.10%) Bidyadanga – 0.10 ha (%)	-	Photo not available

9.1.3 Vegetation condition

The condition of the vegetation within all of the survey area ranged from Excellent to Good. The majority of the survey areas are in Excellent or Very Good condition. The extents of the vegetation condition within the survey areas are detailed in Table 23 and mapped in Figure 5, Figure 11, Figure 17, Figure 23 and Figure 29 (Appendix A). The vegetation structure was intact with limited signs of cattle/donkey activity and a low number of introduced flora were recorded for most of the survey areas. There are some tracks present, such as tracks along fencelines. The Warmun survey area recorded some signs of previous clearing, edge effects, rubbish, fire and weeds.

Table 23 Vegetation condition extent in the survey areas

Vegetation Condition	Extent in survey area (ha)	% within the survey area
Excellent	66.49	78.52
Very Good	4.13	4.88
Good to Very Good	3.34	3.95
Good	10.40	12.28
Cleared	0.32	0.37
Total	84.68	100.00

9.1.4 Flora diversity

One hundred and thirty-one flora taxa (including subspecies and varieties) representing 37 families and 97 genera were recorded from the Ardyaloon, Beagle Bay, Djarindjin and Bidyadanga survey areas during the field survey. This total comprised 126 native taxa and five introduced flora taxa.

Dominant families recorded from the survey area included:

- Fabaceae (20 taxa)
- Poaceae (20 taxa)
- Malvaceae (12 taxa).

One hundred and twenty flora taxa (including subspecies and varieties) representing 33 families and 87 genera were recorded from the Warmun survey areas during the field survey. This total comprised 124 native taxa and six introduced flora taxa.

Dominant families recorded from the survey area included:

- Fabaceae (21 taxa)
- Poaceae (22 taxa)
- Amaranthaceae and Malvaceae (8 taxa).

The full list of flora identified within the Ardyaloon, Beagle Bay, Djarindjin and Bidyadanga and Warmun survey areas compiled by site and species list by family is provided in Appendix D.

9.1.5 Introduced flora

Five introduced flora taxa were recorded in the Ardyaloon, Beagle Bay, Djarindjin and Bidyadanga survey areas:

- **Calotropis gigantea*
- **Cenchrus setiger*
- **Cyanthillium cinereum*
- **Passiflora foetida*
- **Stylosanthes hamata*

Six introduced flora taxa were recorded in the Warmun survey areas:

- **Aerva javanica*
- **Azadirachta indica*
- **Cenchrus ciliaris*
- **Clitoria ternatea*
- **Echinochloa colona*
- **Euphorbia heterophylla*

None of the introduced/naturalised flora taxa identified during the survey are listed as a Declared Pest under the *Biosecurity and Management Act 2007* or a Weed of National Significance. All of the introduced flora have been previously recorded from the Dampierland and Central Kimberley bioregions.

9.1.6 Significant flora

No EPBC Act or BC Act listed flora were recorded from the survey areas.

Three DBCA Priority three listed taxa were recorded from the following survey areas:

- *Goodenia byrnesii* (Priority 3) – Warmun survey area
- *Triodia acutispicula* (Priority 3) – Ardyaloon survey area
- *Tephrosia andrewii* (Priority 3) – Bidyadanga survey area

The Priority three species *Goodenia byrnesii* (Plate 1) was recorded from the Warmun survey area. This species was recorded opportunistically from five individuals in the southern survey area. This species was not identified in the desktop searches. The closest known record of this species is from the Argyle Downs Station (over 70 km north-east of Warmun) with this record representing a range extension. The species location is shown in Figure 4, Appendix A.

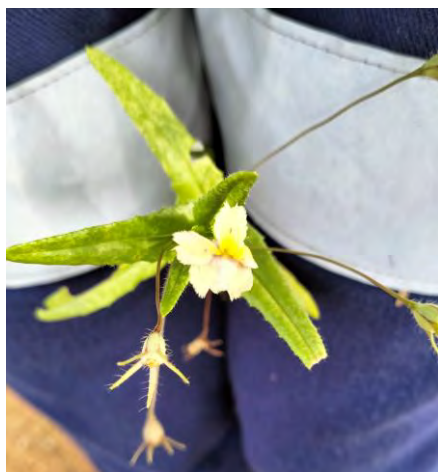


Plate 1 *Goodenia byrnesii* (P3)

The Priority three species *Triodia acutispicula* was recorded from the north and south Ardyaloon survey areas (Plate 2). This species was recorded from 17 locations with a total of 149 individuals and ranged in percentage cover between 1 – 60% within VT06. The species location is shown in Figure 16, Appendix A.



Plate 2 *Triodia acutispicula* (P3)

The Priority three species *Tephrosia andrewii* was recorded from the Bidyadanga survey area (Plate 3). This species was recorded from 10 locations with a total of 121 individuals. The species location is shown in Figure 28, Appendix A.



Plate 3 *Tephrosia andrewii* (P3)

The species raw data and co-ordinates are provided in Appendix D.

Likelihood of occurrence

A likelihood of occurrence assessment was conducted for all significant flora taxa identified in the desktop assessment (Appendix D). Of the identified Priority species for the survey areas the following assessment on likelihood post-survey is as follows:

- Warmun, one taxa *Goodenia byrnesii* (P3) was recorded and all other taxa are considered unlikely to occur
- Beagle Bay – all taxa are considered unlikely to occur
- Ardyaloon – one taxa, *Triodia acutispicula* (P3), was recorded and all other species are considered unlikely to occur

- Djarindjin – all taxa are considered unlikely to occur.
- Bidadanga – one taxa *Tephrosia andrewii* (P3) was recorded and all other taxa are considered unlikely to occur.

9.1.7 Flora of interest

The following common species represent flora of interest as they represent range extensions recorded within the Warmun survey area:

- *Goodenia heterochila* – significant range extension of approximately 450 km north and first record within the Central Kimberley bioregions
- *Euphorbia drummondii* – significant range extension of approximately 350 km east and first record within the Central Kimberley bioregions
- *Pterocaulon verbascifolium* – range extension of approximately 150 km east and south

9.2 Fauna

9.2.1 Fauna habitats

Six broad fauna habitat types (not including cleared) were identified within the survey area based on the predominant landforms, soil and vegetation structure in the area. The habitat types identified include Open woodlands on stony plains, Mixed woodlands on rocky hills and Minor drainage, *Eucalyptus* and *Corymbia* on Pindan red sand, *Corymbia* over *Melaleuca* on silty clay loam on drainage flats/floodplain and *Corymbia* over *Acacia* over tussock grasses over hummock grassland on red brown sandplain. These fauna habitats generally align with the mapped vegetation types, with one grouping of similar *Eucalyptus* and *Corymbia* vegetation types (VT04 and VT06).


The Open woodlands on stony plains, Mixed woodlands on rocky hills and Minor drainage was recorded from the Warmun survey area. The *Eucalyptus* and *Corymbia* on Pindan red sand habitat type is largely homogeneous throughout the Djarindjin, Beagle Bay and Ardyaloon project areas with minor variation in vegetation density across strata. The vegetation condition is considered to be very good to excellent having negligible disturbance of weeds or ground disturbance, with the exception of tracks. The *Corymbia* over *Melaleuca* on silty loam over clay on drainage flats/floodplain was only recorded in the Beagle Bay survey area. The *Corymbia* over *Acacia* over tussock grasses over hummock grassland on red brown sandplain was recorded from the Bidadanga survey area.


There is a low proportion, approximately 5-10 percent of bare ground over most of the survey area due to a high density of ground cover vegetation leaf litter and other fallen dead vegetation. Leaf litter and other ground debris provides habitat and shelter for a range of small terrestrial vertebrates, especially fossorial reptiles. The tall shrubland provides suitable foraging and nesting habitat for a range of shrubland and woodland birds particularly insectivorous and nectar-feeding birds, terrestrial and arboreal reptiles, and large grazing mammals such as Agile Wallaby.



Sparse emergent trees provide some limited tree hollows for nesting and shelter, and there are very few moderate to large fallen logs suitable as shelter or den sites due to the low tree density. Most shelter habitat is in the form of dense shrub foliage and ground leaf litter. There are occasional large termite mounds that provide shelter, breeding sites and food source for a range of reptiles and mammals.


The survey areas are part of a larger continuous area of tall shrubland plain and drainage system habitats throughout the surrounding area as it has a high degree of habitat connectivity with surrounding vegetation having similar or better condition vegetation.


Table 24 Fauna habitat types within the survey area

Habitat Type	Habitat Description	Extent (ha) and proportion of survey area (%)	Representative photograph
Stony Plains (VT01)	<p><i>Corymbia ?greeniana</i> open woodland over <i>Acacia leptophleba</i> over Triodia and tussock grassland on stony undulating plains. This habitat is widespread in the region, and most represented in the survey area. The diverse and dense grassy understorey provides suitable foraging and nesting for various bird species such as doves, pigeons and quail, and insectivorous and granivore bird species. The habitat would be utilised by wallaby (such as Agile Wallaby) and Euro for foraging. Several birds of prey would utilise this habitat as it provides an open plain for foraging. As the Eucalypt trees are not tall/mature it would not provide breeding habitat for birds of prey.</p> <p>Conservation significant fauna</p> <p>Gouldian Finch (<i>Erythrura gouldiae</i>) (P4/EN) may utilise this habitat, foraging on seed of grasses when seasonally available.</p> <p>The Grey Falcon (<i>Falco hypoleucos</i>) (VU) has the potential to utilise this habitat as it contains suitable foraging opportunity. The survey area is within the known distribution of the Grey Falcon.</p> <p>The Peregrine Falcon (<i>Falco peregrinus</i>) (OS) is likely to utilise this habitat for foraging. This species is known to occur locally.</p> <p>Habitat value High</p>	6.73 ha (71.2%)	

Habitat Type	Habitat Description	Extent (ha) and proportion of survey area (%)	Representative photograph
Rocky Hills (VT02)	<p><i>Corymbia ?greeniana</i>, <i>Eucalyptus brevifolia</i> and <i>Terminalia canescens</i> open woodland over Triodia and tussock grassland on skeletal soils on rocky hills and ridges.</p> <p>This habitat type lacks large bisected rocky gorges with deep crevices or caves that are suitable for rock wallaby spp, bats, possums and rodents. The habitat in the survey area provides looser rocky boulders on hilltops which is suitable for certain reptiles seeking shelter in the Triodia and foraging on the rocky hills, such as several species of dragon, geckos, Spiny-tailed Monitor and whip-snakes. This habitat would attract Woodswallows and other arid land species such as Rufous Songlark and Rufous Whistler. Several birds of prey would utilise this habitat also for foraging and using tall trees as a vantage.</p> <p>Conservation significant fauna</p> <p>Gouldian Finch (<i>Erythrura gouldiae</i>) (P4/EN) may utilise this habitat, foraging on seed of grasses when seasonally available, and has the potential to utilise hollow-bearing Eucalypts in this habitat-type for breeding, although mature hollow-bearing trees were scant in the survey area.</p> <p>The Grey Falcon (<i>Falco hypoleucos</i>) (VU) has the potential to utilise this habitat as it contains suitable foraging opportunity. The survey area is within the known distribution of the Grey Falcon. The Eucalypts in the survey area are not mature enough to provide suitable breeding habitat.</p> <p>The Peregrine Falcon (<i>Falco peregrinus</i>) (OS) is likely to utilise this habitat for foraging. This species is known to occur locally. The rocky habitat is not suitable for breeding as no large open shelf rock or large mature Eucalypts with hollows.</p> <p>Habitat value High</p>	2.21 ha (23.4%)	

Habitat Type	Habitat Description	Extent (ha) and proportion of survey area (%)	Representative photograph
<p>Minor Drainage (VT03)</p>	<p><i>Lophostemon grandifloras</i> subsp. <i>riparius</i> and <i>Lysiphyllum cunninghamii</i> scattered trees over open tussock grassland on minor drainage lines/floodplain.</p> <p>This habitat would attract honeyeaters and granivores for foraging on the grasses and shrubs, such as Yellow-tinted honeyeater, Yellow Throated minor and Friarbird spp.</p> <p>Wallaby (such as Agile wallaby) and Euro would utilise this habitat type for foraging and shelter under trees.</p> <p>Several species of frog may utilise this habitat such as Green Tree Frog, Ornate Burrowing Frog and Northern Spadefoot.</p> <p>Conservation significant fauna</p> <p>Gouldian Finch (<i>Erythrura gouldiae</i>) (P4/EN) may be attracted to the water in the drainage lines but this would be an opportunistic occurrence. Habitat may be suitable for foraging as well.</p> <p>Habitat value</p> <p>Medium</p>	<p>0.51 ha (5.4%)</p>	
<p><i>Eucalyptus</i> and <i>Corymbia</i> on Pindan red sand (VT04 and VT06)</p>	<p><i>Eucalyptus</i> and <i>Corymbia</i> woodland to isolated clumps of trees over tussock grasses and herbs on Pindan red sand loam on low plain.</p> <p>This habitat type generally corresponds with vegetation type VT04 and VT06. It tends to occur on well draining porous sandy soil. Habitat condition is generally very good to excellent; however some disturbance includes frequent fire, edge effects of weeds from adjacent tracks and clearings, and dumped rubbish.</p> <p>This habitat is extensive and widespread within the Pindanland bioregion of the Dampier Peninsular and occurs within Ardyaloon, Djarindjin and Beagle Bay survey areas. It is foraging and nesting habitat for a diverse range of insectivorous, nectar and granivore bird species including common resident and nomadic woodland bird species such as DollarBird, Rainbow Bee-eater, Little Friarbird, Peaceful Dove, Grey-crowned Babbler and Double-barred Finch. A range of reptiles utilise this habitat including arboreal species: Stimson's Python, Black-tailed Monitor, and Tree Dtella. Borrowing and</p>		

Habitat Type	Habitat Description	Extent (ha) and proportion of survey area (%)	Representative photograph
	<p>fossorial reptiles include Griffin’s Slider, Dampierland Limbless Slider and Gould’s Monitor.</p> <p>Conservation significant fauna</p> <p>Foraging habitat Gouldian Finch (<i>Erythrura gouldiae</i>), Foraging and nesting habitat for Peregrine Falcon (<i>Falco peregrinus</i>), habitat for Dampierland Burrowing snake (<i>Simoselaps minimus</i>), and Dampierland plain slider (<i>Lerista separanda</i>) and Greater Bilby (<i>Macrotis lagotis</i>).</p> <p>Habitat value</p> <p>High value</p>		
<p><i>Corymbia</i> over <i>Melaleuca</i> on silty clay loam on drainage flats/floodplain (VT05)</p>	<p><i>Corymbia</i> isolated clumps of trees over <i>Melaleuca</i> open woodland over mixed sedges and herbs on silty loam over clay on drainage flats/floodplain</p> <p>This habitat type generally corresponds with vegetation type VT05. Habitat condition is generally very good to excellent; however some disturbance includes frequent fire, dumped rubbish, and ground disturbance from adjacent infrastructure.</p> <p>This habitat is restricted to the Beagle Bay survey area in the eastern portion that encroaches into poor-draining lower elevation floodplain. It is foraging and nesting habitat for a diverse range of insectivorous, nectar and granivore bird species including common resident woodland bird species such as Black-faced Cuckoo-shrike, Blue-winged Kookaburra, Collared Sparrowhawk, Long-tailed Finch, and Sacred Kingfisher. A range of frogs and reptiles utilise this habitat including Desert Tree Frog, Greet Tree Frog, Ornate Burrowing Frog, Long-snouted Water Dragon and Plains Ctenotus (Skink).</p> <p>Conservation significant fauna</p> <p>Foraging habitat for Gouldian Finch (<i>Erythrura gouldiae</i>), Peregrine Falcon (<i>Falco peregrinus</i>), Dampierland Burrowing snake (<i>Simoselaps minimus</i>), Dampierland plain slider (<i>Lerista separanda</i>) and Greater Bilby (<i>Macrotis lagotis</i>)</p> <p>Habitat value</p> <p>High value</p>		

Habitat Type	Habitat Description	Extent (ha) and proportion of survey area (%)	Representative photograph
<p><i>Corymbia</i> over <i>Acacia</i> over tussock grasses over hummock grassland on red brown sandplain (VT07)</p>	<p><i>Corymbia</i> open woodland over <i>Acacia</i> shrubs over tussock grasses over <i>Triodia</i> hummock grassland over herbs on red brown sandplain.</p> <p>This habitat type generally corresponds with vegetation type VT07. Habitat condition ranges from good to very good with some cleared areas. Disturbance includes weed invasion, dumped rubbish, ground disturbance, cattle grazing and recent fire (0-2 years). Soils are moderately well drained sandy clay. This habitat is restricted to the Bidyadanga survey area where it extends throughout. It is foraging habitat for a diverse range of regionally widespread and common bird species such as Australian Bustard, Brown Falcon, Red-browed Pardalote, and Variegated Fairy-wren. Budgerigar,</p> <p>Several large termite mounds within the survey area provide sheltering habitat for many reptile species.</p> <p>Conservation significant fauna Nil</p> <p>Habitat value Moderate value</p>		
<p>Cleared areas</p>	<p>Unmapped areas that include roads and tracks.</p>		<p>Photo not available</p>

9.2.2 Fauna diversity

Dampier Peninsula survey

A fauna species list has been compiled for each survey area and is presented in Appendix E. In total across all sites/regions 47 fauna species were identified, which included 24 birds, 10 reptiles, three mammals and two amphibians. Two of the species are introduced (Dog and Donkey). The species recorded at each site have been listed below.

Ardyaloon survey area

A total of 23 fauna species were identified in the Ardyaloon survey area. This total comprised 18 birds, 2 mammals, 2 reptiles and one amphibian. Two introduced species (Donkey and Dog) were recorded and are included in this total.

Bidyadanga survey area

A total of 20 fauna species were identified in the Bidyadanga survey area. This total comprised 14 birds, 2 mammals and 4 reptiles. One introduced species (Dog) was recorded and is included in this total.

Djarindjin survey area

A total of 12 fauna species were identified in the Djarindjin survey area. This total comprised 10 birds, one mammal and one reptile. One introduced species (Dog) was recorded and is included in this total.

Beagle Bay survey area

A total of 12 fauna species were identified in the Beagle Bay survey area. This total comprised 10 birds, one mammal, and one amphibian.

Warmun survey

A fauna species list has been compiled for the Warmun survey area and is presented in Appendix E.

A total of 30 fauna species were identified in the Warmun site. This total comprised 23 birds, 3 mammals, 3 reptiles and one amphibian. Two species are introduced (Dog and Feral Cat).

9.2.3 Significant fauna

No BC Act or EPBC Act listed Threatened fauna or Priority listed fauna by the DBCA were recorded during the survey. One Marine listed species under the EPBC Act, the Rainbow Bee-eater (*Merops ornatus*), was recorded at the Ardyaloon site. This species is widespread across Australia and WA and occupies a wide variety of habitats. It is likely this species would be present across all the survey sites on the Dampier Peninsula and at Warmun.

Targeted survey for Greater Bilby (*Macrotis lagotis*)

No evidence of Greater Bilby (*Macrotis lagotis*) (VU) activity (footprints, foraging holes, burrows or scats) was recorded within the Dampier Peninsula survey areas. The targeted Bilby survey assessed a total of 7 plots/transects across the sites. Four plots were conducted across the Ardyaloon sites (3 at the large south site and 1 at the small north site), and one plot at each of the other survey sites, due to their size. The results of the plot data collected is presented in Appendix E as a composite summary. The method allows for assessment of each plot trackability of Bilby as well as plot ODS (other determining signs). The mean plot trackability score was identified for Ardyaloon as 3 plots were conducted for the south (large) site. The plot trackability scores have been presented in Table 25 below.

Table 25 Bilby plot trackability scores

Site	Plot trackability score
Djarandjin	3.2
Ardyaloon small (north) site	4.0

Site	Plot trackability score
Ardyagoon big (south) site plot 1	3.9 (mean)
Ardyagoon big (south) site plot 2	
Ardyagoon big (south) site plot 3	
Beagle bay Plot 1	3.6
Bidyadanga Plot 1	3.7

A higher score depicts a higher degree of difficulty in the detectability of the Bilby. The scores equate to low trackability. Various factors contributed to this, with rain splatter removing animal tracks in the substrate at the sites, and the density of ground cover vegetation was high for most of the sites.

For the Dampier Peninsula survey, the Bilby is considered Likely to occur as the species has been well-recorded across the local and regional area prior, and suitable habitat is present. The Bilby is a mobile species and may occupy various areas over time within the habitat, particularly in areas away from the Aboriginal communities due to presence of dogs. This species is likely to forage or move through the areas, but unlikely to burrow.

The Bilby is not known to occur locally in Warmun, and the habitats in the survey area are not suitable for the species. It is considered Unlikely to occur at Warmun.

Likelihood of occurrence

A likelihood of occurrence assessment was conducted for significant fauna species identified in the desktop assessment. This assessment was based on species biology, habitat requirements, the quality and availability of suitable habitat (based on vegetation types present within the survey area) and previous records of species in the study area. No assumptions were made on the transient potential of these species. The complete likelihood of assessment is provided in Appendix E.

The likelihood of occurrence of significant fauna species has been separated by each survey site:

Beagle Bay

- Five fauna species are considered likely to occur due to potentially suitable foraging and/or breeding habitat in the survey area and close proximity of previous records. These include Gouldian Finch (*Erythrura gouldiae*) (P4), Grey Falcon (*Falco hypoleucos*) (OS), Peregrine Falcon (*Falco peregrinus*) (OS), Oriental pratincole (*Glareola maldivarum*) (MI) and Greater Bilby (*Macrotis lagotis*) (VU).
- 15 species are considered unlikely to occur and 9 species are considered highly unlikely to occur.

Bidyadanga

- Four fauna taxa are considered Likely to occur due to potentially suitable foraging and/or breeding habitat in the survey area and close proximity of previous records. These include Oriental Pratincole (*Glareola maldivarum*) (MI), Grey Falcon (*Falco hypoleucos*) (VU), Rainbow Bee-eater (*Merops ornatus*) (MA) and Greater Bilby (*Macrotis lagotis*) (VU)
- Thirty-eight fauna taxa are considered Unlikely to occur
- Twenty fauna taxa are considered Highly Unlikely to occur

Ardyagoon

- Six fauna are considered likely to occur due to potentially suitable foraging and/or breeding habitat in the survey area and close proximity of previous records. These include Gouldian Finch (*Erythrura gouldiae*), Grey Falcon (*Falco hypoleucos*), Peregrine Falcon (*Falco peregrinus*), Greater Bilby (*Macrotis lagotis*), Dampierland Burrowing snake (*Simoselaps minimus*), and Dampierland plain slider (*Lerista separanda*)
- Forty six (46) fauna considered unlikely or highly unlikely to occur.

Djarindjin

- Gouldian Finch (*Erythrura gouldiae*) (P4), Peregrine Falcon (*Falco peregrinus*) (OS), Dampierland Burrowing snake (*Simoselaps minimus*) (P4), Dampierland plain slider (*Lerista separanda*) (P2) and Greater Bilby (*Macrotis lagotis*) (V) are likely to occur,
- 14 unlikely to occur and

- 30 highly unlikely to occur.

Warmun

- Three species are Likely to occur: Gouldian Finch (*Erythrura gouldiae*) (P4), Peregrine Falcon (*Falco peregrinus*) and Grey Falcon (*Falco hypoleucos*).
- One is Highly Unlikely to occur
- 23 are Unlikely to occur

10. Conclusion

The proposed development of the centralised solar generation is considered not to have a significant impact on the flora, vegetation and fauna values at a local and regional scale due to the high representation and continuation of vegetation in the region outside of the project areas. No TEC's listed under the EPBC Act or BC Act were identified within the survey areas during the field survey. VT05 within the Beagle Bay project area represents the PEC Kimberley Vegetation Association 67 and is considered significant.

The survey areas are part of a larger continuous area of tall shrubland plain, rocky and drainage system habitats throughout the surrounding area as it has a high degree of habitat connectivity with surrounding vegetation having similar or better condition vegetation.

No EPBC Act or BC Act listed flora were recorded from the survey areas. Three DBCA Priority three listed taxa were recorded from the following survey areas:

- *Goodenia byrnesii* (Priority 3) – Warmun survey area
- *Triodia acutispicula* (Priority 3) – Ardyaloon survey area
- *Tephrosia andrewii* (Priority 3) – Bidyadanga survey area

No EPBC Act or BC Act listed Threatened fauna or Priority listed fauna by the DBCA were recorded during the survey. One Marine listed species under the EPBC, the Rainbow Bee-eater (*Merops ornatus*), was recorded at the Ardyaloon site. No evidence of Greater Bilby (*Macrotis lagotis*) (Vulnerable) activity (footprints, foraging holes, burrows or scats) was recorded within the Dampier Peninsula survey areas.

11. References

Beard, J.S 1977, *Vegetation Survey of Western Australia: Kimberley*, map and explanatory memoir, 1:1,000,000 series, Nedlands, University of Western Australia Press.

Birdlife Australia. 2019. Website <https://birdlife.org.au/projects/bittern-project>, assessed January 2023.

Bureau of Meteorology (BoM) 2023, *Climate Data Online*, retrieved April 2023, from <http://www.bom.gov.au/climate/data/>.

Christidis & Boles (2008). *Systematics and Taxonomy of Australian Birds*. CSIRO Publishing.

Churchill, S 2008, *Australian Bats*, second edition, Milton, Australia, Allen & Unwin

Commonwealth of Australia. 2012. *Interim Biogeographic Regionalisation for Australia*, Version 7.

Department of Biodiversity, Conservation and Attractions. (DBCA 2007-). *NatureMap: Mapping Western Australia's Biodiversity*. <http://naturemap.dpaw.wa.gov.au/default.aspx/>.

Department of Biodiversity, Conservation and Attractions (DBCA) 2017. *Guidelines for surveys to detect the presence of bilbies, and assess the importance of habitat in Western Australia*

Department of Biodiversity, Conservation and Attractions. 2017. *Ramsar Sites (DBCA-010)*.

Department of Biodiversity, Conservation and Attractions. 2018b. *Directory of Important Wetlands in Australia - Western Australia (DBCA-045)*.

Department of Biodiversity Conservation and Attractions. 2019. *DBCA Statewide Vegetation Statistics*.

Department of Biodiversity Conservation and Attractions. 2021. *DBCA - Legislated Lands and Waters (DBCA-011)*.

Department of Biodiversity, Conservation and Attractions. 2021. *Priority Ecological Communities for Western Australia Version 32. Species and Communities Program*.

Department of Biodiversity, Conservation and Attractions. 2022. *DBCA - Legislated Lands and Waters (DBCA-011)*.

Department of Biodiversity, Conservation and Attractions. 2023a. *Threatened Ecological Community (TEC) and Priority Ecological Community (PEC) database search*.

Department of Biodiversity, Conservation and Attractions. 2023b. *Threatened and Priority Flora (DBCA-036)*.

Department of Biodiversity, Conservation and Attractions. 2023c. *Threatened and Priority Fauna (DBCA-037)*.

Department of Climate Change, Energy, the Environment and Water. 2023. *Environmental Protection and Biodiversity Conservation Act 1999 Protected Matters Search Tool*. <http://www.environment.gov.au/epbc/pmst/index.html>.

Department of Environment and Energy. 2022. *Australian Faunal Directory*.

DAWE 2011a. *Survey Guidelines for Australia's threatened Mammals. Guidelines for detecting mammals listed as threatened under the Environment Protection and Biodiversity Conservation Act 1999*.

DAWE 2011b. *Survey guidelines for Australia's threatened reptiles: Guidelines for detecting reptiles listed as threatened under the EPBC Act*.

Department of Primary Industries and Regional Development. 2022. *Soil Landscape Mapping - Systems (DPIRD-064)*.

Department of Water and Environmental Regulation. 2020. *Clearing Regulations - Environmentally Sensitive Areas (DWER-046)*.

Department of Water and Environmental Regulation. 2023. *Department of Water and Environmental Regulation - Datasets*. <https://catalogue.data.wa.gov.au/org/department-of-water-and-environmental-regulation>.

Environmental Protection Authority. 2016a. Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. <https://www.epa.wa.gov.au/policies-guidance/technical-guidance-flora-and-vegetation-surveys-environmental-impact-assessment>.

Environmental Protection Authority. 2016b. Environmental Factor Guideline - Flora and Vegetation.

Environmental Protection Authority. 2020. Technical guidance - terrestrial vertebrate fauna surveys for environmental impact assessment.

GHD (2019) Horizon Power Site assessment for the proposed Warmun Solar Area, unpublished report prepared for Horizon Power, Western Australia

GHD (2021) Horizon Power 283 – West Kimberley Solar flora and fauna assessment, unpublished report prepared for Horizon Power, Western Australia

Government of Western Australia (GoWA) 2022a, data.wa.gov.au, accessed December 2022, from <https://data.wa.gov.au/>.

Government of Western Australia (GoWA) 2022b, 2019 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full report), Current as of March 2019, Perth, Australia, Department of Biodiversity, Conservation and Attractions, retrieved December 2022, from <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.

Graham G 2001a. Central Kimberley 2 (CK2 – Hart subregion), A biodiversity Audit of Western Australia's 52 Biogeographical Subregions in 2002, Department of Conservation and Land Management.

Graham, G 2001b, Dampierland (DL2 – Pindanland subregion), A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002, Department of Conservation and Land Management.

Menkhorst, P., and Knight, F. 2010. A field Guide to the Mammals of Australia. Oxford University Press.

Morcombe, M, 2004, Field Guide to Australian Birds. Steve Parish Publishing Archer Field Queensland Australia.

NVIS Technical Working Group. 2017. Australian Vegetation Attribute Manual: National Vegetation Information System, Version 7.0. Department of the Environment and Energy, Canberra.

Payne, A and Schoknecht, N 2011, Land Systems of the Kimberley Region, Western Australia, Technical Bulletin No. 98, Perth, DAFWA.

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

Shepherd, D., G. Beeston, and A. Hopkins. 2002. Native Vegetation in Western Australia – Extent, Type and Status, Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Southgate, R., Paltridge, R. Masters, P, Nano, T. 2005. An evaluation of transect, plot and aerial survey techniques to monitor the spatial pattern and status of the bilby (*Macrotis lagotis*) in the Tanami Desert. Wildlife Research 32(1).

Southgate, R., Dziminski, M., Paltridge, R., Schubert, A., & Gaikhorst, G. (2018). Verifying bilby presence and the systematic sampling of wild populations using sign-based protocols – with notes on aerial and ground survey techniques and asserting absence. Journal of the Australian Mammal Society

Tyler & Doughty. 2009. Field Guide to Frogs of Western Australia. WA Museum.

Van Dyck, S. and Strahan R, 2008, The mammals of Australia. New Holland Publishers. Sydney.

Western Australia Museum. 2021. Checklist of the Terrestrial Vertebrate Fauna of Western Australia.

Western Australian Herbarium. 1998-. Florabase—the Western Australian Flora. Western Australian Herbarium, Biodiversity and Conservation Science, Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/>.

Wilson, S., and Swan, J. 2017. A Complete Guide to the Reptiles of Australia. Hew Holland Publishers

Appendices

Appendix A

Figures

Warmun survey area

- Figure 1* *Locality*
- Figure 2* *Environmental constraints*
- Figure 3* *Survey effort*
- Figure 4* *Vegetation types and conservation listed flora location*
- Figure 5* *Vegetation condition*
- Figure 6* *Fauna habitat*

Beagle Bay

- Figure 7* *Locality*
- Figure 8* *Environmental constraints*
- Figure 9* *Survey effort*
- Figure 10* *Vegetation types and significant vegetation communities*
- Figure 11* *Vegetation condition*
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Ardyaloon

- Figure 13* *Locality*
- Figure 14* *Environmental constraints*
- Figure 15* *Survey effort*

Figure 16 *Vegetation types and conservation listed flora records*

Figure 17 *Vegetation condition*

Figure 18 *Fauna habitat*

Djarindjin

Figure 19 *Locality*

Figure 20 *Environmental constraints*

Figure 21 *Survey effort*

Figure 22 *Vegetation types*

Figure 23 *Vegetation condition*

Figure 24 *Fauna habitat*

Bidyadanga

Figure 25 *Locality*

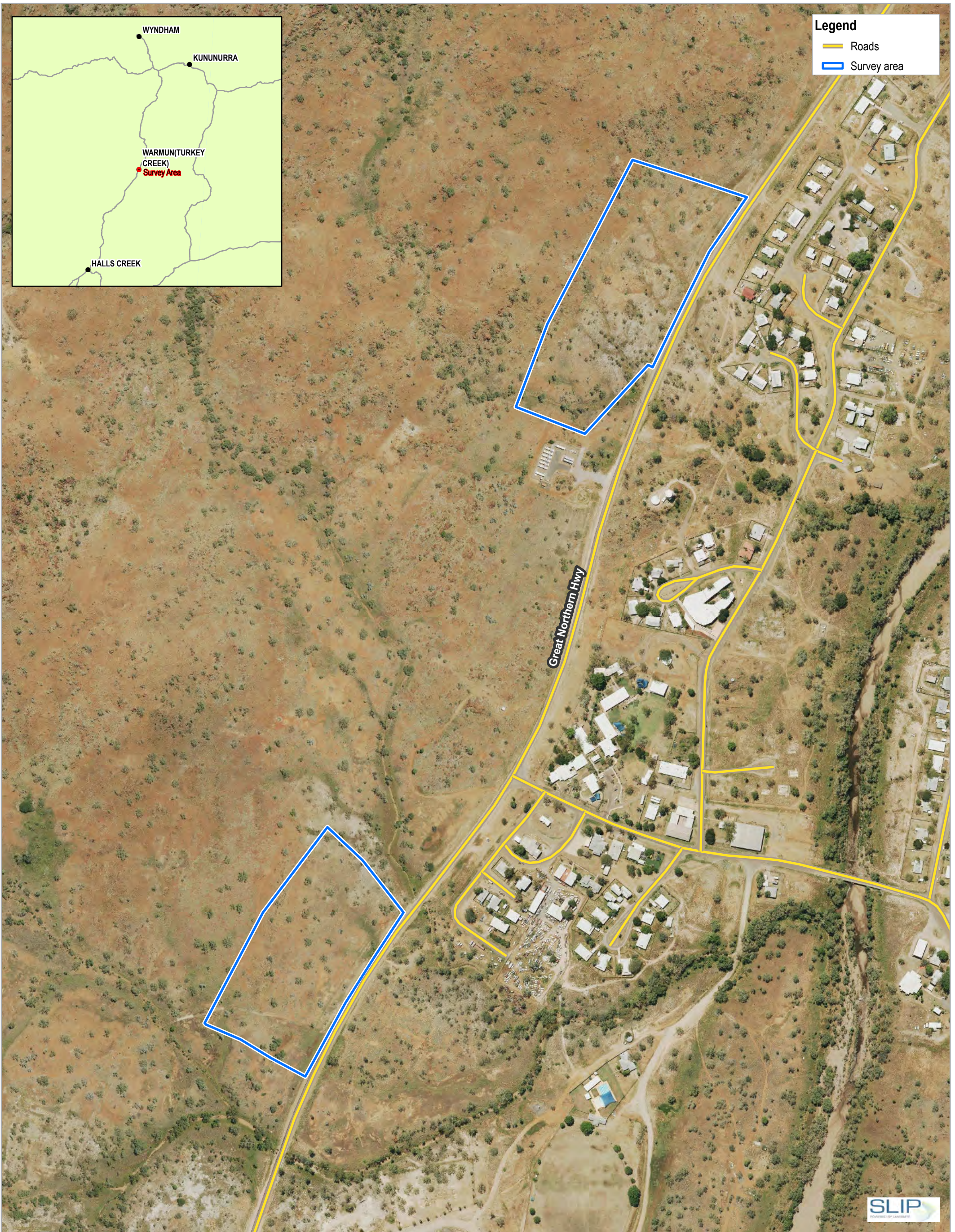
Figure 26 *Environmental constraints*

Figure 27 *Survey effort*

Figure 28 *Vegetation types and conservation listed flora records*

Figure 29 *Vegetation condition*

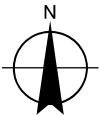
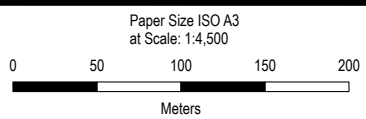
Figure 30 *Fauna habitat*



Legend

- Roads
- Survey area

Great Northern Hwy



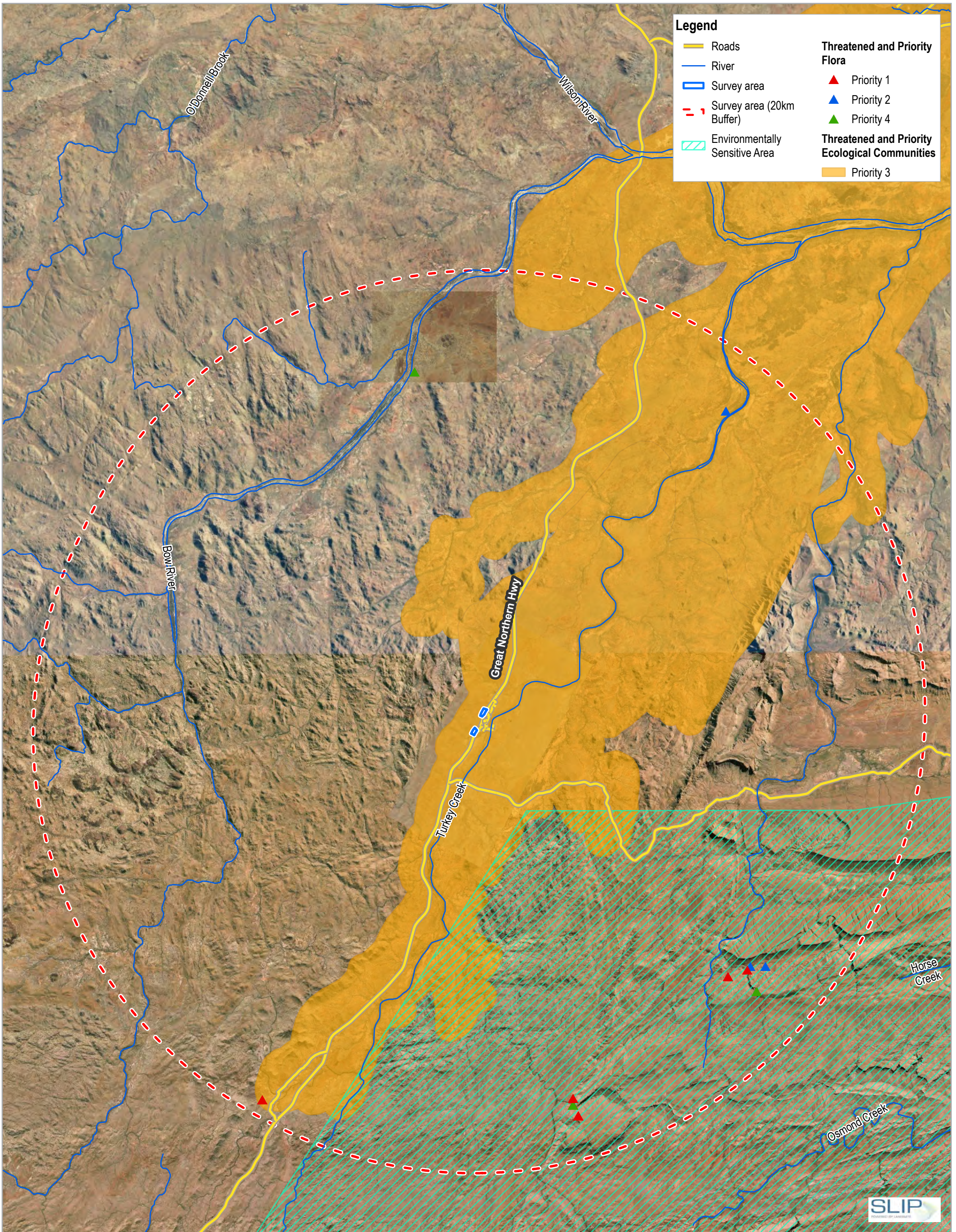
Horizon Power
West Kimberley Solar
Flora and Fauna Assessment

Project No. 12598389
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Locality

FIGURE 1



Legend

- Roads
- River
- Survey area
- Survey area (20km Buffer)
- Environmentally Sensitive Area

Threatened and Priority Flora

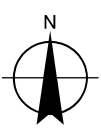
- ▲ Priority 1
- ▲ Priority 2
- ▲ Priority 4

Threatened and Priority Ecological Communities

- Priority 3

Paper Size ISO A3
at Scale: 1:155,000

0 1,500 3,000 4,500 6,000
Meters



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Horizon Power
West Kimberley Solar
Flora and Fauna Assessment

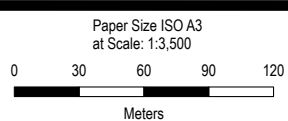
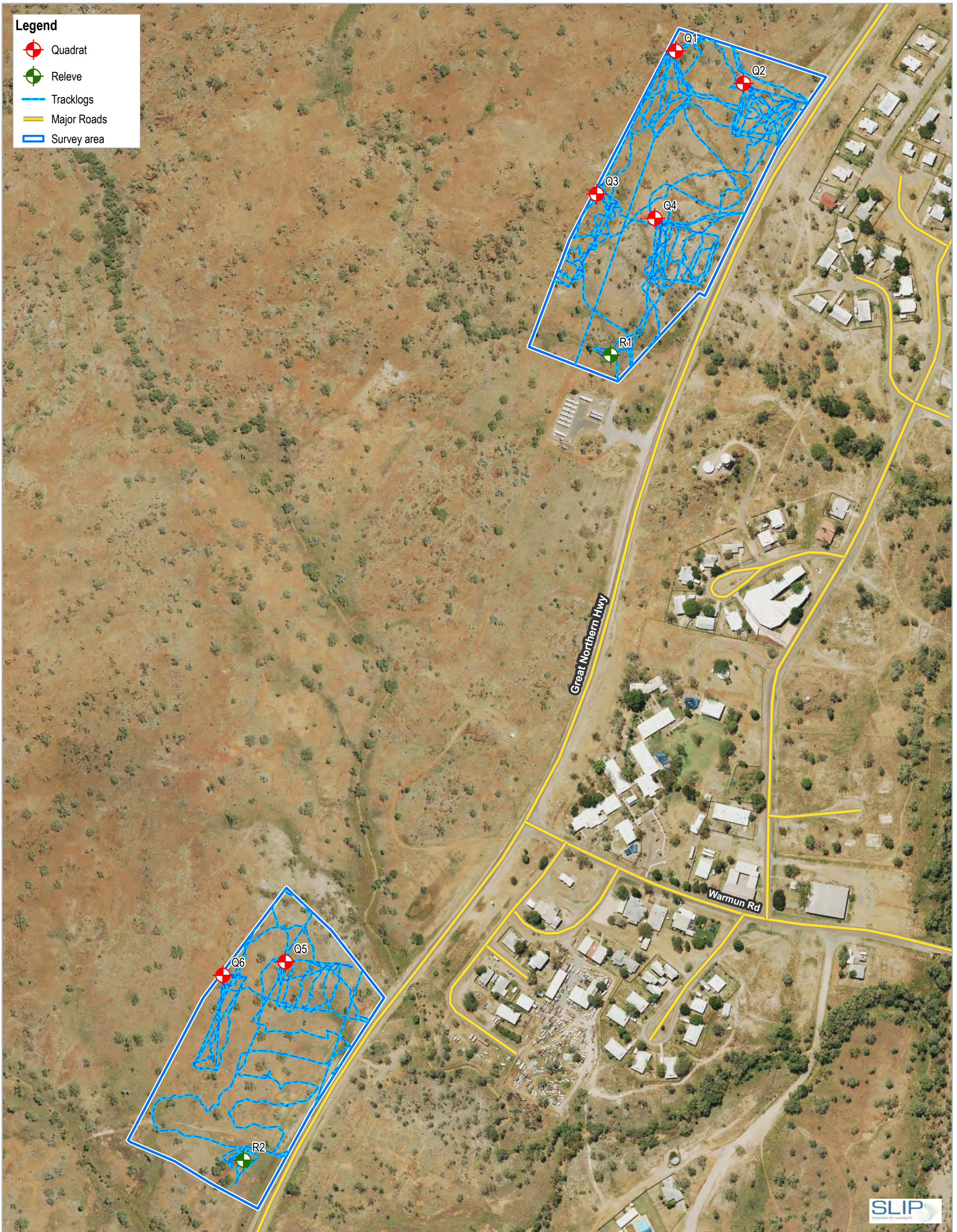
Project No. 12598389
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Environmental Constraints

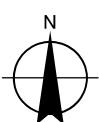
FIGURE 2

IghdnefghdAU/Perth/Projects/61112598389/GIS/Maps/Working/12598389_WarmunFigures/12598389_WarmunFigures.aprx/12598389_02_Warmun_EnvironmentalConstraints_Rev0
Print date: 19 May 2023 - 13:09

Delta source: Landgate_Subscription_Imagery/WANowr... Created by: Klabez



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

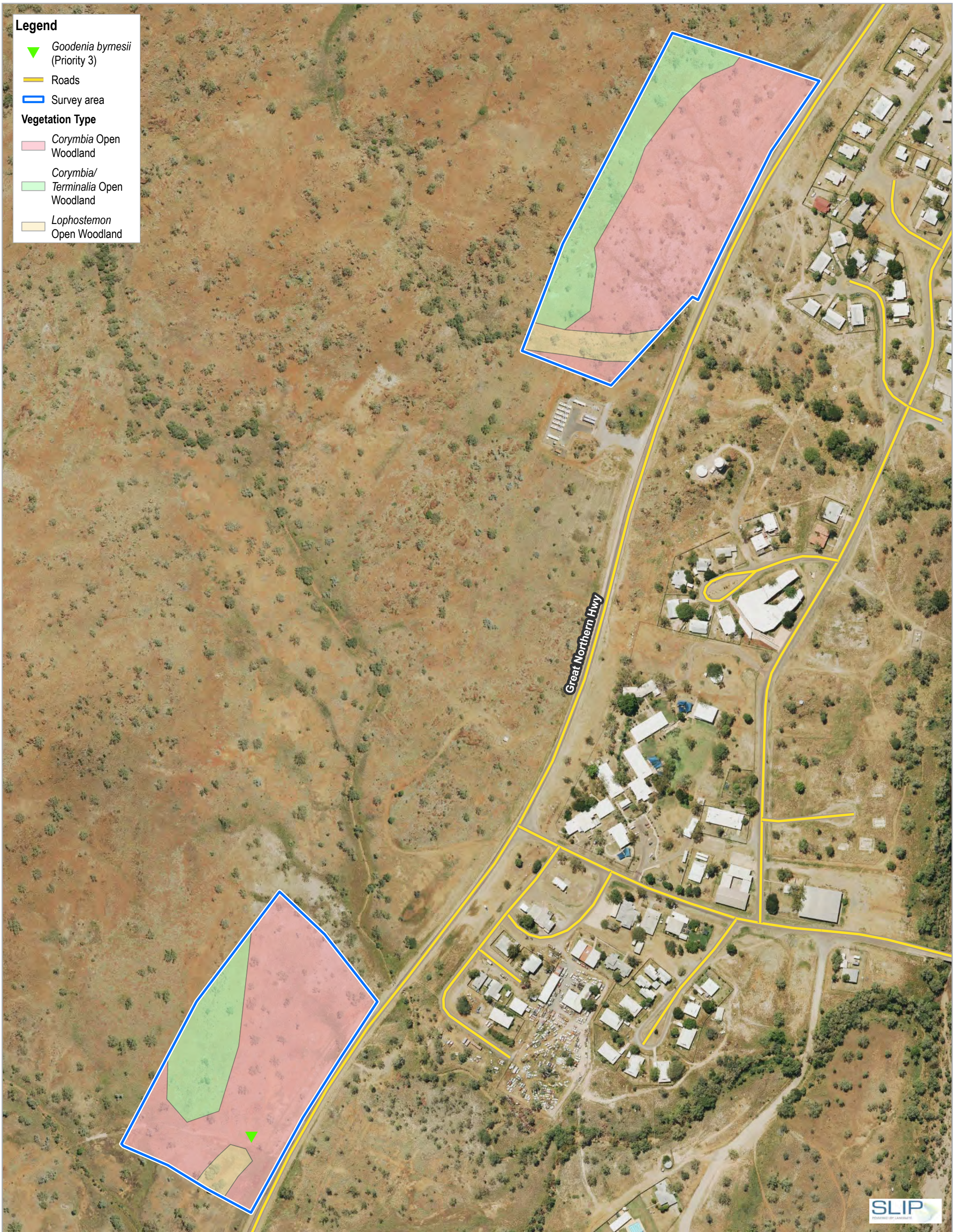


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Survey Effort

FIGURE 3

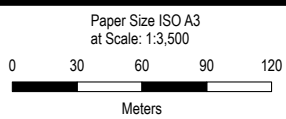


Legend

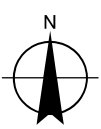
- ▼ *Goodenia bymesii* (Priority 3)
- Roads
- Survey area

Vegetation Type

- Corymbia* Open Woodland
- Corymbia/ Terminalia* Open Woodland
- Lophostemon* Open Woodland



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52



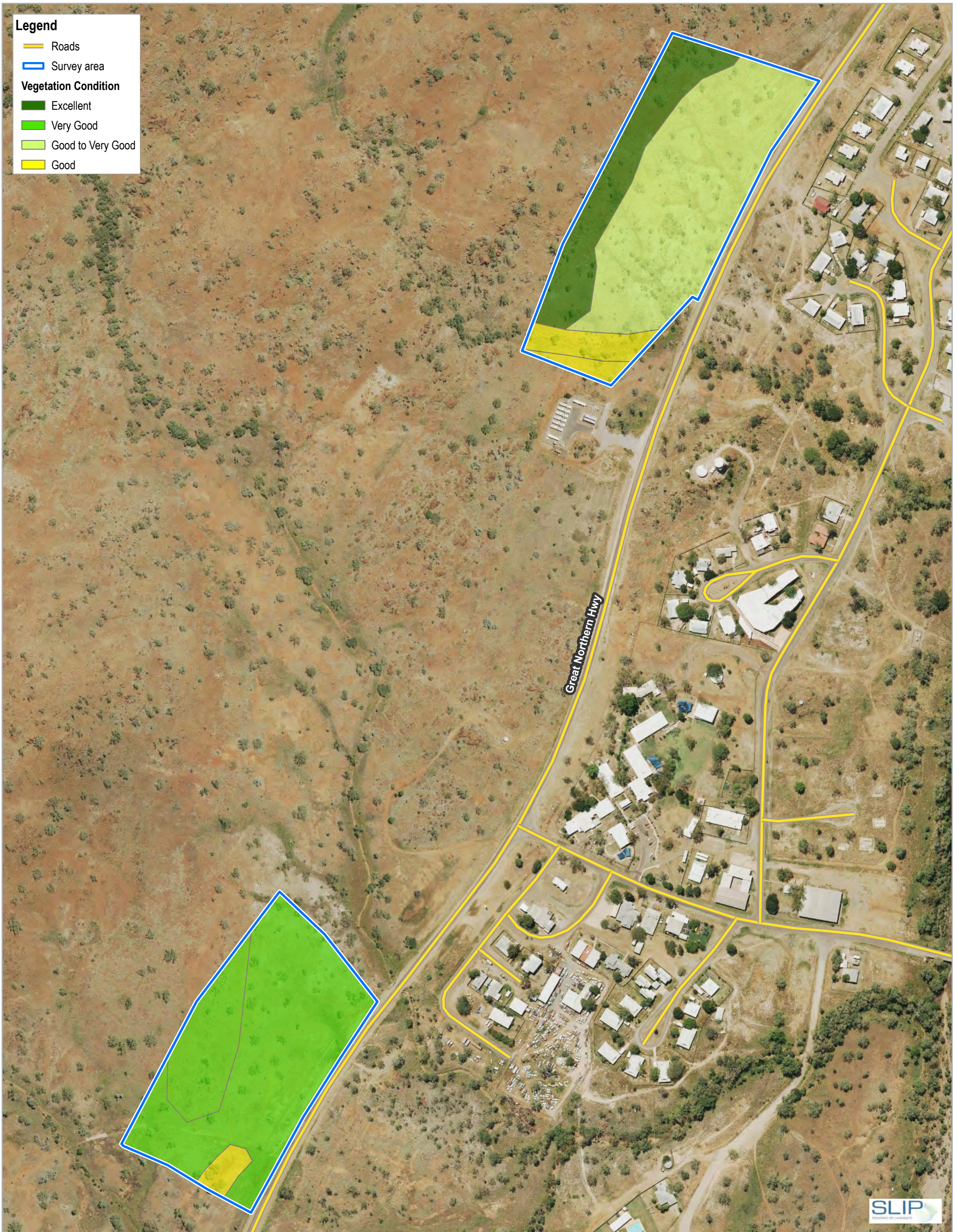
Horizon Power
West Kimberley Solar
Flora and Fauna Assessment

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Vegetation Type and Significant Flora

FIGURE 4



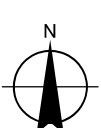
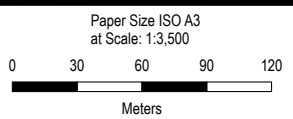


Legend

- Roads
- Survey area

Vegetation Condition

- Excellent
- Very Good
- Good to Very Good
- Good



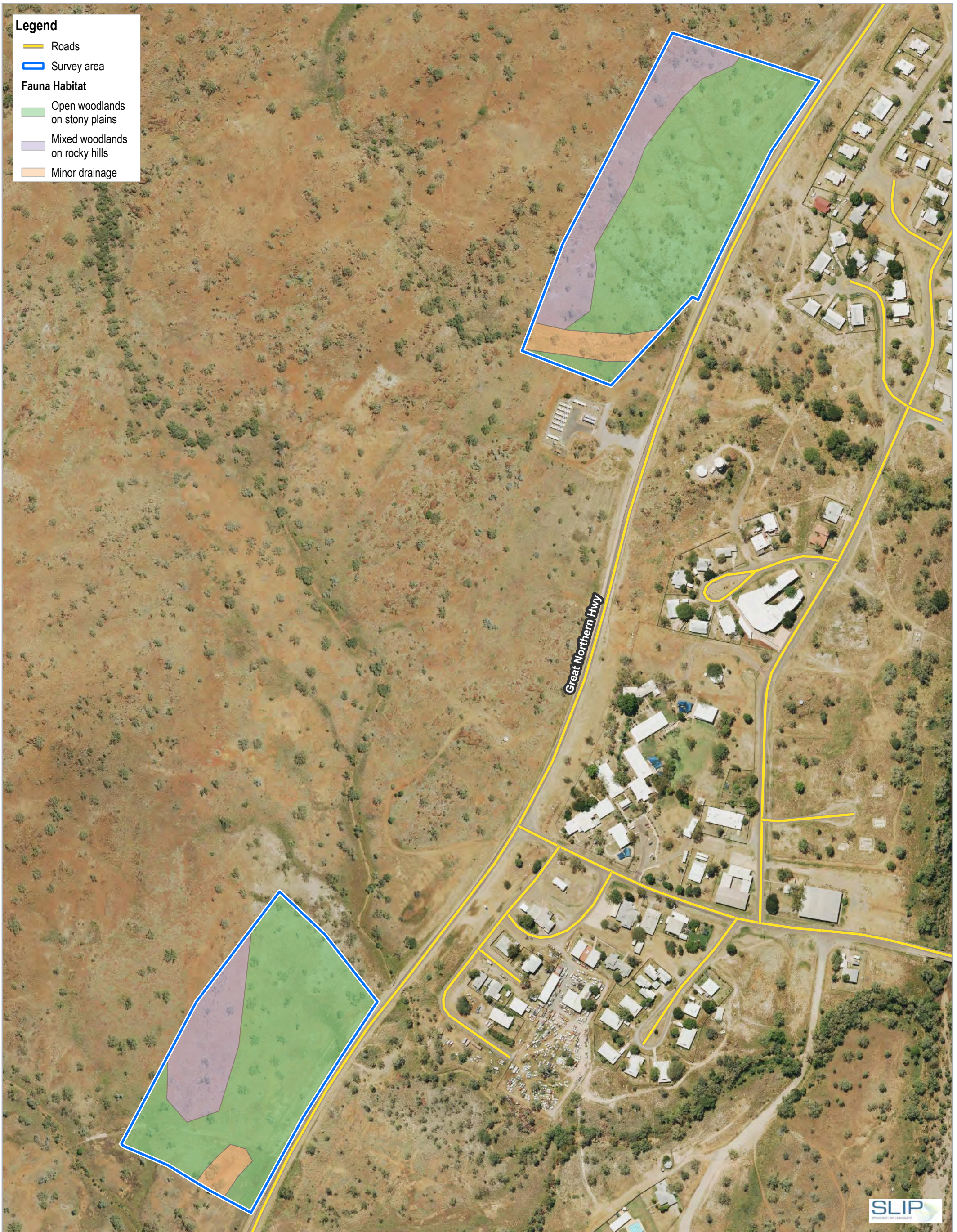
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Vegetation Condition

FIGURE 5



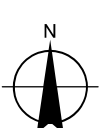
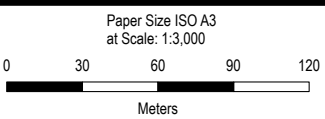


Legend

- Roads
- Survey area



Beagle Bay Rd



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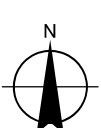
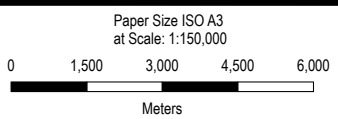
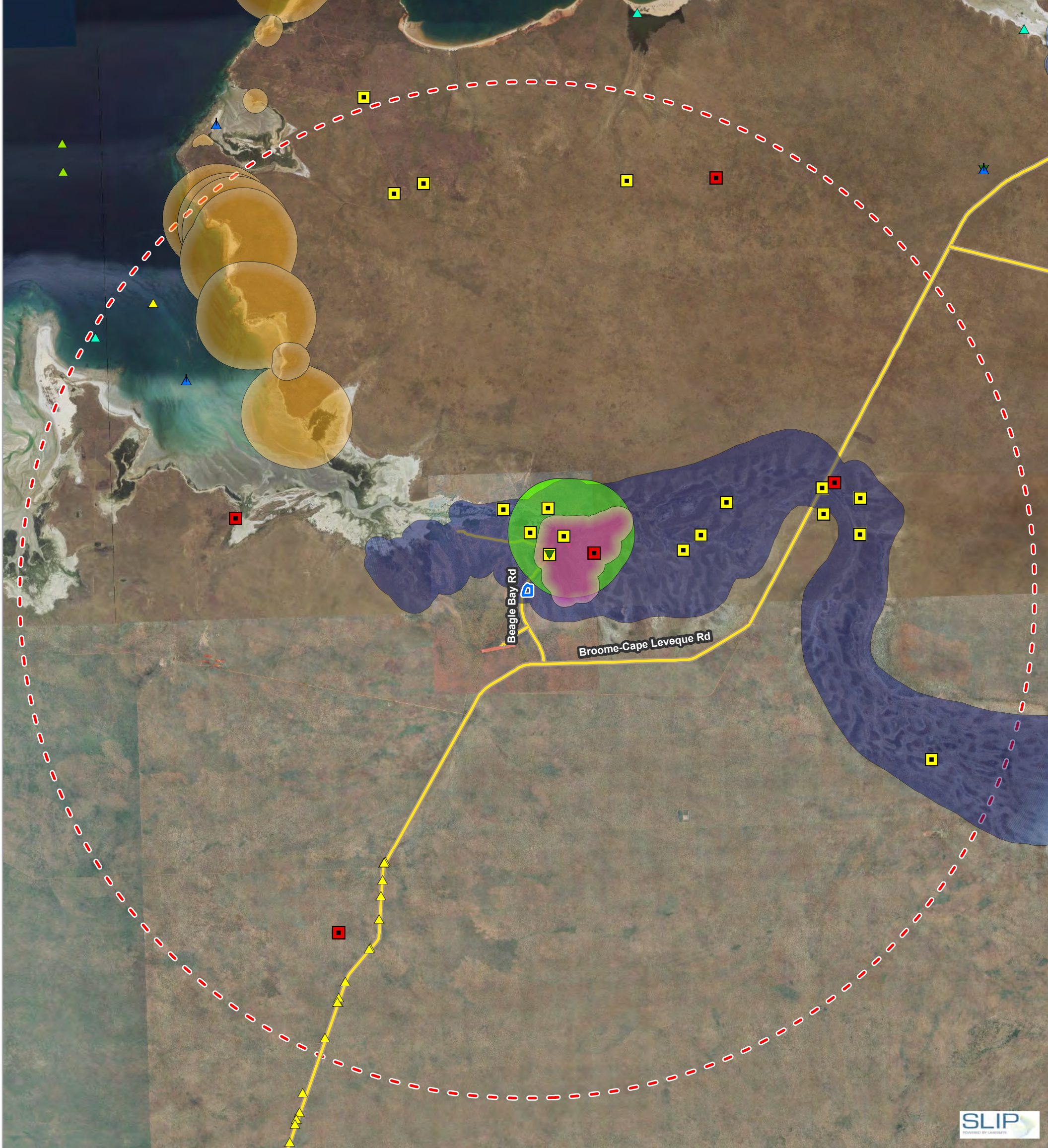
Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Locality

FIGURE 7

Legend

Roads	Species of Special Conservation Interest (CD)	Priority 4 (P4)	Threatened and Priority Ecological Communities	Kimberley Vegetation Association 67 (PEC)
Survey area	Migratory Species Protected under International Agreement (IA)	Priority 3		Assemblages of Lolly Well Springs wetland complex (PEC)
Survey area (20km Buffer)	Other Specially Protected Species (OS)	Priority 1	Kimberley Vegetation Association 37 (PEC)	
Fauna Conservation Categories				
Vulnerable Species (VU)				



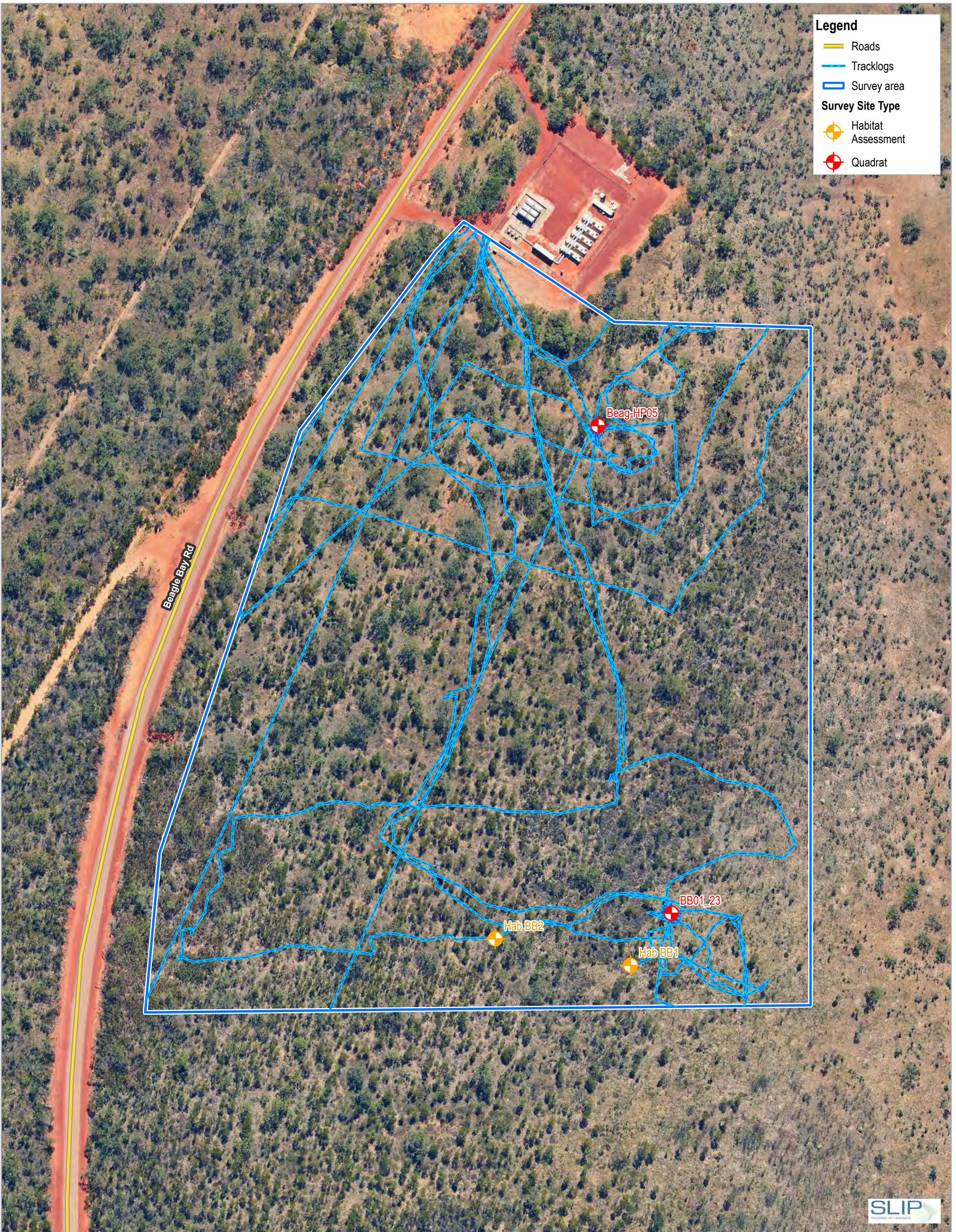
Horizon Power
West Kimberley Solar
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Environmental Constraints

FIGURE 8

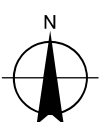
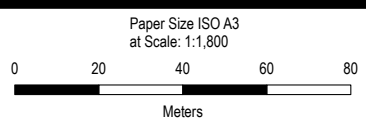


Legend

- Roads
- Tracklogs
- Survey area

Survey Site Type

- ⊕ Habitat Assessment
- ⊕ Quadrat



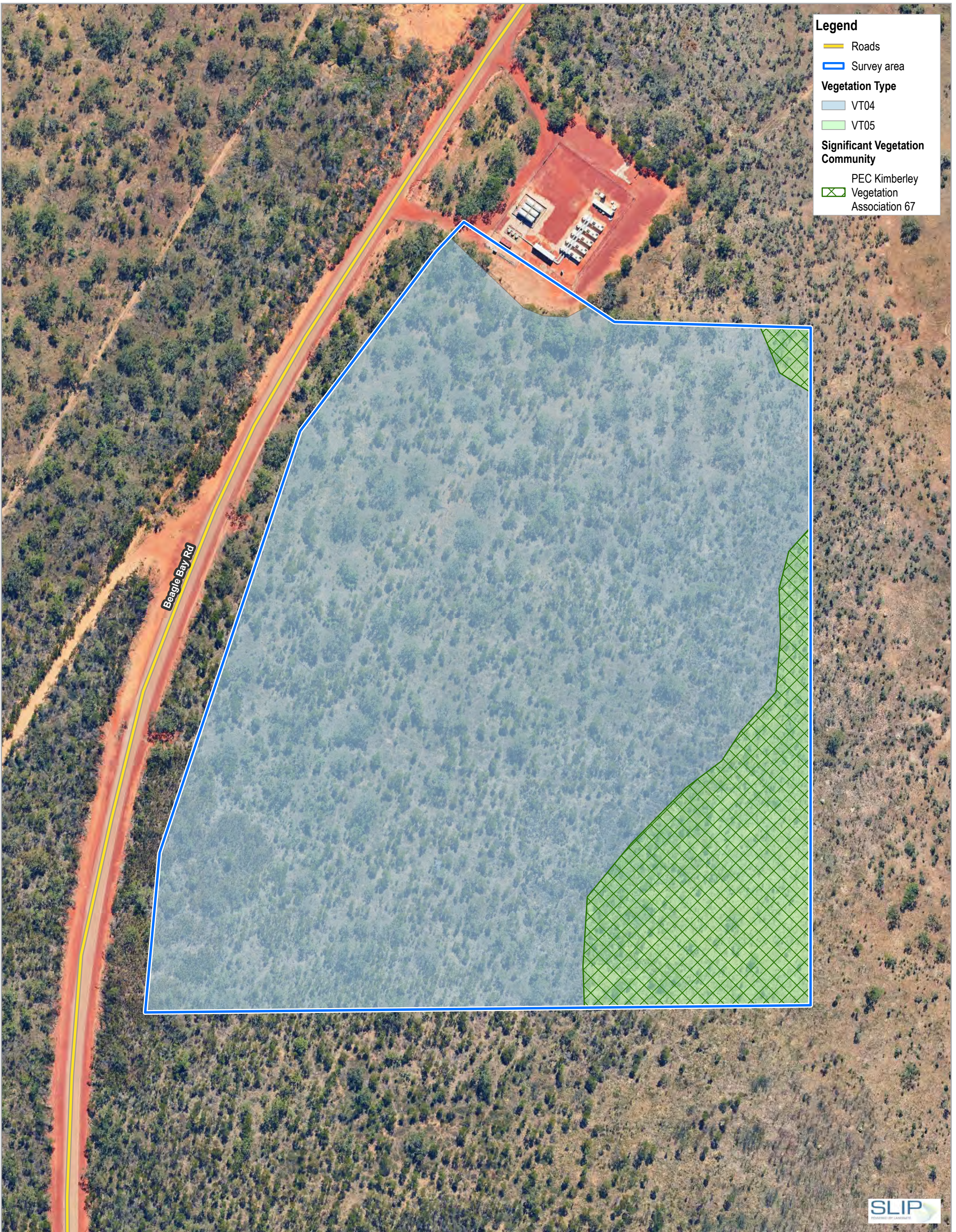
Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Horizon Power
West Kimberley Solar
Flora and Fauna Assessment

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Survey Effort

FIGURE 9



Legend

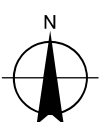
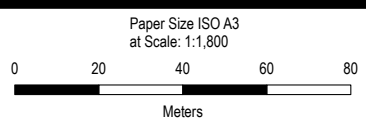
- Roads
- Survey area

Vegetation Type

- VT04
- VT05

Significant Vegetation Community

- PEC Kimberley Vegetation Association 67



Horizon Power
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

**Vegetation Types and Significant
Vegetation Communities**

FIGURE 10



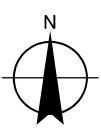
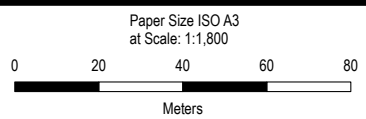
Legend

- Roads
- Survey area

Vegetation Condition

- Very Good
- Good

Beagle Bay Rd



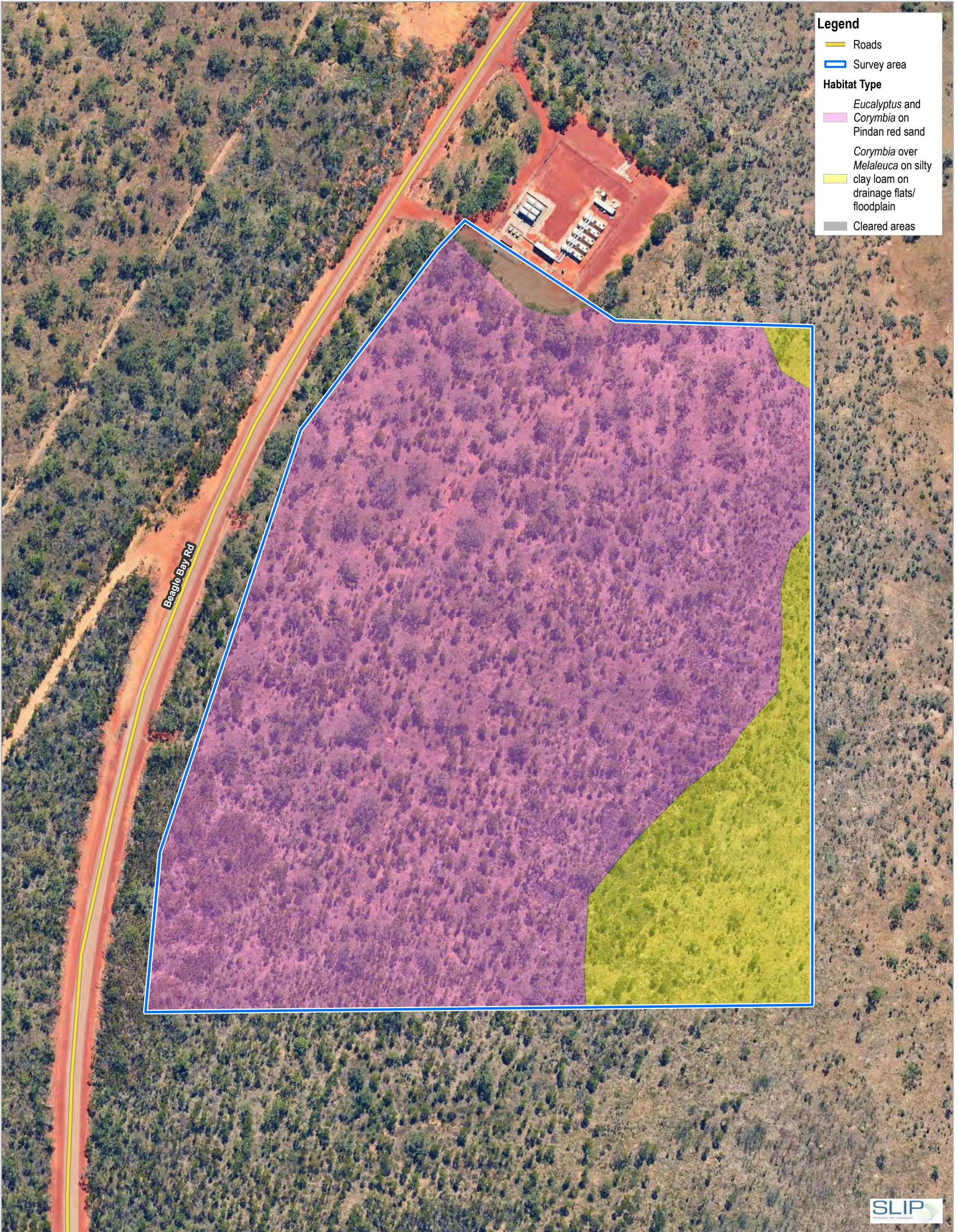
Horizon Power
West Kimberley Solar
Flora and Fauna Assessment

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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Vegetation Condition

FIGURE 11



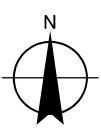
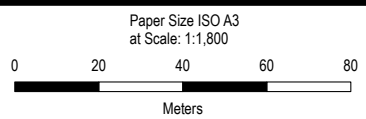
Legend

- Roads
- Survey area

Habitat Type

- *Eucalyptus* and *Corymbia* on Pindan red sand
- *Corymbia* over *Melaleuca* on silty clay loam on drainage flats/floodplain
- Cleared areas

Beagle Bay Rd



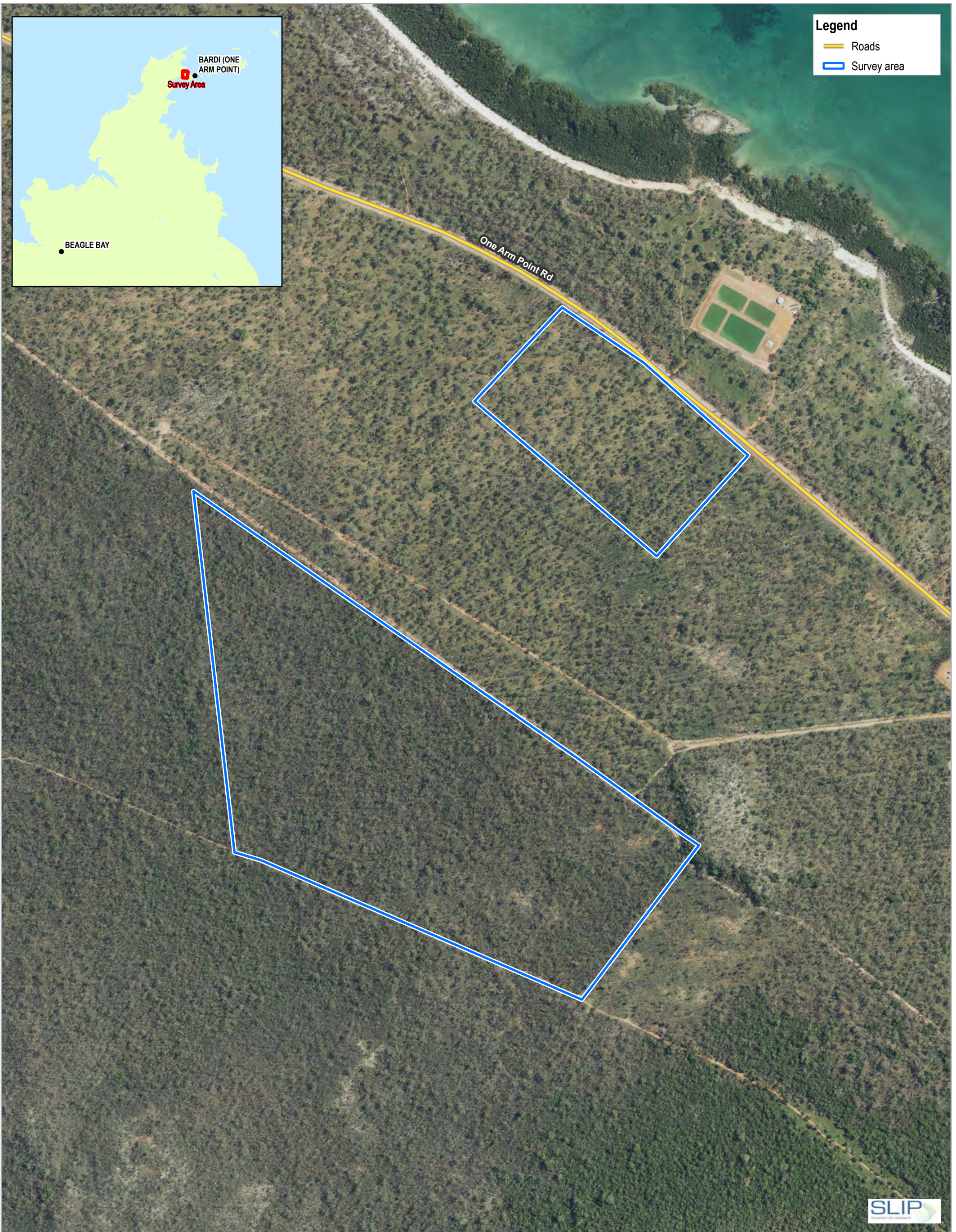
Horizon Power
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

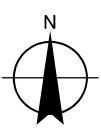
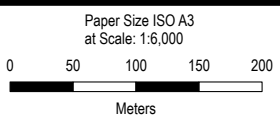
Fauna Habitat

FIGURE 12



Legend
 — Roads
 Survey area

One Arm Point Rd



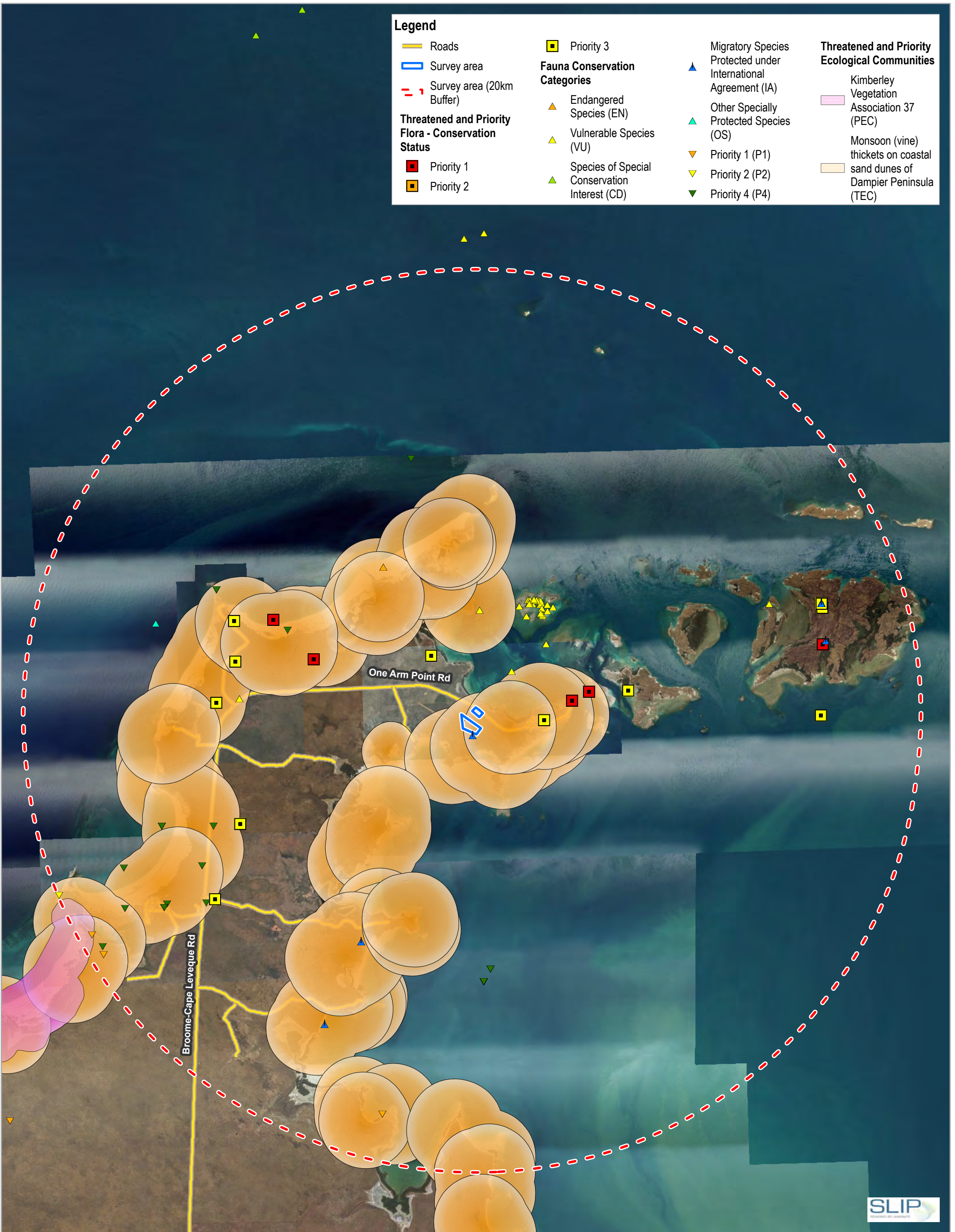
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Map Projection: Transverse Mercator
 Horizontal Datum: GDA2020
 Grid: GDA2020 MGA Zone 52

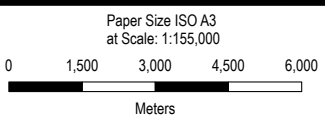
Locality

FIGURE 13

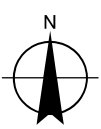


Legend

Roads	Priority 3	Migratory Species Protected under International Agreement (IA)	Threatened and Priority Ecological Communities
Survey area	Fauna Conservation Categories	Other Specially Protected Species (OS)	
Survey area (20km Buffer)	Endangered Species (EN)	Priority 1 (P1)	
Threatened and Priority Flora - Conservation Status	Vulnerable Species (VU)	Priority 2 (P2)	
Priority 1	Species of Special Conservation Interest (CD)	Priority 4 (P4)	Kimberley Vegetation Association 37 (PEC)
Priority 2			Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula (TEC)

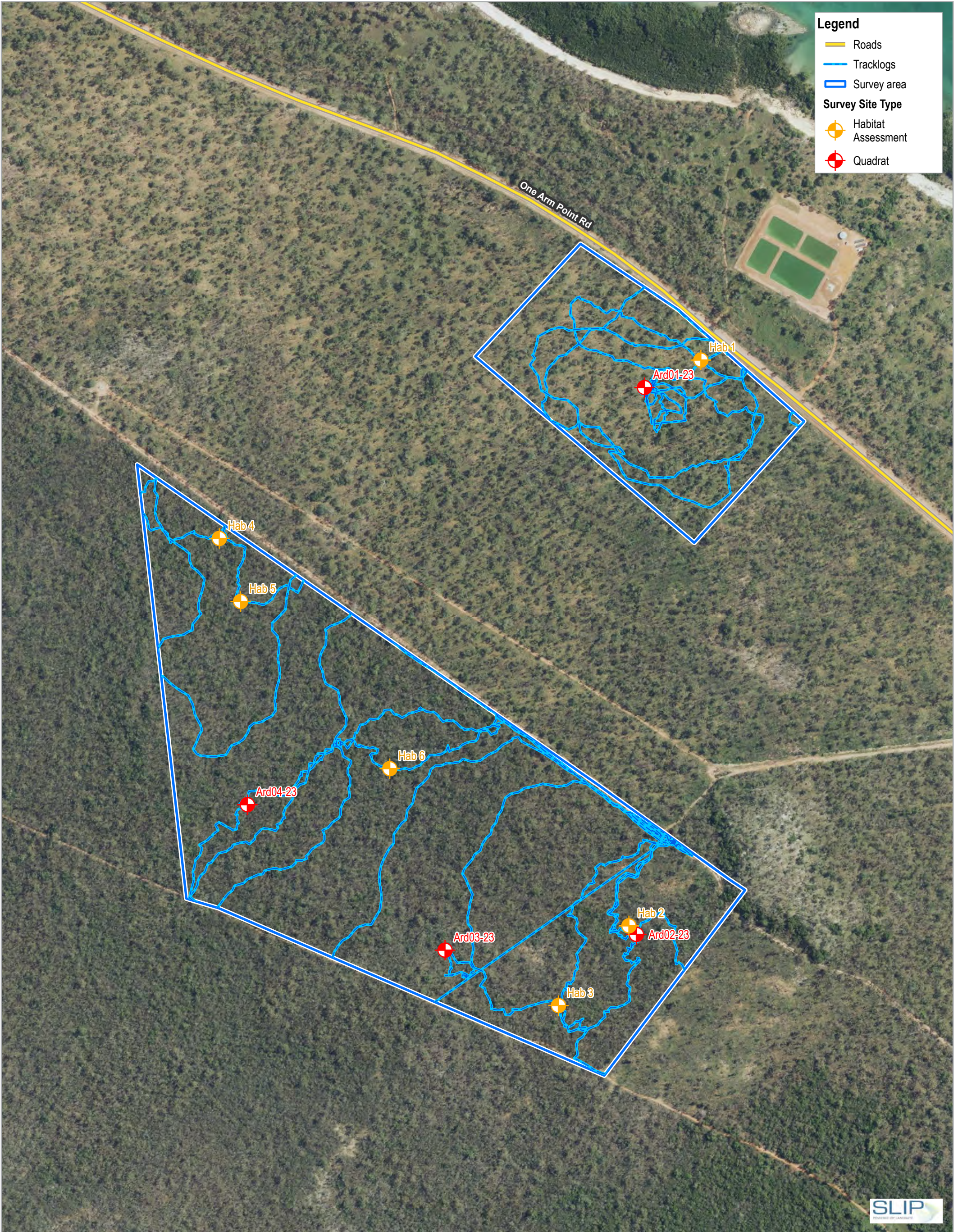


Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52



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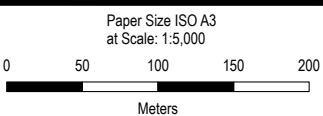


Legend

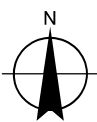
- Roads
- Tracklogs
- Survey area

Survey Site Type

- Habitat Assessment
- Quadrat



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

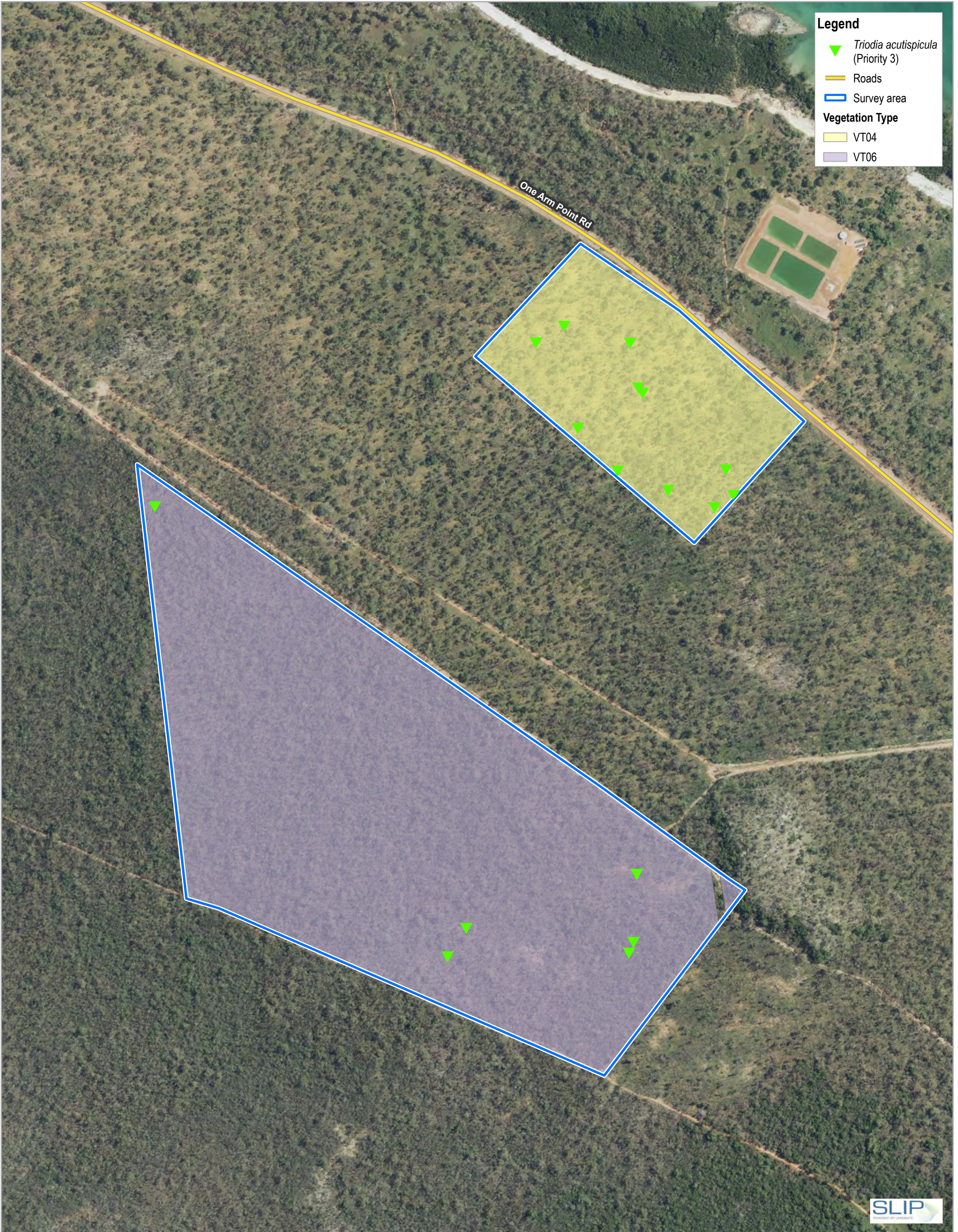


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Survey Effort

FIGURE 15



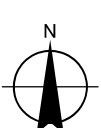
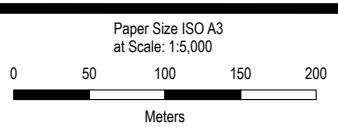
Legend

- ▼ *Triodia acutispicula* (Priority 3)
- Roads
- Survey area

Vegetation Type

- VT04
- VT06

One Arm Point Rd



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

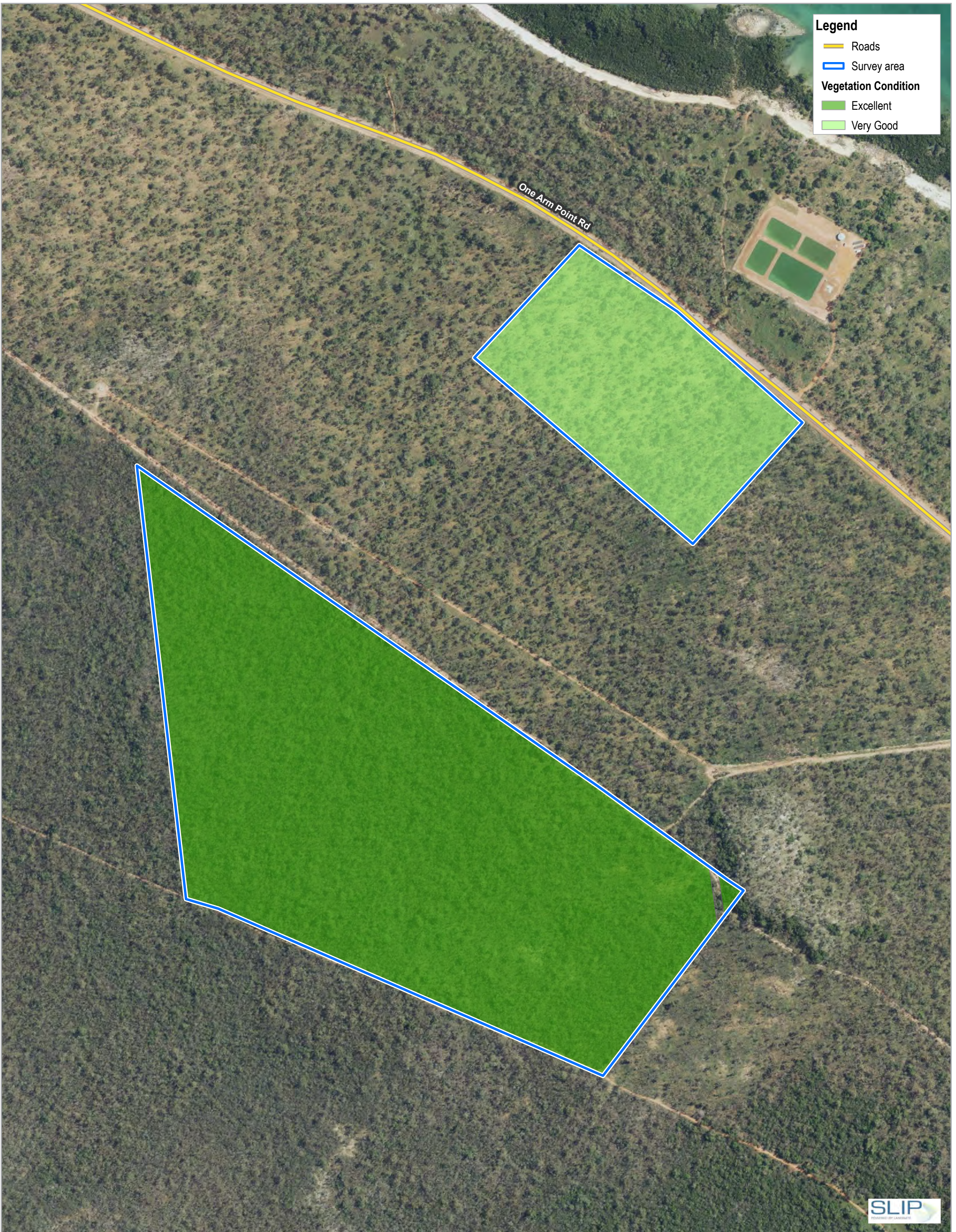
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West Kimberley Solar
Flora and Fauna Assessment

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**Vegetation Types and Conservation
Listed Flora Records**



FIGURE 16



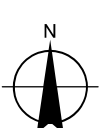
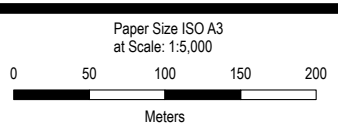
Legend

-  Roads
-  Survey area

Vegetation Condition

-  Excellent
-  Very Good

One Arm Point Rd



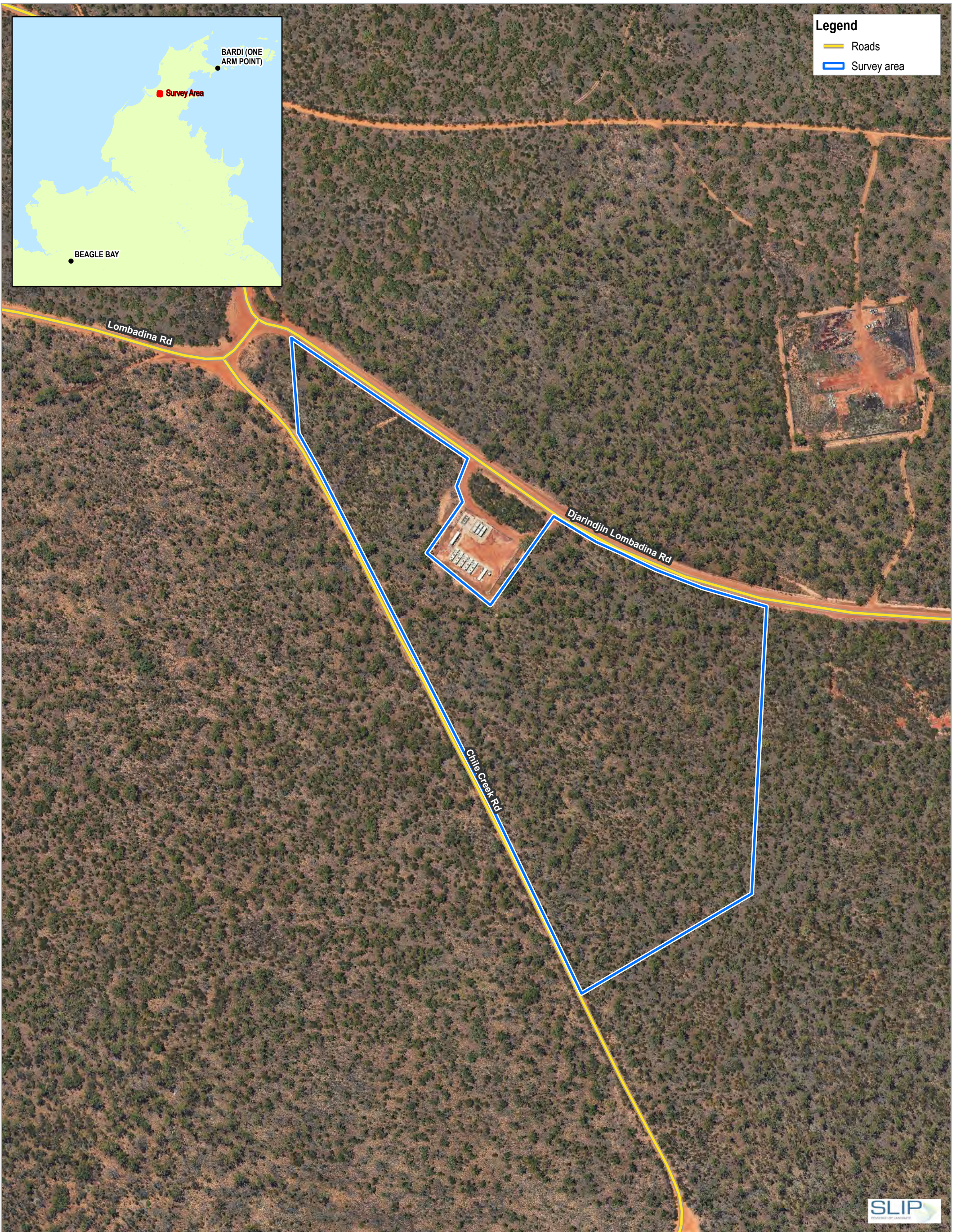
Horizon Power
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

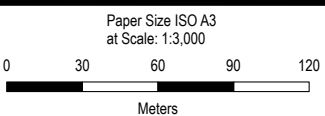
Vegetation Condition

FIGURE 17



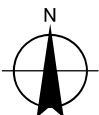
Legend

- Roads
- Survey area



Paper Size ISO A3
at Scale: 1:3,000

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52




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Locality

FIGURE 19

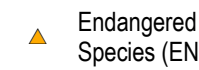
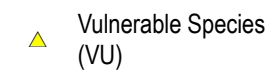
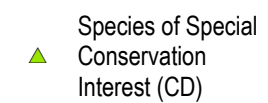
Legend

-  Roads
-  Survey area
-  Survey area (20km Buffer)




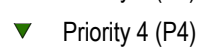
Threatened and Priority Flora - Conservation Status

-  Priority 1
-  Priority 3


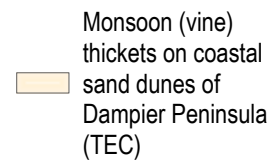
Fauna Conservation Categories

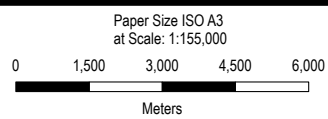
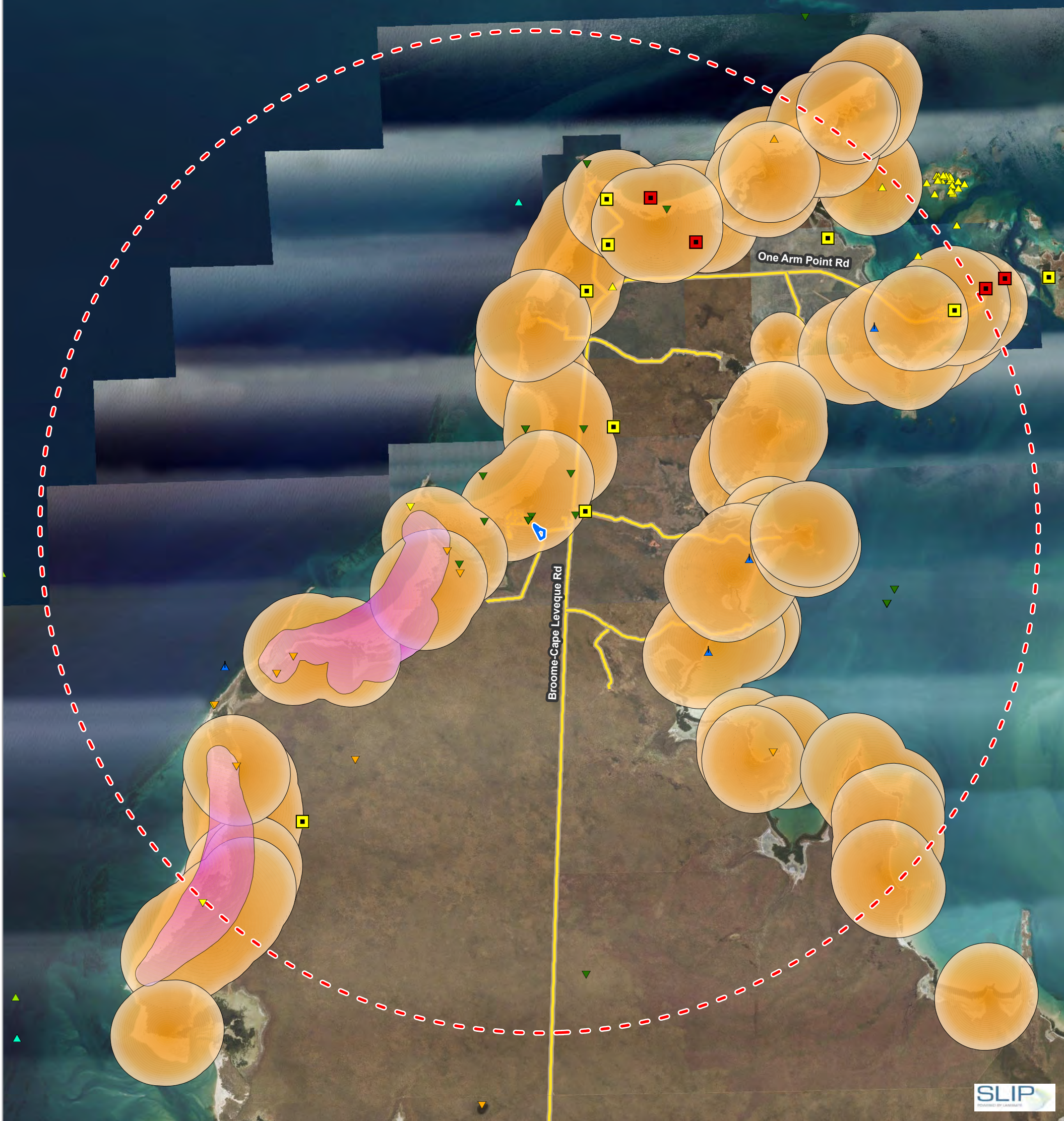
-  Endangered Species (EN)
-  Vulnerable Species (VU)
-  Species of Special Conservation Interest (CD)

Migratory Species Protected under International Agreement (IA)

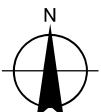
-  Other Specially Protected Species (OS)
-  Priority 1 (P1)
-  Priority 2 (P2)
-  Priority 4 (P4)

Threatened and Priority Ecological Communities

-  Kimberley Vegetation Association 37 (PEC)
-  Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula (TEC)



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

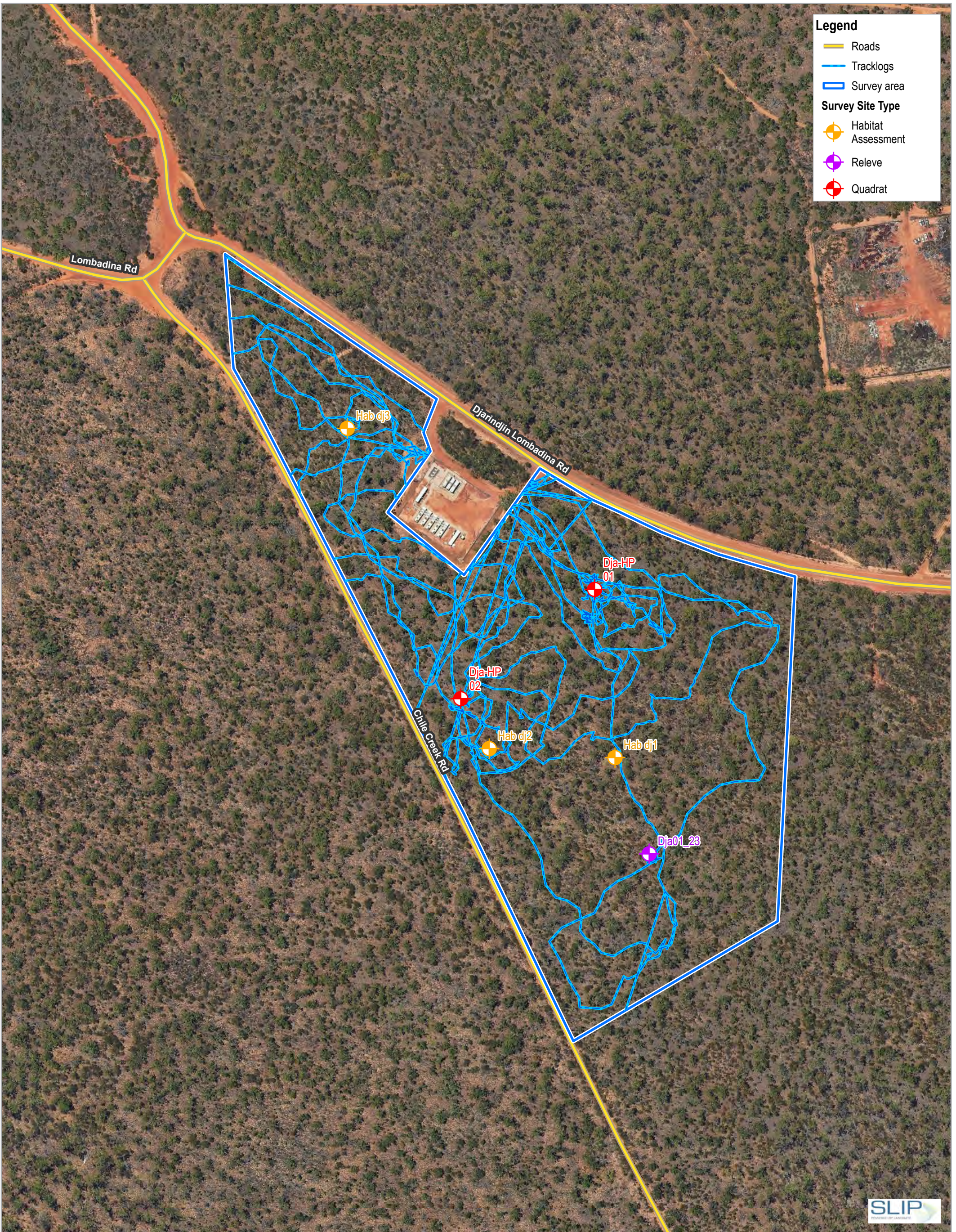


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Environmental Constraints

FIGURE 20



Legend

- Roads
- Tracklogs
- Survey area

Survey Site Type

- Habitat Assessment
- Releve
- Quadrat

Paper Size ISO A3
at Scale: 1:2,500

0 30 60 90 120
Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52



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Survey Effort

FIGURE 21



Legend

- Roads
- Survey area

Vegetation Type

- VT04

Paper Size ISO A3
at Scale: 1:2,500

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52



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Vegetation Types

FIGURE 22



Legend

- Roads
- Survey area

Vegetation Condition

- Very Good

Paper Size ISO A3
at Scale: 1:2,500

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

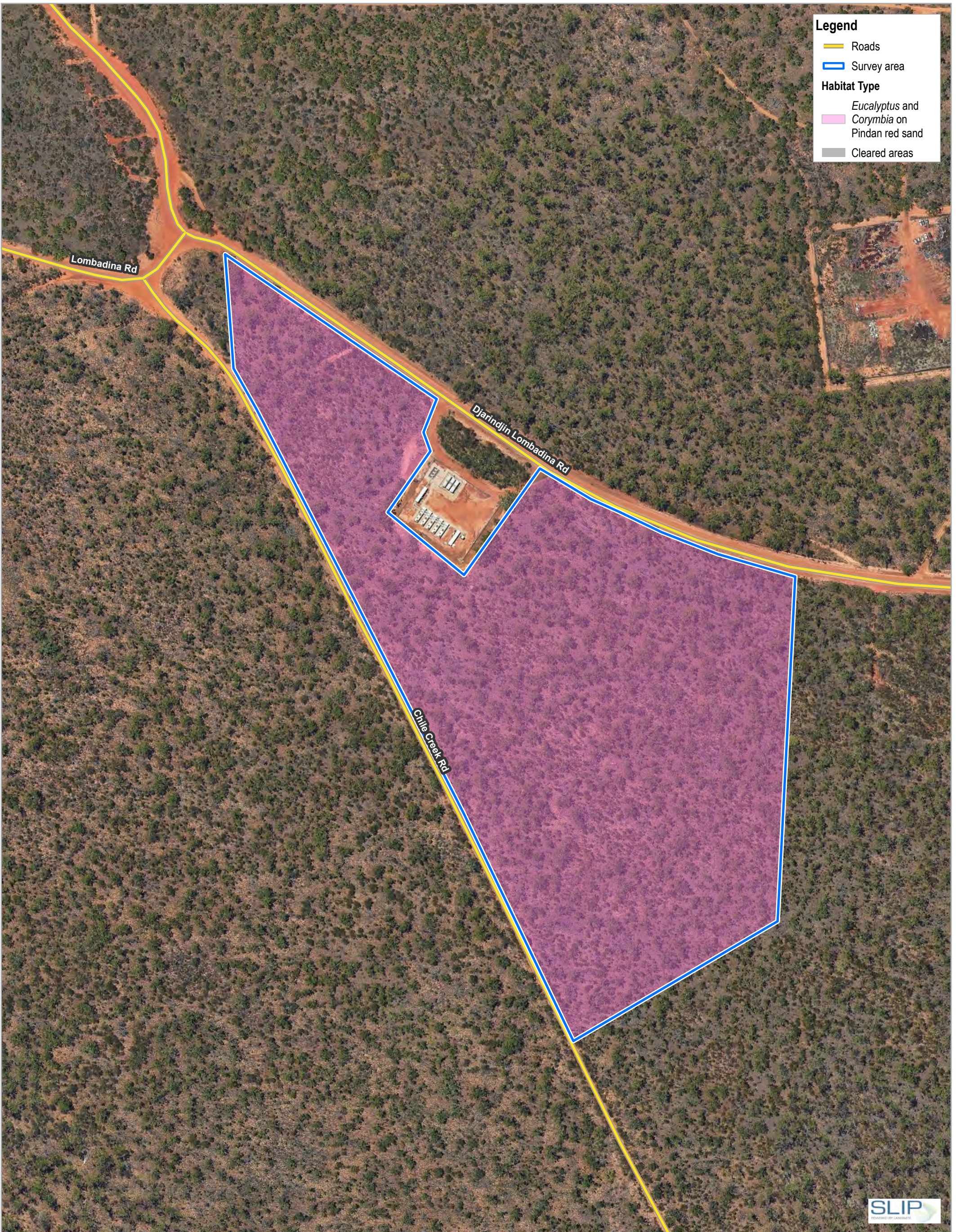


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Vegetation Condition

FIGURE 23



Legend

- Roads
- Survey area

Habitat Type

- Eucalyptus* and *Corymbia* on Pindan red sand
- Cleared areas

Paper Size ISO A3
at Scale: 1:2,500

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

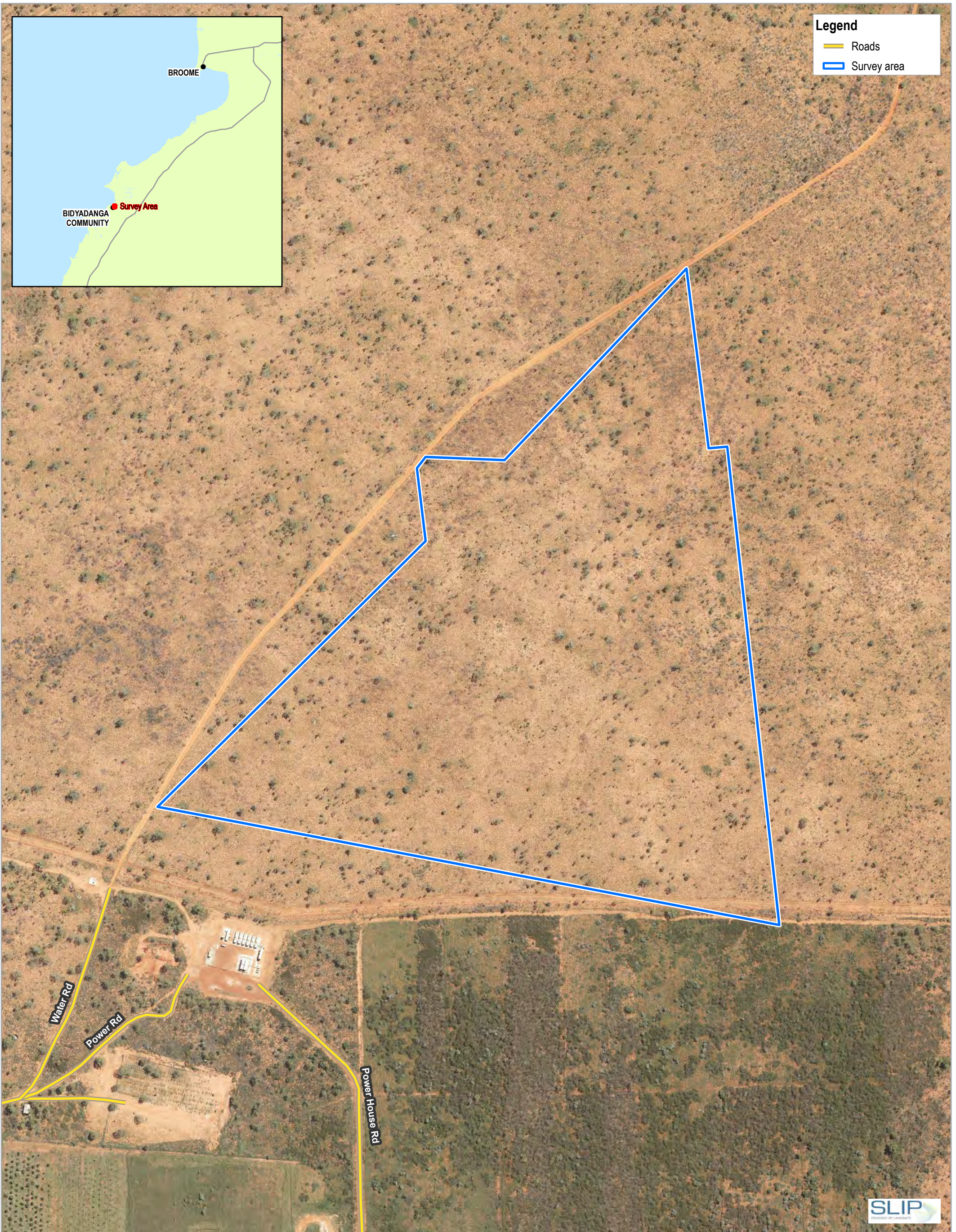


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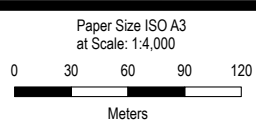
Fauna Habitat

FIGURE 24

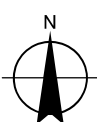


Legend

- Roads
- Survey area



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

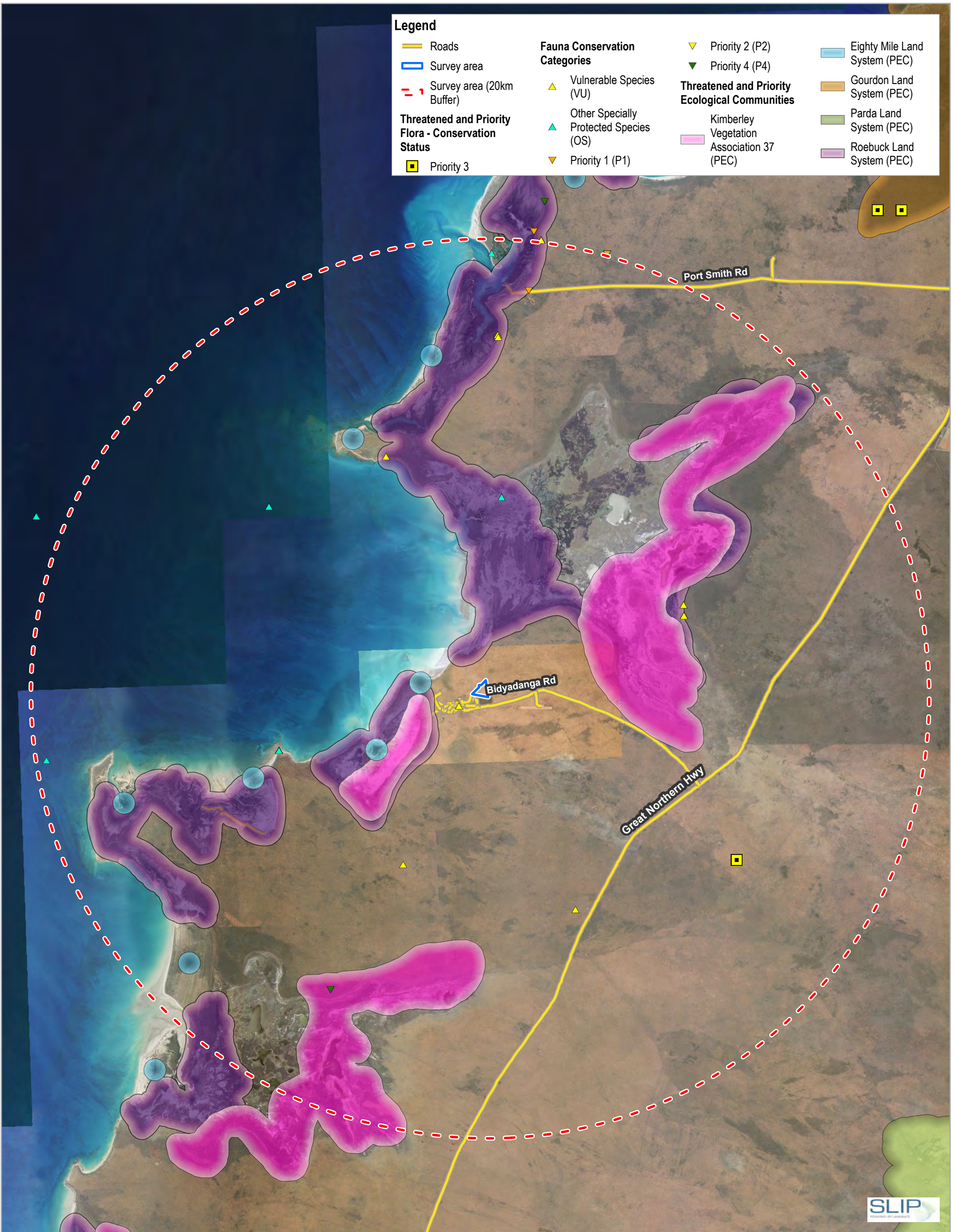


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Locality

FIGURE 25



Legend

- Roads
 - Survey area
 - Survey area (20km Buffer)
- Threatened and Priority Flora - Conservation Status**
- Priority 3

Fauna Conservation Categories

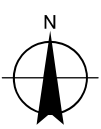
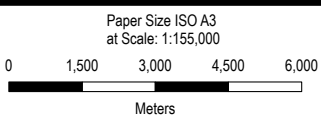
- ▲ Vulnerable Species (VU)
- ▲ Other Specially Protected Species (OS)
- ▼ Priority 1 (P1)

- ▼ Priority 2 (P2)
- ▼ Priority 4 (P4)

Threatened and Priority Ecological Communities

- Kimberley Vegetation Association 37 (PEC)

- Eighty Mile Land System (PEC)
- Gourdon Land System (PEC)
- Parda Land System (PEC)
- Roebuck Land System (PEC)



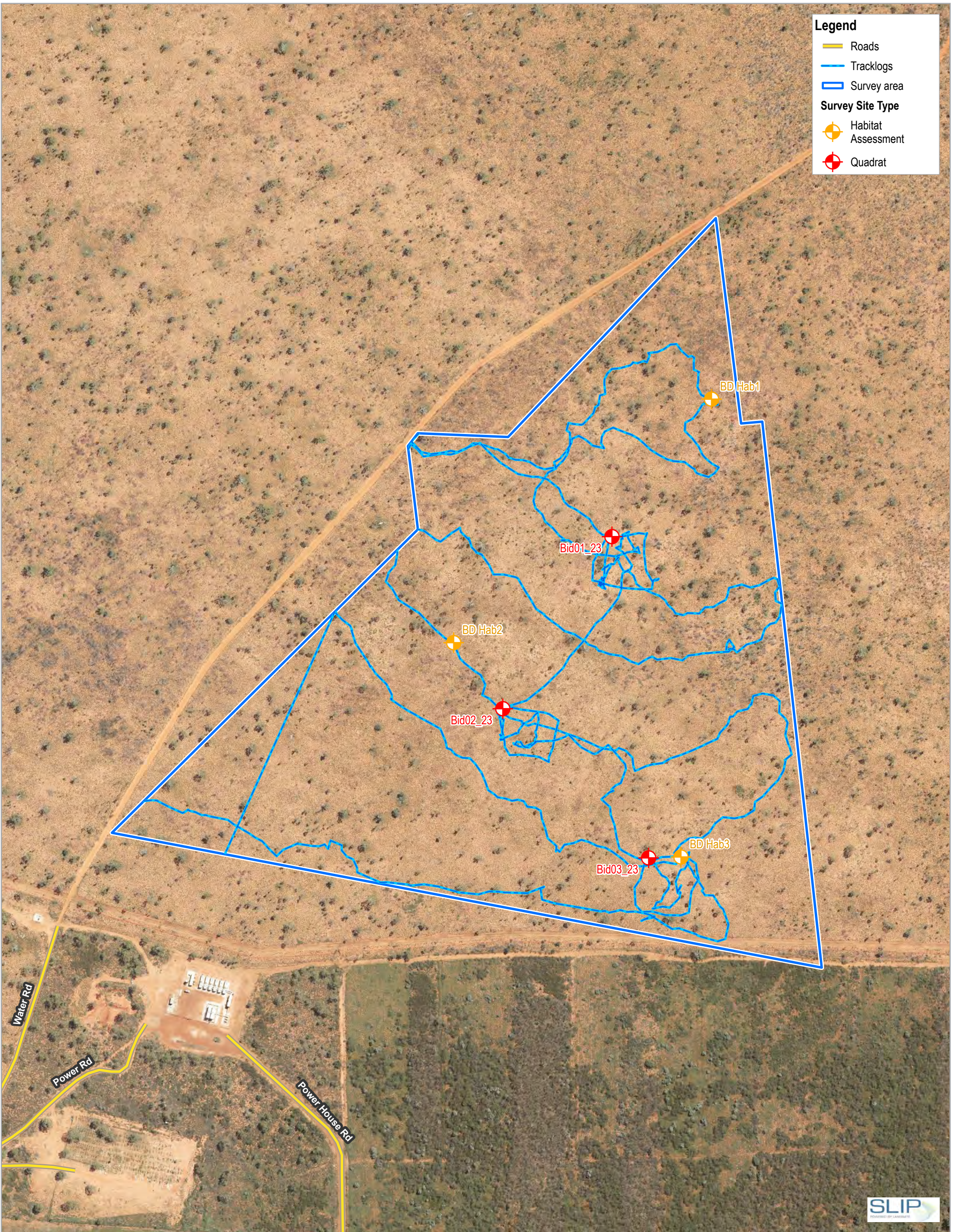
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Environmental Constraints

FIGURE 26

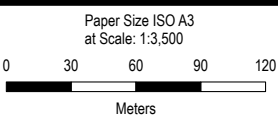


Legend

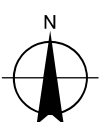
- Roads
- Tracklogs
- Survey area

Survey Site Type

- ⊕ Habitat Assessment
- ⊕ Quadrat



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

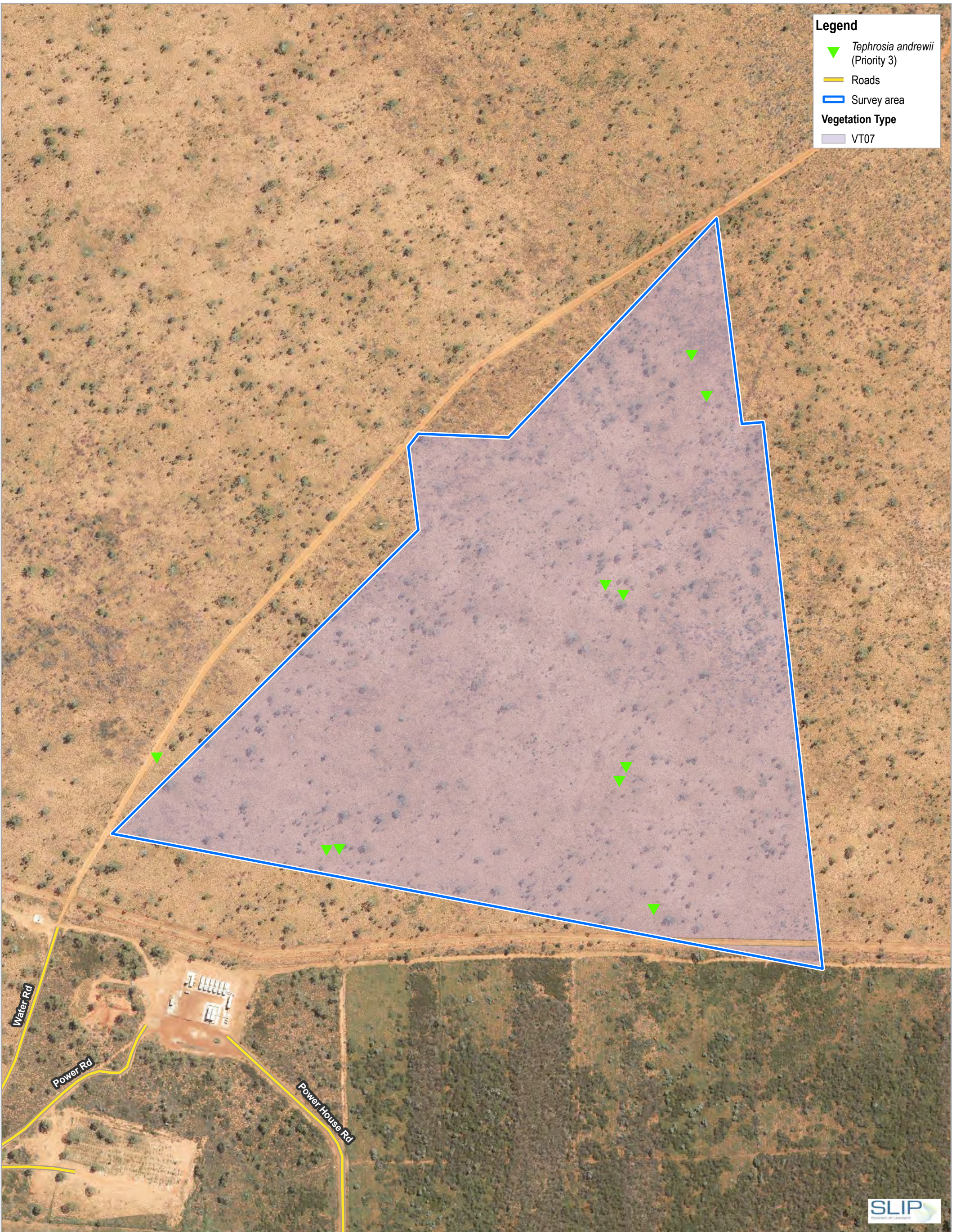


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Survey Effort

FIGURE 27



Legend

- ▼ *Tephrosia andrewii* (Priority 3)
- Roads
- Survey area

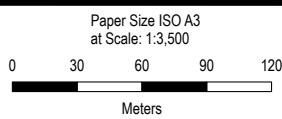
Vegetation Type

- VT07

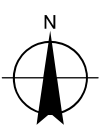
Water Rd

Power Rd

Power House Rd



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52



Horizon Power
West Kimberley Solar
Flora and Fauna Assessment

**Vegetation Types and Conservation
Listed Flora Records**

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FIGURE 28



Legend

- Roads
- Survey area

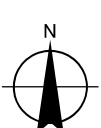
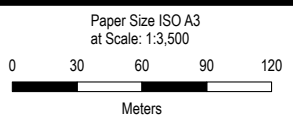
Vegetation Condition

- Excellent

Water Rd

Power Rd

Power House Rd



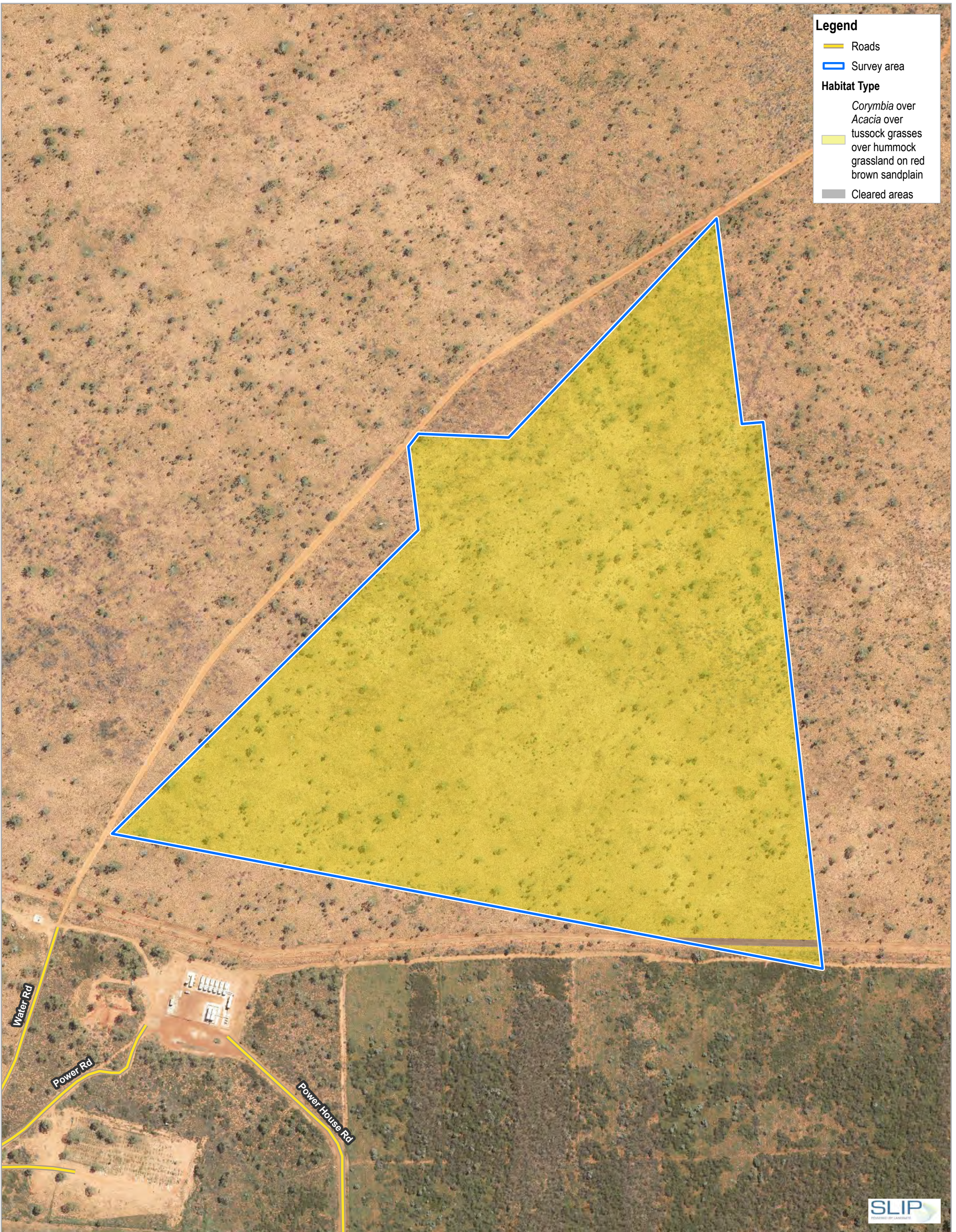
Horizon Power
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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Vegetation Condition

FIGURE 29



Legend

- Roads
- Survey area

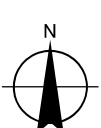
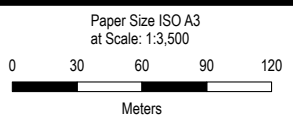
Habitat Type

- Corymbia* over *Acacia* over tussock grasses over hummock grassland on red brown sandplain
- Cleared areas

Water Rd

Power Rd

Power House Rd



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Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 52

Fauna Habitat

FIGURE 30

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 and 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 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 12 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 Environmental Protection (Gnangara Mound Crown Land) Policy 1992.
The areas covered by the Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002.
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 Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998.

Reserves and conservation areas

Department of Biodiversity, Conservation and Attractions managed lands 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 abut 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.

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 Eremaean and Northern Botanical Provinces

Condition	Eremaean and Northern Botanical Provinces description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very Good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as at caused by low levels of grazing or slightly aggressive weed.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Degraded	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely Degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Conservation codes

Species of significant flora 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	Definition
Federal Government Conservation Categories (EPBC Act)	
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"> – is not critically endangered; and – 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).
Vulnerable (VU)	An ecological community if, at that time: <ul style="list-style-type: none"> – is not critically endangered or endangered; and – is facing a 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).
Western Australia Conservation Categories (BC Act)	
<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	Definition
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>Collapsed ecological communities</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"> – there is no reasonable doubt that the last occurrence of the ecological community has collapsed); or – 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"> • its species composition or structure; or • its species composition and structure. <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	Descriptions
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"> – 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: – 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; – 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. <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"> – 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. – 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.

Category	Descriptions
	– Ecological communities that have been removed from the list of threatened communities during the past five years.
Priority 5	Conservation Dependent ecological communities. 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

Significant flora

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 species and their significance status is assessed under the EPBC Act. The significance levels for flora 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 State conservation level of flora species and their significance status also follows the IUCN Red List criteria. Under the BC Act flora 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 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.

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, 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 species

Conservation category	Definition
Threatened species	
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”. 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”. 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”. 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.
Extinct species	
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).

Codes for DBCA listed Priority flora

Priority category	Definition
Priority 1	Poorly-known taxa 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 2	Poorly-known taxa 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.
Priority 3	Poorly-known taxa 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.
Priority 4	Rare, Near Threatened and other taxa in need of monitoring

Priority category	Definition
	<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>— 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>— Taxa that have been removed from the list of threatened taxa during the past five years for reasons other than taxonomy.

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 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).

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.

Fauna Conservation codes

Conservation significant fauna

The Federal conservation level of fauna species and their significance status is assessed under the EPBC Act. The significance levels for 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 fauna species and their significance status also follows the IUCN Red List criteria. Under the BC Act 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 List 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 conservation significant.

Conservation categories and definitions for EPBC Act and BC Act listed fauna species

Conservation category	Definition
Threatened species	
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”. Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with 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”. 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”. 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.
Extinct species	
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 naturalized population well outside its past range, and it has not been recorded in its known habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its lifecycle and form”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).
Specially protected species	

Conservation category	Definition
Migratory (MI)	<p>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).</p> <p>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.</p>
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).

Conservation codes for DBCA listed Priority fauna

Priority category	Definition
Priority 1	<p>Poorly-known taxa</p> <p>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.</p>
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"> – 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. – 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. – Taxa that have been removed from the list of threatened taxa during the past five years for reasons other than taxonomy.

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 (EPA2020).

References

- ANZECC 2000, Core Environmental Indicators for Reporting on the State of Environment, ANZECC State of the Environment Reporting Task Force.
- Commonwealth of Australia 2001, National Targets and Objectives for Biodiversity Conservation 2001–2005, Canberra, AGPS.
- DAWE 2020a, *Criteria for determining nationally important wetlands*, retrieved 2020, from <http://www.environment.gov.au/topics/water/water-our-environment/wetlands/australian-wetlands-database/directory-important>.
- DAWE 2020b, *The Ramsar Convention on Wetlands*, retrieved 2020, from <http://www.environment.gov.au/topics/water/water-our-environment/wetlands/ramsar-convention-wetlands>.
- English, V and Blyth, J 1997, Identifying and Conserving Threatened Ecological Communities in the South West Botanical Province, Perth, Department of Conservation and Land Management.
- EPA 2016a, Technical Guide – Flora and Vegetation Surveys for Environmental Impact Assessment, EPA, Perth, WA.
- EPA 2016b, Environmental Factor Guideline - Flora and Vegetation, EPA, Perth, WA.
- EPA 2020, Technical Guide – Terrestrial Fauna Surveys, EPA, Perth, WA
- GoWA 2022, *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full report)*, Current as of March 2019, Perth Western Australia, Department of Environment and Conservation, from <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.
- Shepherd, DP, Beeston, GR & Hopkins, AJM 2002, Native Vegetation in Western Australia – Extent, Type and Status, Resource Management Technical Report 249, Perth, Department of Agriculture

Appendix C

Desktop searches

TAXON	CLASS	CONS	KINGDOM
<i>Abildgaardia schoenoides</i>	MONOCOT		Plantae
<i>Abrus precatorius</i>	DICOT		Plantae
<i>Abrus precatorius</i> subsp. <i>precatorius</i>	DICOT		Plantae
<i>Abudefduf bengalensis</i>	FISH		Animalia
<i>Abudefduf</i> sp.	FISH		Animalia
<i>Abutilon indicum</i> var. <i>australiense</i>	DICOT		Plantae
<i>Abutilon otocarpum</i>	DICOT		Plantae
<i>Acacia calligera</i>	DICOT		Plantae
<i>Acacia colei</i> var. <i>colei</i>	DICOT		Plantae
<i>Acacia delibrata</i>	DICOT		Plantae
<i>Acacia deltoidea</i> subsp. <i>deltoidea</i>	DICOT		Plantae
<i>Acacia hippuroides</i>	DICOT		Plantae
<i>Acacia monticola</i>	DICOT		Plantae
<i>Acacia pellita</i>	DICOT		Plantae
<i>Acacia</i> sp. Broome (B.R. Maslin 4918)	DICOT		Plantae
<i>Acacia</i> sp. Kununurra (Lullfitz 6195)	DICOT		Plantae
<i>Acacia trachycarpa</i>	DICOT		Plantae
<i>Acacia translucens</i>	DICOT		Plantae
<i>Acacia tumida</i> var. <i>tumida</i>	DICOT		Plantae
<i>Acacia wickhamii</i>	DICOT		Plantae
<i>Acacia wickhamii</i> subsp. <i>wickhamii</i>	DICOT		Plantae
<i>Acanthopagrus latus</i>	FISH		Animalia
<i>Acanthophora dendroides</i>	ALGA		Plantae
<i>Acanthophora spicifera</i>	ALGA		Plantae
<i>Acanthurus grammoptilus</i>	FISH		Animalia
<i>Accipiter cirrocephalus</i>	BIRD		Animalia
<i>Accipiter fasciatus</i>	BIRD		Animalia
<i>Acentrogobius gracilis</i>	FISH		Animalia
<i>Acetabularia</i> sp.	ALGA		Plantae
<i>Achyranthes aspera</i>	DICOT		Plantae
<i>Acrostichum speciosum</i>	FERN		Plantae
<i>Actinotrichia fragilis</i>	ALGA		Plantae
<i>Actinotrichia</i> sp.	ALGA		Animalia
<i>Actitis hypoleucos</i>	BIRD	MI	Animalia
<i>Adenia heterophylla</i>	DICOT		Plantae
<i>Adenia heterophylla</i> subsp. <i>australis</i>	DICOT		Plantae
<i>Aegialitis annulata</i>	DICOT		Plantae
<i>Aegiceras corniculatum</i>	DICOT		Plantae
<i>Aegotheles cristatus</i>	BIRD		Animalia
<i>Aerva javanica</i>	DICOT		Plantae
<i>Alternanthera pungens</i>	DICOT		Plantae
<i>Alysicarpus ovalifolius</i>	DICOT		Plantae
<i>Alysicarpus suffruticosus</i>	DICOT	P2	Plantae
<i>Amansia</i> sp.	ALGA		Animalia
<i>Amaranthus pallidiflorus</i>	DICOT		Plantae
<i>Amaranthus undulatus</i>	DICOT		Plantae
<i>Amblygobius bynoensis</i>	FISH		Animalia
<i>Ammannia baccifera</i>	DICOT		Plantae
<i>Ammannia multiflora</i>	DICOT		Plantae
<i>Amphibolurus gilberti</i>	REPTILE		Animalia
<i>Amphiprion rubrocinctus</i>	FISH		Animalia
<i>Amphiroa crassa</i>	ALGA		Plantae
<i>Amphiroa foliacea</i>	ALGA		Plantae
<i>Amphiroa fragilissima</i>	ALGA		Plantae
<i>Amphiroa gracilis</i>	ALGA		Plantae
<i>Amphiroa</i> sp.	ALGA		Animalia
<i>Amphiroa tribulus</i>	ALGA		Plantae
<i>Amyema benthamii</i>	DICOT		Plantae

<i>Amyema benthamii</i> x <i>dolichopoda</i>	DICOT		Plantae
<i>Amyema bifurcata</i>	DICOT		Plantae
<i>Amyema mackayensis</i>	DICOT		Plantae
<i>Amyema sanguinea</i> var. <i>sanguinea</i>	DICOT		Plantae
<i>Amyema thalassia</i>	DICOT		Plantae
<i>Amyema villiflora</i> subsp. <i>villiflora</i>	DICOT		Plantae
<i>Anabaena</i> sp.	BACTERIUM		Bacteria
<i>Anadyomene plicata</i>	ALGA		Plantae
<i>Anadyomene</i> sp.	ALGA		Animalia
<i>Anas superciliosa</i>	BIRD		Animalia
<i>Anhinga novaehollandiae</i>	BIRD		Animalia
<i>Anous stolidus</i>	BIRD	MI	Animalia
<i>Anous stolidus</i> subsp. <i>pileatus</i>	BIRD		Animalia
<i>Antaresia childreni</i>	REPTILE		Animalia
<i>Antaresia stimsoni</i> subsp. <i>stimsoni</i>	REPTILE		Animalia
<i>Apogon cookii</i>	FISH		Animalia
<i>Apogon rueppellii</i>	FISH		Animalia
<i>Apogon</i> sp.	FISH		Animalia
<i>Apogon timorensis</i>	FISH		Animalia
<i>Aprosmictus erythropterus</i>	BIRD		Animalia
<i>Apus pacificus</i>	BIRD	MI	Animalia
<i>Aquila audax</i>	BIRD		Animalia
<i>Ardea intermedia</i>	BIRD		Animalia
<i>Ardea modesta</i>	BIRD		Animalia
<i>Ardea novaehollandiae</i>	BIRD		Animalia
<i>Ardea sacra</i>	BIRD		Animalia
<i>Ardea sacra</i> subsp. <i>sacra</i>	BIRD		Animalia
<i>Ardea sumatrana</i>	BIRD		Animalia
<i>Ardeotis australis</i>	BIRD		Animalia
<i>Arenaria interpres</i>	BIRD	MI	Animalia
<i>Aristida holathera</i>	MONOCOT		Plantae
<i>Aristida holathera</i> var. <i>holathera</i>	MONOCOT		Plantae
<i>Aristida hygrometrica</i>	MONOCOT		Plantae
<i>Arothron hispidus</i>	FISH		Animalia
<i>Artamus cinereus</i>	BIRD		Animalia
<i>Artamus leucorhynchus</i>	BIRD		Animalia
<i>Artamus leucorhynchus</i> subsp. <i>leucopygialis</i>	BIRD		Animalia
<i>Artamus minor</i>	BIRD		Animalia
<i>Artamus personatus</i>	BIRD		Animalia
<i>Arthopyrenia analepta</i>	LICHEN		Fungi
<i>Asparagopsis taxiformis</i>	ALGA		Plantae
<i>Asparagus racemosus</i>	MONOCOT		Plantae
<i>Assiculoides desmonotus</i>	FISH		Animalia
<i>Atalaya variifolia</i>	DICOT		Plantae
<i>Atelomycterus macleayi</i>	FISH		Animalia
<i>Atherinid</i> sp.	FISH		Animalia
<i>Auricularia cornea</i>	FUNGUS		Fungi
<i>Austracantha minax</i>	INVERT		Animalia
<i>Avicennia marina</i>	DICOT		Plantae
<i>Avrainvillea carteri</i>	ALGA		Plantae
<i>Avrainvillea erecta</i>	ALGA		Plantae
<i>Avrainvillea obscura</i>	ALGA		Plantae
<i>Avrainvillea</i> sp.	ALGA		Animalia
<i>Aythya australis</i>	BIRD		Animalia
<i>Bathygobius fuscus</i>	FISH		Animalia
<i>Batis argillicola</i>	DICOT		Plantae
<i>Batrachomoeus dahli</i>	FISH		Animalia
<i>Bauhinia cunninghamii</i>	DICOT		Plantae
<i>Bergia ammannioides</i>	DICOT		Plantae

Betaphycus sp.	ALGA		Plantae
Blennodesmus scapularis	FISH		Animalia
Blumea integrifolia	DICOT		Plantae
Blumea saxatilis	DICOT		Plantae
Boergesenia forbesii	ALGA		Plantae
Boerhavia burbridgeana	DICOT		Plantae
Boerhavia coccinea	DICOT		Plantae
Boerhavia dominii	DICOT		Plantae
Boerhavia gardneri	DICOT		Plantae
Bonamia linearis	DICOT		Plantae
Boodlea composita	ALGA		Plantae
Boodlea sp.	ALGA		Animalia
Bornetella oligospora	ALGA		Plantae
Bos taurus	MAMMAL		Animalia
Botryocladia leptopoda	ALGA		Plantae
Botryocladia sp.	ALGA		Animalia
Brachychiton diversifolius subsp. diversifolius	DICOT		Plantae
Breynia cernua	DICOT		Plantae
Bridelia tomentosa	DICOT		Plantae
Bruguiera exaristata	DICOT		Plantae
Bryopsis pennata var. secunda	ALGA		Plantae
Bryopsis sp.	ALGA		Plantae
Buchanania oblongifolia	DICOT		Plantae
Buchanania obovata	DICOT		Plantae
Buchnera asperata	DICOT		Plantae
Buchnera urticifolia	DICOT		Plantae
Bulbostylis barbata	MONOCOT		Plantae
Burhinus grallarius	BIRD		Animalia
Butorides striata	BIRD		Animalia
Byblis rorida	DICOT		Plantae
Cacatua sanguinea	BIRD		Animalia
Cacatua sanguinea subsp. sanguinea	BIRD		Animalia
Cacomantis pallidus	BIRD		Animalia
Cacomantis variolosus	BIRD		Animalia
Cacomantis variolosus subsp. variolosus	BIRD		Animalia
Caesalpinia major	DICOT		Plantae
Cajanus acutifolius	DICOT		Plantae
Cajanus cinereus	DICOT		Plantae
Cajanus marmoratus	DICOT		Plantae
Cajanus reticulatus	DICOT		Plantae
Calandrinia strophiolata	DICOT		Plantae
Calandrinia tepperiana	DICOT		Plantae
Calidris acuminata	BIRD	MI	Animalia
Calidris alba (Crocethia alba)	BIRD	MI	Animalia
Calidris ferruginea	BIRD	CR	Animalia
Calidris ruficollis	BIRD	MI	Animalia
Calidris tenuirostris	BIRD	CR	Animalia
Callionymus sp.	FISH		Animalia
Calotropis gigantea	DICOT		Plantae
Calotropis procera	DICOT		Plantae
Calyptorhynchus banksii	BIRD		Animalia
Calyptorhynchus banksii subsp. macrorhynchus	BIRD		Animalia
Calytrix exstipulata	DICOT		Plantae
Campostemon schultzei	DICOT		Plantae
Canarium australicum var. glabrum	DICOT		Plantae
Canavalia rosea	DICOT		Plantae
Canistrocarpus cervicornis	ALGA		Protozoa
Canistrocarpus crispatus	ALGA		Protozoa
Capparis lasiantha	DICOT		Plantae

<i>Capparis sepiaria</i>	DICOT		Plantae
<i>Capparis spinosa</i>	DICOT		Plantae
<i>Capparis spinosa</i> subsp. <i>nummularia</i>	DICOT		Plantae
<i>Capparis spinosa</i> var. <i>nummularia</i>	DICOT		Plantae
<i>Capra hircus</i>	MAMMAL		Animalia
<i>Carissa lanceolata</i>	DICOT		Plantae
<i>Carlia munda</i>	REPTILE		Animalia
<i>Carlia triacantha</i>	REPTILE		Animalia
<i>Carpothamnion</i> sp.	ALGA		Plantae
<i>Cassytha capillaris</i>	DICOT		Plantae
<i>Cassytha filiformis</i>	DICOT		Plantae
<i>Catharanthus roseus</i>	DICOT		Plantae
<i>Caulerpa chemnitzia</i>	ALGA		Plantae
<i>Caulerpa cupressoides</i>	ALGA		Plantae
<i>Caulerpa cylindracea</i>	ALGA		Plantae
<i>Caulerpa dichotoma</i>	ALGA		Plantae
<i>Caulerpa lamourouxii</i>	ALGA		Plantae
<i>Caulerpa lentillifera</i>	ALGA		Plantae
<i>Caulerpa macrodisca</i>	ALGA		Plantae
<i>Caulerpa racemosa</i>	ALGA		Plantae
<i>Caulerpa racemosa</i> var. <i>racemosa</i>	ALGA		Plantae
<i>Caulerpa serrulata</i>	ALGA		Plantae
<i>Caulerpa sertularioides</i>	ALGA		Plantae
<i>Caulerpa</i> sp.	ALGA		Animalia
<i>Caulerpa taxifolia</i>	ALGA		Plantae
<i>Caulerpa taxifolia</i> var. <i>falcifolia</i>	ALGA		Plantae
<i>Caulerpa taxifolia</i> var. <i>taxifolia</i>	ALGA		Plantae
<i>Caulerpa verticillata</i>	ALGA		Plantae
<i>Celtis philippensis</i>	DICOT		Plantae
<i>Celtis strychnoides</i>	DICOT		Plantae
<i>Cenchrus biflorus</i>	MONOCOT		Plantae
<i>Cenchrus ciliaris</i>	MONOCOT		Plantae
<i>Cenchrus echinatus</i>	MONOCOT		Plantae
<i>Cenchrus setiger</i>	MONOCOT		Plantae
<i>Centrogenys vaigiensis</i>	FISH		Animalia
<i>Centropus phasianinus</i>	BIRD		Animalia
<i>Centropus phasianinus</i> subsp. <i>phasianinus</i>	BIRD		Animalia
<i>Ceramium</i> sp.	ALGA		Animalia
<i>Ceratodictyon spongiosum</i>	ALGA		Plantae
<i>Cercospora citrullina</i>	FUNGUS		Fungi
<i>Cercospora</i> sp.	FUNGUS		Fungi
<i>Cercosporidium</i> sp.	FUNGUS		Fungi
<i>Ceriops australis</i>	DICOT		Plantae
<i>Ceriops tagal</i>	DICOT		Plantae
<i>Ceyx azureus</i>	BIRD		Animalia
<i>Chalcophaps indica</i>	BIRD		Animalia
<i>Chalinolobus gouldii</i>	MAMMAL		Animalia
<i>Chalinolobus nigrogriseus</i>	MAMMAL		Animalia
<i>Chamaecrista absus</i>	DICOT		Plantae
<i>Chamaecrista mimosoides</i>	DICOT		Plantae
<i>Chamaecrista rotundifolia</i>	DICOT		Plantae
<i>Champia parvula</i>	ALGA		Plantae
<i>Charadrius leschenaultii</i>	BIRD	VU	Animalia
<i>Charadrius mongolus</i>	BIRD	EN	Animalia
<i>Charadrius ruficapillus</i>	BIRD		Animalia
<i>Chelmon marginalis</i>	FISH		Animalia
<i>Chelonia mydas</i>	REPTILE	VU	Animalia
<i>Chlamydosaurus kingii</i>	REPTILE		Animalia
<i>Chloris barbata</i>	MONOCOT		Plantae

Chlorodesmis sp.	ALGA		Plantae
Chnoospora implexa	ALGA		Protozoa
Choerodon cyanodus	FISH		Animalia
Choeroichthys brachysoma	FISH		Animalia
Chondria armata	ALGA		Plantae
Chondria sp.	ALGA		Animalia
Chondrophyucus papillosa	ALGA		Plantae
Chondrophyucus sp.	ALGA		Plantae
Chroicocephalus novaehollandiae	BIRD		Animalia
Chrysococcyx minutillus	BIRD		Animalia
Chrysococcyx minutillus subsp. minutillus	BIRD		Animalia
Chrysopogon fallax	MONOCOT		Plantae
Chrysopogon pallidus	MONOCOT		Plantae
Chrysothrix candelaris	LICHEN		Fungi
Chrysiomenia sp.	ALGA		Animalia
Circus assimilis	BIRD		Animalia
Cissomela pectoralis	BIRD		Animalia
Citrullus amarus	DICOT		Plantae
Cladophora herpestica	ALGA		Plantae
Cladophora sp.	ALGA		Animalia
Cladophoropsis sp.	ALGA		Plantae
Cladophoropsis vaucheriiformis	ALGA		Plantae
Cleome cleomoides	DICOT		Plantae
Cleome sp. Bonaparte Archipelago (A.A. Mitchell 4774)	DICOT		Plantae
Cleome tetrandra var. tetrandra	DICOT		Plantae
Cleome viscosa	DICOT		Plantae
Clerodendrum floribundum	DICOT		Plantae
Clerodendrum floribundum var. ovatum	DICOT		Plantae
Clerodendrum sp.	DICOT		Plantae
Climacteris melanura	BIRD		Animalia
Clitoria ternatea	DICOT		Plantae
Clupeid sp.	FISH		Animalia
Cochlospermum fraseri	DICOT		Plantae
Codium arabicum	ALGA		Plantae
Codium dwarkense	ALGA		Plantae
Codium geppiorum	ALGA		Plantae
Codium sp.	ALGA		Animalia
Codium spongiosum	ALGA		Plantae
Coelothrix irregularis	ALGA		Plantae
Colluricincla harmonica	BIRD		Animalia
Colluricincla harmonica subsp. brunnea	BIRD		Animalia
Colocasia esculenta var. esculenta	MONOCOT		Plantae
Colpomenia peregrina	ALGA		Protozoa
Colpomenia sinuosa	ALGA		Protozoa
Commelina ensifolia	MONOCOT		Plantae
Congrogadus subducens	FISH		Animalia
Conopophila rufogularis	BIRD		Animalia
Coracina novaehollandiae	BIRD		Animalia
Corchorus aestuans	DICOT		Plantae
Corchorus pumilio	DICOT		Plantae
Corchorus sidoides	DICOT		Plantae
Corchorus sidoides subsp. sidoides	DICOT		Plantae
Corvus orru	BIRD		Animalia
Corymbia bella	DICOT		Plantae
Corymbia greeniana	DICOT		Plantae
Corymbia polycarpa	DICOT		Plantae
Coturnix ypsilophora	BIRD		Animalia
Coturnix ypsilophora subsp. cervina	BIRD		Animalia
Cracticus nigrogularis	BIRD		Animalia

<i>Cracticus tibicen</i>	BIRD		Animalia
<i>Craterocephalus pauciradiatus</i>	FISH		Animalia
<i>Crotalaria brevis</i>	DICOT		Plantae
<i>Crotalaria cunninghamii</i>	DICOT		Plantae
<i>Crotalaria medicaginea</i> var. <i>neglecta</i>	DICOT		Plantae
<i>Crotalaria ramosissima</i>	DICOT		Plantae
<i>Croton habrophyllus</i>	DICOT		Plantae
<i>Cryptoblepharus tythos</i>	REPTILE		Animalia
<i>Cryptocentroides insignis</i>	FISH		Animalia
<i>Cryptostegia madagascariensis</i>	DICOT		Plantae
<i>Ctenotus inornatus</i>	REPTILE		Animalia
<i>Cucumis maderaspatanus</i>	DICOT		Plantae
<i>Cucumis</i> sp. <i>Gunlom</i> (J.L. McKean 864 b)	DICOT		Plantae
<i>Cullen badocanum</i>	DICOT		Plantae
<i>Cullen candidum</i>	DICOT	P1	Plantae
<i>Cupaniopsis anarcardioides</i>	DICOT		Plantae
<i>Curdiea obesa</i>	ALGA		Plantae
<i>Cuscuta chinensis</i>	DICOT		Plantae
<i>Cyanotis axillaris</i>	MONOCOT		Plantae
<i>Cyanthillium cinereum</i> var. <i>lanatum</i>	DICOT		Plantae
<i>Cyclorana australis</i>	AMPHI		Animalia
<i>Cyclosorus interruptus</i>	FERN		Plantae
<i>Cymbacephalus bosschei</i>	FISH		Animalia
<i>Cymbacephalus nematophthalmus</i>	FISH		Animalia
<i>Cymbidium canaliculatum</i>	MONOCOT		Plantae
<i>Cymbopogon ambiguus</i>	MONOCOT		Plantae
<i>Cymbopogon procerus</i>	MONOCOT		Plantae
<i>Cymodocea serrulata</i>	MONOCOT		Plantae
<i>Cynanchum brevipedicellatum</i>	DICOT		Plantae
<i>Cynanchum pedunculatum</i>	DICOT		Plantae
<i>Cynanchum viminalis</i> subsp. <i>australe</i>	DICOT		Plantae
<i>Cynanchum viminalis</i> subsp. <i>brunonianum</i>	DICOT		Plantae
<i>Cynodon dactylon</i>	MONOCOT		Plantae
<i>Cyperus bulbosus</i>	MONOCOT		Plantae
<i>Cyperus conicus</i>	MONOCOT		Plantae
<i>Cyperus cunninghamii</i> subsp. <i>uniflorus</i>	MONOCOT		Plantae
<i>Cyperus latzii</i>	MONOCOT		Plantae
<i>Cyperus microcephalus</i>	MONOCOT		Plantae
<i>Cyperus microcephalus</i> subsp. <i>microcephalus</i>	MONOCOT		Plantae
<i>Cyperus nervulosus</i>	MONOCOT		Plantae
<i>Cyperus polystachyos</i>	MONOCOT		Plantae
<i>Cyperus sexflorus</i>	MONOCOT		Plantae
<i>Cystoseira</i> sp.	ALGA		Protozoa
<i>Dacelo leachii</i>	BIRD		Animalia
<i>Dactyloctenium radulans</i>	MONOCOT		Plantae
<i>Daldinia</i> sp.	FUNGUS		Fungi
<i>Daphoenositta chrysoptera</i>	BIRD		Animalia
<i>Daphoenositta chrysoptera</i> subsp. <i>leucoptera</i>	BIRD		Animalia
<i>Dasya pilosa</i>	ALGA		Plantae
<i>Dasya</i> sp.	ALGA		Animalia
<i>Decaisnina angustata</i>	DICOT		Plantae
<i>Delma borea</i>	REPTILE		Animalia
<i>Dendrelaphis punctulata</i>	REPTILE		Animalia
<i>Dendrophthoe acacioides</i> subsp. <i>acacioides</i>	DICOT		Plantae
<i>Desmodium filiforme</i>	DICOT		Plantae
<i>Desmodium triflorum</i>	DICOT		Plantae
<i>Dicaeum hirundinaceum</i>	BIRD		Animalia
<i>Dichotomaria marginata</i>	ALGA		Plantae
<i>Dicliptera armata</i>	DICOT		Plantae

<i>Dicrurus bracteatus</i> subsp. <i>bracteatus</i>	BIRD		Animalia
<i>Dictyopteris australis</i>	ALGA		Protozoa
<i>Dictyopteris woodwardia</i>	ALGA		Protozoa
<i>Dictyosphaeria cavernosa</i>	ALGA		Plantae
<i>Dictyota ciliolata</i>	ALGA		Protozoa
<i>Dictyota</i> sp.	ALGA		Animalia
<i>Didymothallus mizolepis</i>	FISH		Animalia
<i>Digenea simplex</i>	ALGA		Plantae
<i>Digitaria bicornis</i>	MONOCOT		Plantae
<i>Digitaria ciliaris</i>	MONOCOT		Plantae
<i>Dinematichthys trilobatus</i>	FISH		Animalia
<i>Dioscorea bulbifera</i>	MONOCOT		Plantae
<i>Dioscorea transversa</i>	MONOCOT		Plantae
<i>Diospyros humilis</i>	DICOT		Plantae
<i>Diospyros rugosula</i>	DICOT		Plantae
<i>Diploicia canescens</i>	LICHEN		Fungi
<i>Diporiphora pindan</i>	REPTILE		Animalia
<i>Dirinaria applanata</i>	LICHEN		Fungi
<i>Dirinaria confluens</i>	LICHEN		Fungi
<i>Dirinaria picta</i>	LICHEN		Fungi
<i>Dirinaria</i> sp.	LICHEN		Fungi
<i>Dischistodus darwiniensis</i>	FISH		Animalia
<i>Dischistodus fasciatus</i>	FISH		Animalia
<i>Distimake dissectus</i> var. <i>dissectus</i>	DICOT		Plantae
<i>Dodonaea hispidula</i> var. <i>arida</i>	DICOT		Plantae
<i>Dodonaea platyptera</i>	DICOT		Plantae
<i>Dodonaea viscosa</i>	DICOT		Plantae
<i>Drosera broomensis</i>	DICOT		Plantae
<i>Dugong dugon</i>	MAMMAL	MI	Animalia
<i>Ectrosia schultzei</i> var. <i>annua</i>	MONOCOT		Plantae
<i>Egretta garzetta</i>	BIRD		Animalia
<i>Egretta novaehollandiae</i>	BIRD		Animalia
<i>Egretta sacra</i>	BIRD		Animalia
<i>Ehretia saligna</i>	DICOT		Plantae
<i>Ehretia saligna</i> var. <i>saligna</i>	DICOT		Plantae
<i>Elanus axillaris</i>	BIRD		Animalia
<i>Elanus caeruleus</i>	BIRD		Animalia
<i>Elseyornis melanops</i>	BIRD		Animalia
<i>Endosiphonia</i> sp.	ALGA		Plantae
<i>Endosiphonia spinuligera</i>	ALGA		Plantae
<i>Enhalus acoroides</i>	MONOCOT		Plantae
<i>Enhalus</i> sp.	MONOCOT		Plantae
<i>Enneapogon pallidus</i>	MONOCOT		Plantae
<i>Enneapterygius</i> sp.	FISH		Animalia
<i>Enteropogon dolichostachyus</i>	MONOCOT		Plantae
<i>Eolophus roseicapillus</i>	BIRD		Animalia
<i>Eopsaltria pulverulenta</i>	BIRD		Animalia
<i>Ephippiorhynchus asiaticus</i>	BIRD		Animalia
<i>Ephippiorhynchus asiaticus</i> subsp. <i>australis</i>	BIRD		Animalia
<i>Epinephelus coioides</i>	FISH		Animalia
<i>Epinephelus corallicola</i>	FISH		Animalia
<i>Epinephelus ongus</i>	FISH		Animalia
<i>Epinephelus quoyanus</i>	FISH		Animalia
<i>Eragrostis cumingii</i>	MONOCOT		Plantae
<i>Eragrostis falcata</i>	MONOCOT		Plantae
<i>Eragrostis setifolia</i>	MONOCOT		Plantae
<i>Eragrostis speciosa</i>	MONOCOT		Plantae
<i>Eremiascincus isolepis</i>	REPTILE		Animalia
<i>Eremiascincus isolepis</i>	REPTILE		Animalia

<i>Eriachne ciliata</i>	MONOCOT		Plantae
<i>Eriachne melicacea</i>	MONOCOT		Plantae
<i>Eriachne obtusa</i>	MONOCOT		Plantae
<i>Eriachne pindanica</i>	MONOCOT		Plantae
<i>Erythrodictyon</i> sp.	LICHEN		Fungi
<i>Erythrura gouldiae</i>	BIRD	P4	Animalia
<i>Esacus magnirostris</i>	BIRD		Animalia
<i>Esacus neglectus</i>	BIRD		Animalia
<i>Eucalyptus brachyandra</i>	DICOT		Plantae
<i>Eucalyptus miniata</i>	DICOT		Plantae
<i>Eucalyptus tectifera</i>	DICOT		Plantae
<i>Eucheuma arnoldii</i>	ALGA		Plantae
<i>Eucheuma denticulatum</i>	ALGA		Plantae
<i>Eucheuma</i> sp.	ALGA		Animalia
<i>Eulabeornis castaneoventris</i> subsp. <i>castaneoventris</i>	BIRD		Animalia
<i>Euphorbia alsiniflora</i>	DICOT		Plantae
<i>Euphorbia armstrongiana</i> var. <i>distans</i>	DICOT		Plantae
<i>Euphorbia hassallii</i>	DICOT		Plantae
<i>Euphorbia hirta</i>	DICOT		Plantae
<i>Euphorbia mitchelliana</i> var. <i>mitchelliana</i>	DICOT		Plantae
<i>Euphorbia myrtilloides</i>	DICOT		Plantae
<i>Euphorbia trigonosperma</i>	DICOT		Plantae
<i>Eurostopodus argus</i>	BIRD		Animalia
<i>Eurystomus orientalis</i>	BIRD		Animalia
<i>Evolvulus alsinoides</i> var. <i>decumbens</i>	DICOT		Plantae
<i>Excoecaria ovalis</i>	DICOT		Plantae
<i>Exocarpos latifolius</i>	DICOT		Plantae
<i>Exophyllum wentii</i>	ALGA		Plantae
<i>Falco berigora</i>	BIRD		Animalia
<i>Falco cenchroides</i>	BIRD		Animalia
<i>Falco cenchroides</i> subsp. <i>cenchrus</i>	BIRD		Animalia
<i>Falco longipennis</i>	BIRD		Animalia
<i>Falco peregrinus</i>	BIRD	OS	Animalia
<i>Favonigobius</i> n. sp.	FISH		Animalia
<i>Feldmannia mitchelliae</i>	ALGA		Protozoa
<i>Ficus aculeata</i> var. <i>indecora</i>	DICOT		Plantae
<i>Ficus atricha</i>	DICOT		Plantae
<i>Ficus brachypoda</i>	DICOT		Plantae
<i>Ficus geniculata</i> var. <i>insignis</i>	DICOT		Plantae
<i>Ficus opposita</i> var. <i>indecora</i>	DICOT		Plantae
<i>Ficus platypoda</i>	DICOT		Plantae
<i>Ficus virens</i>	DICOT		Plantae
<i>Ficus virens</i> var. <i>virens</i>	DICOT		Plantae
<i>Fimbristylis crosslandii</i>	MONOCOT		Plantae
<i>Fimbristylis cymosa</i>	MONOCOT		Plantae
<i>Fimbristylis depauperata</i>	MONOCOT		Plantae
<i>Fimbristylis ferruginea</i>	MONOCOT		Plantae
<i>Fimbristylis sericea</i>	MONOCOT		Plantae
<i>Fioria vitifolia</i>	DICOT		Plantae
<i>Fistularia commersonii</i>	FISH		Animalia
<i>Flagellaria indica</i>	MONOCOT		Plantae
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	DICOT		Plantae
<i>Fordonia leucobalia</i>	REPTILE		Animalia
<i>Fowleria aurita</i>	FISH		Animalia
<i>Fregata ariel</i>	BIRD	MI	Animalia
<i>Fuirena ciliaris</i>	MONOCOT		Plantae
<i>Furina ornata</i>	REPTILE		Animalia
<i>Galactia tenuiflora</i>	DICOT		Plantae
<i>Galaxaura rugosa</i>	ALGA		Plantae

Galaxaura sp.	ALGA		Animalia
Gallirallus philippensis subsp. mellori	BIRD		Animalia
Ganonema farinosum	ALGA		Plantae
Ganonema pinnatum	ALGA		Plantae
Ganonema sp.	ALGA		Plantae
Gardenia pyriformis subsp. keartlandii	DICOT		Plantae
Gardenia pyriformis subsp. pyriformis	DICOT		Plantae
Gardenia resinosa subsp. resinosa	DICOT		Plantae
Gehyra australis	REPTILE		Animalia
Gehyra nana	REPTILE		Animalia
Gehyra occidentalis	REPTILE		Animalia
Gehyra pilbara	REPTILE		Animalia
Gehyra variegata	REPTILE		Animalia
Gelidiella acerosa	ALGA		Plantae
Gelidiella sp.	ALGA		Animalia
Gelidiopsis sp.	ALGA		Animalia
Gelidium sp.	ALGA		Animalia
Gelochelidon nilotica	BIRD	MI	Animalia
Geopelia cuneata	BIRD		Animalia
Geopelia humeralis	BIRD		Animalia
Geopelia striata	BIRD		Animalia
Geopelia striata subsp. placida	BIRD		Animalia
Gerres oyena	FISH		Animalia
Gerres sp.	FISH		Animalia
Gerygone chloronotus subsp. chloronotus	BIRD		Animalia
Gerygone levigaster	BIRD		Animalia
Gerygone levigaster subsp. levigaster	BIRD		Animalia
Gerygone magnirostris subsp. magnirostris	BIRD		Animalia
Gerygone tenebrosa	BIRD		Animalia
Glinus oppositifolius	DICOT		Plantae
Glycine tomentella	DICOT		Plantae
Glycosmis trifoliata	DICOT		Plantae
Gnatholepis argus	FISH		Animalia
Gobiid n. sp.	FISH		Animalia
Gobiid sp.	FISH		Animalia
Gobiodon quinquestrigatus	FISH		Animalia
Gomphrena brachystylis subsp. pindanensis	DICOT		Plantae
Gomphrena celosioides	DICOT		Plantae
Gomphrena connata	DICOT		Plantae
Gomphrena diffusa	DICOT		Plantae
Gomphrena diffusa subsp. arenicola	DICOT		Plantae
Gomphrena flaccida	DICOT		Plantae
Gomphrena sp.	DICOT		Plantae
Gonocarpus leptothecus	DICOT		Plantae
Goodenia coronopifolia	DICOT		Plantae
Goodenia sepalosa var. sepalosa	DICOT		Plantae
Gossypium populifolium	DICOT		Plantae
Gracilaria canaliculata	ALGA		Plantae
Gracilaria edulis	ALGA		Plantae
Gracilaria salicornia	ALGA		Plantae
Gracilaria sp.	ALGA		Animalia
Gracilaria textorii	ALGA		Plantae
Grallina cyanoleuca	BIRD		Animalia
Graphidastra multiformis	LICHEN		Fungi
Graphis sp.	LICHEN		Fungi
Grevillea heliosperma	DICOT		Plantae
Grevillea pyramidalis	DICOT		Plantae
Grevillea pyramidalis subsp. pyramidalis	DICOT		Plantae
Grevillea refracta subsp. refracta	DICOT		Plantae

<i>Grevillea wickhamii</i> subsp. <i>wickhamii</i>	DICOT		Plantae
<i>Grewia breviflora</i>	DICOT		Plantae
<i>Grewia glabra</i>	DICOT		Plantae
<i>Grewia</i> sp.	DICOT		Plantae
<i>Griffithsia</i> sp.	ALGA		Plantae
<i>Grus rubicunda</i>	BIRD		Animalia
<i>Gymnanthera oblonga</i>	DICOT		Plantae
<i>Gyrocarpus americanus</i>	DICOT		Plantae
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	DICOT		Plantae
<i>Gyrostemon tepperi</i>	DICOT		Plantae
<i>Haematopus fuliginosus</i>	BIRD		Animalia
<i>Haematopus fuliginosus</i> subsp. <i>ophthalmicus</i>	BIRD		Animalia
<i>Haematopus longirostris</i>	BIRD		Animalia
<i>Haemodorum capitatum</i>	MONOCOT	P1	Plantae
<i>Hakea arborescens</i>	DICOT		Plantae
<i>Hakea macrocarpa</i>	DICOT		Plantae
<i>Haliaeetus leucogaster</i>	BIRD		Animalia
<i>Haliastur indus</i>	BIRD		Animalia
<i>Haliastur sphenurus</i>	BIRD		Animalia
<i>Halichoeres melanurus</i>	FISH		Animalia
<i>Halichoeres nigrescens</i>	FISH		Animalia
<i>Halimeda cylindracea</i>	ALGA		Plantae
<i>Halimeda discoidea</i>	ALGA		Plantae
<i>Halimeda macroloba</i>	ALGA		Plantae
<i>Halimeda opuntia</i>	ALGA		Plantae
<i>Halimeda simulans</i>	ALGA		Plantae
<i>Halimeda</i> sp.	ALGA		Animalia
<i>Halimeda velasquezii</i>	ALGA		Plantae
<i>Halimeda xishaensis</i>	ALGA		Plantae
<i>Halodule uninervis</i>	MONOCOT		Plantae
<i>Halophila ovalis</i>	MONOCOT		Plantae
<i>Halophila</i> sp.	MONOCOT		Plantae
<i>Halophryne diemensis</i>	FISH		Animalia
<i>Halymenia dilatata</i>	ALGA		Plantae
<i>Halymenia durvillei</i>	ALGA		Plantae
<i>Halymenia maculata</i>	ALGA		Plantae
<i>Halymenia</i> sp.	ALGA		Animalia
<i>Haraldiophyllum</i> sp.	ALGA		Plantae
<i>Helicteres rhynchocarpa</i>	DICOT		Plantae
<i>Heliotropium diversifolium</i>	DICOT		Plantae
<i>Heliotropium foliatum</i>	DICOT		Plantae
<i>Heliotropium glabellum</i>	DICOT		Plantae
<i>Heliotropium leptaleum</i>	DICOT		Plantae
<i>Heliotropium microsalsoloides</i>	DICOT		Plantae
<i>Heliotropium ovalifolium</i>	DICOT		Plantae
<i>Heliotropium paniculatum</i>	DICOT		Plantae
<i>Heliotropium ramulipatens</i>	DICOT		Plantae
<i>Hemichroa diandra</i>	DICOT		Plantae
<i>Hennedya crispa</i>	ALGA		Plantae
<i>Herissantia crispa</i>	DICOT		Plantae
<i>Heteronotia binoei</i>	REPTILE		Animalia
<i>Heteropogon contortus</i>	MONOCOT		Plantae
<i>Heterosiphonia crassipes</i>	ALGA		Plantae
<i>Heterosiphonia</i> sp.	ALGA		Animalia
<i>Hibiscus apodus</i>	DICOT		Plantae
<i>Hibiscus geranioides</i>	DICOT		Plantae
<i>Hibiscus leptocladus</i>	DICOT		Plantae
<i>Hibiscus meraukensis</i>	DICOT		Plantae
<i>Hibiscus vitifolius</i>	DICOT		Plantae

Hormophysa cuneiformis	ALGA		Protozoa
Hybanthus aurantiacus	DICOT		Plantae
Hybanthus enneaspermus	DICOT		Plantae
Hybanthus enneaspermus subsp. enneaspermus	DICOT		Plantae
Hydroclathrus clathratus	ALGA		Protozoa
Hydroclathrus sp.	ALGA		Protozoa
Hydrolithon / Lithophyllum sp.	ALGA		Plantae
Hydrolithon reinboldii	ALGA		Plantae
Hydroprogne caspia	BIRD	MI	Animalia
Hydropuntia urvillei	ALGA		Plantae
Hypnea pannosa	ALGA		Plantae
Hypnea sp.	ALGA		Animalia
Hypnea spinella	ALGA		Plantae
Hypoatherina temminckii	FISH		Animalia
Hypocenomyce sp.	LICHEN		Fungi
Hypoglossum harveyanum	ALGA		Plantae
Hyporhamphus quoyi	FISH		Animalia
Indigofera colutea	DICOT		Plantae
Indigofera haplophylla	DICOT		Plantae
Indigofera hirsuta	DICOT		Plantae
Indigofera linifolia	DICOT		Plantae
Indigofera linnaei	DICOT		Plantae
Ipomoea coptica	DICOT		Plantae
Ipomoea macrantha	DICOT		Plantae
Ipomoea muelleri	DICOT		Plantae
Ipomoea pes-caprae subsp. brasiliensis	DICOT		Plantae
Ipomoea polymorpha	DICOT		Plantae
Ischaemum australe var. arundinaceum	MONOCOT		Plantae
Istiblennius meleagris	FISH		Animalia
Istiblennius meleagris?	FISH		Animalia
Istigobius ornatus	FISH		Animalia
Jacquemontia browniana	DICOT		Plantae
Jacquemontia paniculata	DICOT		Plantae
Jania adhaerens	ALGA		Plantae
Jasminum didymum subsp. didymum	DICOT		Plantae
Jasminum didymum subsp. lineare	DICOT		Plantae
Jasminum molle	DICOT		Plantae
Jatropha gossypifolia	DICOT		Plantae
Josephinia eugeniae	DICOT		Plantae
Kappaphycus sp.	ALGA		Plantae
Lalage leucomela	BIRD		Animalia
Lantana camara	DICOT		Plantae
Larus novaehollandiae subsp. novaehollandiae	BIRD		Animalia
Laurencia brongniartii	ALGA		Plantae
Laurencia dendroidea	ALGA		Plantae
Laurencia heteroclada	ALGA		Plantae
Laurencia intricata	ALGA		Plantae
Laurencia majuscula	ALGA		Plantae
Laurencia papillosa	ALGA		Plantae
Laurencia sp.	ALGA		Animalia
Lecania sp.	LICHEN		Fungi
Lecanora sp.	LICHEN		Fungi
Lepidochelys olivacea	REPTILE	EN	Animalia
Lerista apoda	REPTILE		Animalia
Lerista bipes	REPTILE		Animalia
Lerista griffini	REPTILE		Animalia
Lethrinus laticaudis	FISH		Animalia
Leucaena leucocephala	DICOT		Plantae
Liagora ceranoides	ALGA		Plantae

Liagora sp.	ALGA		Animalia
Lialis burtonis	REPTILE		Animalia
Liasis olivaceus subsp. olivaceus	REPTILE		Animalia
Lichenostomus flavescens	BIRD		Animalia
Lichenostomus flavescens subsp. flavescens	BIRD		Animalia
Lichenostomus unicolor	BIRD		Animalia
Lichenostomus virescens	BIRD		Animalia
Lichmera indistincta	BIRD		Animalia
Lichmera indistincta subsp. indistincta	BIRD		Animalia
Limosa lapponica	BIRD	MI	Animalia
Limosa limosa	BIRD	MI	Animalia
Lithophyllum frutescens	ALGA		Plantae
Lithophyllum kotschyannum	ALGA		Plantae
Lithothelium nanosporum	LICHEN		Fungi
Litoria caerulea	AMPHI		Animalia
Liza vaigiensis	FISH		Animalia
Lobophora variegata	ALGA		Protozoa
Lonchura castaneothorax	BIRD		Animalia
Lophiocharon trisignatus	FISH		Animalia
Lophostemon grandiflorus subsp. grandiflorus	DICOT	P3	Plantae
Ludwigia perennis	DICOT		Plantae
Lumnitzera racemosa	DICOT		Plantae
Lutjanus carponotatus	FISH		Animalia
Lutjanus russellii	FISH		Animalia
Luvunga monophylla	DICOT		Plantae
Lysiana spathulata subsp. spathulata	DICOT		Plantae
Macroglossus minimus	MAMMAL		Animalia
Macroptilium atropurpureum	DICOT		Plantae
Macropus sp.	MAMMAL		Animalia
Macrotis lagotis	MAMMAL	VU	Animalia
Mallotus nesophilus	DICOT		Plantae
Malurus lamberti	BIRD		Animalia
Malurus melanocephalus	BIRD		Animalia
Mangifera indica	DICOT		Plantae
Marsdenia geminata	DICOT		Plantae
Martensia fragilis	ALGA		Plantae
Martensia fragilis / australis	ALGA		Plantae
Martensia sp.	ALGA		Animalia
Mastophora multistrata	ALGA		Plantae
Mastophora rosea	ALGA		Plantae
Megathyrsus maximus	MONOCOT		Plantae
Melaleuca alsophila	DICOT		Plantae
Melaleuca dealbata	DICOT		Plantae
Melanodryas cucullata	BIRD		Animalia
Melhania oblongifolia	DICOT		Plantae
Melia azedarach	DICOT		Plantae
Melithreptus albogularis	BIRD		Animalia
Melithreptus gularis	BIRD		Animalia
Melithreptus gularis subsp. laetior	BIRD		Animalia
Melochia corchorifolia	DICOT		Plantae
Melomys burtoni	MAMMAL		Animalia
Melopsittacus undulatus	BIRD		Animalia
Merops ornatus	BIRD		Animalia
Merremia incisa	DICOT		Plantae
Mesosphaerum suaveolens	DICOT		Plantae
Microcarbo melanoleucos	BIRD		Animalia
Microdesmid sp.	FISH		Animalia
Microdictyon umbilicatum	ALGA		Plantae
Microeca fascinans	BIRD		Animalia

<i>Microeca fascinans</i> subsp. <i>assimilis</i>	BIRD		Animalia
<i>Microeca flavigaster</i>	BIRD		Animalia
<i>Microeca flavigaster</i> subsp. <i>tormenti</i>	BIRD		Animalia
<i>Microstachys chamaelea</i>	DICOT		Plantae
<i>Milvus migrans</i>	BIRD		Animalia
<i>Mimulus uvedaliae</i> var. <i>uvedaliae</i>	DICOT		Plantae
<i>Mimusops elengi</i>	DICOT		Plantae
<i>Miniopterus orianae</i>	MAMMAL		Animalia
<i>Miniopterus schreibersii</i>	MAMMAL		Animalia
<i>Miniopterus schreibersii</i> subsp. <i>orianae</i>	MAMMAL		Animalia
<i>Mitrasacme nummularia</i>	DICOT		Plantae
<i>Mitrasacme scriithicola</i>	DICOT		Plantae
<i>Morinda citrifolia</i>	DICOT		Plantae
<i>Mormopterus (Ozimops) cobourgianus</i>	MAMMAL		Animalia
<i>Mormopterus loriae</i>	MAMMAL		Animalia
<i>Muraenichthys</i> sp.	FISH		Animalia
<i>Musa acuminata</i>	MONOCOT		Plantae
<i>Myiagra alecto</i>	BIRD		Animalia
<i>Myiagra alecto</i> subsp. <i>melvillensis</i>	BIRD		Animalia
<i>Myiagra inquieta</i>	BIRD		Animalia
<i>Myiagra rubecula</i>	BIRD		Animalia
<i>Myiagra rubecula</i> subsp. <i>concinna</i>	BIRD		Animalia
<i>Myiagra ruficollis</i>	BIRD		Animalia
<i>Myiagra ruficollis</i> subsp. <i>mimikae</i>	BIRD		Animalia
<i>Myzomela erythrocephala</i>	BIRD		Animalia
<i>Myzomela erythrocephala</i> subsp. <i>erythrocephala</i>	BIRD		Animalia
<i>Neobassia astrocarpa</i>	DICOT		Plantae
<i>Neogoniolithon frutescens</i>	ALGA		Plantae
<i>Neogoniolithon</i> sp.	ALGA		Plantae
<i>Neozziella divaricata</i>	ALGA		Plantae
<i>Neomeris</i> sp.	ALGA		Animalia
<i>Neomeris van-bosseae</i>	ALGA		Plantae
<i>Ninox connivens</i>	BIRD		Animalia
<i>Ninox novaeseelandiae</i> subsp. <i>boobook</i>	BIRD		Animalia
<i>Notograptus</i> sp.	FISH		Animalia
<i>Notoscincus ornatus</i> subsp. <i>wotjulum</i>	REPTILE		Animalia
<i>Numenius madagascariensis</i>	BIRD	CR	Animalia
<i>Numenius minutus</i>	BIRD	MI	Animalia
<i>Numenius phaeopus</i>	BIRD	MI	Animalia
<i>Nycticorax caledonicus</i>	BIRD		Animalia
<i>Nyctophilus arnhemensis</i>	MAMMAL		Animalia
<i>Oedura gracilis</i>	REPTILE		Animalia
<i>Oldenlandia corymbosa</i> var. <i>corymbosa</i>	DICOT		Plantae
<i>Oldenlandia galioides</i>	DICOT		Plantae
<i>Oldenlandia mitrasacmoides</i>	DICOT		Plantae
<i>Omobranchus germaini</i>	FISH		Animalia
<i>Omobranchus lineolatus</i>	FISH		Animalia
<i>Onychoprion anaethetus</i>	BIRD	MI	Animalia
<i>Onychoprion fuscata</i>	BIRD		Animalia
<i>Operculina aequisejala</i>	DICOT		Plantae
<i>Operculina brownii</i>	DICOT		Plantae
<i>Opisthognathus darwiniensis</i>	FISH		Animalia
<i>Orcaella heinsohni</i>	MAMMAL	MI & P4	Animalia
<i>Oriolus flavocinctus</i>	BIRD		Animalia
<i>Oriolus sagittatus</i>	BIRD		Animalia
<i>Osbornia octodonta</i>	DICOT		Plantae
<i>Owenia reticulata</i>	DICOT		Plantae
<i>Owenia vernicosa</i>	DICOT		Plantae
<i>Ozimops cobourgianus</i>	MAMMAL		Animalia

<i>Pachycephala lanioides</i>	BIRD		Animalia
<i>Pachycephala melanura</i>	BIRD		Animalia
<i>Pachycephala melanura</i> subsp. <i>melanura</i>	BIRD		Animalia
<i>Pachycephala rufiventris</i>	BIRD		Animalia
<i>Pachycephala rufiventris</i> subsp. <i>rufiventris</i>	BIRD		Animalia
<i>Padina australis</i>	ALGA		Protozoa
<i>Padina boryana</i>	ALGA		Protozoa
<i>Padina</i> sp.	ALGA		Animalia
<i>Palisada perforata</i>	ALGA		Plantae
<i>Pandanus</i> sp.	MONOCOT		Plantae
<i>Pandanus spiralis</i>	MONOCOT		Plantae
<i>Pandion haliaetus</i>	BIRD	MI	Animalia
			Animalia
<i>Pandion haliaetus</i> subsp. <i>cristatus</i>	BIRD		Animalia
<i>Panicum decompositum</i>	MONOCOT		Plantae
<i>Panicum laevinode</i>	MONOCOT		Plantae
<i>Panicum schinzii</i>	MONOCOT		Plantae
<i>Paracentropogon vespa</i>	FISH		Animalia
<i>Parachaetodon ocellatus</i>	FISH		Animalia
<i>Paradiplogrammus enneactis</i>	FISH		Animalia
<i>Paraplotosus albilabris</i>	FISH		Animalia
<i>Pardalotus rubricatus</i>	BIRD		Animalia
<i>Pardalotus striatus</i>	BIRD		Animalia
<i>Parinari nonda</i>	DICOT		Plantae
<i>Parsonsia kimberleyensis</i>	DICOT	P1	Plantae
<i>Paspalidium rarum</i>	MONOCOT		Plantae
<i>Passiflora foetida</i>	DICOT		Plantae
<i>Passiflora foetida</i> var. <i>hispida</i>	DICOT		Plantae
<i>Pavetta kimberleyana</i>	DICOT		Plantae
<i>Pelates quadrilineatus</i>	FISH		Animalia
<i>Pelecanus conspicillatus</i>	BIRD		Animalia
<i>Periophthalmus argentilineatus</i>	FISH		Animalia
<i>Perotis rara</i>	MONOCOT		Plantae
<i>Persoonia falcata</i>	DICOT		Plantae
<i>Pertusaria leioplacella</i>	LICHEN		Fungi
<i>Pertusaria</i> sp.	LICHEN		Fungi
<i>Pertusaria thiospoda</i>	LICHEN		Fungi
<i>Petrochelidon nigricans</i>	BIRD		Animalia
<i>Petroica cucullata</i>	BIRD		Animalia
<i>Phaethon rubricauda</i>	BIRD	MI & P4	Animalia
<i>Phalacrocorax varius</i>	BIRD		Animalia
<i>Phellinus gilvus</i>	FUNGUS		Fungi
<i>Philemon argenticeps</i>	BIRD		Animalia
<i>Philemon argenticeps</i> subsp. <i>argenticeps</i>	BIRD		Animalia
<i>Philemon citreogularis</i>	BIRD		Animalia
<i>Phoma</i> sp.	FUNGUS		Fungi
<i>Phyla nodiflora</i> var. <i>nodiflora</i>	DICOT		Plantae
<i>Phyllanthus baccatus</i>	DICOT		Plantae
<i>Phyllanthus exilis</i>	DICOT		Plantae
<i>Phyllanthus maderaspatensis</i>	DICOT		Plantae
<i>Phyllanthus reticulatus</i>	DICOT		Plantae
<i>Phyllanthus trachygyne</i>	DICOT		Plantae
<i>Physalis angulata</i>	DICOT		Plantae
<i>Pipistrellus westralis</i>	MAMMAL		Animalia
<i>Planchonia careya</i>	DICOT		Plantae
<i>Platalea regia</i>	BIRD		Animalia
<i>Platycephalid</i> sp.	FISH		Animalia
<i>Plectropomus maculatus</i>	FISH		Animalia
<i>Plocamium microcladioides</i>	ALGA		Plantae

Plocamium sp.	ALGA		Animalia
Pluchea longiseta	DICOT		Plantae
Pluchea rubelliflora	DICOT		Plantae
Plumbago zeylanica	DICOT		Plantae
Pluvialis fulva	BIRD	MI	Animalia
Pluvialis squatarola	BIRD	MI	Animalia
Podargus strigoides	BIRD		Animalia
Poephila acuticauda	BIRD		Animalia
Pogona minor subsp. mitchelli	REPTILE		Animalia
Polycarpaea involucrata	DICOT		Plantae
Polycarpaea longiflora	DICOT		Plantae
Polygala tepperi	DICOT		Plantae
Polymeria ambigua	DICOT		Plantae
Polysiphonia blandii	ALGA		Plantae
Polysiphonia sp.	ALGA		Animalia
Polysiphonia subtilissima	ALGA		Plantae
Pomacentrus littoralis	FISH		Animalia
Pomacentrus milleri	FISH		Animalia
Pomatostomus temporalis	BIRD		Animalia
Porina sp.	LICHEN		Animalia
Porolithon onkodes	ALGA		Plantae
Porolithon pachydermum	ALGA		Plantae
Porolithon samoense	ALGA		Plantae
Porolithon sp.	ALGA		Plantae
Portieria hornemannii	ALGA		Plantae
Portulaca bicolor	DICOT		Plantae
Portulaca filifolia	DICOT		Plantae
Portulaca napiformis	DICOT		Plantae
Portulaca oleracea	DICOT		Plantae
Portulaca pilosa	DICOT		Plantae
Portulaca sp.	DICOT		Plantae
Porzana tabuensis	BIRD		Animalia
Posidonia sp.	MONOCOT		Plantae
Premna acuminata	DICOT		Plantae
Premna sp.	DICOT		Plantae
Psammoperca waigiensis	FISH		Animalia
Pseudantechinus ningbing	MAMMAL		Animalia
Pseudechis australis	REPTILE		Animalia
Pseudechis weigeli	REPTILE		Animalia
Pseudomys delicatulus	MAMMAL		Animalia
Pseudonaja mengdeni	REPTILE		Animalia
Psydrax pendulina	DICOT		Plantae
Pterapogon mirifica	FISH		Animalia
Ptereleotris microlepis	FISH		Animalia
Pterocaulon paradoxum	DICOT		Plantae
Pterocaulon sp.	DICOT		Plantae
Pterocaulon sphacelatum	DICOT		Plantae
Pterocaulon tricholobum	DICOT		Plantae
Pterocladia caerulescens	ALGA		Plantae
Pteropus alecto	MAMMAL		Animalia
Ptilinopus regina	BIRD		Animalia
Ptilinopus regina subsp. ewingii	BIRD		Animalia
Ptilonorhynchus nuchalis	BIRD		Animalia
Ptilonorhynchus nuchalis subsp. nuchalis	BIRD		Animalia
Ptilotula flavescens subsp. flavescens	BIRD		Animalia
Ptilotus corymbosus	DICOT		Plantae
Ptilotus exaltatus	DICOT		Plantae
Ptilotus fusiformis	DICOT		Plantae
Ptilotus giganteus	DICOT		Plantae

<i>Ptilotus lanatus</i>	DICOT		Plantae
<i>Ptilotus polystachyus</i>	DICOT		Plantae
<i>Pupalia micrantha</i>	DICOT		Plantae
<i>Pyrenula nitida</i>	LICHEN		Fungi
<i>Pyrenula</i> sp.	LICHEN		Fungi
<i>Ramalina subfraxinea</i> var. <i>norstictica</i>	LICHEN		Fungi
<i>Ramalina subfraxinea</i> var. <i>subfraxinea</i>	LICHEN		Fungi
<i>Ramphotyphlops diversus</i>	REPTILE		Animalia
<i>Ramsayornis fasciatus</i>	BIRD		Animalia
<i>Rattus rattus</i>	MAMMAL		Animalia
<i>Rhipidura albiscapa</i>	BIRD		Animalia
<i>Rhipidura leucophrys</i>	BIRD		Animalia
<i>Rhipidura phasiana</i>	BIRD		Animalia
<i>Rhipidura rufiventris</i>	BIRD		Animalia
<i>Rhipidura rufiventris</i> subsp. <i>isura</i>	BIRD		Animalia
<i>Rhizophora stylosa</i>	DICOT		Plantae
<i>Rhynchosia australis</i>	DICOT		Plantae
<i>Richardia scabra</i>	DICOT		Plantae
<i>Roccella montagnei</i>	LICHEN		Fungi
<i>Rosenvingea intricata</i>	ALGA		Protozoa
<i>Rosenvingea nhatrangensis</i>	ALGA		Protozoa
<i>Rosenvingea</i> sp.	ALGA		Animalia
<i>Ruellia tuberosa</i>	DICOT		Plantae
<i>Saccolaimus flaviventris</i>	MAMMAL		Animalia
<i>Salarias sexfilum</i>	FISH		Animalia
<i>Salsola australis</i>	DICOT		Plantae
<i>Santalum lanceolatum</i>	DICOT		Plantae
<i>Sarcomenia</i> sp.	ALGA		Plantae
<i>Sarconema filiforme</i>	ALGA		Plantae
<i>Sargassopsis decurrens</i>	ALGA		Protozoa
<i>Sargassum aquifolium</i>	ALGA		Protozoa
<i>Sargassum flavicans</i>	ALGA		Protozoa
<i>Sargassum polycystum</i>	ALGA		Protozoa
<i>Sargassum rasta</i>	ALGA		Protozoa
<i>Sargassum</i> sp.	ALGA		Animalia
<i>Sauropus trachyspermus</i>	DICOT		Plantae
<i>Scaevius milii</i>	FISH		Animalia
<i>Scaevola macrostachya</i>	DICOT		Plantae
<i>Scaevola taccada</i>	DICOT		Plantae
<i>Scarus ghobban</i>	FISH		Animalia
<i>Sclerophthora</i> sp.	FUNGUS		Fungi
<i>Scolecenchelys macroptera</i>	FISH		Animalia
<i>Scotorepens greyii</i>	MAMMAL		Animalia
<i>Scythrops novaehollandiae</i>	BIRD		Animalia
<i>Senna costata</i>	DICOT		Plantae
<i>Senna goniodes</i>	DICOT		Plantae
<i>Senna notabilis</i>	DICOT		Plantae
<i>Senna occidentalis</i>	DICOT		Plantae
<i>Senna surattensis</i>	DICOT		Plantae
<i>Senna surattensis</i> subsp. <i>sulfurea</i>	DICOT		Plantae
<i>Senna venusta</i>	DICOT		Plantae
<i>Sersalisia sericea</i>	DICOT		Plantae
<i>Sesbania cannabina</i>	DICOT		Plantae
<i>Sesbania formosa</i>	DICOT		Plantae
<i>Sesuvium portulacastrum</i>	DICOT		Plantae
<i>Setaria apiculata</i>	MONOCOT		Plantae
<i>Sida acuta</i> subsp. <i>acuta</i>	DICOT		Plantae
<i>Sida hackettiana</i>	DICOT		Plantae
<i>Sida intricata</i>	DICOT		Plantae

<i>Sida rohlenae</i> subsp. <i>occidentalis</i>	DICOT		Plantae
<i>Sida</i> sp. Rabbit Flat (B.J. Carter 626)	DICOT		Plantae
<i>Siganus doliatus</i>	FISH		Animalia
<i>Siganus fuscescens</i>	FISH		Animalia
<i>Siganus punctatus</i>	FISH		Animalia
<i>Simoselaps minimus</i>	REPTILE	P2	Animalia
<i>Sirophysalis trinodis</i>	ALGA		Protozoa
<i>Smicromnis brevirostris</i>	BIRD		Animalia
<i>Solanum cunninghamii</i>	DICOT		Plantae
<i>Solanum dioicum</i>	DICOT		Plantae
<i>Solanum petraeum</i>	DICOT		Plantae
<i>Solieria robusta</i>	ALGA		Plantae
<i>Sonneratia alba</i>	DICOT		Plantae
<i>Sorghum ecarinatum</i>	MONOCOT		Plantae
<i>Sorghum interjectum</i>	MONOCOT		Plantae
<i>Sorghum plumosum</i>	MONOCOT		Plantae
<i>Sorghum stipoideum</i>	MONOCOT		Plantae
<i>Sousa chinensis</i>	MAMMAL	MI & P4	Animalia
<i>Spatoglossum</i> sp.	ALGA		Animalia
<i>Spermacoce occidentalis</i>	DICOT		Plantae
<i>Spermacoce</i> sp.	DICOT		Plantae
<i>Sphagneticola trilobata</i>	DICOT		Plantae
<i>Sphecotheres vieilloti</i>	BIRD		Animalia
<i>Spinifex longifolius</i>	MONOCOT		Plantae
<i>Spongophloea tissotii</i>	ALGA		Plantae
<i>Sporisorium ryleyi</i>	FUNGUS		Fungi
<i>Sporobolus virginicus</i>	MONOCOT		Plantae
<i>Sporochnus comosus</i>	ALGA		Protozoa
<i>Spyridia filamentosa</i>	ALGA		Plantae
<i>Spyridia</i> sp.	ALGA		Animalia
<i>Stemodia lythrifolia</i>	DICOT		Plantae
<i>Sterna anaethetus</i>	BIRD		Animalia
<i>Sterna anaethetus</i> subsp. <i>anaethetus</i>	BIRD		Animalia
<i>Sterna bergii</i>	BIRD		Animalia
<i>Sterna dougallii</i>	BIRD	MI	Animalia
<i>Sterna dougallii</i> subsp. <i>gracilis</i>	BIRD		Animalia
<i>Sterna hirundo</i>	BIRD	MI	Animalia
<i>Sterna hirundo</i> subsp. <i>longipennis</i>	BIRD		Animalia
<i>Sternula albifrons</i>	BIRD	MI	Animalia
<i>Stomiopera unicolor</i>	BIRD		Animalia
<i>Stomiopera unicolor</i> subsp. <i>unicolor</i>	BIRD		Animalia
<i>Striga curviflora</i>	DICOT		Plantae
<i>Striga</i> sp.	DICOT		Plantae
<i>Strophurus ciliaris</i> subsp. <i>aberrans</i>	REPTILE		Animalia
<i>Stylidium pindanicum</i>	DICOT	P3	Plantae
<i>Stylosanthes hamata</i>	DICOT		Plantae
<i>Stylosanthes humilis</i>	DICOT		Plantae
<i>Stylosanthes scabra</i>	DICOT		Plantae
<i>Stylosanthes viscosa</i>	DICOT		Plantae
<i>Styopodium flabelliforme</i>	ALGA		Protozoa
<i>Suaeda arbusculoides</i>	DICOT		Plantae
<i>Sula leucogaster</i>	BIRD	MI	Animalia
<i>Sula leucogaster</i> subsp. <i>plotus</i>	BIRD		Animalia
<i>Sus scrofa</i>	MAMMAL		Animalia
<i>Syringodium isoetifolium</i>	MONOCOT		Plantae
<i>Syzygium eucalyptoides</i> subsp. <i>bleeseri</i>	DICOT		Plantae
<i>Syzygium suborbiculare</i>	DICOT		Plantae
<i>Tachybaptus novaehollandiae</i>	BIRD		Animalia
<i>Taeniopygia bichenovii</i>	BIRD		Animalia

Taeniopygia bichenovii subsp. annulosa	BIRD		Animalia
Taeniopygia guttata	BIRD		Animalia
Taeniopygia guttata subsp. castanotis	BIRD		Animalia
Taphozous georgianus	MAMMAL		Animalia
Tecticornia halocnemoides subsp. tenuis	DICOT		Plantae
Tecticornia indica subsp. indica	DICOT		Plantae
Templetonia hookeri	DICOT		Plantae
Tephrosia flammea	DICOT		Plantae
Tephrosia laxa var. angustata	DICOT		Plantae
Tephrosia leptoclada	DICOT		Plantae
Tephrosia rosea	DICOT		Plantae
Tephrosia rosea var. clementii	DICOT		Plantae
Tephrosia rosea var. rosea	DICOT		Plantae
Tephrosia simplicifolia	DICOT		Plantae
Tephrosia sp.	DICOT		Plantae
Tephrosia sp. Pentecost River (I.D. Cowie 4168)	DICOT		Plantae
Tephrosia valleculata	DICOT	P3	Plantae
Tephrosia virens	DICOT		Plantae
Terminalia canescens	DICOT		Plantae
Terminalia ferdinandiana	DICOT		Plantae
Terminalia hadleyana	DICOT		Plantae
Terminalia latipes	DICOT		Plantae
Terminalia petiolaris	DICOT		Plantae
Thalasseus bengalensis	BIRD		Animalia
Thalasseus bergii	BIRD	MI	Animalia
Thalassia hemprichii	MONOCOT		Plantae
Thalassia sp.	MONOCOT		Plantae
Thalassodendron ciliatum	MONOCOT		Plantae
Thespesia populneoides	DICOT		Plantae
Threskiornis molucca	BIRD		Animalia
Threskiornis spinicollis	BIRD		Animalia
Tiliqua multifasciata	REPTILE		Animalia
Tilletia whiteochloae	FUNGUS		Fungi
Tinospora smilacina	DICOT		Plantae
Titanoderma prototypum	ALGA		Plantae
Titanophora calcarea	ALGA		Plantae
Titanophora sp.	ALGA		Plantae
Titanophora weberae	ALGA		Plantae
Todiramphus chloris	BIRD		Animalia
Todiramphus pyrrhopygius	BIRD		Animalia
Todiramphus sanctus	BIRD		Animalia
Todiramphus sanctus subsp. sanctus	BIRD		Animalia
Tolypocladia calodictyon	ALGA		Plantae
Tolypocladia glomerulata	ALGA		Plantae
Tolypocladia sp.	ALGA		Plantae
Trachymene didisoides	DICOT		Plantae
Trema tomentosa	DICOT		Plantae
Trianthema pilosum	DICOT		Plantae
Trianthema portulacastrum	DICOT		Plantae
Tribulopsis angustifolia	DICOT		Plantae
Tribulopsis sp. Koolan Island (K.F. Kenneally 8278)	DICOT	P1	Plantae
Tribulus cistoides	DICOT		Plantae
Tribulus terrestris	DICOT		Plantae
Trichodesma zeylanicum	DICOT		Plantae
Trichogloea requienii	ALGA		Plantae
Trichoglossus haematodus	BIRD		Animalia
Tricleocarpa cylindrica	ALGA		Plantae
Tricleocarpa sp.	ALGA		Plantae
Tridax procumbens	DICOT		Plantae

<i>Tringa brevipes</i>	BIRD	MI & P4	Animalia
<i>Tringa glareola</i>	BIRD	MI	Animalia
<i>Tringa nebularia</i>	BIRD	MI	Animalia
<i>Tringa totanus</i>	BIRD	MI	Animalia
<i>Triodia acutispicula</i>	MONOCOT	P3	Plantae
<i>Triodia bynoei</i>	MONOCOT		Plantae
<i>Triodia pungens</i>	MONOCOT		Plantae
<i>Triodia sp.</i>	MONOCOT		Plantae
<i>Triumfetta breviaculeata</i>	DICOT		Plantae
<i>Triumfetta carteri</i>	DICOT		Plantae
<i>Triumfetta micracantha</i>	DICOT		Plantae
<i>Triumfetta plumigera</i>	DICOT		Plantae
<i>Triumfetta ryeae</i>	DICOT		Plantae
<i>Triumfetta sp.</i>	DICOT		Plantae
<i>Triumfetta sp.nova</i>	DICOT		Plantae
<i>Triumfetta triandra</i>	DICOT		Plantae
<i>Trypethelium eluteriae</i>	LICHEN		Fungi
<i>Turbinaria gracilis</i>	ALGA		Protozoa
<i>Turbinaria ornata</i>	ALGA		Protozoa
<i>Turbinaria sp.</i>	ALGA		Animalia
<i>Turnix castanotus</i>	BIRD		Animalia
<i>Turnix maculosa</i>	BIRD		Animalia
<i>Turnix velox</i>	BIRD		Animalia
<i>Tursiops aduncus</i>	MAMMAL	MI	Animalia
<i>Tylosurus sp.</i>	FISH		Animalia
<i>Udotea argentea</i>	ALGA		Plantae
<i>Udotea flabellum</i>	ALGA		Plantae
<i>Udotea glaucescens</i>	ALGA		Plantae
<i>Udotea sp.</i>	ALGA		Animalia
<i>Ulva sp.</i>	ALGA		Animalia
<i>Upeneus tragula</i>	FISH		Animalia
<i>Urochloa mosambicensis</i>	MONOCOT		Plantae
<i>Urochloa subquadripara</i>	MONOCOT		Plantae
<i>Utricularia bidentata</i>	DICOT	P3	Plantae
<i>Valamugil buchanani</i>	FISH		Animalia
<i>Valenciennea longipinnis</i>	FISH		Animalia
<i>Valenciennea muralis</i>	FISH		Animalia
<i>Valonia fastigiata</i>	ALGA		Plantae
<i>Valonia ventricosa</i>	ALGA		Plantae
<i>Valoniopsis pachynema</i>	ALGA		Plantae
<i>Vanvoorstia coccinea</i>	ALGA		Plantae
<i>Vanvoorstia spectabilis</i>	ALGA		Plantae
<i>Varanus glauerti</i>	REPTILE		Animalia
<i>Varanus glebopalma</i>	REPTILE		Animalia
<i>Varanus gouldii</i>	REPTILE		Animalia
<i>Velleia panduriformis</i>	DICOT		Plantae
<i>Verrucisporota sp.</i>	FUNGUS		Fungi
<i>Vespadelus caurinus</i>	MAMMAL		Animalia
<i>Vigna lanceolata var. filiformis</i>	DICOT		Plantae
<i>Vigna radiata</i>	DICOT		Plantae
<i>Vigna radiata var. sublobata</i>	DICOT		Plantae
<i>Vigna vexillata</i>	DICOT		Plantae
<i>Vigna vexillata var. youngeana</i>	DICOT		Plantae
<i>Vigna vexillata var. youngiana (see notes under Comments)</i>	DICOT		Plantae
<i>Vincetoxicum carnosum</i>	DICOT		Plantae
<i>Vincetoxicum cinerascens</i>	DICOT		Plantae
<i>Vincetoxicum flexuosum</i>	DICOT		Plantae
<i>Vitex glabrata</i>	DICOT		Plantae
<i>Vitex trifolia var. subtrisecta</i>	DICOT		Plantae

Waltheria indica	DICOT		Plantae
Whiteochloa airoides	MONOCOT		Plantae
Wrangelia sp.	ALGA		Animalia
Wrightia saligna	DICOT		Plantae
Xenostegia tridentata	DICOT		Plantae
Xenus cinereus	BIRD	MI	Animalia
Xerochloa imberbis	MONOCOT		Plantae
Xyris complanata	MONOCOT		Plantae
Yakirra pauciflora	MONOCOT		Plantae
Yamadaella caenomyce	ALGA		Plantae
Yongeichthys nebulosus	FISH		Animalia
Zenarchopterus gilli	FISH		Animalia
Zornia chaetophora	DICOT		Plantae
Zornia prostrata var. prostrata	DICOT		Plantae
Zosterops luteus	BIRD		Animalia



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: 01-Dec-2022

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar)	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	34
Listed Migratory Species:	53

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	88
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	2
Habitat Critical to the Survival of Marine Turtles:	1

Extra Information

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

State and Territory Reserves:	2
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	1
Key Ecological Features (Marine):	None
Biologically Important Areas:	26
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [\[Resource Information \]](#)

Name	State	Legal Status	Buffer Status
Natural			
The West Kimberley	WA	Listed place	In feature area

Commonwealth Marine Area [\[Resource Information \]](#)

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In buffer area only

Listed Threatened Ecological Communities [\[Resource Information \]](#)

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

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

Community Name	Threatened Category	Presence Text	Buffer Status
Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula	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			
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat may occur within area	In feature area
Erythrura gouldiae Gouldian Finch [413]	Endangered	Species or species habitat known to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In feature area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	In feature area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat may occur within area	In feature area
FISH			
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

MAMMAL

Scientific Name	Threatened Category	Presence Text	Buffer Status
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Saccolaimus saccolaimus nudicluniatus Bare-rumped Sheath-tailed Bat, Bare-rumped Sheath-tail Bat [66889]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Trichosurus vulpecula arnhemensis Northern Brushtail Possum [83091]	Vulnerable	Species or species habitat may occur within area	In feature area
Xeromys myoides Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat may occur within area	In buffer area only
REPTILE			
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In buffer area only
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Congregation or aggregation known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only
SHARK			
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Glyphis garricki Northern River Shark, New Guinea River Shark [82454]	Endangered	Breeding likely to occur within area	In buffer area only
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Breeding known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding known to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Breeding known to occur within area	In feature area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In buffer area only
Onychoprion anaethetus Bridled Tern [82845]		Breeding known to occur within area	In buffer area only
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only
Sterna dougallii Roseate Tern [817]		Breeding likely to occur within area	In feature area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area	In feature area
Sula sula Red-footed Booby [1023]		Breeding known to occur within area	In feature area
Migratory Marine Species			
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area	In buffer area only
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Dugong dugon Dugong [28]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In buffer area only
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Congregation or aggregation known to occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Breeding known to occur within area	In buffer area only
Mobula alfredi as Manta alfredi Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only
Orcaella heinsohni Australian Snubfin Dolphin [81322]		Breeding known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Breeding known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding known to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area	In buffer area only
Migratory Terrestrial Species			
Cecropis daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area	In feature area
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat may occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat likely to occur within area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only
Cecropis daurica as Hirundo daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Breeding known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In buffer area only
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat may occur within area overfly marine area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat likely to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Onychoprion anaethetus as Sterna anaethetus Bridled Tern [82845]		Breeding known to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Sterna dougallii Roseate Tern [817]		Breeding likely to occur within area	In feature area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area	In feature area
Sula sula Red-footed Booby [1023]		Breeding known to occur within area	In feature area
Thalasseus bergii as Sterna bergii Greater Crested Tern [83000]		Breeding known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Fish			
Campichthys tricarinatus Three-keel Pipefish [66192]		Species or species habitat may occur within area	In buffer area only
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Choeroichthys suillus Pig-snouted Pipefish [66198]		Species or species habitat may occur within area	In buffer area only
Corythoichthys amplexus Fijian Banded Pipefish, Brown-banded Pipefish [66199]		Species or species habitat may occur within area	In buffer area only
Corythoichthys flavofasciatus Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area	In buffer area only
Cosmocampus banneri Roughridge Pipefish [66206]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus excisus Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus janssi Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area	In buffer area only
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area	In buffer area only
Halicampus brocki Brock's Pipefish [66219]		Species or species habitat may occur within area	In buffer area only
Halicampus grayi Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area	In buffer area only
Halicampus nitidus Glittering Pipefish [66224]		Species or species habitat may occur within area	In buffer area only
Halicampus spinirostris Spiny-snout Pipefish [66225]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliichthys taeniophorus Ribbioned Pipehorse, Ribbioned Seadragon [66226]		Species or species habitat may occur within area	In buffer area only
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area	In buffer area only
Hippocampus histrix Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area	In buffer area only
Hippocampus kuda Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area	In buffer area only
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area	In buffer area only
Hippocampus spinosissimus Hedgehog Seahorse [66239]		Species or species habitat may occur within area	In buffer area only
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area	In buffer area only
Micrognathus micronotopterus Tidepool Pipefish [66255]		Species or species habitat may occur within area	In buffer area only
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area	In buffer area only
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area	In buffer area only
Mammal			
Dugong dugon Dugong [28]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Reptile			
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area	In buffer area only
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area	In buffer area only
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area	In buffer area only
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Aipysurus laevis Olive Seasnake [1120]		Species or species habitat may occur within area	In buffer area only
Aipysurus tenuis Brown-lined Seasnake [1121]		Species or species habitat may occur within area	In buffer area only
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only
Chitulia ornata as Hydrophis ornatus Spotted Seasnake, Ornate Reef Seasnake [87377]		Species or species habitat may occur within area	In buffer area only
Crocodylus johnstoni Freshwater Crocodile, Johnston's Crocodile, Johnstone's Crocodile [1773]		Species or species habitat may occur within area	In feature area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area	In buffer area only
Disteira major Olive-headed Seasnake [1124]		Species or species habitat may occur within area	In buffer area only
Emydocephalus annulatus Turtle-headed Seasnake [1125]		Species or species habitat may occur within area	In buffer area only
Ephalophis greyi North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In buffer area only
Hydrelaps darwiniensis Black-ringed Seasnake [1100]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hydrophis elegans Elegant Seasnake [1104]		Species or species habitat may occur within area	In buffer area only
Hydrophis macdowelli as Hydrophis mcdowelli Small-headed Seasnake [75601]		Species or species habitat may occur within area	In buffer area only
Lapemis curtus as Lapemis hardwickii Spine-bellied Seasnake [83554]		Species or species habitat may occur within area	In buffer area only
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Congregation or aggregation known to occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area	In buffer area only

Whales and Other Cetaceans [[Resource Information](#)]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Breeding known to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Orcaella heinsohni as Orcaella brevirostris Australian Snubfin Dolphin [81322]		Breeding known to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories	Buffer Status
Kimberley	Habitat Protection Zone (IUCN IV)	In buffer area only
Kimberley	Multiple Use Zone (IUCN VI)	In buffer area only

Habitat Critical to the Survival of Marine Turtles

Scientific Name	Behaviour	Presence	Buffer Status
May - Jul			
Lepidochelys olivacea Olive Ridley Turtle [1767]	Nesting	Known to occur	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Bardi Jawi	Indigenous Protected Area	WA	In feature area
Swan Island	Nature Reserve	WA	In buffer area only

EPBC Act Referrals					[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
Ocean Barramundi Expansion Project	2022/09272		Assessment	In buffer area only	

Biologically Important Areas				
Scientific Name		Behaviour	Presence	Buffer Status
Dolphins				
Orcaella heinsohni	Australian Snubfin Dolphin [81322]	Breeding	Known to occur	In buffer area only
Orcaella heinsohni	Australian Snubfin Dolphin [81322]	Calving	Known to occur	In buffer area only
Orcaella heinsohni	Australian Snubfin Dolphin [81322]	Foraging (high density prey)	Known to occur	In buffer area only
Sousa chinensis	Indo-Pacific Humpback Dolphin [50]	Foraging (high density prey)	Known to occur	In buffer area only
Tursiops aduncus	Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Known to occur	In buffer area only
Tursiops aduncus	Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Calving	Known to occur	In buffer area only
Tursiops aduncus	Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Foraging	Known to occur	In buffer area only
Dugong				
Dugong dugon	Dugong [28]	Foraging	Likely to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
Marine Turtles			
Natator depressus Flatback Turtle [59257]	Internesting buffer	Known to occur	In buffer area only
River shark			
Pristis clavata Dwarf Sawfish [68447]	Foraging	Known to occur	In buffer area only
Pristis clavata Dwarf Sawfish [68447]	Juvenile	Known to occur	In buffer area only
Pristis clavata Dwarf Sawfish [68447]	Nursing	Known to occur	In buffer area only
Pristis clavata Dwarf Sawfish [68447]	Pupping	Known to occur	In buffer area only
Pristis pristis Freshwater Sawfish [60756]	Foraging	Known to occur	In buffer area only
Pristis pristis Freshwater Sawfish [60756]	Nursing	Likely to occur	In buffer area only
Pristis zijsron Green Sawfish [68442]	Foraging	Known to occur	In buffer area only
Pristis zijsron Green Sawfish [68442]	Pupping	Known to occur	In buffer area only
Seabirds			
Fregata ariel Lesser Frigatebird [1012]	Breeding	Known to occur	In feature area
Fregata minor Greater Frigatebird [1013]	Breeding	Known to occur	In feature area
Sterna dougallii Roseate Tern [817]	Breeding	Known to occur	In feature area
Sternula albifrons sinensis Little Tern [82850]	Breeding	Known to occur	In feature area
Sula sula Red-footed Booby [1023]	Breeding	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Whales			
Megaptera novaeangliae Humpback Whale [38]	Calving	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Migration	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Nursing	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Resting	Known to occur	In buffer area only

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

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

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Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111

TAXON	CLASS	CONS	KINGDOM
Abudefduf bengalensis	FISH		Animalia
Acacia colei var. colei	DICOT		Plantae
Acacia hippuroides	DICOT		Plantae
Acacia monticola	DICOT		Plantae
Acacia neurocarpa	DICOT		Plantae
Acacia platycarpa	DICOT		Plantae
Acacia tumida var. tumida	DICOT		Plantae
Acanthopthirus acinipus	INVERT		Animalia
Acanthurus grammoptilus	FISH		Animalia
Accipiter cirrocephalus	BIRD		Animalia
Accipiter fasciatus	BIRD		Animalia
Acrostichum speciosum	FERN		Plantae
Aegotheles cristatus	BIRD		Animalia
Alabidocarpus chalinolobi	INVERT		Animalia
Albidella oligococca	MONOCOT		Plantae
Albizia canescens	DICOT		Plantae
Albizia procera	DICOT		Plantae
Allonais paraguayensis	INVERT		Animalia
Alternanthera angustifolia	DICOT		Plantae
Ammannia muelleri	DICOT		Plantae
Amphibolurus gilberti	REPTILE		Animalia
Amyema benthamii	DICOT		Plantae
Amyema dolichopoda	DICOT		Plantae
Anacardium occidentale	DICOT		Plantae
Anas superciliosa	BIRD		Animalia
Anisops sp.	INVERT		Animalia
Anopheles sp.	INVERT		Animalia
Aphyllodium glossocarpum	DICOT	P3	Plantae
Apogon cavitiensis	FISH		Animalia
Apogon cookii	FISH		Animalia
Aprosmictus erythropterus	BIRD		Animalia
Apus pacificus	BIRD	MI	Animalia
Ardea intermedia	BIRD		Animalia
Ardea modesta	BIRD		Animalia
Ardea novaehollandiae	BIRD		Animalia
Ardea pacifica	BIRD		Animalia
Ardea picata	BIRD		Animalia
Argiocnemis rubescens	INVERT		Animalia
Argiope aetherea	INVERT		Animalia
Artamus cinereus	BIRD		Animalia
Artamus leucorhynchus	BIRD		Animalia
Artamus minor	BIRD		Animalia
Artamus personatus	BIRD		Animalia
Arundo donax	MONOCOT		Plantae
Asclepias curassavica	DICOT		Plantae
Austronepa angusta	INVERT		Animalia
Avicennia marina	DICOT		Plantae
Bacopa floribunda	DICOT		Plantae
Barbaraella mainae	INVERT		Animalia
Basella alba	DICOT		Plantae
Bathygobius fuscus	FISH		Animalia
Batrachomoeus dahli	FISH		Animalia
Berosus sp.	INVERT		Animalia
Bezzia sp. (not 1 or 2)	INVERT		Animalia
Blennodesmus scapularis	FISH		Animalia
Blumea integrifolia	DICOT		Plantae
Blumea saxatilis	DICOT		Plantae
Blyxa aubertii	MONOCOT		Plantae

<i>Bothriochloa ewartiana</i>	MONOCOT		Plantae
<i>Boydaia podargi</i>	INVERT		Animalia
<i>Brachyuropis roperi</i>	REPTILE		Animalia
<i>Breynia cernua</i>	DICOT		Plantae
<i>Bryaninops loki</i>	FISH		Animalia
<i>Buchnera linearis</i>	DICOT		Plantae
<i>Butorides striata</i>	BIRD		Animalia
<i>Byblis filifolia</i>	DICOT		Plantae
<i>Byblis guehoi</i>	DICOT	P1	Plantae
<i>Bythitid sp.</i>	FISH		Animalia
<i>Cacatua sanguinea</i>	BIRD		Animalia
<i>Cacomantis pallidus</i>	BIRD		Animalia
<i>Cacomantis variolosus</i>	BIRD		Animalia
<i>Calamicoptes meliphagae</i>	INVERT		Animalia
<i>Calandrinia tepperiana</i>	DICOT		Plantae
<i>Callionymus sp.</i>	FISH		Animalia
<i>Callogobius sp.</i>	FISH		Animalia
<i>Calotis breviseta</i>	DICOT		Plantae
<i>Calotis sp.</i>	DICOT		Plantae
<i>Calyptorhynchus banksii</i>	BIRD		Animalia
<i>Calyptorhynchus banksii subsp. macrorhynchus</i>	BIRD		Animalia
<i>Calytrix exstipulata</i>	DICOT		Plantae
<i>Canna x generalis</i>	MONOCOT		Plantae
<i>Caprimuldetes podargi</i>	INVERT		Animalia
<i>Carissa lanceolata</i>	DICOT		Plantae
<i>Carlia munda</i>	REPTILE		Animalia
<i>Carlia triacantha</i>	REPTILE		Animalia
<i>Cartonema parviflorum</i>	MONOCOT		Plantae
<i>Cassia fistula</i>	DICOT		Plantae
<i>Centipeda nidiformis</i>	DICOT		Plantae
<i>Centrolepis exserta</i>	MONOCOT		Plantae
<i>Centropus phasianinus</i>	BIRD		Animalia
<i>Ceratopteris thalictroides</i>	FERN		Plantae
<i>Chaerephon jobensis</i>	MAMMAL		Animalia
<i>Chalinolobus gouldii</i>	MAMMAL		Animalia
<i>Chalinolobus nigrogriseus</i>	MAMMAL		Animalia
<i>Chamaecrista mimosoides</i>	DICOT		Plantae
<i>Chamaecrista moorei</i>	DICOT		Plantae
<i>Charadrius melanops</i>	BIRD		Animalia
<i>Charadrius ruficapillus</i>	BIRD		Animalia
<i>Charadrius veredus</i>	BIRD	MI	Animalia
<i>Chelmon marginalis</i>	FISH		Animalia
<i>Chiodecton sp.</i>	LICHEN		Fungi
<i>Chironomus aff. alternans (V24) (CB)</i>	INVERT		Animalia
<i>Chlamydosaurus kingii</i>	REPTILE		Animalia
<i>Chloris lobata</i>	MONOCOT		Plantae
<i>Choerodon cauteroma</i>	FISH		Animalia
<i>Choerodon cyanodus</i>	FISH		Animalia
<i>Choerodon schoenleinii</i>	FISH		Animalia
<i>Choerodon vitta</i>	FISH		Animalia
<i>Chroicocephalus novaehollandiae</i>	BIRD		Animalia
<i>Chrysococcyx minutillus</i>	BIRD		Animalia
<i>Circus approximans</i>	BIRD		Animalia
<i>Circus assimilis</i>	BIRD		Animalia
<i>Cisticola exilis</i>	BIRD		Animalia
<i>Cisticola exilis subsp. exilis</i>	BIRD		Animalia
<i>Cleome sp.</i>	DICOT		Plantae
<i>Cloeon sp.</i>	INVERT		Animalia
<i>Coenagrionidae sp.</i>	INVERT		Animalia

<i>Colluricincla harmonica</i>	BIRD		Animalia
<i>Colocasia esculenta</i> var. <i>aquatilis</i>	MONOCOT	P3	Plantae
<i>Colurodontis paxmani</i>	FISH		Animalia
<i>Commelina ensifolia</i>	MONOCOT		Plantae
<i>Congrogadus subducens</i>	FISH		Animalia
<i>Conopophila rufogularis</i>	BIRD		Animalia
<i>Coracina novaehollandiae</i>	BIRD		Animalia
<i>Coracina novaehollandiae</i> subsp. <i>novaehollandiae</i>	BIRD		Animalia
<i>Corchorus sidoides</i>	DICOT		Plantae
<i>Corioloopsis floccosus</i>	FUNGUS		Fungi
<i>Corvus bennetti</i>	BIRD		Animalia
<i>Corvus orru</i>	BIRD		Animalia
<i>Corymbia bella</i>	DICOT		Plantae
<i>Corymbia flavescens</i>	DICOT		Plantae
<i>Corymbia greeniana</i>	DICOT		Plantae
<i>Corymbia polycarpa</i>	DICOT		Plantae
<i>Coturnix ypsilophora</i>	BIRD		Animalia
<i>Cracticus nigrogularis</i>	BIRD		Animalia
<i>Craterocephalus</i> sp.	FISH		Animalia
<i>Crotalaria brevis</i>	DICOT		Plantae
<i>Crotalaria pallida</i> var. <i>obovata</i>	DICOT		Plantae
<i>Cryptoblepharus ruber</i>	REPTILE		Animalia
<i>Cryptoblepharus tythos</i>	REPTILE		Animalia
<i>Cryptostegia madagascariensis</i> var. <i>glaberrima</i>	DICOT		Plantae
<i>Ctenotus inornatus</i>	REPTILE		Animalia
<i>Ctenotus serventyi</i>	REPTILE		Animalia
<i>Ctenotus superciliaris</i>	REPTILE		Animalia
<i>Cuculus pallidus</i>	BIRD		Animalia
<i>Cyanotis axillaris</i>	MONOCOT		Plantae
<i>Cyclorana australis</i>	AMPHI		Animalia
<i>Cyclosorus interruptus</i>	FERN		Plantae
<i>Cycnogeton dubium</i>	MONOCOT		Plantae
<i>Cycnogeton lineare</i>	MONOCOT		Plantae
<i>Cymodocea angustata</i>	MONOCOT		Plantae
<i>Cynodon dactylon</i>	MONOCOT		Plantae
<i>Cyperus brevifolius</i>	MONOCOT		Plantae
<i>Cyperus haspan</i> subsp. <i>haspan</i>	MONOCOT	P1	Plantae
<i>Cyperus haspan</i> subsp. <i>juncoides</i>	MONOCOT		Plantae
<i>Cyperus polystachyos</i>	MONOCOT		Plantae
<i>Cyperus</i> sp.	MONOCOT		Plantae
<i>Cyprinotus cingalensis</i> (ex <i>kimberleyensis</i>)	INVERT		Animalia
<i>Cytodites geopeliae</i>	INVERT		Animalia
<i>Dacelo leachii</i>	BIRD		Animalia
<i>Dalbergia laterifolia</i>	DICOT		Plantae
<i>Dalbergia</i> sp.	DICOT		Plantae
<i>Daphoenositta chrysoptera</i>	BIRD		Animalia
<i>Demansia angusticeps</i>	REPTILE		Animalia
<i>Demansia papuensis</i>	REPTILE		Animalia
<i>Dendrophthoe odontocalyx</i>	DICOT	P3	Plantae
<i>Denhamia cunninghamii</i>	DICOT		Plantae
<i>Diancistrus jeffjohnsoni</i>	FISH		Animalia
<i>Dicaeum hirundinaceum</i>	BIRD		Animalia
<i>Didymothallus mizolepis</i>	FISH		Animalia
<i>Digitaria ciliaris</i>	MONOCOT		Plantae
<i>Diodon liturosus</i>	FISH		Animalia
<i>Diplonychus eques</i>	INVERT		Animalia
<i>Diporiphora pindan</i>	REPTILE		Animalia
<i>Diporiphora</i> sp.	REPTILE		Animalia
<i>Dirinaria</i> sp.	LICHEN		Fungi

Dischistodus darwiniensis	FISH		Animalia
Drombus sp.	FISH		Animalia
Drosera broomensis	DICOT		Plantae
Drosera fragrans	DICOT		Plantae
Drosera hartmeyerorum	DICOT		Plantae
Drosera indica	DICOT		Plantae
Dugong dugon	MAMMAL	MI	Animalia
Echinochloa colona	MONOCOT		Plantae
Eclipta platyglossa subsp. borealis	DICOT		Plantae
Ectrosia scabrida	MONOCOT		Plantae
Egretta novaehollandiae	BIRD		Animalia
Eleocharis dulcis	MONOCOT		Plantae
Eleocharis geniculata	MONOCOT		Plantae
Eleocharis sp.	MONOCOT		Plantae
Eleusine indica	MONOCOT		Plantae
Elseornis melanops	BIRD		Animalia
Elytrophorus spicatus	MONOCOT		Plantae
Enithares loria	INVERT		Animalia
Enneapterygius sp.	FISH		Animalia
Enochrus deserticola	INVERT		Animalia
Eolophus roseicapillus	BIRD		Animalia
Ephalophis greyae	REPTILE		Animalia
Ephippiorhynchus asiaticus	BIRD		Animalia
Epinephelus bilobatus	FISH		Animalia
Epinephelus coioides	FISH		Animalia
Epinephelus corallicola	FISH		Animalia
Epinephelus quoyanus	FISH		Animalia
Epipremnum aureum	MONOCOT		Plantae
Eragrostis fallax	MONOCOT		Plantae
Eragrostis sp.	MONOCOT		Plantae
Eremiascincus isolepis	REPTILE		Animalia
Eriachne glauca	MONOCOT		Plantae
Eriachne glauca var. glauca	MONOCOT		Plantae
Eriachne pindanica	MONOCOT		Plantae
Eriocaulon cinereum	MONOCOT		Plantae
Erythrura gouldiae	BIRD	P4	Animalia
Euphorbia hassallii	DICOT		Plantae
Eurystomus orientalis	BIRD		Animalia
Eviota queenslandica	FISH		Animalia
Eviota sp.	FISH		Animalia
Excoecaria ovalis	DICOT		Plantae
Fainocoptes nixoni	INVERT		Animalia
Falco berigora	BIRD		Animalia
Falco cenchroides	BIRD		Animalia
Falco longipennis subsp. longipennis	BIRD		Animalia
Falco peregrinus	BIRD	OS	Animalia
Falco subniger	BIRD		Animalia
Fimbristylis ferruginea	MONOCOT		Plantae
Fimbristylis littoralis	MONOCOT		Plantae
Fimbristylis miliacea	MONOCOT		Plantae
Fimbristylis sp.	MONOCOT		Plantae
Fimbristylis tetragona	MONOCOT		Plantae
Fowleria aurita	FISH		Animalia
Fuirena ciliaris	MONOCOT		Plantae
Furina ornata	REPTILE		Animalia
Gambusia holbrooki	FISH		Animalia
Ganoderma sp.	FUNGUS		Fungi
Gavicalis virescens	BIRD		Animalia
Gehyra pilbara	REPTILE		Animalia

Geopelia cuneata	BIRD		Animalia
Geopelia humeralis	BIRD		Animalia
Geopelia placida	BIRD		Animalia
Geopelia striata	BIRD		Animalia
Gerygone levigaster subsp. levigaster	BIRD		Animalia
Gerygone olivacea	BIRD		Animalia
Gerygone olivacea subsp. rogersi	BIRD		Animalia
Glareola maldivarum	BIRD	MI	Animalia
Glinus oppositifolius	DICOT		Plantae
Glossostigma drummondii	DICOT		Plantae
Glycine pindanica	DICOT	P3	Plantae
Glycine tomentella	DICOT		Plantae
Gobiid sp.	FISH		Animalia
Gomphrena flaccida	DICOT		Plantae
Gomphrena tenella	DICOT		Plantae
Gonocarpus leptothecus	DICOT		Plantae
Goodenia lamprosperma	DICOT		Plantae
Goodenia sepalosa	DICOT		Plantae
Goodenia sp. Dampier Peninsula (B.J. Carter 675)	DICOT		Plantae
Grallina cyanoleuca	BIRD		Animalia
Grevillea pyramidalis subsp. pyramidalis	DICOT		Plantae
Grus rubicunda	BIRD		Animalia
Haemodorum capitatum	MONOCOT	P1	Plantae
Haliastur indus subsp. girrenera	BIRD		Animalia
Haliastur sphenurus	BIRD		Animalia
Halodule uninervis	MONOCOT		Plantae
Halophila minor	MONOCOT		Plantae
Halophila ovalis	MONOCOT		Plantae
Halophila spinulosa	MONOCOT		Plantae
Halophryne diemensis	FISH		Animalia
Hattena panopla	INVERT		Animalia
Heliotropium diversifolium	DICOT		Plantae
Heteronotia binoei	REPTILE		Animalia
Hibiscus meraukensis	DICOT		Plantae
Himantopus himantopus subsp. leucocephalus	BIRD		Animalia
Hirundo ariel	BIRD		Animalia
Hydrochus sp.	INVERT		Animalia
Hydroglyphus godeffroyi	INVERT		Animalia
Hydroglyphus leai	INVERT		Animalia
Hydrometra papuana	INVERT		Animalia
Hypseleotris compressa	FISH		Animalia
Imperata cylindrica	MONOCOT		Plantae
Indigofera haplophylla	DICOT		Plantae
Indigofera hirsuta	DICOT		Plantae
Indigofera linifolia	DICOT		Plantae
Ipomoea optica	DICOT		Plantae
Ipomoea tolmerana subsp. occidentalis	DICOT	P1	Plantae
Istiblennius meleagris	FISH		Animalia
Istigobius nigroocellatus	FISH		Animalia
Istigobius ornatus	FISH		Animalia
Josephinia sp. Northern (T.E.H. Aplin 6360)	DICOT		Plantae
Kiefferulus intertinctus	INVERT		Animalia
Laccophilus sharpi	INVERT		Animalia
Lalage tricolor	BIRD		Animalia
Landoltia punctata	MONOCOT		Plantae
Lantana camara	DICOT		Plantae
Larus novaehollandiae subsp. novaehollandiae	BIRD		Animalia
Larval fish sp.	FISH		Animalia
Leersia hexandra	MONOCOT		Plantae

<i>Lemna aequinoctialis</i>	MONOCOT		Plantae
<i>Lerista bipes</i>	REPTILE		Animalia
<i>Lerista griffini</i>	REPTILE		Animalia
<i>Lethrinus</i> sp.	FISH		Animalia
<i>Lialis burtonis</i>	REPTILE		Animalia
<i>Lichenostomus flavescens</i>	BIRD		Animalia
<i>Lichenostomus unicolor</i>	BIRD		Animalia
<i>Lichenostomus virescens</i>	BIRD		Animalia
<i>Lichmera indistincta</i>	BIRD		Animalia
<i>Lindernia chrysoplectra</i>	DICOT		Plantae
<i>Lindernia clausa</i>	DICOT		Plantae
<i>Lindernia tectanthera</i>	DICOT		Plantae
<i>Liponyssoides lukoschusi</i>	INVERT		Animalia
<i>Litoria caerulea</i>	AMPHI		Animalia
<i>Litoria nasuta</i>	AMPHI		Animalia
<i>Litoria rubella</i>	AMPHI		Animalia
<i>Lonchura castaneothorax</i>	BIRD		Animalia
<i>Lophognathus gilberti</i>	REPTILE		Animalia
<i>Ludwigia octovalvis</i>	DICOT		Plantae
<i>Ludwigia perennis</i>	DICOT		Plantae
<i>Lumnitzera racemosa</i>	DICOT		Plantae
<i>Lygodium microphyllum</i>	FERN		Plantae
<i>Lysiana spathulata</i>	DICOT		Plantae
<i>Lysiana spathulata</i> subsp. <i>spathulata</i>	DICOT		Plantae
<i>Macrotis lagotis</i>	MAMMAL	VU	Animalia
<i>Malurus melanocephalus</i>	BIRD		Animalia
<i>Marsilea hirsuta</i>	FERN		Plantae
<i>Marsilea mutica</i>	FERN		Plantae
<i>Melaleuca alsophila</i>	DICOT		Plantae
<i>Melaleuca cajaputi</i> subsp. <i>cajaputi</i>	DICOT		Plantae
<i>Melaleuca cajuputi</i> subsp. <i>cajuputi</i>	DICOT		Plantae
<i>Melaleuca dealbata</i>	DICOT		Plantae
<i>Melaleuca nervosa</i>	DICOT		Plantae
<i>Melaleuca nervosa</i> subsp. <i>nervosa</i>	DICOT		Plantae
<i>Melaleuca viridiflora</i>	DICOT		Plantae
<i>Melanodryas cucullata</i>	BIRD		Animalia
<i>Melithreptus albogularis</i>	BIRD		Animalia
<i>Melithreptus gularis</i>	BIRD		Animalia
<i>Melochia corchorifolia</i>	DICOT		Plantae
<i>Melopsittacus undulatus</i>	BIRD		Animalia
<i>Merops ornatus</i>	BIRD		Animalia
<i>Merremia hederacea</i>	DICOT		Plantae
<i>Mesovelia vittigera</i>	INVERT		Animalia
<i>Microeca fascinans</i>	BIRD		Animalia
<i>Microeca fascinans</i> subsp. <i>assimilis</i>	BIRD		Animalia
<i>Microvelia</i> sp.	INVERT		Animalia
<i>Milvus migrans</i>	BIRD		Animalia
<i>Mirafra javanica</i> subsp. <i>horsfieldii</i>	BIRD		Animalia
<i>Mitrasacme hispida</i>	DICOT		Plantae
<i>Mitrasacme lutea</i>	DICOT		Plantae
<i>Mitrasacme nummularia</i>	DICOT		Plantae
<i>Mnesithea rottboellioides</i>	MONOCOT		Plantae
<i>Monacanthus chinensis</i>	FISH		Animalia
<i>Morethia storri</i>	REPTILE		Animalia
<i>Mugilogobius</i> sp.	FISH		Animalia
<i>Murdannia graminea</i>	MONOCOT		Plantae
<i>Myiagra inquieta</i>	BIRD		Animalia
<i>Myiagra rubecula</i>	BIRD		Animalia
<i>Myiagra ruficollis</i>	BIRD		Animalia

<i>Najas tenuifolia</i>	MONOCOT		Plantae
<i>Nanophyes</i> sp.	INVERT		Animalia
<i>Nelsonia campestris</i>	DICOT		Plantae
<i>Neopomacentrus filamentosus</i>	FISH		Animalia
<i>Neoscona theisii</i>	INVERT		Animalia
<i>Nerium oleander</i>	DICOT		Plantae
<i>Nilobezzia</i> sp.	INVERT		Animalia
<i>Ninox connivens</i>	BIRD		Animalia
<i>Ninox novaeseelandiae</i>	BIRD		Animalia
<i>Ninox novaeseelandiae</i> [boobook Group]	BIRD		Animalia
<i>Ninox novaeseelandiae</i> subsp. boobook	BIRD		Animalia
<i>Notograptus guttatus</i>	FISH		Animalia
<i>Numenius minutus</i>	BIRD	MI	Animalia
<i>Nyctophilus daedalus</i>	MAMMAL		Animalia
<i>Nymphaea violacea</i>	DICOT		Plantae
<i>Nymphoides beaglensis</i>	DICOT	P3	Plantae
<i>Nymphoides indica</i>	DICOT		Plantae
<i>Ocyphaps lophotes</i>	BIRD		Animalia
<i>Oidium</i> sp.	FUNGUS		Fungi
<i>Oldenlandia galioides</i>	DICOT		Plantae
<i>Omobranchus lineolatus</i>	FISH		Animalia
<i>Omobranchus punctatus</i>	FISH		Animalia
<i>Omobranchus rotundiceps</i>	FISH		Animalia
<i>Onychohydrus atratus</i>	INVERT		Animalia
<i>Ornithocheyletia lichmerae</i>	INVERT		Animalia
<i>Oryza meridionalis</i>	MONOCOT		Plantae
<i>Pachycephala rufiventris</i>	BIRD		Animalia
<i>Pandanus spiralis</i>	MONOCOT		Plantae
<i>Pandion haliaetus cristatus</i>	BIRD		Animalia
<i>Paracymus pygmaeus</i>	INVERT		Animalia
<i>Paraplea brunni</i>	INVERT		Animalia
<i>Paraplea liturata</i>	INVERT		Animalia
<i>Parascorpaena picta</i>	FISH		Animalia
<i>Paratanytarsus</i> sp.	INVERT		Animalia
<i>Pardachirus pavoninus</i>	FISH		Animalia
<i>Pardalotus striatus</i>	BIRD		Animalia
<i>Parinari nonda</i>	DICOT		Plantae
<i>Pavo cristatus</i> (Domestic type)	BIRD		Animalia
<i>Pelates quadrilineatus</i>	FISH		Animalia
<i>Pelecanus conspicillatus</i>	BIRD		Animalia
<i>Pentapodus porosus</i>	FISH		Animalia
<i>Peplidium</i> sp.	DICOT		Plantae
<i>Perotis rara</i>	MONOCOT		Plantae
<i>Pertusaria</i> sp.	LICHEN		Fungi
<i>Petrochelidon ariel</i>	BIRD		Animalia
<i>Petroscirtes breviceps</i>	FISH		Animalia
<i>Phellinus</i> sp.	FUNGUS		Fungi
<i>Philemon citreogularis</i>	BIRD		Animalia
<i>Philydrum lanuginosum</i>	MONOCOT		Plantae
<i>Phragmites karka</i>	MONOCOT		Plantae
<i>Phyla nodiflora</i> var. <i>nodiflora</i>	DICOT		Plantae
<i>Phyllanthus</i> sp.	DICOT		Plantae
<i>Phyllanthus virgatus</i>	DICOT		Plantae
<i>Pimelea punicea</i>	DICOT		Plantae
<i>Platalea flavipes</i>	BIRD		Animalia
<i>Platyplectrum ornatum</i>	AMPHI		Animalia
<i>Pluchea rubelliflora</i>	DICOT		Plantae
<i>Poephila acuticauda</i>	BIRD		Animalia
<i>Pogona minor</i> subsp. <i>mitchelli</i>	REPTILE		Animalia

<i>Polycarpaea longiflora</i>	DICOT		Plantae
<i>Polygala tepperi</i>	DICOT		Plantae
<i>Pomacentrus littoralis</i>	FISH		Animalia
<i>Pomacentrus milleri</i>	FISH		Animalia
<i>Pomatostomus temporalis</i>	BIRD		Animalia
<i>Porphyrio porphyrio</i>	BIRD		Animalia
<i>Priolepis nuchifasciata</i>	FISH		Animalia
<i>Pristina proboscidea</i>	INVERT		Animalia
<i>Pristis zijsron</i>	FISH	VU	Animalia
<i>Procladius paludicola</i>	INVERT		Animalia
<i>Pseudechis australis</i>	REPTILE		Animalia
<i>Pseudochromis sp.</i>	FISH		Animalia
<i>Pseudomys delicatulus</i>	MAMMAL		Animalia
<i>Pseudomys nanus</i>	MAMMAL		Animalia
<i>Pseudonaja mengdeni</i>	REPTILE		Animalia
<i>Psitteuteles versicolor</i>	BIRD		Animalia
<i>Psydrax attenuata</i> var. <i>tenella</i>	DICOT		Plantae
<i>Pteracarus chalinolobus</i>	INVERT		Animalia
<i>Ptereleotris hanae</i>	FISH		Animalia
<i>Ptilonorhynchus nuchalis</i>	BIRD		Animalia
<i>Ptilonyssus cractici</i>	INVERT		Animalia
<i>Ptilotus corymbosus</i>	DICOT		Plantae
<i>Puccinia sp.</i>	FUNGUS		Fungi
<i>Pygopus nigriceps</i>	REPTILE		Animalia
<i>Radfordia ensifera</i>	INVERT		Animalia
<i>Ramalina subfraxinea</i> var. <i>subfraxinea</i>	LICHEN		Fungi
<i>Ramphotyphlops diversus</i>	REPTILE		Animalia
<i>Ranatra diminuta</i>	INVERT		Animalia
<i>Rhipidura albiscapa</i>	BIRD		Animalia
<i>Rhipidura fuliginosa</i> subsp. <i>alisteri</i>	BIRD		Animalia
<i>Rhipidura leucophrys</i>	BIRD		Animalia
<i>Rhipidura leucophrys</i> subsp. <i>leucophrys</i>	BIRD		Animalia
<i>Rhipidura rufiventris</i>	BIRD		Animalia
<i>Rhynchoedura ornata</i>	REPTILE		Animalia
<i>Rhynchospora affinis</i>	MONOCOT		Plantae
<i>Rimelia sp.</i>	LICHEN		Fungi
<i>Rotala diandra</i>	DICOT		Plantae
<i>Sacciolepis indica</i>	MONOCOT		Plantae
<i>Salarias sexfilum</i>	FISH		Animalia
<i>Santalum album</i>	DICOT		Plantae
<i>Sargocentron rubrum</i>	FISH		Animalia
<i>Schenkia australis</i> / <i>clementii</i>	DICOT		Plantae
<i>Schoenoplectiella lateriflora</i> var. <i>lateriflora</i>	MONOCOT		Plantae
<i>Schoenoplectiella mucronata</i> var. <i>mucronata</i>	MONOCOT		Plantae
<i>Schoenoplectus subulatus</i>	MONOCOT		Plantae
<i>Scirtidae sp.</i>	INVERT		Animalia
<i>Scotorepens greyii</i>	MAMMAL		Animalia
<i>Sehima nervosum</i>	MONOCOT		Plantae
<i>Senna costata</i>	DICOT		Plantae
<i>Senna notabilis</i>	DICOT		Plantae
<i>Sersalisia sericea</i>	DICOT		Plantae
<i>Sesbania erubescens</i>	DICOT		Plantae
<i>Setaria apiculata</i>	MONOCOT		Plantae
<i>Sida rohlenae</i>	DICOT		Plantae
<i>Siganus sp.</i>	FISH		Animalia
<i>Sillago maculata</i>	FISH		Animalia
<i>Smicromnis brevirostris</i>	BIRD		Animalia
<i>Sorghum stipoideum</i>	MONOCOT		Plantae
<i>Spermacoce dolichosperma</i>	DICOT		Plantae

<i>Spermacoce occidentalis</i>	DICOT		Plantae
<i>Spinturnix eptesici</i>	INVERT		Animalia
<i>Sporobolus australasicus</i>	MONOCOT		Plantae
<i>Sterna dougallii</i>	BIRD	MI	Animalia
<i>Sterna nilotica</i> subsp. <i>macrotarsa</i>	BIRD		Animalia
<i>Stomiopera unicolor</i>	BIRD		Animalia
<i>Stratiomyidae</i> sp.	INVERT		Animalia
<i>Streptoglossa odora</i>	DICOT		Plantae
<i>Strophurus ciliaris</i> subsp. <i>aberrans</i>	REPTILE		Animalia
<i>Stylidium costulatum</i>	DICOT	P3	Plantae
<i>Stylosanthes scabra</i>	DICOT		Plantae
<i>Synaptantha scleranthoides</i>	DICOT		Plantae
<i>Synodus</i> sp.	FISH		Animalia
<i>Syzygium minutiflorum</i>	DICOT		Plantae
<i>Tacca leontopetaloides</i>	MONOCOT		Plantae
<i>Tachybaptus novaehollandiae</i>	BIRD		Animalia
<i>Taeniopygia bichenovii</i>	BIRD		Animalia
<i>Taeniopygia bichenovii</i> subsp. <i>annulosa</i>	BIRD		Animalia
<i>Tephrosia crocea</i>	DICOT		Plantae
<i>Tephrosia remotiflora</i>	DICOT		Plantae
<i>Terminalia canescens</i>	DICOT		Plantae
<i>Thespidium basiflorum</i>	DICOT	P1	Plantae
<i>Threskiornis molucca</i>	BIRD		Animalia
<i>Threskiornis spinicollis</i>	BIRD		Animalia
<i>Tiliqua multifasciata</i>	REPTILE		Animalia
<i>Tiliqua scincoides</i> subsp. <i>intermedia</i>	REPTILE		Animalia
<i>Timonius timon</i>	DICOT		Plantae
<i>Todiramphus pyrrhopygia</i>	BIRD		Animalia
<i>Trametes muelleri</i>	FUNGUS		Fungi
<i>Trianthema pilosum</i>	DICOT		Plantae
<i>Tribulopsis angustifolia</i>	DICOT		Plantae
<i>Trichoglossus haematodus</i>	BIRD		Animalia
<i>Trichoglossus haematodus rubritorquis</i>	BIRD		Animalia
<i>Trichonyssus lukoschusi</i>	INVERT		Animalia
<i>Trichonyssus nixonii</i>	INVERT		Animalia
<i>Tringa brevipes</i>	BIRD	MI & P4	Animalia
<i>Tringa nebularia</i>	BIRD	MI	Animalia
<i>Triplectides helvolus</i>	INVERT		Animalia
<i>Tripterygiid</i> sp.	FISH		Animalia
<i>Triumfetta pentandra</i>	DICOT		Plantae
<i>Turnix pyrrhothorax</i>	BIRD		Animalia
<i>Turnix velox</i>	BIRD		Animalia
<i>Typha domingensis</i>	MONOCOT		Plantae
<i>Upeneus tragula</i>	FISH		Animalia
<i>Uperoleia mjobergii</i>	AMPHI		Animalia
<i>Uperoleia talpa</i>	AMPHI		Animalia
<i>Uraria lagopodioides</i>	DICOT		Plantae
<i>Urochloa pubigera</i>	MONOCOT		Plantae
<i>Urodacus yaschenkoi</i>	INVERT		Animalia
<i>Ustilago xerochloae</i>	FUNGUS		Fungi
<i>Utricularia gibba</i>	DICOT		Plantae
<i>Utricularia stellaris</i>	DICOT	P1	Plantae
<i>Uvedalia linearis</i> var. <i>lutea</i>	DICOT		Plantae
<i>Valenciennea alleni</i>	FISH		Animalia
<i>Vallisneria annua</i>	MONOCOT		Plantae
<i>Vanellus miles</i>	BIRD		Animalia
<i>Vanellus miles</i> subsp. <i>miles</i>	BIRD		Animalia
<i>Varanus gouldii</i>	REPTILE		Animalia
<i>Varanus scalaris</i>	REPTILE		Animalia

<i>Varanus tristis</i>	REPTILE		Animalia
<i>Verticordia verticillata</i>	DICOT		Plantae
<i>Vespadelus douglasorum</i>	MAMMAL	P2	Animalia
<i>Vigna lanceolata</i> var. <i>filiformis</i>	DICOT		Plantae
<i>Vigna vexillata</i> var. <i>angustifolia</i>	DICOT		Plantae
<i>Vincetoxicum carnosum</i>	DICOT		Plantae
<i>Xerochloa imberbis</i>	MONOCOT		Plantae
<i>Xyris complanata</i>	MONOCOT		Plantae
<i>Zosterops luteus</i>	BIRD		Animalia



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: 01-Dec-2022

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar)	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	33
Listed Migratory Species:	48

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	84
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	1

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	2
Key Ecological Features (Marine):	None
Biologically Important Areas:	11
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [\[Resource Information \]](#)

Name	State	Legal Status	Buffer Status
Natural			
The West Kimberley	WA	Listed place	In buffer area only

Listed Threatened Ecological Communities [\[Resource Information \]](#)

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

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

Community Name	Threatened Category	Presence Text	Buffer Status
Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula	Endangered	Community likely to occur within area	In buffer area only

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			
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Erythrura gouldiae Gouldian Finch [413]	Endangered	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In buffer area only
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat may occur within area	In feature area
FISH			
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
MAMMAL			
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat known to occur within area	In feature area
Saccolaimus saccolaimus nudicluniatus Bare-rumped Sheath-tailed Bat, Bare-rumped Sheath-tail Bat [66889]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Trichosurus vulpecula arnhemensis Northern Brushtail Possum [83091]	Vulnerable	Species or species habitat may occur within area	In feature area
Xeromys myoides Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat may occur within area	In buffer area only

REPTILE

Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only

SHARK

Scientific Name	Threatened Category	Presence Text	Buffer Status
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species [[Resource Information](#)]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In buffer area only
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only
Sternula albifrons Little Tern [82849]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Sula leucogaster Brown Booby [1022]		Breeding known to occur within area	In buffer area only
Migratory Marine Species			
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area	In buffer area only
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Dugong dugon Dugong [28]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Breeding known to occur within area	In buffer area only
Mobula alfredi as Manta alfredi Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only
Orcaella heinsohni Australian Snubfin Dolphin [81322]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area	In buffer area only
Migratory Terrestrial Species			
Cecropis daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area	In feature area
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat likely to occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat may occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status	
Bird				
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area	
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only	
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only	
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In buffer area only	
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area	
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area	
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area	
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area	
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area	

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only
Cecropis daurica as Hirundo daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In buffer area only
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In buffer area only
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundo rustica Barn Swallow [662]		Species or species habitat likely to occur within area overfly marine area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat may occur within area overfly marine area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In buffer area only
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Sula leucogaster Brown Booby [1022]		Breeding known to occur within area	In buffer area only
Fish			
Campichthys tricarinatus Three-keel Pipefish [66192]		Species or species habitat may occur within area	In buffer area only
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area	In buffer area only
Choeroichthys suillus Pig-snouted Pipefish [66198]		Species or species habitat may occur within area	In buffer area only
Corythoichthys flavofasciatus Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area	In buffer area only
Cosmocampus banneri Roughridge Pipefish [66206]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus excisus Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus janssi Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area	In buffer area only
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Halicampus brocki Brock's Pipefish [66219]		Species or species habitat may occur within area	In buffer area only
Halicampus grayi Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area	In buffer area only
Halicampus nitidus Glittering Pipefish [66224]		Species or species habitat may occur within area	In buffer area only
Halicampus spirostris Spiny-snout Pipefish [66225]		Species or species habitat may occur within area	In buffer area only
Haliichthys taeniophorus Ribbioned Pipehorse, Ribbioned Seadragon [66226]		Species or species habitat may occur within area	In buffer area only
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area	In buffer area only
Hippocampus histrix Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area	In buffer area only
Hippocampus kuda Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area	In buffer area only
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area	In buffer area only
Hippocampus spinosissimus Hedgehog Seahorse [66239]		Species or species habitat may occur within area	In buffer area only
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Micrognathus micronotopterus Tidepool Pipefish [66255]		Species or species habitat may occur within area	In buffer area only
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area	In buffer area only
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area	In buffer area only
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area	In buffer area only
Mammal			
Dugong dugon Dugong [28]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Reptile			
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area	In buffer area only
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area	In buffer area only
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Aipysurus laevis Olive Seasnake [1120]		Species or species habitat may occur within area	In buffer area only
Aipysurus tenuis Brown-lined Seasnake [1121]		Species or species habitat may occur within area	In buffer area only
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only
Chitulia ornata as Hydrophis ornatus Spotted Seasnake, Ornate Reef Seasnake [87377]		Species or species habitat may occur within area	In buffer area only
Crocodylus johnstoni Freshwater Crocodile, Johnston's Crocodile, Johnstone's Crocodile [1773]		Species or species habitat may occur within area	In feature area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area	In buffer area only
Disteira major Olive-headed Seasnake [1124]		Species or species habitat may occur within area	In buffer area only
Emydocephalus annulatus Turtle-headed Seasnake [1125]		Species or species habitat may occur within area	In buffer area only
Ephalophis greyi North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Hydrelaps darwiniensis Black-ringed Seasnake [1100]		Species or species habitat may occur within area	In buffer area only
Hydrophis elegans Elegant Seasnake [1104]		Species or species habitat may occur within area	In buffer area only
Hydrophis macdowelli as Hydrophis mcdowelli Small-headed Seasnake [75601]		Species or species habitat may occur within area	In buffer area only
Lapemis curtus as Lapemis hardwickii Spine-bellied Seasnake [83554]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area	In buffer area only

Whales and Other Cetaceans

[[Resource Information](#)]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			

Current Scientific Name	Status	Type of Presence	Buffer Status
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Breeding known to occur within area	In buffer area only
Orcaella heinsohni as Orcaella brevirostris Australian Snubfin Dolphin [81322]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Habitat Critical to the Survival of Marine Turtles

Scientific Name	Behaviour	Presence	Buffer Status
Aug - Sep			
Natator depressus Flatback Turtle [59257]	Nesting	Known to occur	In buffer area only

Extra Information

EPBC Act Referrals [\[Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Ocean Barramundi Expansion Project	2022/09272		Assessment	In buffer area only

Controlled action

Cape Leveque Road upgrade, Stage 3, Shire of Broome, WA	2013/6984	Controlled Action	Post-Approval	In buffer area only
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Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
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Dolphins

Orcaella heinsohni Australian Snubfin Dolphin [81322]	Foraging likely	Known to occur	In buffer area only
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[Sousa chinensis](#)

Indo-Pacific Humpback Dolphin [50]	Foraging	Likely to occur	In buffer area only
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Dugong

[Dugong dugon](#)

Dugong [28]	Foraging	Likely to occur	In buffer area only
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Marine Turtles

[Natator depressus](#)

Flatback Turtle [59257]	Internesting buffer	Known to occur	In buffer area only
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Seabirds

[Fregata ariel](#)

Lesser Frigatebird [1012]	Breeding	Known to occur	In feature area
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Scientific Name	Behaviour	Presence	Buffer Status
Sternula albifrons sinensis Little Tern [82850]	Breeding	Known to occur	In buffer area only
Sula leucogaster Brown Booby [1022]	Breeding	Known to occur	In buffer area only
Whales			
Megaptera novaeangliae Humpback Whale [38]	Calving	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Migration	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Nursing	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Resting	Known to occur	In buffer area only

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

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

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Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111

TAXON	CLASS	CONS	KINGDOM
<i>Acacia adoxa</i> var. <i>subglabra</i>	DICOT		Plantae
<i>Acacia ancistrocarpa</i>	DICOT		Plantae
<i>Acacia bivenosa</i>	DICOT		Plantae
<i>Acacia colei</i> var. <i>colei</i>	DICOT		Plantae
<i>Acacia drepanocarpa</i> subsp. <i>drepanocarpa</i>	DICOT		Plantae
<i>Acacia eriopoda</i>	DICOT		Plantae
<i>Acacia hilliana</i>	DICOT		Plantae
<i>Acacia monticola</i>	DICOT		Plantae
<i>Acacia sericophylla</i>	DICOT		Plantae
<i>Acacia</i> sp.	DICOT		Plantae
<i>Acacia stellaticeps</i>	DICOT		Plantae
<i>Acacia stipuligera</i>	DICOT		Plantae
<i>Acacia tumida</i> var. <i>tumida</i>	DICOT		Plantae
<i>Acanthophis pyrrhus</i>	REPTILE		Animalia
<i>Accipiter cirrocephalus</i>	BIRD		Animalia
<i>Accipiter fasciatus</i>	BIRD		Animalia
<i>Acrocephalus australis</i> subsp. <i>australis</i>	BIRD		Animalia
<i>Actitis hypoleucos</i>	BIRD	MI	Animalia
<i>Aegialitis annulata</i>	DICOT		Plantae
<i>Aegiceras corniculatum</i>	DICOT		Plantae
<i>Amalosia rhombifer</i>	REPTILE		Animalia
<i>Ambassis vachellii</i>	FISH		Animalia
<i>Amphiroa fragilissima</i>	ALGA		Plantae
<i>Amphiroa</i> sp.	ALGA		Animalia
<i>Amyema thalassia</i>	DICOT		Plantae
<i>Anadyomene plicata</i>	ALGA		Plantae
<i>Anas gracilis</i>	BIRD		Animalia
<i>Anas superciliosa</i>	BIRD		Animalia
<i>Antaresia stimsoni</i> subsp. <i>stimsoni</i>	REPTILE		Animalia
<i>Aprosmictus erythropterus</i>	BIRD		Animalia
<i>Apus pacificus</i>	BIRD	MI	Animalia
<i>Aquila audax</i>	BIRD		Animalia
<i>Arcyria pomiformis</i>	SLIMEMOULD		Chromista
<i>Ardea intermedia</i>	BIRD		Animalia
<i>Ardea modesta</i>	BIRD		Animalia
<i>Ardeotis australis</i>	BIRD		Animalia
<i>Arenaria interpres</i>	BIRD	MI	Animalia
<i>Artamus cinereus</i>	BIRD		Animalia
<i>Artamus leucorhynchus</i>	BIRD		Animalia
<i>Artamus leucorhynchus</i> subsp. <i>leucopygialis</i>	BIRD		Animalia
<i>Artamus minor</i>	BIRD		Animalia
<i>Artamus personatus</i>	BIRD		Animalia
<i>Asparagopsis taxiformis</i>	ALGA		Plantae
<i>Atherinomorus vaigiensis</i>	FISH		Animalia
<i>Avrainvillea</i> sp.	ALGA		Animalia
<i>Aythya australis</i>	BIRD		Animalia
<i>Bauhinia cunninghamii</i>	DICOT		Plantae
<i>Bidens subalternans</i> var. <i>subalternans</i>	DICOT		Plantae
<i>Brachyurophis roperi</i>	REPTILE		Animalia
<i>Burhinus grallarius</i>	BIRD		Animalia
<i>Butorides striata</i>	BIRD		Animalia
<i>Cacatua sanguinea</i>	BIRD		Animalia
<i>Cacatua tenuirostris</i>	BIRD		Animalia
<i>Cacomantis pallidus</i>	BIRD		Animalia
<i>Cacomantis variolosus</i>	BIRD		Animalia
<i>Calidris acuminata</i>	BIRD	MI	Animalia
<i>Calidris alba</i> (<i>Crocethia alba</i>)	BIRD	MI	Animalia
<i>Calidris ferruginea</i>	BIRD	CR	Animalia

<i>Calidris ruficollis</i>	BIRD	MI	Animalia
<i>Calidris tenuirostris</i>	BIRD	CR	Animalia
<i>Campostemon schultzei</i>	DICOT		Plantae
<i>Canis lupus subsp. familiaris</i>	MAMMAL		Animalia
<i>Canistrocarpus cervicornis</i>	ALGA		Protozoa
<i>Canistrocarpus sp.</i>	ALGA		Protozoa
<i>Carlia sp.</i>	REPTILE		Animalia
<i>Carlia triacantha</i>	REPTILE		Animalia
<i>Caulerpa chemnitzia</i>	ALGA		Plantae
<i>Caulerpa corynephora</i>	ALGA		Plantae
<i>Caulerpa lamourouxii</i>	ALGA		Plantae
<i>Caulerpa lentillifera</i>	ALGA		Plantae
<i>Caulerpa serrulata</i>	ALGA		Plantae
<i>Caulerpa sertularioides</i>	ALGA		Plantae
<i>Caulerpa sp.</i>	ALGA		Animalia
<i>Centriscus cristatus</i>	FISH		Animalia
<i>Centropus phasianinus</i>	BIRD		Animalia
<i>Cephalopholis boenak</i>	FISH		Animalia
<i>Ceriops australis</i>	DICOT		Plantae
<i>Chaerephon jobensis</i>	MAMMAL		Animalia
<i>Chalinolobus gouldii</i>	MAMMAL		Animalia
<i>Chamaecrista symonii</i>	DICOT		Plantae
<i>Champia stipitata</i>	ALGA		Plantae
<i>Charadrius leschenaultii</i>	BIRD	VU	Animalia
<i>Charadrius mongolus</i>	BIRD	EN	Animalia
<i>Charadrius ruficapillus</i>	BIRD		Animalia
<i>Charadrius veredus</i>	BIRD	MI	Animalia
<i>Cheilinus fasciatus</i>	FISH		Animalia
<i>Chroicocephalus novaehollandiae</i>	BIRD		Animalia
<i>Chrysococcyx basalis</i>	BIRD		Animalia
<i>Cincloramphus cruralis</i>	BIRD		Animalia
<i>Cincloramphus mathewsi</i>	BIRD		Animalia
<i>Cisticola exilis</i>	BIRD		Animalia
<i>Cladophoropsis sp.</i>	ALGA		Plantae
<i>Cleome sp.</i>	DICOT		Plantae
<i>Cleome uncifera subsp. uncifera</i>	DICOT		Plantae
<i>Codium arabicum</i>	ALGA		Plantae
<i>Codium dwarkense</i>	ALGA		Plantae
<i>Codium sp.</i>	ALGA		Animalia
<i>Codium taylorii</i>	ALGA		Plantae
<i>Colluricincla harmonica</i>	BIRD		Animalia
<i>Colpomenia sinuosa</i>	ALGA		Protozoa
<i>Comatricha elegans</i>	SLIMEMOULD		Chromista
<i>Conopophila rufogularis</i>	BIRD		Animalia
<i>Coracina novaehollandiae</i>	BIRD		Animalia
<i>Coracina novaehollandiae subsp. novaehollandiae</i>	BIRD		Animalia
<i>Corchorus incanus</i>	DICOT		Plantae
<i>Corvus orru</i>	BIRD		Animalia
<i>Corymbia flavescens</i>	DICOT		Plantae
<i>Corymbia greeniana</i>	DICOT		Plantae
<i>Cracticus nigrogularis</i>	BIRD		Animalia
<i>Cracticus torquatus</i>	BIRD		Animalia
<i>Cryptoblepharus ruber</i>	REPTILE		Animalia
<i>Ctenophorus isolepis</i>	REPTILE		Animalia
<i>Ctenophorus nuchalis</i>	REPTILE		Animalia
<i>Ctenotus angusticeps</i>	REPTILE	P3	Animalia
<i>Ctenotus helenae</i>	REPTILE		Animalia
<i>Ctenotus inornatus</i>	REPTILE		Animalia
<i>Ctenotus pantherinus subsp. ocellifer</i>	REPTILE		Animalia

<i>Ctenotus piankai</i>	REPTILE		Animalia
<i>Cucumis maderaspatanus</i>	DICOT		Plantae
<i>Cullen stipulaceum</i>	DICOT		Plantae
<i>Cyperus bulbosus</i>	MONOCOT		Plantae
<i>Cystoseira</i> sp.	ALGA		Protozoa
<i>Dacelo leachii</i>	BIRD		Animalia
<i>Daphoenositta chrysoptera</i>	BIRD		Animalia
<i>Demansia angusticeps</i>	REPTILE		Animalia
<i>Dendrocygna arcuata</i>	BIRD		Animalia
<i>Dendrocygna eytoni</i>	BIRD		Animalia
<i>Dicaeum hirundinaceum</i>	BIRD		Animalia
<i>Dictyopteris australis</i>	ALGA		Protozoa
<i>Dictyosphaeria cavernosa</i>	ALGA		Plantae
<i>Didymium squamulosum</i>	SLIMEMOULD		Chromista
<i>Digenea simplex</i>	ALGA		Plantae
<i>Diporiphora pindan</i>	REPTILE		Animalia
<i>Dugong dugon</i>	MAMMAL	MI	Animalia
<i>Egretta garzetta</i>	BIRD		Animalia
<i>Egretta novaehollandiae</i>	BIRD		Animalia
<i>Egretta sacra</i>	BIRD		Animalia
<i>Elanus axillaris</i>	BIRD		Animalia
<i>Elanus caeruleus</i> subsp. <i>axillaris</i>	BIRD		Animalia
<i>Eleocharis</i> sp.	MONOCOT		Plantae
<i>Elseiyornis melanops</i>	BIRD		Animalia
<i>Emblema pictum</i>	BIRD		Animalia
<i>Enchylaena tomentosa</i>	DICOT		Plantae
<i>Eolophus roseicapillus</i>	BIRD		Animalia
<i>Ephalophis greyae</i>	REPTILE		Animalia
<i>Ephippiorhynchus asiaticus</i>	BIRD		Animalia
<i>Epinephelus coioides</i>	FISH		Animalia
<i>Epinephelus fasciatus</i>	FISH		Animalia
<i>Epthianura tricolor</i>	BIRD		Animalia
<i>Eremiascincus isolepis</i>	REPTILE		Animalia
<i>Erosa</i> sp.	FISH		Animalia
<i>Erythrogonys cinctus</i>	BIRD		Animalia
<i>Esacus magnirostris</i>	BIRD		Animalia
<i>Euphorbia coghlanii</i>	DICOT		Plantae
<i>Euphorbia vaccaria</i>	DICOT		Plantae
<i>Eurostopodus argus</i>	BIRD		Animalia
<i>Falco berigora</i>	BIRD		Animalia
<i>Falco cenchroides</i>	BIRD		Animalia
<i>Feldmannia indica</i>	ALGA		Protozoa
<i>Felis catus</i>	MAMMAL		Animalia
<i>Ficus aculeata</i> var. <i>indecora</i>	DICOT		Plantae
<i>Fregata ariel</i>	BIRD	MI	Animalia
<i>Furina ornata</i>	REPTILE		Animalia
<i>Galaxaura rugosa</i>	ALGA		Plantae
<i>Ganonema</i> sp.	ALGA		Plantae
<i>Gavicalis virescens</i>	BIRD		Animalia
<i>Gehyra pilbara</i>	REPTILE		Animalia
<i>Gelochelidon nilotica</i>	BIRD	MI	Animalia
<i>Geopelia cuneata</i>	BIRD		Animalia
<i>Geopelia humeralis</i>	BIRD		Animalia
<i>Geopelia striata</i>	BIRD		Animalia
<i>Gerygone levigaster</i>	BIRD		Animalia
<i>Gerygone levigaster</i> subsp. <i>levigaster</i>	BIRD		Animalia
<i>Gerygone tenebrosa</i>	BIRD		Animalia
<i>Glareola maldivarum</i>	BIRD	MI	Animalia
<i>Goodenia armitiana</i>	DICOT		Plantae

<i>Goodenia sepalosa</i> var. <i>sepalosa</i>	DICOT		Plantae
<i>Grallina cyanoleuca</i>	BIRD		Animalia
<i>Grevillea refracta</i> subsp. <i>refracta</i>	DICOT		Plantae
<i>Grevillea wickhamii</i> subsp. <i>macrodonta</i>	DICOT		Plantae
<i>Grus rubicunda</i>	BIRD		Animalia
<i>Haematopus fuliginosus</i>	BIRD		Animalia
<i>Haematopus longirostris</i>	BIRD		Animalia
<i>Hakea macrocarpa</i>	DICOT		Plantae
<i>Haliaeetus leucogaster</i>	BIRD		Animalia
<i>Haliastur indus</i>	BIRD		Animalia
<i>Haliastur sphenurus</i>	BIRD		Animalia
<i>Halimeda macroloba</i>	ALGA		Plantae
<i>Halymenia</i> sp.	ALGA		Animalia
<i>Helimeda</i> sp.	ALGA		Plantae
<i>Heliotropium curassavicum</i>	DICOT		Plantae
<i>Heliotropium glabellum</i>	DICOT		Plantae
<i>Heliotropium leptaleum</i>	DICOT		Plantae
<i>Heteronotia binoei</i>	REPTILE		Animalia
<i>Heterosiphonia crassipes</i>	ALGA		Plantae
<i>Hibiscus apodus</i>	DICOT		Plantae
<i>Hieraaetus morphnoides</i>	BIRD		Animalia
<i>Himantopus himantopus</i>	BIRD		Animalia
<i>Hippocampus angustus</i>	FISH		Animalia
<i>Hirundo neoxena</i>	BIRD		Animalia
<i>Hydroclathrus clathratus</i>	ALGA		Protozoa
<i>Hydroprogne caspia</i>	BIRD	MI	Animalia
<i>Hypoestes floribunda</i> var. <i>varia</i>	DICOT		Plantae
<i>Hyporhamphus quoyi</i>	FISH		Animalia
<i>Indigofera monophylla</i>	DICOT		Plantae
<i>Indigofera trita</i>	DICOT		Plantae
<i>Inimicus sinensis</i>	FISH		Animalia
<i>Isodon auratus</i> subsp. <i>auratus</i>	MAMMAL	VU	Animalia
<i>Isodon obesulus</i> subsp. <i>auratus</i>	MAMMAL		Animalia
<i>Jacksonia aculeata</i>	DICOT		Plantae
<i>Jasminum didymum</i> subsp. <i>lineare</i>	DICOT		Plantae
<i>Lagorchestes conspicillatus</i> subsp. <i>leichardti</i>	MAMMAL	P4	Animalia
<i>Lalage tricolor</i>	BIRD		Animalia
<i>Laurencia</i> sp.	ALGA		Animalia
<i>Lawrencia viridigrisea</i>	DICOT		Plantae
<i>Leptosema anomalum</i>	DICOT		Plantae
<i>Lerista bipes</i>	REPTILE		Animalia
<i>Liagora</i> sp.	ALGA		Animalia
<i>Lialis burtonis</i>	REPTILE		Animalia
<i>Lichenostomus flavescens</i>	BIRD		Animalia
<i>Lichenostomus penicillatus</i>	BIRD		Animalia
<i>Lichenostomus unicolor</i>	BIRD		Animalia
<i>Lichenostomus virescens</i>	BIRD		Animalia
<i>Lichmera indistincta</i>	BIRD		Animalia
<i>Limicola falcinellus</i>	BIRD	MI	Animalia
<i>Limosa lapponica</i>	BIRD	MI	Animalia
<i>Limosa limosa</i>	BIRD	MI	Animalia
<i>Litoria caerulea</i>	AMPHI		Animalia
<i>Litoria rubella</i>	AMPHI		Animalia
<i>Lutjanus russellii</i>	FISH		Animalia
<i>Lysiana spathulata</i> subsp. <i>spathulata</i>	DICOT		Plantae
<i>Macropus agilis</i>	MAMMAL		Animalia
<i>Macrotis lagotis</i>	MAMMAL	VU	Animalia
<i>Malacorhynchus membranaceus</i>	BIRD		Animalia
<i>Mallotus nesophilus</i>	DICOT		Plantae

Malurus lamberti	BIRD		Animalia
Malurus melanocephalus	BIRD		Animalia
Malurus melanocephalus subsp. cruentatus	BIRD		Animalia
Manorina flavigula	BIRD		Animalia
Megathyrsus maximus	MONOCOT		Plantae
Melaleuca alsophila	DICOT		Plantae
Melaleuca nervosa subsp. crosslandiana	DICOT		Plantae
Melithreptus gularis	BIRD		Animalia
Merops ornatus	BIRD		Animalia
Microcarbo melanoleucos	BIRD		Animalia
Milvus migrans	BIRD		Animalia
Mirafra javanica	BIRD		Animalia
Morethia ruficauda subsp. ruficauda	REPTILE		Animalia
Mormopterus (Ozimops) cobourgianus	MAMMAL		Animalia
Mormopterus loriae	MAMMAL		Animalia
Mugil cephalus	FISH		Animalia
Mus musculus	MAMMAL		Animalia
Myiagra inquieta	BIRD		Animalia
Myiagra ruficollis	BIRD		Animalia
Myiagra ruficollis subsp. mimikae	BIRD		Animalia
Myliobatis sp.	FISH		Animalia
Myzomela erythrocephala	BIRD		Animalia
Myzomela erythrocephala subsp. erythrocephala	BIRD		Animalia
Neomeris bilimbata	ALGA		Plantae
Ninox connivens	BIRD		Animalia
Ninox novaeseelandiae	BIRD		Animalia
Ninox novaeseelandiae subsp. boobook	BIRD		Animalia
Notaden nichollsi	AMPHI		Animalia
Numenius madagascariensis	BIRD	CR	Animalia
Numenius minutus	BIRD	MI	Animalia
Numenius phaeopus	BIRD	MI	Animalia
Nycticorax caledonicus	BIRD		Animalia
Nyctophilus arnhemensis	MAMMAL		Animalia
Nyctophilus geoffroyi	MAMMAL		Animalia
Nymphicus hollandicus	BIRD		Animalia
Oceanites oceanicus	BIRD	MI	Animalia
Ocyphaps lophotes	BIRD		Animalia
Onigocia spinosa	FISH		Animalia
Onychogalea unguifera	MAMMAL		Animalia
Oreoica gutturalis	BIRD		Animalia
Oriolus sagittatus	BIRD		Animalia
Pachycephala lanioides	BIRD		Animalia
Pachycephala melanura	BIRD		Animalia
Pachycephala melanura subsp. melanura	BIRD		Animalia
Pachycephala rufiventris	BIRD		Animalia
Padina australis	ALGA		Protozoa
Padina sp.	ALGA		Animalia
Pandion haliaetus	BIRD	MI	Animalia
Parapercis nebulosa	FISH		Animalia
Paraplagusia bilineata	FISH		Animalia
Pardalotus rubricatus	BIRD		Animalia
Parexocoetus brachypterus	FISH		Animalia
Pelecanus conspicillatus	BIRD		Animalia
Perichaena depressa	SLIMEMOULD		Chromista
Persoonia falcata	DICOT		Plantae
Petrochelidon nigricans	BIRD		Animalia
Phalacrocorax sulcirostris	BIRD		Animalia
Phaps chalcoptera	BIRD		Animalia
Philemon citreogularis	BIRD		Animalia

<i>Philemon citreogularis</i> subsp. <i>citreogularis</i>	BIRD		Animalia
<i>Pipistrellus westralis</i>	MAMMAL		Animalia
<i>Platalea regia</i>	BIRD		Animalia
<i>Plegadis falcinellus</i>	BIRD	MI	Animalia
<i>Pluvialis fulva</i>	BIRD	MI	Animalia
<i>Pluvialis squatarola</i>	BIRD	MI	Animalia
<i>Podargus strigoides</i>	BIRD		Animalia
<i>Pogona minor</i> subsp. <i>mitchelli</i>	REPTILE		Animalia
<i>Polygala tepperi</i>	DICOT		Plantae
<i>Polytelis alexandrae</i>	BIRD	P4	Animalia
<i>Pomadasys kaakan</i>	FISH		Animalia
<i>Pomatostomus temporalis</i>	BIRD		Animalia
<i>Porphyrio porphyrio</i>	BIRD		Animalia
<i>Portieria hornemannii</i>	ALGA		Plantae
<i>Proablepharus tenuis</i>	REPTILE		Animalia
<i>Psammodiscus ocellatus</i>	FISH		Animalia
<i>Pseudomys delicatulus</i>	MAMMAL		Animalia
<i>Pseudonaja mengdeni</i>	REPTILE		Animalia
<i>Pteropus scapulatus</i>	MAMMAL		Animalia
<i>Ptilonorhynchus guttatus</i>	BIRD		Animalia
<i>Ptilonorhynchus nuchalis</i>	BIRD		Animalia
<i>Ptilotus astrolasius</i>	DICOT		Plantae
<i>Ptilotus calostachyus</i>	DICOT		Plantae
<i>Ptilotus polystachyus</i>	DICOT		Plantae
<i>Rattus tunneyi</i>	MAMMAL		Animalia
<i>Rhagodia eremaea</i>	DICOT		Plantae
<i>Rhipidura albiscapa</i>	BIRD		Animalia
<i>Rhipidura fuliginosa</i>	BIRD		Animalia
<i>Rhipidura fuliginosa</i> subsp. <i>alisteri</i>	BIRD		Animalia
<i>Rhipidura leucophrys</i>	BIRD		Animalia
<i>Rhipidura phasiana</i>	BIRD		Animalia
<i>Rhizophora stylosa</i>	DICOT		Plantae
<i>Saccolaimus flaviventris</i>	MAMMAL		Animalia
<i>Sargassum ligulatum</i>	ALGA		Protozoa
<i>Sargassum</i> sp.	ALGA		Animalia
<i>Scaevola parvifolia</i> subsp. <i>parvifolia</i>	DICOT		Plantae
<i>Scaevola spinescens</i>	DICOT		Plantae
<i>Schoenus falcatus</i>	MONOCOT		Plantae
<i>Scotorepens greyii</i>	MAMMAL		Animalia
<i>Scotorepens sanborni</i>	MAMMAL		Animalia
<i>Selar boops</i>	FISH		Animalia
<i>Seringia nephrosperma</i>	DICOT		Plantae
<i>Sesuvium portulacastrum</i>	DICOT		Plantae
<i>Sida hackettiana</i>	DICOT		Plantae
<i>Sillago burrus</i>	FISH		Animalia
<i>Sirophysalis trinodis</i>	ALGA		Protozoa
<i>Solanum dioicum</i>	DICOT		Plantae
<i>Solanum diversiflorum</i>	DICOT		Plantae
<i>Spermacoce occidentalis</i>	DICOT		Plantae
<i>Spongophloea tissotii</i>	ALGA		Plantae
<i>Sporobolus mitchellii</i>	MONOCOT		Plantae
<i>Sporobolus virginicus</i>	MONOCOT		Plantae
<i>Sterna bengalensis</i>	BIRD		Animalia
<i>Sterna hirundo</i>	BIRD	MI	Animalia
<i>Sterna nilotica</i> subsp. <i>macrotarsa</i>	BIRD		Animalia
<i>Sternula albifrons</i>	BIRD	MI	Animalia
<i>Stiltia isabella</i>	BIRD		Animalia
<i>Strophurus ciliaris</i> subsp. <i>aberrans</i>	REPTILE		Animalia
<i>Sugomel niger</i>	BIRD		Animalia

<i>Sula leucogaster</i>	BIRD	MI	Animalia
<i>Synaptura</i> sp.	FISH		Animalia
<i>Tachybaptus novaehollandiae</i>	BIRD		Animalia
<i>Taeniopygia bichenovii</i>	BIRD		Animalia
<i>Taeniopygia guttata</i>	BIRD		Animalia
<i>Tephrosia remotiflora</i>	DICOT		Plantae
<i>Tephrosia</i> sp. D Kimberley Flora (R.D. Royce 1848)	DICOT		Plantae
<i>Terapon jarbua</i>	FISH		Animalia
<i>Terminalia hadleyana</i>	DICOT		Plantae
<i>Thalasseus bengalensis</i>	BIRD		Animalia
<i>Thalasseus bergii</i>	BIRD	MI	Animalia
<i>Thespesia populneoides</i>	DICOT		Plantae
<i>Threskiornis molucca</i>	BIRD		Animalia
<i>Threskiornis spinicollis</i>	BIRD		Animalia
<i>Tiliqua multifasciata</i>	REPTILE		Animalia
<i>Timonius timon</i>	DICOT		Plantae
<i>Todiramphus chloris</i>	BIRD		Animalia
<i>Todiramphus pyrrhopygius</i>	BIRD		Animalia
<i>Todiramphus sanctus</i>	BIRD		Animalia
<i>Todiramphus sanctus</i> subsp. <i>sanctus</i>	BIRD		Animalia
<i>Trianthema cusackianum</i>	DICOT		Plantae
<i>Trianthema turgidifolium</i>	DICOT		Plantae
<i>Tribulus occidentalis</i>	DICOT		Plantae
<i>Trichoglossus haematodus</i>	BIRD		Animalia
<i>Trichonotus setiger</i>	FISH		Animalia
<i>Tricleocarpa</i> sp.	ALGA		Plantae
<i>Tringa brevipes</i>	BIRD	MI & P4	Animalia
<i>Tringa nebularia</i>	BIRD	MI	Animalia
<i>Tringa stagnatilis</i>	BIRD	MI	Animalia
<i>Triumfetta johnstonii</i>	DICOT		Plantae
<i>Udotea argentea</i>	ALGA		Plantae
<i>Ulua mentalis</i>	FISH		Animalia
<i>Urodacus hoplurus</i>	INVERT		Animalia
<i>Valamugil seheli</i> ?	FISH		Animalia
<i>Vanellus miles</i>	BIRD		Animalia
<i>Varanus acanthurus</i>	REPTILE		Animalia
<i>Varanus brevicauda</i>	REPTILE		Animalia
<i>Varanus gilleni</i>	REPTILE		Animalia
<i>Varanus gouldii</i>	REPTILE		Animalia
<i>Varanus tristis</i>	REPTILE		Animalia
<i>Xenus cinereus</i>	BIRD	MI	Animalia
<i>Yongeichthys nebulosus</i>	FISH		Animalia
<i>Zenarchopterus buffonis</i>	FISH		Animalia
<i>Zosterops lateralis</i>	BIRD		Animalia
<i>Zosterops luteus</i>	BIRD		Animalia



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: 01-Dec-2022

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[Details](#)

[Matters of NES](#)

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[Acknowledgements](#)

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar)	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	31
Listed Migratory Species:	47

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	80
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	1

Extra Information

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

State and Territory Reserves:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	1
Key Ecological Features (Marine):	None
Biologically Important Areas:	13
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [\[Resource Information \]](#)

Name	State	Legal Status	Buffer Status
Natural			
The West Kimberley	WA	Listed place	In buffer area only

Commonwealth Marine Area [\[Resource Information \]](#)

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In buffer area only

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			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In feature area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area	In feature area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat known to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
FISH			
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
MAMMAL			
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat known to occur within area	In feature area
Saccolaimus saccolaimus nudicluniatus Bare-rumped Sheath-tailed Bat, Bare- rumped Sheath-tail Bat [66889]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Trichosurus vulpecula arnhemensis Northern Brushtail Possum [83091]	Vulnerable	Species or species habitat may occur within area	In feature area
REPTILE			
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In buffer area only
Liopholis kintorei Great Desert Skink, Tjakura, Warrarna, Mulyamiji [83160]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only
SHARK			
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Breeding known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding known to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species

[[Resource Information](#)]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat may occur within area	In buffer area only
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In buffer area only
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area	In buffer area only
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only
Sterna dougallii Roseate Tern [817]		Species or species habitat likely to occur within area	In buffer area only
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Species			
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area	In buffer area only
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Dugong dugon Dugong [28]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Breeding known to occur within area	In buffer area only
Mobula alfredi as Manta alfredi Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only
Orcaella heinsohni Australian Snubfin Dolphin [81322]		Species or species habitat likely to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Breeding known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding known to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Species or species habitat likely to occur within area	In buffer area only
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat likely to occur within area	In buffer area only
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

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

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

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [52245]	WA	In buffer area only

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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat may occur within area	In buffer area only
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area	In buffer area only
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat likely to occur within area overfly marine area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat likely to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Sterna dougallii Roseate Tern [817]		Species or species habitat likely to occur within area	In buffer area only
Sternula albifrons as Sterna albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In feature area
Fish			
Campichthys tricarinatus Three-keel Pipefish [66192]		Species or species habitat may occur within area	In buffer area only
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area	In buffer area only
Choeroichthys suillus Pig-snouted Pipefish [66198]		Species or species habitat may occur within area	In buffer area only
Corythoichthys flavofasciatus Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Cosmocampus banneri Roughridge Pipefish [66206]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus excisus Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus janssi Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area	In buffer area only
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area	In buffer area only
Halicampus brocki Brock's Pipefish [66219]		Species or species habitat may occur within area	In buffer area only
Halicampus grayi Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area	In buffer area only
Halicampus nitidus Glittering Pipefish [66224]		Species or species habitat may occur within area	In buffer area only
Halicampus spinostris Spiny-snout Pipefish [66225]		Species or species habitat may occur within area	In buffer area only
Haliichthys taeniophorus Ribbioned Pipehorse, Ribbioned Seadragon [66226]		Species or species habitat may occur within area	In buffer area only
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area	In buffer area only
Hippocampus histrix Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hippocampus kuda Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area	In buffer area only
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area	In buffer area only
Hippocampus spinosissimus Hedgehog Seahorse [66239]		Species or species habitat may occur within area	In buffer area only
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area	In buffer area only
Micrognathus micronotus Tidepool Pipefish [66255]		Species or species habitat may occur within area	In buffer area only
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area	In buffer area only
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area	In buffer area only
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area	In buffer area only

Mammal

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dugong dugon Dugong [28]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Reptile			
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area	In buffer area only
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area	In buffer area only
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area	In buffer area only
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Aipysurus laevis Olive Seasnake [1120]		Species or species habitat may occur within area	In buffer area only
Aipysurus tenuis Brown-lined Seasnake [1121]		Species or species habitat may occur within area	In buffer area only
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Chitulia ornata as Hydrophis ornatus Spotted Seasnake, Ornate Reef Seasnake [87377]		Species or species habitat may occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area	In buffer area only
Disteira major Olive-headed Seasnake [1124]		Species or species habitat may occur within area	In buffer area only
Emydocephalus annulatus Turtle-headed Seasnake [1125]		Species or species habitat may occur within area	In buffer area only
Ephalophis greyi North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In buffer area only
Hydrelaps darwiniensis Black-ringed Seasnake [1100]		Species or species habitat may occur within area	In buffer area only
Hydrophis elegans Elegant Seasnake [1104]		Species or species habitat may occur within area	In buffer area only
Hydrophis macdowelli as Hydrophis mcdowelli Small-headed Seasnake [75601]		Species or species habitat may occur within area	In buffer area only
Lapemis curtus as Lapemis hardwickii Spine-bellied Seasnake [83554]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area	In buffer area only
Whales and Other Cetaceans			[Resource Information]
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Breeding known to occur within area	In buffer area only
Orcaella heinsohni as Orcaella brevirostris Australian Snubfin Dolphin [81322]		Species or species habitat likely to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Species or species habitat likely to occur within area	In buffer area only
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops aduncus (Arafura/Timor Sea populations)			
Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str.			
Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Habitat Critical to the Survival of Marine Turtles

Scientific Name	Behaviour	Presence	Buffer Status
Aug - Sep			
Natator depressus			
Flatback Turtle [59257]	Nesting	Known to occur	In buffer area only

Extra Information

State and Territory Reserves [\[Resource Information \]](#)

Protected Area Name	Reserve Type	State	Buffer Status
Karajarri	Indigenous Protected Area	WA	In feature area

EPBC Act Referrals [\[Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Great Northern Pipeline - 630 km buried gas pipeline	2009/5257	Controlled Action	Completed	In buffer area only

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Dugong			
Dugong dugon			
Dugong [28]	Foraging	Likely to occur	In buffer area only

Marine Turtles

Natator depressus			
Flatback Turtle [59257]	Internesting buffer	Known to occur	In buffer area only
Natator depressus			
Flatback Turtle [59257]	Nesting	Known to occur	In buffer area only

River shark

Scientific Name	Behaviour	Presence	Buffer Status
Pristis clavata Dwarf Sawfish [68447]	Foraging	Known to occur	In buffer area only
Pristis clavata Dwarf Sawfish [68447]	Nursing	Known to occur	In buffer area only
Pristis clavata Dwarf Sawfish [68447]	Pupping	Known to occur	In buffer area only
Pristis pristis Freshwater Sawfish [60756]	Foraging	Known to occur	In buffer area only
Pristis pristis Freshwater Sawfish [60756]	Pupping	Likely to occur	In buffer area only
Pristis zijsron Green Sawfish [68442]	Nursing	Known to occur	In buffer area only
Pristis zijsron Green Sawfish [68442]	Pupping	Known to occur	In buffer area only
Seabirds			
Sterna dougallii Roseate Tern [817]	Resting	Known to occur	In buffer area only
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Migration (north and south)	Known to occur	In buffer area only

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

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

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Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111

Animalia		3833
Acanthophis praelongus	(blank)	1
Accipiter cirrocephalus	(blank)	13
Accipiter fasciatus	(blank)	6
Acrocephalus australis	(blank)	17
Actitis hypoleucos	MI	1
Aegotheles cristatus subsp. leucogaster	(blank)	2
Amalosa rhombifer	(blank)	1
Amniataba percoides	(blank)	1
Amphibolurus gilberti	(blank)	2
Anas gracilis	(blank)	25
Anas superciliosa	(blank)	26
Anhinga novaehollandiae	(blank)	4
ant sp.	(blank)	48
Aprosmictus erythropterus	(blank)	25
Aquila audax	(blank)	9
Ardea intermedia	(blank)	3
Ardea modesta	(blank)	8
Ardea pacifica	(blank)	12
Artamus cinereus	(blank)	69
Artamus leucorhynchus	(blank)	10
Artamus minor	(blank)	34
Artamus personatus	(blank)	9
Aythya australis	(blank)	18
beetle sp.	(blank)	20
Brachyurophis roperi	(blank)	1
Bufo marinus	(blank)	3
Burhinus grallarius	(blank)	9
Cacatua galerita	(blank)	11
Cacatua sanguinea	(blank)	56
Cacomantis pallidus	(blank)	13
Cacomantis variolosus	(blank)	1
Calyptorhynchus banksii	(blank)	30
Carlia amax	(blank)	8
Carlia munda	(blank)	1
Carlia triacantha	(blank)	1
Centropus phasianinus	(blank)	9
Ceyx azureus	(blank)	2
Chelodina sp.	(blank)	1
Chilumena baehrorum	(blank)	1
Cincloramphus cruralis	(blank)	1

Cincloramphus mathewsi	(blank)	12
Circus approximans	(blank)	2
Circus assimilis	(blank)	1
Cissomela pectoralis	(blank)	3
Cisticola exilis	(blank)	20
Climacteris melanura	(blank)	19
Colluricincla harmonica	(blank)	18
Colluricincla harmonica subsp. brunnea	(blank)	2
Colluricincla woodwardi	(blank)	18
Conopophila rufogularis	(blank)	41
Coracina maxima	(blank)	2
Coracina novaehollandiae	(blank)	59
Coracina papuensis	(blank)	26
Coracina papuensis subsp. hypoleuca	(blank)	1
Corvus bennetti	(blank)	5
Corvus orru	(blank)	82
Coturnix ypsilophora	(blank)	8
Cracticus nigrogularis	(blank)	69
Cracticus tibicen	(blank)	17
Cracticus torquatus	(blank)	2
Crenadactylus ocellatus subsp. rostralis	(blank)	5
Crinia bilingua	(blank)	1
Cryptoblepharus junco	(blank)	4
Cryptoblepharus met/rub	(blank)	1
Cryptoblepharus metallicus	(blank)	4
Cryptoblepharus plagiocephalus	(blank)	1
Cryptoblepharus ruber	(blank)	2
Cryptoblepharus sp.	(blank)	2
Ctenophorus caudicinctus	(blank)	1
Ctenophorus caudicinctus subsp. macropus	(blank)	7
Ctenophorus nuchalis	(blank)	1
Ctenotus decaneurus subsp. decaneurus	(blank)	1
Ctenotus inornatus	(blank)	5
Ctenotus militaris	(blank)	6
Ctenotus pantherinus subsp. calx	(blank)	4
Ctenotus saxatilis	(blank)	6
Cyclorana australis	(blank)	1
Cyclorana longipes	(blank)	4
Cygnus atratus	(blank)	1
Dacelo leachii	(blank)	33
Dacelo leachii subsp. leachii	(blank)	1

Daphoenositta chrysoptera	(blank)	6
Delma borea	(blank)	2
Delma nasuta	(blank)	2
Delma sp.	(blank)	1
Demansia angusticeps	(blank)	2
Dendrelaphis punctulata	(blank)	1
Dendrocygna arcuata	(blank)	8
Dendrocygna eytoni	(blank)	5
Dicaeum hirundinaceum	(blank)	14
Diporiphora arnhemica	(blank)	3
Diporiphora magna	(blank)	3
Diporiphora sp.	(blank)	3
Dromaius novaehollandiae	(blank)	2
earthworm sp.	(blank)	5
Egernia douglasi	(blank)	1
Egretta garzetta	(blank)	5
Egretta novaehollandiae	(blank)	12
Egretta picata	(blank)	1
Elanus axillaris	(blank)	4
Elseyornis melanops	(blank)	24
Emydura victoriae	(blank)	1
Entomyzon cyanotis	(blank)	7
Eolophus roseicapillus	(blank)	7
Ephippiorhynchus asiaticus	(blank)	7
Eremiascincus isolepis	(blank)	2
Eremiornis carteri	(blank)	2
Erythronys cinctus	(blank)	5
Erythrura gouldiae	P4	13
Eudynamys orientalis	(blank)	4
Eurostopodus argus	(blank)	1
Eurystomus orientalis	(blank)	6
Falco berigora	(blank)	15
Falco cenchroides	(blank)	18
Falco longipennis	(blank)	1
Falco peregrinus	OS	7
Falco subniger	(blank)	3
fly sp.	(blank)	41
Fulica atra	(blank)	5
Gallirallus philippensis	(blank)	1
Gehyra australis	(blank)	9
Gehyra kimberleyi	(blank)	1

Gehyra koira	(blank)	3
Gehyra koira subsp. ipsa	(blank)	12
Gehyra koira subsp. koira	(blank)	12
Gehyra nana	(blank)	19
Gehyra occidentalis	(blank)	7
Gehyra pilbara	(blank)	30
Gehyra punctata	(blank)	5
Gehyra sp.	(blank)	6
Geopelia cuneata	(blank)	31
Geopelia humeralis	(blank)	8
Geopelia striata	(blank)	100
Geophaps plumifera	(blank)	28
Grallina cyanoleuca	(blank)	106
Grus rubicunda	(blank)	4
Haliaeetus leucogaster	(blank)	1
Haliastur sphenurus	(blank)	40
Hamirostra melanosternon	(blank)	7
Hemidactylus frenatus	(blank)	1
Hemiptera sp. B02 (=Fulgoridae sp. S01)	(blank)	1
Hephaestus jenkinsi	(blank)	3
Heteromunia pectoralis	(blank)	3
Heteronotia binoei	(blank)	15
Heteronotia planiceps	(blank)	18
Hieraaetus morphnoides	(blank)	7
Himantopus himantopus	(blank)	20
Irediparra gallinacea	(blank)	2
Isodon macrourus	(blank)	1
Ixobrychus flavicollis	(blank)	1
Leggadina lakedownensis	P4	11
Leiopotherapon unicolor	(blank)	2
Leiopotherapon unicolour	(blank)	1
Lerista borealis	(blank)	7
Lerista greeri	(blank)	1
Lialis burtonis	(blank)	1
Liasis olivaceus subsp. olivaceus	(blank)	1
Lichenostomus flavescens	(blank)	55
Lichenostomus keartlandi	(blank)	3
Lichenostomus penicillatus	(blank)	2
Lichenostomus plumulus	(blank)	49
Lichenostomus unicolor	(blank)	27
Lichenostomus virescens	(blank)	8

Lichmera indistincta	(blank)	109
Lichmera indistincta subsp. indistincta	(blank)	1
Litoria caerulea	(blank)	3
Litoria coplandi	(blank)	9
Litoria splendida	(blank)	2
Litoria watjulumensis	(blank)	2
Litoria wotjulumensis	(blank)	2
Lonchura castaneothorax	(blank)	18
Lucasium stenodactylum	(blank)	3
Macropus robustus subsp. isabellinus	(blank)	1
Macropus sp.	(blank)	1
Malacorhynchus membranaceus	(blank)	4
Malurus lamberti	(blank)	8
Malurus melanocephalus	(blank)	58
Manorina flavigula	(blank)	75
Melanodryas cucullata	(blank)	1
Melanotaenia australis	(blank)	5
Melithreptus albogularis	(blank)	18
Melithreptus gularis	(blank)	12
Melopsittacus undulatus	(blank)	13
Menetia maini	(blank)	5
Merops ornatus	(blank)	63
Microcarbo melanoleucos	(blank)	9
Microeca fascinans	(blank)	13
Milvus migrans	(blank)	68
Mirafrja javanica	(blank)	6
Mogurnda sp.	(blank)	1
Morethia ruficauda	(blank)	1
Morethia ruficauda subsp. ruficauda	(blank)	1
Myiagra inquieta	(blank)	35
Myiagra rubecula	(blank)	5
Myiagra rubecula subsp. concinna	(blank)	2
Myotis macropus subsp. moluccarum	(blank)	1
Myzomela obscura	(blank)	1
Neochmia phaeton	(blank)	14
Neochmia ruficauda	(blank)	8
Neosilurus hyrtlii	(blank)	1
Neosilurus pseudospinosus	(blank)	2
Nephurus sheai	(blank)	2
Nettapus pulchellus	(blank)	1
Ninox novaeseelandiae	(blank)	6

Nocticola sp.	(blank)	33
Nocticola sp. B32	(blank)	15
Nocticola sp. B33	(blank)	13
Notoscincus ornatus	(blank)	1
Notoscincus ornatus subsp. wotjulum	(blank)	6
Nycticorax caledonicus	(blank)	4
Nyctophilus arnhemensis	(blank)	1
Nyctophilus daedalus	(blank)	2
Nyctophilus geoffroyi	(blank)	1
Nymphicus hollandicus	(blank)	9
Ocyphaps lophotes	(blank)	32
Oedura gracilis	(blank)	3
Oriolus sagittatus	(blank)	16
Pachycephala rufiventris	(blank)	32
Pardalotus rubricatus	(blank)	36
Pardalotus striatus	(blank)	54
Pelecanus conspicillatus	(blank)	2
Petrochelidon ariel	(blank)	28
Petrochelidon nigricans	(blank)	8
Petrogale brachyotis	(blank)	2
Petrophassa albipennis	(blank)	4
Petropseudes dahli	P3	1
Phalacrocorax sulcirostris	(blank)	5
Phaps chalcoptera	(blank)	1
Philemon argenticeps	(blank)	25
Philemon argenticeps subsp. argenticeps	(blank)	1
Philemon citreogularis	(blank)	61
Planigale ingrami	(blank)	1
Planigale maculata	(blank)	1
planthopper sp.	(blank)	8
planthopper sp. B10	(blank)	4
Platalea regia	(blank)	2
Platycercus venustus	(blank)	25
Platyplectrum ornatum	(blank)	23
Plegadis falcinellus	MI	3
Podargus strigoides	(blank)	1
Podargus strigoides subsp. phalaenoides	(blank)	2
Podiceps cristatus	(blank)	1
Poephila acuticauda	(blank)	26
Poephila personata	(blank)	17
Pomatostomus temporalis	(blank)	39

Porphyrio porphyrio	(blank)	7
Porzana pusilla	(blank)	2
Porzana tabuensis	(blank)	1
Proablepharus tenuis	(blank)	1
Pseudomys delicatulus	(blank)	2
Pseudomys laborifex	(blank)	1
pseudoscorpion sp.	(blank)	8
Psitteuteles versicolor	(blank)	8
Ptilonorhynchus nuchalis	(blank)	75
Pygopus steelescotti	(blank)	1
Ramphotyphlops guentheri	(blank)	1
Ramsayornis fasciatus	(blank)	3
Rattus tunneyi	(blank)	6
Rhipidura albiscapa	(blank)	2
Rhipidura leucophrys	(blank)	86
Rhipidura rufiventris	(blank)	19
Rhynchoedura sexapora	(blank)	4
Saccolaimus flaviventris	(blank)	1
Scythrops novaehollandiae	(blank)	3
Scythrops novaehollandiae subsp. novaehollandiae	(blank)	1
Smicrornis brevirostris	(blank)	47
Sminthopsis macroura	(blank)	11
Sminthopsis sp.	(blank)	1
spider sp.	(blank)	11
springtail sp.	(blank)	101
Strophurus ciliaris subsp. ciliaris	(blank)	4
Strophurus robinsoni	(blank)	1
Strophurus taeniatus	(blank)	1
Sugomel niger	(blank)	1
Suta punctata	(blank)	1
Syncomistes butleri	(blank)	1
Syncomistes kimberleyensis	(blank)	2
Tachybaptus novaehollandiae	(blank)	21
Taeniopygia bichenovii	(blank)	48
Taeniopygia guttata	(blank)	40
Threskiornis spinicollis	(blank)	6
Tiliqua multifasciata	(blank)	3
Tiliqua scincoides subsp. intermedia	(blank)	1
Todiramphus pyrrhopygius	(blank)	27
Todiramphus sanctus	(blank)	28
Tribonyx ventralis	(blank)	1

Trichoglossus haematodus	(blank)	22
Tringa glareola	MI	10
Tringa stagnatilis	MI	5
Turnix maculosus	(blank)	2
Turnix pyrrhothorax	(blank)	1
Turnix velox	(blank)	3
Tyrannochthonius sp.	(blank)	2
Tyrannochthonius sp. B30	(blank)	22
Tyrannochthonius sp. B31	(blank)	1
Tyrannochthonius sp. B32	(blank)	4
Tyrannochthonius sp. B34	(blank)	1
Uperoleia borealis	(blank)	1
Vanellus miles	(blank)	6
Varanus glauerti	(blank)	4
Varanus kingorum	(blank)	9
Varanus scalaris	(blank)	1
Varanus sp.	(blank)	1
Varanus storri subsp. ocreatus	(blank)	1
Varanus tristis	(blank)	2
Vespadelus caurinus	(blank)	1
white ant sp.	(blank)	8
Wyulda squamicaudata	P4	1
Zoica minuta	(blank)	1
Zyzomys argurus	(blank)	2
Zyzomys woodwardi	(blank)	65
Fungi		7
Dirinaria batavica	(blank)	1
Parmotrema praesorediosum	(blank)	2
Pericladium grewiae	(blank)	1
Pisolithus tinctorius	(blank)	1
Trapelia coarctata	(blank)	1
Verrucaria sp.	(blank)	1
Plantae		846
Abelmoschus ficulneus	(blank)	1
Abrus precatorius subsp. precatorius	(blank)	1
Abutilon hannii	(blank)	1
Acacia acradenia	(blank)	6
Acacia adoxa var. adoxa	(blank)	1
Acacia adoxa var. subglabra	(blank)	1
Acacia ampliceps	(blank)	1
Acacia anasilla	(blank)	4

<i>Acacia argyraea</i>	(blank)	2
<i>Acacia claviseta</i>	P3	1
<i>Acacia colei</i> var. <i>colei</i>	(blank)	6
<i>Acacia dunnii</i>	(blank)	3
<i>Acacia galioides</i>	(blank)	2
<i>Acacia gonocarpa</i>	(blank)	5
<i>Acacia hemignosta</i>	(blank)	3
<i>Acacia hemsleyi</i>	(blank)	1
<i>Acacia holosericea</i>	(blank)	1
<i>Acacia holosericea</i> (variant)	(blank)	1
<i>Acacia latifolia</i>	(blank)	2
<i>Acacia leptophleba</i>	(blank)	9
<i>Acacia lycopodiifolia</i>	(blank)	10
<i>Acacia lysiphloia</i>	(blank)	5
<i>Acacia lysiphloia</i> x <i>monticola</i>	(blank)	1
<i>Acacia megalantha</i>	(blank)	2
<i>Acacia monticola</i>	(blank)	5
<i>Acacia neurocarpa</i>	(blank)	4
<i>Acacia neurocarpa</i> (variant)	(blank)	1
<i>Acacia nuperrima</i>	(blank)	1
<i>Acacia orthocarpa</i>	(blank)	3
<i>Acacia pellita</i>	(blank)	1
<i>Acacia perryi</i>	(blank)	1
<i>Acacia platycarpa</i>	(blank)	2
<i>Acacia plectocarpa</i> subsp. <i>plectocarpa</i>	(blank)	4
<i>Acacia retivenea</i> subsp. <i>clandestina</i>	(blank)	3
<i>Acacia retivenea</i> subsp. <i>retivenea</i>	(blank)	1
<i>Acacia sericophylla</i>	(blank)	3
<i>Acacia</i> sp. (<i>Lycopodiifoliae</i>)	(blank)	1
<i>Acacia stipuligera</i>	(blank)	5
<i>Acacia stipulosa</i>	(blank)	1
<i>Acacia translucens</i>	(blank)	1
<i>Acacia tumida</i>	(blank)	4
<i>Acacia tumida</i> var. <i>tumida</i>	(blank)	8
<i>Acacia zatrichota</i>	P2	1
<i>Alstonia actinophylla</i>	(blank)	1
<i>Alysicarpus muelleri</i>	(blank)	1
<i>Alysicarpus ovalifolius</i>	(blank)	1
<i>Ammannia multiflora</i>	(blank)	1
<i>Amyema benthamii</i>	(blank)	1
<i>Amyema conspicua</i>	(blank)	1

<i>Amyema eburna</i>	(blank)	1
<i>Anisomeles farinacea</i>	(blank)	1
<i>Apowollastonia cylindrica</i>	(blank)	4
<i>Aristida capillifolia</i>	(blank)	1
<i>Arundinella nepalensis</i>	(blank)	2
<i>Atalaya hemiglauca</i>	(blank)	1
<i>Banksia dentata</i>	(blank)	1
<i>Bauhinia cunninghamii</i>	(blank)	9
<i>Blechnum orientale</i>	(blank)	2
<i>Blumea axillaris</i>	(blank)	1
<i>Blumea integrifolia</i>	(blank)	1
<i>Blumea psammophila</i>	(blank)	1
<i>Blumea pungens</i>	P2	3
<i>Boerhavia paludosa</i>	(blank)	1
<i>Boronia jucunda</i>	P1	8
<i>Boronia minutipinna</i>	P2	2
<i>Bossiaea bossiaeoides</i>	(blank)	1
<i>Brachychiton diversifolius</i>	(blank)	4
<i>Brachychiton viscidulus</i>	(blank)	6
<i>Bridelia tomentosa</i>	(blank)	3
<i>Brucea javanica</i>	(blank)	3
<i>Buchanania oblongifolia</i>	(blank)	3
<i>Bulbostylis barbata</i>	(blank)	3
<i>Cajanus crassicaulis</i>	(blank)	5
<i>Cajanus lanuginosus</i>	(blank)	1
<i>Cajanus latisepalus</i>	(blank)	2
<i>Cajanus reticulatus</i> var. <i>grandifolius</i>	(blank)	3
<i>Cajanus</i> sp.	(blank)	1
<i>Calotropis procera</i>	(blank)	2
<i>Calytrix brownii</i>	(blank)	2
<i>Calytrix exstipulata</i>	(blank)	3
<i>Canavalia papuana</i>	(blank)	2
<i>Capparis lasiantha</i>	(blank)	1
<i>Capparis umbonata</i>	(blank)	1
<i>Carallia brachiata</i>	(blank)	2
<i>Carissa lanceolata</i>	(blank)	4
<i>Cassytha filiformis</i>	(blank)	1
<i>Celtis strychnoides</i>	(blank)	6
<i>Cenchrus setiger</i>	(blank)	1
<i>Centrosema pascuorum</i>	(blank)	1
<i>Ceratopteris thalictroides</i>	(blank)	1

<i>Chamaecrista mimosoides</i>	(blank)	1
<i>Cheilanthes brownii</i>	(blank)	2
<i>Cheilanthes pumilio</i>	(blank)	1
<i>Cheilanthes sieberi</i> subsp. <i>pseudovellea</i>	(blank)	1
<i>Chloris barbata</i>	(blank)	1
<i>Chrysopogon fallax</i>	(blank)	4
<i>Clerodendrum tomentosum</i>	(blank)	2
<i>Cochlospermum fraseri</i> subsp. <i>fraseri</i>	(blank)	1
<i>Colocasia esculenta</i> var. <i>aquaticus</i>	P3	1
<i>Corchorus pumilio</i>	(blank)	1
<i>Corchorus sidoides</i>	(blank)	3
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	(blank)	1
<i>Corymbia aspera</i>	(blank)	2
<i>Corymbia cliftoniana</i>	(blank)	4
<i>Corymbia collina</i>	(blank)	1
<i>Corymbia confertiflora</i>	(blank)	3
<i>Corymbia dichromophloia</i>	(blank)	4
<i>Corymbia flavescens</i>	(blank)	2
<i>Corymbia opaca</i>	(blank)	2
<i>Corymbia opacula</i>	(blank)	2
<i>Corymbia ptychocarpa</i>	(blank)	1
<i>Corymbia ptychocarpa</i> subsp. <i>ptychocarpa</i>	(blank)	3
<i>Corymbia</i> sp	(blank)	2
<i>Crotalaria crispata</i>	(blank)	1
<i>Crotalaria montana</i> var. <i>angustifolia</i>	(blank)	1
<i>Crotalaria novae-hollandiae</i>	(blank)	2
<i>Crotalaria novae-hollandiae</i> subsp. <i>novae-hollandiae</i>	(blank)	2
<i>Crotalaria retusa</i>	(blank)	2
<i>Crotalaria verrucosa</i>	(blank)	7
<i>Cullen badocanum</i>	(blank)	1
<i>Cullen pustulatum</i>	(blank)	2
<i>Cyanthillium cinereum</i> var. <i>lanatum</i>	(blank)	2
<i>Cycas pruinosa</i>	(blank)	5
<i>Cyclosorus interruptus</i>	(blank)	3
<i>Cymbidium canaliculatum</i>	(blank)	1
<i>Cymbopogon bombycinus</i>	(blank)	1
<i>Cymbopogon procerus</i>	(blank)	2
<i>Cynanchum floribundum</i>	(blank)	1
<i>Cynanchum pedunculatum</i>	(blank)	2
<i>Cynodon convergens</i>	(blank)	1
<i>Cyperus haspan</i> subsp. <i>juncooides</i>	(blank)	1

<i>Cyperus holoschoenus</i>	(blank)	1
<i>Cyperus iria</i>	(blank)	1
<i>Cyperus macrostachyos</i>	(blank)	1
<i>Cyperus microcephalus</i> subsp. <i>chersophilus</i>	(blank)	1
<i>Cyperus microcephalus</i> subsp. <i>saxicola</i>	(blank)	1
<i>Cyperus nervulosus</i>	(blank)	1
<i>Cyperus nutans</i> subsp. <i>eleusinoides</i>	(blank)	1
<i>Cyperus polystachyos</i>	(blank)	1
<i>Cyperus vaginatus</i>	(blank)	1
<i>Dampiera</i> sp.	(blank)	1
<i>Decaisnina angustata</i>	(blank)	2
<i>Dendrophthoe glabrescens</i>	(blank)	2
<i>Desmodium filiforme</i>	(blank)	1
<i>Dicarpidium</i> sp. Purnululu (K.A. Menkhorst 766)	P2	1
<i>Dichanthium fecundum</i>	(blank)	1
<i>Dichrostachys spicata</i>	(blank)	2
<i>Dicranopteris linearis</i> var. <i>linearis</i>	(blank)	2
<i>Dodonaea hispidula</i> var. <i>phylloptera</i>	(blank)	3
<i>Dodonaea lanceolata</i> var. <i>lanceolata</i>	(blank)	1
<i>Dodonaea polyzyga</i>	(blank)	3
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>	(blank)	3
<i>Dolichandrone heterophylla</i>	(blank)	4
<i>Dolichandrone occidentalis</i>	(blank)	1
<i>Drosera fragrans</i>	(blank)	1
<i>Echinochloa colona</i>	(blank)	2
<i>Eleocharis</i> sp. A in Kimberley Flora (W.V. Fitz)	(blank)	1
<i>Elytrophorus spicatus</i>	(blank)	2
<i>Enneapogon polyphyllus</i>	(blank)	1
<i>Eragrostis cumingii</i>	(blank)	3
<i>Eragrostis desertorum</i>	(blank)	1
<i>Eragrostis speciosa</i>	(blank)	1
<i>Eragrostis tenellula</i>	(blank)	2
<i>Eriachne obtusa</i>	(blank)	6
<i>Eriachne sulcata</i>	(blank)	2
<i>Eriocaulon cinereum</i>	(blank)	2
<i>Eriocaulon odontospermum</i>	(blank)	2
<i>Eriocaulon setaceum</i>	(blank)	1
<i>Erythrina vespertilio</i> subsp. <i>biloba</i>	(blank)	1
<i>Erythroxyllum ellipticum</i>	(blank)	1
<i>Eucalyptus brachyandra</i>	(blank)	2
<i>Eucalyptus brevifolia</i>	(blank)	4

<i>Eucalyptus houseana</i>	(blank)	1
<i>Eucalyptus limitaris</i>	(blank)	3
<i>Eucalyptus limitaris</i> x <i>pruinosa</i>	(blank)	1
<i>Eucalyptus ordiana</i>	P2	5
<i>Eucalyptus pruinosa</i>	(blank)	2
<i>Eucalyptus</i> sp.	(blank)	6
<i>Eucalyptus</i> sp.	(blank)	1
<i>Eucalyptus tephrodes</i>	(blank)	1
<i>Eulalia aurea</i>	(blank)	1
<i>Euphorbia hassallii</i>	(blank)	2
<i>Euphorbia schultzei</i> var. <i>schultzei</i>	(blank)	1
<i>Euphorbia tannensis</i> subsp. <i>eremophila</i>	(blank)	2
<i>Euphorbia trigonosperma</i>	(blank)	1
<i>Exocarpos latifolius</i>	(blank)	1
<i>Ficus aculeata</i> var. <i>aculeata</i>	(blank)	1
<i>Ficus aculeata</i> var. <i>indecora</i>	(blank)	1
<i>Ficus platypoda</i>	(blank)	3
<i>Ficus racemosa</i> var. <i>racemosa</i>	(blank)	3
<i>Ficus</i> sp.	(blank)	2
<i>Ficus tinctoria</i> subsp. <i>tinctoria</i>	(blank)	1
<i>Fimbristylis cephalophora</i>	(blank)	1
<i>Fimbristylis cinnamometorum</i>	(blank)	1
<i>Fimbristylis depauperata</i>	(blank)	1
<i>Fimbristylis nutans</i>	(blank)	1
<i>Fimbristylis oxystachya</i>	(blank)	1
<i>Fimbristylis pauciflora</i>	(blank)	2
<i>Fimbristylis rara</i>	(blank)	2
<i>Fimbristylis schultzei</i>	(blank)	3
<i>Fimbristylis</i> sp.	(blank)	2
<i>Fimbristylis</i> sp. B Kimberley Flora (K.A. Menkhorst 767)	(blank)	1
<i>Fimbristylis tetragona</i>	(blank)	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	(blank)	1
<i>Fuirena umbellata</i>	(blank)	2
<i>Gardenia megasperma</i>	(blank)	1
<i>Gardenia pyriformis</i>	(blank)	1
<i>Gardenia resinosa</i> subsp. <i>resinosa</i>	(blank)	1
<i>Gardenia</i> sp.	(blank)	2
<i>Glinus oppositifolius</i>	(blank)	1
<i>Glycine pullenii</i>	P3	1
<i>Gomphrena brachystylis</i> / <i>leptoclada</i>	(blank)	1
<i>Gomphrena brachystylis</i> subsp. <i>brachystylis</i>	(blank)	1

<i>Gomphrena lanata</i>	(blank)	1
<i>Gomphrena leptoclada</i> subsp. <i>saxosa</i>	(blank)	1
<i>Gonocarpus leptothecus</i>	(blank)	2
<i>Goodenia coronopifolia</i>	(blank)	3
<i>Goodenia odonnellii</i>	(blank)	1
<i>Goodenia scaevolina</i>	(blank)	1
<i>Goodenia sepalosa</i> var. <i>sepalosa</i>	(blank)	1
<i>Goodenia</i> sp.	(blank)	2
<i>Goodenia</i> sp. (Menkhorst 459)	(blank)	1
<i>Gossypium australe</i>	(blank)	1
<i>Grevillea agrifolia</i> subsp. <i>agrifolia</i>	(blank)	1
<i>Grevillea byrnesii</i>	(blank)	2
<i>Grevillea dryandri</i> subsp. <i>dryandri</i>	(blank)	1
<i>Grevillea mimosoides</i>	(blank)	1
<i>Grevillea miniata</i>	P4	9
<i>Grevillea pyramidalis</i>	(blank)	4
<i>Grevillea refracta</i>	(blank)	1
<i>Grevillea refracta</i> subsp. <i>refracta</i>	(blank)	2
<i>Grevillea striata</i>	(blank)	1
<i>Grewia retusifolia</i>	(blank)	3
<i>Haemodorum ensifolium</i>	(blank)	1
<i>Heliotropium brachythrix</i>	(blank)	2
<i>Heliotropium dichotomum</i>	(blank)	1
<i>Heliotropium euodes</i>	(blank)	1
<i>Heliotropium transforme</i>	(blank)	2
<i>Heliotropium uniflorum</i>	P1	2
<i>Heteropogon contortus</i>	(blank)	6
<i>Hibiscus aphelus</i>	(blank)	1
<i>Hibiscus leptocladus</i>	(blank)	1
<i>Hibiscus meraukensis</i>	(blank)	4
<i>Hibiscus setulosus</i>	(blank)	2
<i>Hibiscus squarulosus</i>	P1	3
<i>Hybanthus enneaspermus</i> subsp. <i>enneaspermus</i>	(blank)	2
<i>Hypoestes floribunda</i>	(blank)	1
<i>Ilex arnhemensis</i> subsp. <i>arnhemensis</i>	(blank)	1
<i>Indigofera colutea</i>	(blank)	1
<i>Indigofera hirsuta</i>	(blank)	1
<i>Indigofera linifolia</i>	(blank)	1
<i>Indigofera linnaei</i>	(blank)	4
<i>Ipomoea muelleri</i>	(blank)	1
<i>Isopterygium minutirameum</i> var. <i>minutirameum</i>	(blank)	1

Isotropis sp. Shark Bay (M.E. Trudgen 7170)	(blank)	1
Jacksonia forrestii	(blank)	1
Jacquemontia browniana	(blank)	2
Jacquemontia pannosa	(blank)	2
Jacquemontia sp. Keep River (J.L. Egan 5015)	P1	1
Jasminum molle	(blank)	1
Jatropha gossypiifolia	(blank)	2
Leptospermum madidum subsp. sativum	P3	3
Lindsaea ensifolia	(blank)	1
Lindsaea ensifolia subsp. ensifolia	(blank)	4
Livistona sp.	(blank)	1
Livistona victoriae	(blank)	3
Lobelia arnhemiaca	(blank)	4
Lophostemon grandiflorus subsp. riparius	(blank)	1
Lotus australis	(blank)	2
Ludwigia octovalvis	(blank)	2
Ludwigia perennis	(blank)	2
Lycopodiella cernua	(blank)	2
Lygodium microphyllum	(blank)	3
Lysiana spathulata	(blank)	1
Lysiana spathulata subsp. spathulata	(blank)	1
Lysiana subfalcata	(blank)	3
Mallotus nesophilus	(blank)	2
Marsdenia geminata	(blank)	2
Marsdenia hemiptera	(blank)	1
Marsdenia velutina	(blank)	1
Marsilea mutica	(blank)	1
Marsilea sp.	(blank)	1
Melaleuca argentea	(blank)	1
Melaleuca lasiandra	(blank)	1
Melaleuca leucadendra	(blank)	2
Melastoma affine	(blank)	1
Melia azedarach	(blank)	2
Melicope elleryana	(blank)	4
Melinis repens	(blank)	1
Melochia sp.	(blank)	1
Micraira sp. Purnululu (M.D. Barrett & R.L. Barrett 1507)	P1	2
Mitrasacme connata	(blank)	1
Mitrasacme exserta	(blank)	2
Mitrasacme hispida	(blank)	1
Mnesithea rottboellioides	(blank)	1

<i>Myoporum montanum</i>	(blank)	1
<i>Nauclea orientalis</i>	(blank)	2
<i>Nephrolepis arida</i>	(blank)	2
<i>Nephrolepis hirsutula</i>	(blank)	2
<i>Nicotiana benthamiana</i>	(blank)	1
<i>Nomismia rhomboidea</i>	(blank)	5
<i>Oldenlandia spermacocoides</i>	(blank)	1
<i>Opilia amentacea</i>	(blank)	2
<i>Owenia vernicosa</i>	(blank)	1
<i>Pandanus spiralis</i>	(blank)	1
<i>Pandorea pandorana</i>	(blank)	1
<i>Panicum decompositum</i>	(blank)	1
<i>Parkinsonia aculeata</i>	(blank)	1
<i>Passiflora foetida</i>	(blank)	1
<i>Pavetta kimberleyana</i>	(blank)	1
<i>Pavetta muelleri</i>	(blank)	1
<i>Pentalepis trichodesmoides</i> subsp. <i>incana</i>	P1	1
<i>Pentalepis trichodesmoides</i> subsp. <i>trichodesmoides</i>	(blank)	2
<i>Persicaria barbata</i>	(blank)	2
<i>Persicaria lapathifolia</i>	(blank)	1
<i>Persoonia falcata</i>	(blank)	1
<i>Petalostigma quadriloculare</i>	(blank)	1
<i>Petalostylis cassioides</i>	(blank)	2
<i>Philydrum lanuginosum</i>	(blank)	1
<i>Phyllanthus aridus</i>	(blank)	1
<i>Phyllanthus baccatus</i>	(blank)	4
<i>Pittosporum spinescens</i>	(blank)	2
<i>Plagiocarpus arcuatus</i>	(blank)	2
<i>Planchonella arnhemica</i>	(blank)	1
<i>Plectranthus scutellarioides</i>	(blank)	1
<i>Plumbago zeylanica</i>	(blank)	1
<i>Polycarpaea corymbosa</i>	(blank)	3
<i>Polycarpaea holtzei</i>	(blank)	1
<i>Polycarpaea involucrata</i>	(blank)	2
<i>Polycarpaea longiflora</i>	(blank)	1
<i>Polycarpaea spirostylis</i> subsp. <i>glabra</i>	(blank)	1
<i>Polymeria calycina</i>	(blank)	1
<i>Portulaca filifolia</i>	(blank)	1
<i>Portulaca</i> sp.	(blank)	4
<i>Premna acuminata</i>	(blank)	1
<i>Pseudochaetochloa australiensis</i>	(blank)	3

<i>Psilotum nudum</i>	(blank)	2
<i>Psydrax attenuata</i> var. <i>tenella</i>	(blank)	2
<i>Pterocaulon niveum</i>	(blank)	2
<i>Pterocaulon</i> sp.	(blank)	1
<i>Pterocaulon sphaeranthoides</i>	(blank)	1
<i>Ptilotus capitatus</i>	(blank)	4
<i>Ptilotus corymbosus</i>	(blank)	5
<i>Ptilotus exaltatus</i>	(blank)	1
<i>Ptilotus fusiformis</i>	(blank)	3
<i>Ptilotus spicatus</i>	(blank)	2
<i>Rhynchospora affinis</i>	(blank)	1
<i>Riccia lamellosa</i>	(blank)	2
<i>Riccia</i> sp.	(blank)	1
<i>Santalum lanceolatum</i>	(blank)	1
<i>Sauropus rigidulus</i>	(blank)	2
<i>Sauropus</i> sp. Cockburn Range (D. Dureau 81)	(blank)	1
<i>Schizachyrium crinizonatum</i>	(blank)	1
<i>Schoenoplectiella lateriflora</i> var. <i>lateriflora</i>	(blank)	1
<i>Schoenoplectiella mucronata</i> var. <i>mucronata</i>	(blank)	1
<i>Schoenoplectus subulatus</i>	(blank)	1
<i>Scleria brownii</i>	(blank)	1
<i>Scleria lingulata</i>	(blank)	1
<i>Sehima nervosum</i>	(blank)	1
<i>Senna cladophylla</i>	(blank)	2
<i>Senna magnifolia</i>	(blank)	1
<i>Senna notabilis</i>	(blank)	1
<i>Senna venusta</i>	(blank)	2
<i>Sesbania formosa</i>	(blank)	1
<i>Sesbania simpliciuscula</i> var. <i>fitzroyensis</i>	(blank)	1
<i>Sida acuta</i>	(blank)	1
<i>Sida</i> sp.	(blank)	1
<i>Solanum echinatum</i>	(blank)	1
<i>Solanum fecundum</i>	(blank)	3
<i>Solanum ferocissimum</i>	(blank)	1
<i>Solanum lucani</i>	(blank)	1
<i>Solanum quadriloculatum</i>	(blank)	3
<i>Sorghum stipoideum</i>	(blank)	1
<i>Spermacoce dolichosperma</i>	(blank)	1
<i>Spermacoce laevigata</i>	(blank)	1
<i>Spermacoce occidentalis</i>	(blank)	3
<i>Stackhousia intermedia</i>	(blank)	1

<i>Stemodia lythrifolia</i>	(blank)	1
<i>Stemodia viscosa</i>	(blank)	2
<i>Stenocarpus acacioides</i>	(blank)	1
<i>Stephania japonica</i>	(blank)	1
<i>Stephania japonica</i> var. <i>japonica</i>	P2	1
<i>Streptoglossa bubakii</i>	(blank)	1
<i>Streptoglossa odora</i>	(blank)	1
<i>Strychnos lucida</i>	(blank)	1
<i>Stylidium adenophorum</i>	(blank)	2
<i>Stylidium fluminense</i>	(blank)	1
<i>Stylidium muscicola</i>	(blank)	1
<i>Stylidium pachyrrhizum</i>	(blank)	1
<i>Stylidium schizanthum</i>	(blank)	1
<i>Stylosanthes guianensis</i> var. <i>guianensis</i>	(blank)	1
<i>Stylosanthes hamata</i>	(blank)	1
<i>Stylosanthes humilis</i>	(blank)	2
<i>Syzygium angophoroides</i>	(blank)	3
<i>Taenitis pinnata</i>	P2	2
<i>Templetonia hookeri</i>	(blank)	1
<i>Tephrosia brachyodon</i> var. <i>longifolia</i>	(blank)	2
<i>Tephrosia</i> sp.	(blank)	1
<i>Tephrosia</i> sp. B Kimberley Flora (C.A. Gardner 7300)	(blank)	1
<i>Tephrosia</i> sp. Mistake Creek (A.C. Beauglehole 54424)	P3	2
<i>Tephrosia</i> sp. Pentecost River (I.D. Cowie 4168)	(blank)	2
<i>Tephrosia spechtii</i>	(blank)	1
<i>Tephrosia stuartii</i>	(blank)	1
<i>Terminalia arostrata</i>	(blank)	2
<i>Terminalia bursarina</i>	(blank)	1
<i>Terminalia canescens</i>	(blank)	1
<i>Terminalia carpentariae</i>	(blank)	3
<i>Terminalia hadleyana</i>	(blank)	1
<i>Terminalia microcarpa</i>	(blank)	1
<i>Terminalia platyphylla</i>	(blank)	1
<i>Terminalia platyptera</i>	(blank)	1
<i>Terminalia volucris</i>	(blank)	1
<i>Themeda triandra</i>	(blank)	1
<i>Timonius timon</i>	(blank)	7
<i>Trema tomentosa</i>	(blank)	4
<i>Trema tomentosa</i> var. <i>aspera</i>	(blank)	1
<i>Trematodon longicollis</i>	(blank)	1
<i>Trianthema oxycalyptrum</i> var. <i>oxycalyptrum</i>	(blank)	1

<i>Trianthema triquetrum</i>	(blank)	1
<i>Tribulus terrestris</i>	(blank)	2
<i>Trichodesma zeylanicum</i>	(blank)	2
<i>Tridax procumbens</i>	(blank)	1
<i>Triodia bitextura</i>	(blank)	4
<i>Triodia bunglensis</i>	P2	4
<i>Triodia burbridgeana</i>	(blank)	3
<i>Triodia inutilis</i>	(blank)	2
<i>Triodia stenostachya</i>	(blank)	1
<i>Triodia wiseana</i>	(blank)	1
<i>Triquetrella paradoxa</i>	(blank)	1
<i>Triumfetta antrorsa</i>	(blank)	1
<i>Triumfetta clivorum</i> subsp. <i>brevipetala</i>	(blank)	1
<i>Triumfetta plumigera</i>	(blank)	2
<i>Triumfetta triandra</i>	(blank)	2
<i>Utricularia uliginosa</i>	(blank)	1
<i>Vachellia farnesiana</i>	(blank)	2
<i>Vachellia pachyphloia</i> subsp. <i>brevipinnula</i>	(blank)	1
<i>Vachellia pachyphloia</i> subsp. <i>pachyphloia</i>	(blank)	2
<i>Vachellia valida</i>	(blank)	4
<i>Ventilago viminalis</i>	(blank)	2
<i>Vigna radiata</i> var. <i>sublobata</i>	(blank)	1
<i>Vincetoxicum cinerascens</i>	(blank)	1
<i>Vincetoxicum flexuosum</i>	(blank)	1
<i>Vitex glabrata</i>	(blank)	4
<i>Wahlenbergia queenslandica</i>	(blank)	1
<i>Xerochloa barbata</i>	(blank)	2
<i>Yakirra australiensis</i>	(blank)	1
<i>Zinnia elegans</i>	(blank)	2
<i>Ziziphus quadrilocularis</i>	(blank)	5
<i>Zornia muelleriana</i> subsp. <i>congesta</i>	(blank)	1
Grand Total		4686



Australian Government

Department of Climate Change, Energy,
the Environment and Water

EPBC Act Protected Matters Report

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

Report created: 05-Apr-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

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

World Heritage Properties:	1
National Heritage Places:	1
Wetlands of International Importance (Ramsar)	2
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	15
Listed Migratory Species:	16

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	21
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	2
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	4
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties [\[Resource Information \]](#)

Name	State	Legal Status	Buffer Status
Purnululu National Park	WA	Declared property	In buffer area only

National Heritage Places [\[Resource Information \]](#)

Name	State	Legal Status	Buffer Status
Natural			
Purnululu National Park	WA	Listed place	In buffer area only

Wetlands of International Importance (Ramsar Wetlands) [\[Resource Information \]](#)

Ramsar Site Name	Proximity	Buffer Status
Lakes argyle and kununurra	Within 10km of Ramsar site	In feature area
Ord river floodplain	50 - 100km upstream from Ramsar site	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			
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Erythrura gouldiae Gouldian Finch [413]	Endangered	Species or species habitat known to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Falcunculus frontatus whitei Crested Shrike-tit (northern), Northern Shrike-tit [26013]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Malurus coronatus coronatus Purple-crowned Fairy-wren (western) [64442]	Endangered	Species or species habitat may occur within area	In buffer area only
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area	In feature area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In feature area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat may occur within area	In buffer area only
MAMMAL			
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat may occur within area	In buffer area only
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat may occur within area	In feature area
Trichosurus vulpecula arnhemensis Northern Brushtail Possum [83091]	Vulnerable	Species or species habitat may occur within area	In feature area
SHARK			
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Marine Species			
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
Cecropis daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area	In feature area
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat may occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Cecropis daurica as Hirundo daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Reptile			
Crocodylus johnstoni Freshwater Crocodile, Johnston's Crocodile, Johnstone's Crocodile [1773]		Species or species habitat may occur within area	In feature area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Purnululu	National Park	WA	In buffer area only
Purnululu Conservation Reserve	5(1)(g) Reserve	WA	In buffer area only

EPBC Act Referrals				[Resource Information]	
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
Not controlled action					
New underground diamond mine and facilities at existing mine	2004/1829	Not Controlled Action	Completed	In buffer area only	
Ridges Iron Ore Project	2010/5494	Not Controlled Action	Completed	In buffer area only	
Not controlled action (particular manner)					
Ridges Iron Ore - Matsu Project, East Kimberley, WA	2014/7216	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only	
Referral decision					
Ridges Iron Ore Project	2010/5351	Referral Decision	Completed	In buffer area only	

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

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

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Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111

Appendix D

Flora survey results

Flora species list

Raw site data

Quadrat/Relevé data, significant flora raw data

Flora likelihood of occurrence guidelines

Flora likelihood of occurrence assessment

Flora species list (Beagle Bay, Ardyaloon, Djarindjin, Bidyadanga)

Family	Status	Species
Aizoaceae		<i>Trianthema pilosa</i>
Aizoaceae		<i>Trianthema pilosum</i>
Amaranthaceae		<i>Gomphrena tenella</i>
Amaranthaceae		<i>Ptilotus calostachyus</i>
Amaranthaceae		<i>Ptilotus fusiformis</i>
Amaranthaceae		<i>Ptilotus</i> sp (insufficient material)
Apocynaceae	*	<i>Calotropis gigantea</i>
Apocynaceae		<i>Wrightia saligna</i>
Araliaceae		<i>Trachymene didisoides</i>
Asteraceae		<i>Cyanthillium cinereum</i>
Boraginaceae		<i>Ehretia saligna</i> var. <i>saligna</i>
Boraginaceae		<i>Euploca foliata</i>
Boraginaceae		<i>Euploca leptalea</i>
Boraginaceae		<i>Heliotropium leptaleum</i>
Boraginaceae		<i>Trichodesma zeylanicum</i>
Cleomaceae		<i>Arivela tetrandra</i>
Cleomaceae		<i>Arivela uncifera</i>
Cleomaceae		<i>Cleome viscosa</i>
Combretaceae		<i>Terminalia</i> sp.
Combretaceae		<i>Terminalia petiolaris</i>
Combretaceae		<i>Terminalia canescens</i>
Commelinaceae		<i>Cartonema parviflorum</i>
Commelinaceae		<i>Commelina ensifolia</i>
Commelinaceae		<i>Murdannia graminea</i>
Convolvulaceae		<i>Bonamia linearis</i>
Convolvulaceae		<i>Evolvulus alsinoides</i> var. <i>decumbens</i>
Convolvulaceae		<i>Jacquemontia pannosa</i>
Convolvulaceae		<i>Polymeria ambigua</i>
Convolvulaceae		<i>Polymeria calycina</i>
Cyperaceae		<i>Abildgaardia schoenoides</i>
Cyperaceae		<i>Bulbostylis barbata</i>
Cyperaceae		Cyperaceae sp (insufficient material)
Cyperaceae		<i>Fimbristylis cardiocarpa</i>
Cyperaceae		<i>Fimbristylis crosslandii</i>
Cyperaceae		<i>Fimbristylis rara</i>
Droseraceae		<i>Drosera broomensis</i>
Euphorbiaceae		<i>Euphorbia coghlanii</i>
Euphorbiaceae		<i>Euphorbia trigonosperma</i>
Euphorbiaceae		<i>Microstachys chamaelea</i>
Fabaceae		<i>Acacia adoxa</i> var. <i>subglabra</i>

Family	Status	Species
Fabaceae		<i>Acacia arida</i>
Fabaceae		<i>Acacia colei</i> var. <i>colei</i>
Fabaceae		<i>Acacia monticola</i>
Fabaceae		<i>Acacia tumida</i> var. <i>kulparn</i>
Fabaceae		<i>Bauhinia cunninghamii</i>
Fabaceae		<i>Chamaecrista absus</i> var. <i>absus</i>
Fabaceae		<i>Crotalaria brevis</i>
Fabaceae		<i>Crotalaria medicaginea</i> var. <i>neglecta</i>
Fabaceae		<i>Glycine tomentella</i>
Fabaceae		<i>Indigofera monophylla</i>
Fabaceae		<i>Jacksonia aculeata</i>
Fabaceae		<i>Senna notabilis</i>
Fabaceae		<i>Senna oligoclada</i>
Fabaceae	*	<i>Stylosanthes hamata</i>
Fabaceae	P3	<i>Tephrosia andrewii</i>
Fabaceae		<i>Tephrosia</i> sp B Kimberly Flora (C.A. Gardner 7300)
Fabaceae		<i>Tephrosia rosea</i> var. <i>clementii</i>
Fabaceae		<i>Vigna lanceolata</i> var. <i>filiformis</i>
Fabaceae		<i>Zornia albiflora</i>
Goodeniaceae		<i>Goodenia armitiana</i>
Goodeniaceae		<i>Goodenia sepalosa</i> var. <i>sepalosa</i>
Goodeniaceae		<i>Scaevola parvifolia</i> subsp. <i>parvifolia</i>
Gyrostemonaceae		<i>Codonocarpus cotinifolius</i>
Gyrostemonaceae		<i>Gyrostemon tepperi</i>
Haloragaceae		<i>Gonocarpus leptothecus</i>
Lamiaceae		<i>Clerodendrum floribundum</i> var. <i>ovatum</i>
Lamiaceae		<i>Premna acuminata</i>
Laraceae		<i>Cassytha filiformis</i>
Linderniaceae		<i>Lindernia clausa</i>
Loganiaceae		<i>Mitrasacme connata</i>
Malvaceae		<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>
Malvaceae		<i>Corchorus incanus</i> subsp. <i>incanus</i>
Malvaceae		<i>Corchorus sidoides</i> subsp. <i>sidoides</i>
Malvaceae		<i>Gossypium rotundifolium</i>
Malvaceae		<i>Grewia breviflora</i>
Malvaceae		<i>Helicteres rynchocarpa</i>
Malvaceae		<i>Hibiscus leptocladus</i>
Malvaceae		<i>Malvaceae</i> sp. (insufficient material)
Malvaceae		<i>Melhanian oblongifolia</i>
Malvaceae		<i>Sida</i> sp. Pindan (B.G. Thomson 3398)
Malvaceae		<i>Triumfetta carteri</i>

Family	Status	Species
Malvaceae		<i>Waltheria indica</i>
Menispermaceae		<i>Tinospora smilacina</i>
Montiaceae		<i>Calandrinia strophiolata</i>
Montiaceae		<i>Calandrinia tepperiana</i>
Moraceae		<i>Ficus platypoda</i>
Myrtaceae		<i>Melaleuca nervosa</i> subsp. <i>crosslandiana</i>
Myrtaceae		<i>Corymbia bella</i>
Myrtaceae		<i>Corymbia flavescens</i>
Myrtaceae		<i>Corymbia greeniana</i>
Myrtaceae		<i>Corymbia hamersleyana</i>
Myrtaceae		<i>Corymbia</i> sp. (insufficient material)
Myrtaceae		<i>Eucalyptus miniata</i>
Passifloraceae	*	<i>Passiflora foetida</i>
Phyllanthaceae		<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Phyllanthaceae		<i>Phyllanthus exilis</i>
Poaceae		<i>Aristida holathera</i>
Poaceae		<i>Aristida laterfolia</i>
Poaceae	*	<i>Cenchrus setiger</i>
Poaceae		<i>Chrysopogon pallidus</i>
Poaceae		<i>Dactyloctenium radulans</i>
Poaceae		<i>Eragrostis scabrida</i>
Poaceae		<i>Eriachne melicacea</i>
Poaceae		<i>Eriachne</i> sp. (insufficient material)
Poaceae		<i>Eriachne avenacea</i>
Poaceae		<i>Paspalidium rarum</i>
Poaceae		<i>Perotis rara</i>
Poaceae		<i>Poaceae</i> sp. (insufficient material)
Poaceae		<i>Schizachyrium fragile</i>
Poaceae		<i>Setaria dielsii</i>
Poaceae		<i>Sorghum plumosum</i>
Poaceae	P3	<i>Triodia acutispicula</i>
Poaceae		<i>Triodia epactia</i>
Poaceae		<i>Triodia schinzii</i>
Poaceae		<i>Yakirra australiensis</i> var. <i>australiensis</i>
Poaceae		<i>Yakirra pauciflora</i>
Portulacaceae		<i>Portulaca cyclophylla</i>
Proteaceae		<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>
Proteaceae		<i>Grevillea wickhamii</i>
Proteaceae		<i>Hakea arborescens</i>
Proteaceae		<i>Hakea macrocarpa</i>
Pteridaceae		<i>Platydoma microphyllum</i>

Family	Status	Species
Rubiaceae		<i>Gardenia pyriformis</i> subsp. <i>keartlandii</i>
Rubiaceae		<i>Paranotis mitrasacmoides</i>
Rubiaceae		<i>Spermacoce occidentalis</i>
Santalaceae		<i>Santalum lanceolata</i>
Sapindaceae		<i>Atalaya hemiglauca</i>
Sapindaceae		<i>Dodonaea hispidula</i> var. <i>arida</i>
Solanaceae		<i>Solanum cunninghamii</i>
Violaceae		<i>Hybanthus aurantiacus</i>
Zygophyllaceae		<i>Tribulopsis angustifolia</i>

Flora species list (Warmun)



Family	Status	Species
Amaranthaceae	*	<i>Aerva javanica</i>
Amaranthaceae		<i>Alternanthera nodiflora</i>
Amaranthaceae		<i>Amaranthus undulatus</i>
Amaranthaceae		<i>Gomphrena canescens</i> subsp. <i>canescens</i>
Amaranthaceae		<i>Ptilotus corymbosus</i>
Amaranthaceae		<i>Ptilotus exaltatus</i>
Amaranthaceae		<i>Ptilotus fusiformis</i>
Amaranthaceae		<i>Ptilotus spicatus</i>
Apocynaceae		<i>Carissa lanceolata</i>
Asteraceae		<i>Pterocaulon serrulatum</i> var. <i>velutinum</i>
Asteraceae	R.E	<i>Pterocaulon verbascifolium</i>
Bixaceae		<i>Cochlospermum fraseri</i>
Boraginaceae		<i>Euploca brachytrix</i>
Boraginaceae		<i>Euploca tenuifolia</i>
Boraginaceae		<i>Trichodesma zeylanicum</i>
Caryophyllaceae		<i>Polycarpaea corymbosa</i> var. <i>corymbosa</i>
Caryophyllaceae		<i>Polycarpaea spirostylis</i> subsp. <i>glabra</i>
Cleomaceae		<i>Arivela viscosa</i>
Combretaceae		<i>Terminalia canescens</i>
Convolvulaceae		<i>Bonamia pannosa</i>
Convolvulaceae		<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>
Convolvulaceae		<i>Ipomoea eriocarpa</i>
Convolvulaceae		<i>Ipomoea polymorpha</i>
Convolvulaceae		<i>Operculina aequisepala</i>
Convolvulaceae		<i>Polymeria ?calycina</i>
Cucurbitaceae		<i>Cucumis picrocarpus</i>
Cucurbitaceae		<i>Cucumis variabilis</i>
Cyperaceae		<i>Bulbostylis barbata</i>
Cyperaceae		<i>Cyperus iria</i>
Cyperaceae		<i>Fimbristylis cardiocarpa</i>
Cyperaceae		<i>Fimbristylis trachycarya</i>
Elatinaceae		<i>Bergia pedicellaris</i>
Euphorbiaceae		<i>Euphorbia trigonosperma</i>
Euphorbiaceae	R.E	<i>Euphorbia drummondii</i>
Euphorbiaceae		<i>Euphorbia heterophylla</i>
Euphorbiaceae		<i>Euphorbia schultzii</i> var. <i>shultzii</i>
Euphorbiaceae		<i>Euphorbia trigonosperma</i>
Fabaceae		<i>Acacia colei</i> var
Fabaceae		<i>Acacia hemignosta</i>
Fabaceae		<i>Acacia leptophleba</i>


Family	Status	Species
Fabaceae		<i>Albizia lebbek</i>
Fabaceae		<i>Alysicarpus muelleri</i>
Fabaceae		<i>Cajanus pubescens</i>
Fabaceae		<i>Christia australasia</i>
Fabaceae		<i>Clitoria ternatea</i>
Fabaceae		<i>Crotalaria medicarginea</i> var. <i>neglecta</i>
Fabaceae		<i>Crotalaria montana</i> var. <i>angustifolia</i>
Fabaceae		<i>Crotalaria retusa</i>
Fabaceae		<i>Indigofera colutea</i>
Fabaceae		<i>Indigofera linifolia</i>
Fabaceae		<i>Indigofera trita</i>
Fabaceae		<i>Lysiphyllum cunninghamii</i>
Fabaceae		<i>Rhyncosia minima</i>
Fabaceae		<i>Sesbania cannabina</i>
Fabaceae		<i>Tephrosia brachyodon</i> var. <i>longifolia</i>
Fabaceae		<i>Tephrosia phaeosperma</i>
Fabaceae		<i>Tephrosia</i> sp. <i>Northern</i> (K.F. Kenneally 11950)
Fabaceae		<i>Vigna radiata</i>
Goodeniaceae	P3, R.E	<i>Goodenia byrnesii</i>
Goodeniaceae	R.E	<i>Goodenia heterochila</i>
Goodeniaceae		<i>Goodenia odonnellii</i>
Lauraceae		<i>Cassytha capillaris</i>
Lythraceae		<i>Ammannia multiflora</i>
Malvaceae		<i>Abutilon hannii</i>
Malvaceae		<i>Adansonia gregorii</i>
Malvaceae		<i>Brachychiton viscidulus</i>
Malvaceae		<i>Corchorus sidoides</i> subsp. <i>sidoides</i>
Malvaceae		<i>Hibiscus leptocladus</i>
Malvaceae		<i>Melhania oblongifolia</i>
Malvaceae		<i>Triumfetta clivorum</i> subsp. <i>brevipetala</i>
Malvaceae		<i>Waltheria indica</i>
Meliaceae	*	<i>Azadirachta indica</i>
Menispermaceae		<i>Tinospora smilacina</i>
Moraceae		<i>Ficus aculeata</i> var. <i>aculeata</i>
Moraceae		<i>Ficus aculeata</i> var. <i>indecora</i>
Moraceae		<i>Ficus coronulata</i>
Myrtaceae		<i>Corymbia greeniana</i>
Myrtaceae		<i>Eucalyptus brevifolia</i>
Myrtaceae		<i>Eucalyptus pruinosa</i>
Myrtaceae		<i>Lophostemon grandiflorus</i> subsp. <i>riparius</i>



Family	Status	Species
Nyctaginaceae		<i>Boerhavia schomburgkiana</i>
Orobanchaceae		<i>Buchnera asperata</i>
Orobanchaceae		<i>Buchnera linearis</i>
Phyllanthaceae		<i>Cathetus virgatus</i>
Phyllanthaceae		<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Phyllanthaceae		<i>Nellica maderaspatensis</i>
Phyllanthaceae		<i>Notoleptopus decaisnei</i>
Plantaginaceae		<i>Stemodia viscosa</i>
Plantaginaceae		<i>Stemodia lythrifolia</i>
Poaceae		<i>Aristida hygrometrica</i>
Poaceae		<i>Aristida latifolia</i>
Poaceae	*	<i>Cenchrus ciliaris</i>
Poaceae		<i>Chrysopogon fallax</i>
Poaceae		<i>Cynodon convergens</i>
Poaceae		<i>Dichanthium fecundum</i>
Poaceae	*	<i>Echinochloa colona</i>
Poaceae		<i>Enneapogon purpurascens</i>
Poaceae		<i>Enneapogon polyphyllus</i>
Poaceae		<i>Eragrostis desertorum</i>
Poaceae		<i>Eriachne ciliata</i>
Poaceae		<i>Heteropogon contortus</i>
Poaceae		<i>Iseilema vaginiflorum</i>
Poaceae		<i>Mnesithea formosa</i>
Poaceae		<i>Panicum decompositum</i>
Poaceae		<i>Sehima nervosum</i>
Poaceae		<i>Sorghum stipoideum</i>
Poaceae		<i>Sporobolus austrasicus</i>
Poaceae		<i>Triodia epactia</i>
Poaceae		<i>Triodia</i> sp.
Poaceae		<i>Urochloa pubigera</i>
Poaceae		<i>Xerochloa barbata</i>
Polygalaceae		<i>Polygala pterocarpa</i>
Portulacaceae		<i>Portulaca oleracea</i>
Portulacaceae		<i>Portulaca filifolia</i>
Portulacaceae		<i>Portulaca oleracea</i>
Proteaceae		<i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i>
Proteaceae		<i>Hakea arborescens</i>
Rubiaceae		<i>Spermacoce phaeosperma</i>
Santalaceae		<i>Santalum lanceolatum</i>



P3 – Priority Three Specie, R.E – Range Extension, * - Introduced species



Raw sample site data



Site ID:	Bid02_23	VT07
Type:	Quadrat	Size: 50 x 50 m
Date:	24/02/2023	Described by: Joel Collins
Co-ordinates (50K)	121.787	-18.679
Landform:	Sand plain	
Bare ground:	2-10%	
Litter cover:	<2%	
Soil type:	Silty Loam	
Fire age:	Moderate (3 to 5 yr)	
Vegetation condition:	Excellent	
Site ID:	Bid01_23	
Type:	Quadrat	Size: 50 x 50 m
Date:	24/02/2023	Described by: Joel Collins
Co-ordinates (50K)	121.788	-18.677
Landform:	Sand plain	
Bare ground:	11-30%	
Litter cover:	<2%	
Soil type:	Silty Loam	
Fire age:	Moderate (3 to 5 yr)	
Vegetation condition:	Excellent	
Site ID:	Bid03_23	VT07
Type:	Quadrat	Size: 50 x 50 m
Date:	24/02/2023	Described by: Joel Collins
Co-ordinates (50K)	121.789	-18.680
Landform:	Sand plain	



Bare ground:	<2%	
Litter cover:	<2%	
Soil type:	Silty Loam	
Fire age:	Old (6+ yr)	
Vegetation condition:	Excellent	
Site ID:	Dja01_23	VT04
Type:	Releve	Size: 50 x 50 m
Date:	23/02/2023	Described by: Joel Collins
Co-ordinates (50K)	122.904	-16.522
Landform:	Sand plain	
Bare ground:	2-10%	
Litter cover:	11-30%	
Soil type:	Sand	
Fire age:	Moderate (3 to 5 yr)	
Vegetation condition:	Very Good	
Site ID:	BB01_23	
Type:	Quadrat	Size: 50 x 50 m
Date:	23/02/2023	Described by: Joel Collins
Co-ordinates (50K)	122.658	-16.997
Landform:	Drainage Area/ Floodplain	
Bare ground:	11-30%	
Litter cover:	<2%	


Soil type:	Sandy Loam	
Fire age:	Recent (0-2 yr)	
Vegetation condition:	Very Good	
Site ID:	Ard01-23	VT04
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Joel Collins
Co-ordinates (50K)	123.035	-16.440
Landform:	Sand plain	
Bare ground:	<2%	
Litter cover:	2-10%	
Soil type:	Sand	
Fire age:	Recent (0-2 yr)	
Vegetation condition:	Excellent	
Site ID:	Ard03-23	
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Joel Collins
Co-ordinates (50K)	123.032	-16.447
Landform:	Sand/Stony Plain	
Bare ground:	<2%	
Litter cover:	11-30%	



Soil type:	Sand	
Fire age:	Moderate (3-5 yr)	
Vegetation condition:	Excellent	
Site ID:	Ard04-23	VT06
Type:	Quadrat	Size: 50 x 50 m
Date:	22/02/2023	Described by: Joel Collins
Co-ordinates (50K)	123.030	-16.445
Landform:	Sand plain	
Bare ground:	<2%	
Litter cover:	11-30%	
Soil type:	Sand	
Fire age:	Moderate (3-5 yr)	
Vegetation condition:	Excellent	
Site ID:	Ard02-23	
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Joel Collins
Co-ordinates (50K)	123.035	-16.447
Landform:	Sand plain	
Bare ground:	<2%	
Litter cover:	11-30%	



Soil type:	Sand	
Fire age:	Moderate (3-5 yr)	
Vegetation condition:	Excellent	
Site ID	Beag-HP 05	VT04
Type:	Quadrat	Size: 50 x 50 m
Date:	05/03/2021	Described by: Joel Collins
Co-ordinates (50K)	13540763.78 N	363834.51 E
Landform:	Sand plain	
Bare ground:	11-30%	
Litter cover:	<2%	
Soil type:	Red, brown sand	
Fire age:	Recent (0-2 yr)	
Vegetation condition:	Good	
Site ID:	Dja-HP-01	
Type:	Quadrat	Size: 50 x 50 m
Date:	02/03/2021	Described by: Joel Collins
Co-ordinates (50K)	13666893.63N	592127.48 E
Landform:	Sand plain	
Bare ground:	<2%	
Litter cover:	2-10%	


Soil type:	Pale orange sand	
Fire age:	Recent (0-2 yr)	
Vegetation condition:	Very good	
Site ID:	Dja-HP-02	VT04
Type:	Quadrat	Size: 50 x 50 m
Date:	01/03/2021	Described by: Joel Collins
Co-ordinates (50K)	13666788.07 N	592167.25 E
Landform:	Sand plain	
Bare ground:	<2%	
Litter cover:	2-10%	
Soil type:	Pale orange sand	
Fire age:	Recent (0-2 yr)	
Vegetation condition:	Very good	
Site ID:	War01	
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8117789.163 N	416160.9904 E
Landform:	Hillslope	
Bare ground:	<2%	
Litter cover:	2-10%	

Soil type:	Silty Loam	
Fire age:	Old (6+ yr)	
Vegetation condition:	Excellent	
Site ID:	War03	VT02
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8117641.89 N	416079.6188 E
Landform:	Hillslope	
Bare ground:	<2%	
Litter cover:	<2%	
Soil type:	Sandy Loam	
Fire age:	Old (6+ yr)	
Vegetation condition:	Excellent	
Site ID:	RA1	VT03
Type:	Releve	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8117476.194 N	416094.2407 E
Landform:	Drainage Line	
Bare ground:	2-10%	
Litter cover:	<2%	

Soil type:	Gritty sand	
Fire age:	Old (6+ yr)	
Vegetation condition:	Good	
Site ID:	War06	VT02
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8116837.927 N	415694.8584 E
Landform:	Boulders/Rockpiles	
Bare ground:	<2%	
Litter cover:	2-10%	
Soil type:	Skeletal	
Fire age:	Old (6+ yr)	

Vegetation condition:	Very Good	
Site ID:	War02	VT01
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8117755.903 N	416230.7679 E
Landform:	Sandy/Stony Plain	
Bare ground:	11-30%	
Litter cover:	2-10%	
Soil type:	Sandy Loam	
Fire age:	Old (6+ yr)	
Vegetation condition:	Very Good	
Site ID:	War04	
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8117616.978 N	416139.5257 E
Landform:	Sandy/Stony Plain	
Bare ground:	11-30%	
Litter cover:	11-30%	

Soil type:	Sandy Loam	
Fire age:	Old (6+ yr)	
Vegetation condition:	Good	
Site ID:	War05	VT01
Type:	Quadrat	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8116851.937 N	415759.1475 E
Landform:	Sandy/Stony Plain	
Bare ground:	11-30%	
Litter cover:	2-10%	
Soil type:	Sandy Loam	
Fire age:	Old (6+ yr)	
Vegetation condition:	Very Good	
Site ID:	R2	VT04
Type:	Releve	Size: 50 x 50 m
Date:	21/02/2023	Described by: Angela Benkovic
Co-ordinates (50K)	8116647.801 N	415716.256 E
Landform:	Dampland	
Bare ground:	2-10%	
Litter cover:	<2%	

Soil type:	Sandy Loam	
Fire age:	Old (6+ yr)	
Vegetation condition:	Good	

Flora site raw data species list

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Ard_01_23	<i>Corymbia greeniana</i>		2	5	Tree (U)	Vegetative
Ard_01_23	<i>Acacia tumida</i> var. <i>kulparn</i>		30	6	Tree (U)	Fruit
Ard_01_23	<i>Acacia colei</i> var. <i>colei</i>		2	2	Shrub, cycad, grass-tree (M)	Vegetative
Ard_01_23	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		10	4	Tree (U)	Vegetative
Ard_01_23	<i>Senna oligoclada</i>		1	0.75	Shrub, cycad, grass-tree (M)	Flower
Ard_01_23	<i>Hakea arborescens</i>		1	1.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_01_23	<i>Tinospora smilacina</i>		1	0.5	Vine (G)	Flower
Ard_01_23	<i>Waltheria indica</i>		3	0.25	Shrub, cycad, grass-tree (M)	Flower bud
Ard_01_23	<i>Vigna lanceolata</i> var. <i>filiformis</i>		4	0.25	Vine (G)	Flower
Ard_01_23	<i>Atalaya hemiglauca</i>		2	1.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_01_23	<i>Terminalia canescens</i>		5	3	Shrub, cycad, grass-tree (M)	Vegetative
Ard_01_23	<i>Santalum lanceolata</i>		3	1.75	Shrub, cycad, grass-tree (M)	Flower bud
Ard_01_23	<i>Ehretia saligna</i> var. <i>saligna</i>		5	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Ard_01_23	<i>Spermacoce occidentalis</i>		10	0.25	Forb (G)	Flower
Ard_01_23	<i>Corchorus sidoides</i> subsp. <i>sidoides</i>		5	0.25	Forb (G)	Flower
Ard_01_23	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>		1	0.1	Forb (G)	Flower

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Ard_01_23	<i>Sorghum plumosum</i>		60	1.75	Tussock grass (G)	Flower bud
Ard_01_23	<i>Ptilotus calostachyus</i>		1	0.25	Forb (G)	Flower
Ard_01_23	<i>Tephrosia rosea</i> var. <i>clementii</i>		2	0.25	Forb (G)	Flower
Ard_01_23	<i>Euphorbia trigonosperma</i>		1	0.25	Forb (G)	Fruit
Ard_01_23	<i>Euphorbia coghlanii</i>		1	0.1	Forb (G)	Fruit
Ard_01_23	<i>Jacquemontia pannosa</i>		2	0.25	Forb (G)	Flower
Ard_01_23	<i>Triodia acutispicula</i>	P3	2	1	Hummock grass (G)	Fruit
Ard_01_23	<i>Terminalia petiolaris</i>		5	8	Tree (U)	Vegetative
Ard_01_23	<i>Zornia albiflora</i>		10	0.25	Forb (G)	Flower
Ard_01_23	<i>Chrysopogon pallidus</i>		20	1.5	Tussock grass (G)	Vegetative
Ard_01_23	<i>Cartonema paviflorum</i>		1	0.25	Forb (G)	Flower
Ard_01_23	<i>Passiflora foetida</i>	*	1	0.25	Vine (G)	Flower
Ard_01_23	<i>Wrightia saligna</i>		1	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Ard_01_23	<i>Cyperaceae</i> (insufficient material)		1	0.5	Sedge (G)	Fruit
Ard_01_23	<i>Eriachne</i> sp.		1	0.5	Tussock grass (G)	Fruit
Ard_01_23	<i>Hybanthus aurantiacus</i>		1	0.25	Forb (G)	Vegetative
Ard_01_23	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>		5	2	Shrub, cycad, grass-tree (M)	Flower bud
Ard_01_23	<i>Clerodendrum floribundum</i> var. <i>ovatum</i>		1	1.25	Shrub, cycad, grass-tree (M)	Flower
Ard_01_23	<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>		1	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Ard_01_23	<i>Corymbia</i> sp. (insufficient material)		30	12	Tree (U)	Flower bud
Op_col	<i>Bauhinia cunninghamii</i>					
Op_col	<i>Stylosanthes hamata</i>	*				
Op_col	<i>Grewia breviflora</i>					
Op_col	<i>Ptilotus</i> sp (insufficient material)					
Op_col	<i>Ficus platypoda</i>					
Op_col	<i>Cyperaceae</i> (insufficient material)					
Ard_02_23	<i>Acacia colei</i> var. <i>colei</i>		1	1.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Acacia monticola</i>		55	3.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		4	4	Tree (U)	Vegetative
Ard_02_23	<i>Chrysopogon pallidus</i>		30	1.5	Tussock grass (G)	Vegetative
Ard_02_23	<i>Sorghum plumosum</i>		10	1.75	Tussock grass (G)	Flower bud

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Ard_02_23	<i>Waltheria indica</i>		1	0.25	Shrub, cycad, grass-tree (M)	Flower bud
Ard_02_23	<i>Tinospora smilacina</i>		1	0.5	Vine (G)	Flower
Ard_02_23	<i>Cartonema parviflorum</i>		1	0.25	Forb (G)	Flower
Ard_02_23	<i>Zornia albiflora</i>		20	0.25	Forb (G)	Flower
Ard_02_23	<i>Bonamia linearis</i>		2	0.25	Forb (G)	Flower
Ard_02_23	<i>Stylosanthes hamata</i>	*	2	0.25	Forb (G)	Vegetative
Ard_02_23	<i>Apocynaceae</i> sp. (insufficient material)		1	0.25	Vine (G)	Vegetative
Ard_02_23	<i>Terminalia canescens</i>		3	3	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Tephrosia</i> sp.		1	0.25	Forb (G)	Flower
Ard_02_23	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		2	1.75	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>		1	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Triodia acutispicula</i>	P3	1	1	Hummock grass (G)	Fruit
Ard_02_23	<i>Santalum lanceolata</i>		3	1.75	Shrub, cycad, grass-tree (M)	Flower bud
Ard_02_23	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>		1	2	Shrub, cycad, grass-tree (M)	Flower bud
Ard_02_23	<i>Ehretia saligna</i> var. <i>saligna</i>		2	0.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Hakea macrocarpa</i>		1	3	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Atalaya hemiglauca</i>		2	1.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_02_23	<i>Passiflora foetida</i>	*	1	0.25	Vine (G)	Flower
Ard_02_23	<i>Schizachyrium fragile</i>		1	0.25	Tussock grass (G)	Vegetative
Ard_02_23	<i>Acacia tumida</i> var. <i>kulparn</i>		15	6	Tree (U)	Fruit
Ard_02_23	<i>Corymbia greeniana</i>		5	10	Tree (U)	Fruit
Ard_02_23	<i>Helicteres rhynchocarpa</i>		2	1.5	Shrub, cycad, grass-tree (M)	Vegetative
Op_col	<i>Solanum cunninghamii</i>					
Op_col	<i>Setaria dielsii</i>					
Op_col	<i>Calotropis gigantea</i>	*				
Op_col	<i>Perotis rara</i>					
Op_col	<i>Aristida latifolia</i>					
Ard_03_23	<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>		1	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Ard_03_23	<i>Santalum lanceolata</i>		3	1.75	Shrub, cycad, grass-tree (M)	Flowerbud
Ard_03_23	<i>Brachychiton diversifolius</i> R.Br. subsp. <i>diversifolius</i>		2	1.75	Shrub, cycad, grass-tree (M)	Vegetative

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Ard_03_23	<i>Corymbia greeniana</i>		3	10	Tree (U)	Fruit
Ard_03_23	<i>Sorghum plumosum</i>		15	1.75	Tussock grass (G)	Flowerbud
Ard_03_23	<i>Chrysopogon pallidus</i>		30	1.5	Tussock grass (G)	Vegetative
Ard_03_23	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		10	4	Tree (U)	Vegetative
Ard_03_23	<i>Zornia albiflora</i>		20	0.25	Forb (G)	Flower
Ard_03_23	<i>Waltheria indica</i>		1	0.25	Shrub, cycad, grass-tree (M)	Flowerbud
Ard_03_23	<i>Tinospora smilacina</i>		1	0.5	Vine (G)	Flower
Ard_03_23	<i>Hakea macrocarpa</i>		1	3	Shrub, cycad, grass-tree (M)	Vegetative
Ard_03_23	<i>Melhania oblongifolia</i>		2	0.25	Forb (G)	Flower
Ard_03_23	<i>Hibiscus leptocladus</i>		4	0.25	Forb (G)	Flower
Ard_03_23	<i>Corchorus sidoides</i> subsp. <i>Sidoides</i>		10	0.25	Forb (G)	Flower
Ard_03_23	<i>ehretia saligna</i> var. <i>saligna</i>		2	0.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_03_23	<i>Triodia acutispicula</i>	P3	1	1	Hummock grass (G)	Fruit
Ard_03_23	<i>Eriachne</i> sp.		1	0.5	Tussock grass (G)	Fruit
Ard_03_23	<i>Spermacoce occidentalis</i>		1	0.25	Forb (G)	Flower
Ard_03_23	<i>Grewia breviflora</i>		1	0.25	Forb (G)	Vegetative
Ard_03_23	<i>Terminalia canescens</i>		2	3	Shrub, cycad, grass-tree (M)	Vegetative
Ard_03_23	<i>Bonamia</i> sp.		1	0.25	Forb (G)	Vegetative
Ard_03_23	<i>Terminalia petiolaris</i>		5	8	Tree (U)	Vegetative
Ard_03_23	<i>Crotalaria medicaginea</i> Lam. var. <i>medicaginea</i>		1	0.25	Forb (G)	Flower
Ard_03_23	<i>Solanum cunninghamii</i>		1	0.25	Forb (G)	Flower
Ard_03_23	<i>Trianthema pilosa</i>		1	0.1	Forb (G)	Flower
Ard_03_23	<i>Chamaecrista absus</i> var. <i>absus</i>		1	0.25	Forb (G)	Fruit
Ard_03_23	<i>Paspalidium rarum</i>		1	0.25	Other grass (G)	Fruit
Ard_04_23	<i>Acacia tumida</i> var. <i>kulparn</i>		75	10	Tree (U)	Vegetative
Ard_04_23	<i>Corymbia</i> sp. (insufficient material)		2	12	Tree (U)	Flowerbud
Ard_04_23	<i>Hakea arborescens</i>		1	1.5	Shrub, cycad, grass-tree (M)	Vegetative
Ard_04_23	<i>Sorghum plumosum</i>		15	1.75	Tussock grass (G)	Flowerbud
Ard_04_23	<i>Bonamia linearis</i>		5	0.25	Forb (G)	Flower
Ard_04_23	<i>Tinospora smilacina</i>		1	0.5	Vine (G)	Flower
Ard_04_23	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		20	4	Tree (U)	Vegetative

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Ard_04_23	<i>Corchorus sidoides</i> subsp. <i>Sidoides</i>		10	0.25	Forb (G)	Flower
Ard_04_23	<i>Waltheria indica</i>		1	0.25	Shrub, cycad, grass-tree (M)	Flowerbud
Ard_04_23	<i>Spermacoce occidentalis</i>		1	0.25	Forb (G)	Flower
Ard_04_23	<i>Chrysopogon pallidus</i>		5	1.5	Tussock grass (G)	Vegetative
Ard_04_23	<i>Gonocarpus leptothecus</i>		4	0.25	Forb (G)	Vegetative
Ard_04_23	<i>santalum lanceolata</i>		2	1.75	Shrub, cycad, grass-tree (M)	Flowerbud
Ard_04_23	<i>Premna acuminata</i>		5	1.75	Shrub, cycad, grass-tree (M)	Vegetative
Ard_04_23	<i>Terminalia petiolaris</i>		2	3.5	Tree (U)	Vegetative
Ard_04_23	<i>Melhania oblongifolia</i>		1	0.25	Forb (G)	Flower
Ard_04_23	<i>Zornia albiflora</i>		15	0.25	Forb (G)	Flower
Ard_04_23	<i>Bonamia linearis</i>		1	0.1	Forb (G)	Vegetative
Ard_04_23	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		2	1.75	Shrub, cycad, grass-tree (M)	Vegetative
Ard_04_23	<i>Terminalia canescens</i>		1	1.5	Shrub, cycad, grass-tree (M)	Vegetative
Dja01_23	<i>Acacia tumida</i> var. <i>kulparn</i>		10	7	Tree (U)	Vegetative
Dja01_23	<i>Cyanthillium cinereum</i>	*	15	12	Tree (U)	Vegetative
Dja01_23	<i>Bauhinia cunninghamii</i>		2	2	Shrub, cycad, grass-tree (M)	Vegetative
Dja01_23	<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>		2	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Dja01_23	<i>Sorghum plumosum</i>		55	1.75	Tussock grass (G)	Flower
Dja01_23	<i>Spermacoce occidentalis</i>		1	0.25	Forb (G)	Flower
Dja01_23	<i>Corchorus sidoides</i> subsp. <i>Sidoides</i>		2	0.25	Forb (G)	Flower
Dja01_23	<i>Fimbristylis crosslandii</i>		3	0.25	Sedge (G)	Fruit
Dja01_23	<i>Waltheria indica</i>		1	0.25	Shrub, cycad, grass-tree (M)	Flowerbud
Dja01_23	<i>Calandrinia tepperiana</i>		1	0.1	Forb (G)	Flower
Dja01_23	<i>Chrysopogon pallidus</i>		2	1.5	Tussock grass (G)	Fruit
Dja01_23	<i>Corymbia greeniana</i>		2	10	Tree (U)	Fruit
Dja01_23	<i>Gossypium rotundifolium</i>		30	0.25	Forb (G)	Flower
Dja01_23	<i>Commelina ensifolia</i>		1	0.1	Forb (G)	Flower
BB01_23	<i>Acacia tumida</i> var. <i>kulparn</i>		10	8	Tree (U)	Vegetative
BB01_23	<i>Corymbia greeniana</i>		5	10	Tree (U)	Fruit
BB01_23	<i>Melaleuca nervosa</i> subsp <i>crosslandiana</i>		1	1.75	Shrub, cycad, grass-tree (M)	Vegetative

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
BB01_23	<i>Chrysopogon pallidus</i>		25	0.5	Tussock grass (G)	Vegetative
BB01_23	<i>Solanum cunninghamii</i>		2	0.25	Forb (G)	Flower
BB01_23	<i>Tribulopsis angustifolia</i>		1	0.1	Forb (G)	Flower
BB01_23	<i>Calandrinia tepperiana</i>		1	0.25	Forb (G)	Flower
BB01_23	<i>Gonocarpus leptothecus</i>		25	0.25	Forb (G)	Vegetative
BB01_23	<i>Hybanthus aurantiacus</i>		1	0.25	Forb (G)	Flower
BB01_23	<i>Ptilotus fusiformis</i>		1	0.1	Forb (G)	Flower
BB01_23	<i>Euphorbia coghlanii</i>		1	0.1	Forb (G)	Flower
BB01_23	<i>Corchorus sidoides</i> subsp. <i>Sidoides</i>		2	0.25	Forb (G)	Flower
BB01_23	<i>Spermacoce occidentalis</i>		1	0.25	Forb (G)	Flower
BB01_23	<i>Eriachne avenacea</i>		1	0.25	Tussock grass (G)	Fruit
BB01_23	<i>Waltheria indica</i>		1	0.25	Shrub, cycad, grass-tree (M)	Flowerbud
BB01_23	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>		1	0.1	Forb (G)	Flower
BB01_23	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		1	0.5	Shrub, cycad, grass-tree (M)	Vegetative
BB01_23	<i>Cassytha filiformis</i>		1	0.5	Vine (G)	Vegetative
BB01_23	<i>Tinospora smilacina</i>		1	0.5	Vine (G)	Vegetative
BB01_23	<i>Trianthema pilosa</i>		1	0.1	Forb (G)	Flower
BB01_23	<i>Sorghum plumosum</i>		1	0.5	Tussock grass (G)	Flower
BB01_23	<i>Terminalia canescens</i>		1	2	Shrub, cycad, grass-tree (M)	Vegetative
BB01_23	<i>Drosera broomensis</i>		1	0.1	Forb (G)	Dehisced fruit
BB01_23	<i>Trachymene didiscoides</i>		1	0.25	Forb (G)	Flower
BB01_23	<i>Euploca foliata</i>		1	0.25	Forb (G)	Flower
BB01_23	<i>Euploca leptalea</i>		1	0.1	Forb (G)	Flower
BB01_23	<i>Fimbristylis cardiocarpa</i>		3	0.25	Sedge (G)	Fruit
BB01_23	<i>Malvaceae</i> sp. (insufficient material)		1	0.25	Forb (G)	Vegetative
BB01_23	<i>Crotalaria brevis</i>		1	0.25	Forb (G)	Vegetative
Bid01_23	<i>Tephrosia andrewii</i>	P3	1	0.25	Shrub, cycad, grass-tree (M)	Immature fruit
Bid01_23	<i>Acacia arida</i>		15	0.5	Shrub, cycad, grass-tree (M)	Immature fruit
Bid01_23	<i>Triodia epactia</i>		35	0.5	Hummock grass (G)	Fruit
Bid01_23	<i>Sorghum plumosum</i>		15	0.5	Tussock grass (G)	Flower
Bid01_23	<i>Bonamia linearis</i>		1	0.1	Forb (G)	Vegetative
Bid01_23	<i>Eragrostis scabrada</i>		2	0.25	Tussock grass (G)	Fruit

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Bid01_23	<i>Tephrosia</i> sp. B Kimberly Flora (C.A.Gardner 7300)		1	0.25	Forb (G)	Flower
Bid01_23	<i>Yakirra australiensis</i> var. <i>australiensis</i>		10	0.5	Tussock grass (G)	Fruit
Bid01_23	<i>Corchorus incanus</i> subsp. <i>incanus</i>		2	0.25	Shrub, cycad, grass-tree (M)	Flower
Bid01_23	<i>Senna notabilis</i>		1	0.1	Forb (G)	Vegetative
Bid01_23	<i>Triodia schinzi</i>		10	1	Hummock grass (G)	Fruit
Bid01_23	<i>Acacia colei</i> var. <i>colei</i>		5	1.75	Shrub, cycad, grass-tree (M)	Fruit
Bid01_23	<i>Sida</i> sp. Pindan (B.G. Thomson 3398)		1	0.25	Forb (G)	Flower
Bid01_23	<i>Hibiscus leptocladus</i>		1	0.25	Forb (G)	Flower
Bid01_23	<i>Indigofera monophylla</i>		1	0.25	Shrub, cycad, grass-tree (M)	Fruit
Bid01_23	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>		1	0.1	Forb (G)	Flower
Bid01_23	<i>Hybanthus aurantiacus</i>		1	0.25	Forb (G)	Vegetative
Bid01_23	<i>Corymbia bella</i>		3	8	Tree (U)	Fruit
Bid01_23	<i>Euphorbia coghlanii</i>		1	0.1	Forb (G)	Flower
Bid01_23	<i>Cartonema parviflorum</i>		1	0.25	Forb (G)	Flower
Bid01_23	<i>Trichodesma zeylanicum</i>		1	1	Forb (G)	Flower
Bid01_23	<i>Ptilotus astrolasius</i>		1	0.25	Forb (G)	Flower
Bid01_23	<i>Goodenia armitiana</i>		1	0.1	Forb (G)	Vegetative
Bid01_23	<i>Trianthema pilosa</i>		1	0.1	Forb (G)	Flower
Bid01_23	<i>Jacksonia aculeata</i>		1	0.25	Shrub, cycad, grass-tree (M)	Vegetative
Bid01_23	<i>Gardenia pyriformis</i> subsp. <i>keartlandi</i>		1	1.5	Shrub, cycad, grass-tree (M)	Fruit
Bid01_23	<i>Arivela uncifera</i>		1	0.25	Forb (G)	Flower
Bid01_23	<i>Corchorus sidoides</i> subsp. <i>Sidoides</i>		1	0.25	Forb (G)	Flower
Bid01_23	<i>Chrysopogon pallidus</i>		2	1.25	Tussock grass (G)	Flower
Bid01_23	<i>Scaevola parvifolia</i> Benth. subsp. <i>Parvifolia</i>		1	0.25	Forb (G)	Vegetative
Bid02_23	<i>Corymbia bella</i>		2	8	Tree (U)	Fruit
Bid02_23	<i>Triodia epactia</i>		45	0.5	Hummock grass (G)	Fruit
Bid02_23	<i>Sorghum plumosum</i>		10	0.5	Tussock grass (G)	Flower
Bid02_23	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>		1	0.1	Forb (G)	Flower
Bid02_23	<i>Hybanthus aurantiacus</i>		1	0.25	Forb (G)	Vegetative
Bid02_23	<i>Indigofera monophylla</i>		2	0.25	Shrub, cycad, grass-tree (M)	Fruit
Bid02_23	<i>Codonocarpus cotinifolius</i> (Desf.) F.Muell.		2	1.25	Shrub, cycad, grass-tree (M)	Vegetative

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Bid02_23	<i>Hibiscus leptocladus</i>		1	0.25	Forb (G)	Flower
Bid02_23	<i>Heliotropium leptaleum</i>		1	0.1	Forb (G)	Flower
Bid02_23	<i>Ptilotus calostachyus</i>		1	0.25	Forb (G)	Flower
Bid02_23	<i>Acacia colei</i> var. <i>colei</i>		1	0.5	Shrub, cycad, grass-tree (M)	Fruit
Bid02_23	<i>Grevillea wickhamii</i>		1	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Bid02_23	<i>Bonamia linearis</i>		1	0.1	Forb (G)	Vegetative
Bid02_23	<i>Corchorus sidoides</i> subsp. <i>Sidoides</i>		1	0.25	Forb (G)	Flower
Bid02_23	<i>Arivela uncifera</i>		1	0.25	Forb (G)	Flower
Bid02_23	<i>Trianthema pilosa</i>		1	0.1	Forb (G)	Flower
Bid02_23	<i>Euphorbia coghlanii</i>		1	0.1	Forb (G)	Flower
Bid02_23	<i>Trichodesma zeylanicum</i>		1	1	Forb (G)	Flower
Bid02_23	<i>Senna notabilis</i>		1	0.1	Forb (G)	Vegetative
Bid02_23	<i>Cleome viscosa</i>		1	0.25	Forb (G)	Flower
Bid02_23	<i>Acacia monticola</i>		15	1.75	Shrub, cycad, grass-tree (M)	Vegetative
Bid02_23	<i>Ptilotus astrolasius</i>		1	0.25	Forb (G)	Flower
Bid02_23	<i>Yakirra australiensis</i> var. <i>australiensis</i>		2	0.5	Tussock grass (G)	Fruit
Bid02_23	<i>Portulaca cyclophylla</i>		1	0.1	Forb (G)	Flower
Bid02_23			1	0.25	Forb (G)	Vegetative
Bid02_23	<i>Triodia schinzii</i>		2	1	Hummock grass (G)	Fruit
Bid02_23	<i>Corymbia hamersleyana</i>		1	9	Tree (U)	Immature fruit
Bid02_23	<i>Bulbostylis barbata</i>		1	0.1	Forb (G)	Fruit
Bid02_23	<i>Goodenia armitiana</i>		1	0.1	Forb (G)	Vegetative
Bid02_23	<i>Sida</i> sp. <i>Pindan</i> (B.G. Thomson 3398)		1	0.25	Forb (G)	Flower
Bid02_23	<i>Calandrinia strophiolata</i>		1	0.1	Forb (G)	Flower
Bid02_23	<i>Chrysopogon pallidus</i>		10	1.25	Tussock grass (G)	Flower
Bid02_23	<i>Scaevola parvifolia</i> Benth. subsp. <i>Parvifolia</i>		1	0.25	Forb (G)	Vegetative
Bid03_23	<i>Corymbia hamersleyana</i>		10	9	Tree (U)	Immature fruit
Bid03_23	<i>Acacia monticola</i>		20	1.75	Shrub, cycad, grass-tree (M)	Vegetative
Bid03_23	<i>Acacia colei</i> var. <i>colei</i>		1	0.5	Shrub, cycad, grass-tree (M)	Fruit
Bid03_23	<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>		1	1	Shrub, cycad, grass-tree (M)	Vegetative
Bid03_23	<i>Triodia epactia</i>		30	0.5	Hummock grass (G)	Fruit

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Bid03_23	<i>Triodia schinzi</i>		30	1	Hummock grass (G)	Fruit
Bid03_23	<i>Acacia arida</i>		20	0.5	Shrub, cycad, grass-tree (M)	Immature fruit
Bid03_23	<i>Ptilotus astrolasius</i>		1	0.25	Forb (G)	Flower
Bid03_23	<i>Hybanthus aurantiacus</i>		1	0.25	Forb (G)	Vegetative
Bid03_23	<i>Corchorus sidoides</i> subsp. <i>Sidoides</i>		1	0.25	Forb (G)	Flower
Bid03_23	<i>Cartonema parviflorum</i>		1	0.25	Forb (G)	Flower
Bid03_23	<i>Acacia adoxa</i> var. <i>subglabra</i>		2	0.25	Shrub, cycad, grass-tree (M)	Fruit
Bid03_23	<i>Scaevola parvifolia</i> Benth. subsp. <i>Parvifolia</i>		1	0.25	Forb (G)	Vegetative
Bid03_23	<i>Yakirra australiensis</i> var. <i>australiensis</i>		10	0.5	Tussock grass (G)	Fruit
Bid03_23	<i>Indigofera monophylla</i>		1	0.25	Shrub, cycad, grass-tree (M)	Fruit
Bid03_23	<i>Gardenia pyriformis</i> subsp. <i>keartlandi</i>		1	1.5	Shrub, cycad, grass-tree (M)	Fruit
Bid03_23	<i>Codonocarpus cotinifolius</i> (Desf.) F.Muell.		1	1.25	Shrub, cycad, grass-tree (M)	Vegetative
Bid03_23	<i>Tephrosia andrewii</i>	P3	1	0.25	Shrub, cycad, grass-tree (M)	Immature fruit
Bid03_23	<i>Solanum cunninghamii</i>		1	0.25	Forb (G)	Vegetative
Bid03_23	<i>Chrysopogon pallidus</i>		5	1.25	Tussock grass (G)	Flower
Bid03_23	<i>Ptilotus astrolasius</i>		1	0.25	Forb (G)	Flower
Bid03_23	<i>Eragrostis scabrida</i>		2	0.25	Tussock grass (G)	Fruit
Bid03_23	<i>Grevillea pyramidalis</i> R.Br. subsp. <i>pyramidalis</i>		3	2	Shrub, cycad, grass-tree (M)	Flower
Bid03_23	<i>Corymbia bella</i>		1	6	Tree (U)	Fruit
Bid03_23	<i>Corchorus incanus</i> subsp. <i>incanus</i>		1	0.25	Shrub, cycad, grass-tree (M)	Flower
Bid03_23	<i>Heliotropium leptaleum</i>		1	0.1	Forb (G)	Flower
Dja_HP_01	<i>Sorghum plumosum</i>		70-30%	1.75	Tussock grass (G)	
Dja_HP_01	<i>Acacia tumida</i> var. <i>kulparn</i>		<10%	1.75	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_01	<i>Spermacoce occidentalis</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_01	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>	P3	<10%	0.25	Forb (G)	
Dja_HP_01	<i>Hybanthus aurantiacus</i>		<2% Numerous	0.25	Forb (G)	

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Dja_HP_01	<i>Polymeria calycina</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_01	<i>Evolvulus alsinoides</i> var. <i>decumbens</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_01	<i>Heliotropium leptaleum</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_01	<i>Waltheria indica</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_01	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>	P3	<2% Numerous	0.25	Forb (G)	
Dja_HP_01	<i>Microstachys chamaelea</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_01	<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>		<2% Few than 10	0.5	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_01	<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>		<2% Numerous	0.75	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_01	<i>Tephrosia</i> sp. B Kimberly Flora (C.A. Gardner 7300)		<2% Few than 10	0.5	Forb (G)	
Dja_HP_01	<i>Dodonaea hispidula</i> var. <i>arida</i>		<2% Numerous	0.75	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_01	<i>Crotalaria brevis</i>		<2% Few than 10	0.25	Forb (G)	
Dja_HP_01	<i>Corchorus sidoides</i> subsp. <i>sidoides</i>		<2% Numerous	0.25	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_01	<i>Polymeria ambigua</i>		<2% Few than 10	0.25	Forb (G)	
Dja_HP_01	<i>Poaceae</i> sp.		<2% Few than 10	0.5	Tussock grass (G)	
Dja_HP_01	<i>Terminalia</i> sp.		<2% Few than 10	3	Tree, palm (U)	
Dja_HP_01	<i>Eucalyptus miniata</i>		30-10%	12	Tree, palm (U)	
Dja_HP_01	<i>Arivela tetrandra</i> (DC.) R.L.Barrett		<2% Few than 10	0.1	Forb (G)	
Dja_HP_01	<i>Abildgaardia schoenoides</i>		<10%	0.25	Sedge (G)	
Dja_HP_01	<i>Gossypium rotundifolium</i>		<10%	0.25	Forb (G)	
Dja_HP_01	<i>Chrysopogon pallidus</i>		<10%	1.25	Tussock grass (G)	
Dja_HP_02	<i>Sorghum plumosum</i>		70-30%	1.75	Tussock grass (G)	

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Dja_HP_02	<i>Acacia tumida</i> var. <i>kulparn</i>		30-10%	1.75	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_02	<i>Spermacoce occidentalis</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>	P3	<10%	0.25	Forb (G)	
Dja_HP_02	<i>Hybanthus aurantiacus</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Polymeria calycina</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Evolvulus alsinoides</i> var. <i>decumbens</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Heliotropium leptaleum</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Abildgaardia schoenoides</i>		<10%	0.25	Sedge (G)	
Dja_HP_02	<i>Gossypium rotundifolium</i>		<10%	0.25	Forb (G)	
Dja_HP_02	<i>Solanum cunninghamii</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Eucalyptus miniata</i>		30-10%	12	Tree, palm (U)	
Dja_HP_02	<i>Polymeria ambigua</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Bauhinia cunninghamii</i>		<2% Few than 10	1.5	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_02	<i>Tephrosia</i> sp. B Kimberly Flora (C.A. Gardner 7300)		<2% Few than 10	0.25	Forb (G)	
Dja_HP_02	<i>Fimbristylis crosslandii</i>		<2% Few than 10	0.25	Forb (G)	
Dja_HP_02	<i>Calandrinia strophiolata</i>		<2% Few than 10	0.25	Forb (G)	
Dja_HP_02	<i>Waltheria indica</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Arivela tetrandra</i>		<2% Numerous	0.1	Forb (G)	
Dja_HP_02	<i>Chrysopogon pallidus</i>		<10%	1.25	Tussock grass (G)	
Dja_HP_02	<i>Phyllanthus exilis</i>		<2% Numerous	0.1	Forb (G)	
Dja_HP_02	<i>Microstachys chamaelea</i>		<2% Numerous	0.25	Forb (G)	

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Dja_HP_02	<i>Commelina ensifolia</i>		<2% Numerous	0.25	Forb (G)	
Dja_HP_02	<i>Poaceae</i> sp.		<2% Few than 10	0.5	Tussock grass (G)	
Dja_HP_02	<i>Brachychiton diversifolius</i> subsp <i>diversifolius</i>		<2% Few than 10	0.5	Shrub, cycad, grass-tree, tree-fern (M)	
Dja_HP_02	<i>Crotalaria brevis</i>		<2% Few than 10	0.25	Forb (G)	
Dja_HP_02	<i>Murdannia graminea</i>		<2% Few than 10	0.25	Forb (G)	
Dja_HP_02	<i>Gyrostemon tepperi</i>		<2% Few than 10	0.25	Forb (G)	
Dja_HP_02	<i>Bonamia linearis</i>		<2% Few than 10	0.25	Forb (G)	
Beag_HP_05	<i>Corymbia greeniana</i>		30-10%	12	Tree, palm (U)	
Beag_HP_05	<i>Acacia tumida</i> var. <i>kulparn</i>		70-30%	6	Tree, palm (U)	
Beag_HP_05	<i>Brachychiton diversifolius</i> subsp <i>diversifolius</i>		<2% Few than 10	1.25	Shrub, cycad, grass-tree, tree-fern (M)	
Beag_HP_05	<i>Hybanthus aurantiacus</i>		70-30%	0.5	Forb (G)	
Beag_HP_05	<i>Corchorus sidoides</i> subsp. <i>sidoides</i>		<10%	0.25	Shrub, cycad, grass-tree, tree-fern (M)	
Beag_HP_05	<i>Spermacoce occidentalis</i>		<2% Numerous	0.25	Forb (G)	
Beag_HP_05	<i>Chrysopogon pallidus</i>		<10%	1.25	Tussock grass (G)	
Beag_HP_05	<i>Heliotropium leptaleum</i>		<2% Numerous	0.25	Forb (G)	
Beag_HP_05	<i>Calotropis gigantea</i>	*	<2% Few than 10	0.1	Forb (G)	
Beag_HP_05	<i>Arivela tetrandra</i>		<2% Few than 10	0.1	Forb (G)	
Beag_HP_05	<i>Phyllanthus exilis</i>		<2% Numerous	0.1	Forb (G)	
Beag_HP_05	<i>Gomphrena tenella</i>		<2% Numerous	0.25	Forb (G)	
Beag_HP_05	<i>Ptilotus fusiformis</i>		<2% Numerous	0.25	Forb (G)	
Beag_HP_05	<i>Bonamia linearis</i>		<2% Numerous	0.25	Forb (G)	
Beag_HP_05	<i>Goodenia sepalosa</i> var. <i>sepalosa</i>	P3	<2% Few than 10	0.25	Forb (G)	

Site	Species	Status	% cover	Height (m)	Form/Stratum	Reproductive state
Beag_HP_05	<i>Eriachne melicacea</i>		70-30%	0.25	Other grass (G)	
Beag_HP_05	<i>Yakirra pauciflora</i>		<2% Few than 10	0.25	Other grass (G)	
Beag_HP_05	<i>Gardenia pyriformis</i> subsp. <i>keartlandii</i>		<2% Few than 10	0.5	Shrub, cycad, grass-tree, tree-fern (M)	

Significant flora raw data

Species	Status	Number of individuals	Cover (%)	Coordinates	Coordinates
<i>Goodenia byrnesii</i>	P3	5	-	415730.276	8116673.430
<i>Tephrosia andrewii</i>	P3	14	-	121.7899	-18.6763
<i>Tephrosia andrewii</i>	P3	15	-	121.7897	-18.6759
<i>Tephrosia andrewii</i>	P3	12	-	121.7888	-18.6780
<i>Tephrosia andrewii</i>	P3	15	-	121.7889	-18.6797
<i>Tephrosia andrewii</i>	P3	15	-	121.7890	-18.6781
<i>Tephrosia andrewii</i>	P3	9	-	121.7889	-18.6798
<i>Tephrosia andrewii</i>	P3	2	-	121.7892	-18.6810
<i>Tephrosia andrewii</i>	P3	35	-	121.7861	-18.6803
<i>Tephrosia andrewii</i>	P3	1	-	121.7844	-18.6794
<i>Tephrosia andrewii</i>	P3	3	-	121.7860	-18.6803
<i>Triodia acutispicula</i>	P3	5	2	123.0353	-16.4478
<i>Triodia acutispicula</i>	P3	-	10	123.0360	-16.4417
<i>Triodia acutispicula</i>	P3	5	1	123.0328	-16.4478
<i>Triodia acutispicula</i>	P3	3	-	123.0354	-16.4476
<i>Triodia acutispicula</i>	P3	-	10	123.0347	-16.4395
<i>Triodia acutispicula</i>	P3	-	10	123.0356	-16.4397
<i>Triodia acutispicula</i>	P3	-	10	123.0348	-16.4408
<i>Triodia acutispicula</i>	P3	45	4	123.0357	-16.4404
<i>Triodia acutispicula</i>	P3	25	10	123.0355	-16.4467
<i>Triodia acutispicula</i>	P3	-	10	123.0354	-16.4414
<i>Triodia acutispicula</i>	P3	-	30	123.0367	-16.4419
<i>Triodia acutispicula</i>	P3	-	10	123.0343	-16.4397
<i>Triodia acutispicula</i>	P3	10	1	123.0331	-16.4474
<i>Triodia acutispicula</i>	P3	10	0	123.0368	-16.4414
<i>Triodia acutispicula</i>	P3	1	0	123.0290	-16.4417
<i>Triodia acutispicula</i>	P3	45	4	123.0357	-16.4403
<i>Triodia acutispicula</i>	P3	-	60	123.0369	-16.4418

Flora likelihood of occurrence assessment guidelines

Likelihood of occurrence	Guideline
Recorded	Species recorded in current survey and/or previous recorded from desktop review
Likely	Species previously recorded within the study area and large areas of suitable habitat occur in the survey area.
Possible	Species previously recorded within the study area and areas of suitable habitat occur/may occur in the survey area.
Unlikely	Species previously recorded within the study area, but suitable habitat does not occur in the survey area.
Highly unlikely	Species not previously recorded within the study area, suitable habitat does not occur in the survey area and/or the survey area is outside the natural distribution of the species.
Other considerations	Intensity of survey, availability of access, growth form type, recorded flowering times, cryptic nature of species

Source information - desktop searches

PMST – DEE Protected Matters Search Tool (PMST) to identify flora listed under the EPBC Act potentially occurring within the study area

TPFL and WAHERB – records of threatened flora from TPFL and WAHERB database searches within the study area

NM – DBCA *NatureMap*

Flora likelihood of occurrence assessment of conservation significant flora identified in the desktop assessment as potentially occurring within the Warmun survey area

Family	Taxon	Status		Description	Likelihood of occurrence	Source
		BC Act/ DBCA	EPBC Act			
Apocynaceae	<i>Leichhardtia racemosa</i>	P1		Climber. Recorded on sandstone boulders beside permanent watercourse.	Unlikely No suitable habitat present. Closest record is approximately 20 km south of the survey area. Suitable search effort did not record the species.	NM
Araceae	<i>Colocasia esculenta</i> <i>var. aquatilis</i>	P3		Herb to 1.5 m, semi-aquatic, in black sand of creeks.	Unlikely Closest known record is from over 30 km east within the Purnululu National Park. No suitable habitat present. Suitable search effort did not record the species.	NM
Asteraceae	<i>Blumea pungens</i>	P2		Erect, rigid, viscid perennial, herb, 0.6-1.5 m high. Fl. yellow, Jun to Jul or Sep. Sandstone hills & plateaus.	Unlikely Closest known record is from the Purnululu National Park. No suitable habitat present.	NM

Family	Taxon	Status		Description	Likelihood of occurrence	Source
		BC Act/ DBCA	EPBC Act			
					Suitable search effort did not record the species.	
Asteraceae	<i>Pentalepis trichodesmoides subsp. incana</i>	P1		Yellow daisy 50 cm tall, upright herb. Upper hillslope of large basaltic hill. Skeletal soils.	Unlikely Suitable habitat present. Closest record more than 35 km south-east from ex Mabel Downs Station, now Purnululu National Park. Suitable search effort did not record the species.	NM
Boraginaceae	<i>Euploca uniflora</i>	P1		Greyish, perennial herb 6 inches high with white flowers. Undulating rocky plateay, red sandstone and quartzite. Crest of rugged sandstone hills.	Unlikely Closest record is more than 50 km north of the survey area. Suitable search effort did not record the species.	NM
Convolvulaceae	<i>Jacquemontia</i> sp. Keep River (J.L. Egan 5015)	P1		Prostrate creeper with very felty foliage, mauve flowers. Valley, ranges, clay. Lower sandy slopes.	Unlikely Closest known records are over 35 km north of the survey area. Suitable search effort did not record the species.	NM
Cucurbitaceae	<i>Cucumis</i> sp. Bastion Range (A.A. Mitchell et al. AAM 10710)	P1		Creeper/vine. Footslope.	Unlikely The closest record is 20 km south of the survey area in similar habitat. <i>Cucumis</i> specimens were collected during the survey however none were identified as this species. Suitable search effort did not record the species.	NM, DBCA
Fabaceae	<i>Acacia clavisetia</i>	P3		Erect, much branched shrub to 2-3 m tall. Flowers golden yellow. Sandstone range/scree.	Unlikely Species is distinctive and would have been recorded if present. Survey area does not contain suitable habitat. Suitable search effort did not record the species.	NM

Family	Taxon	Status		Description	Likelihood of occurrence	Source
		BC Act/ DBCA	EPBC Act			
Fabaceae	<i>Acacia zatrichota</i>	P2		Shrub, to 1.5 m high. Fl. yellow, Jul. Sand. On sandstone scree slopes.	Unlikely Only known records are from Purnululu National Park. No suitable habitat within the survey area.	NM
Fabaceae	<i>Glycine pullenii</i>	P3		Climber (with trailing stems). Fl. cream-green, Jun. Sand. On sand plain in open woodland.	Unlikely Closest records are more than 40 km south-east of the survey area from Purnululu National Park.	NM
Fabaceae	<i>Tephrosia</i> sp. Mistake Creek (A.C. Beaglehole 54424)	P3		Open shrub to 2 m, flowers mauve-pink. In damp soil of hillside spring. Minor flowline through stony hills. Open alluvial flat. On creek flat/banks.	Unlikely Limited suitable habitat. Species is distinctive and would have been recorded if present. Closest known record is more than 40 km north-east of the survey area.	NM
Malvaceae	<i>Dicarpidium</i> sp. Purnululu (K.A. Menkhorst 766)	P2		Spreading shrub 30 cm high, 70 cm across. Flowers pink with yellow centre. Sandstone pavement.	Unlikely Only one record known from Purnululu National Park, approximately 17 km south-east of the survey area. No suitable habitat present. Suitable search effort did not record the species.	NM
Malvaceae	<i>Hibiscus squarulosus</i>	P1		Shrub, to 3 m high. Fl. pink, Jul or Nov. Sand, sandstone. Beside watercourses, creek banks.	Unlikely Closest record is approximately 25 km south-east of the survey area. Limited suitable habitat present. Suitable search effort did not record the species.	NM, DBCA
Menispermaceae	<i>Stephania japonica</i> var. <i>japonica</i>	P2		Creeper. At base of limestone outcrop. On sandy bank of ephemeral watercourse.	Unlikely Closest known record is more than 50 km south of the survey area.	NM

Family	Taxon	Status		Description	Likelihood of occurrence	Source
		BC Act/ DBCA	EPBC Act			
Myrtaceae	<i>Eucalyptus ordiana</i>	P2		(Mallee) or tree, 2-5.5 m high, bark smooth, powdery. Fl. white, Apr to May. Skeletal soils over sandstone or quartzite. Steep rocky outcrops.	Unlikely Species is distinctive and would have been recorded if present. Closest record is approximately 28 km north of the survey area. Suitable search effort did not record the species.	NM
Myrtaceae	<i>Kunzea petrophila</i>	P1		Small shrub to 60 cm. Recorded growing on vertical cliff face, ironstone cap over red sandstone; sandstone plateau above narrow gorge.	Unlikely Closest known records are over 38 km north of the survey area. No suitable habitat present. Suitable search effort did not record the species.	NM
Myrtaceae	<i>Leptospermum madidum subsp. sativum</i>	P3		Shrub or tree, 1.5-8 m high. Fl. white-cream, Jul. Sandy soils. Along watercourses, sandstone gorges.	Unlikely Closest known records are from more than 20 km south-east of the survey area. Species is distinctive and would have been recorded if present. No suitable habitat present. Suitable search effort did not record the species.	NM
Phyllanthaceae	<i>Synostemon rigidulus</i>	P3		Low shrub to ca 30 cm high. Sandy soil on sandstone outcrop/ranges. Rocky slope above gorge.	Unlikely Closest known record approximately 22 km south-east of the survey area. Species would have been flowering at the time of survey. Suitable search effort did not record the species.	NM
Poaceae	<i>Micraira</i> sp. Purnululu (M.D. Barrett & R.L. barrett 1507)	P1		Low grass to 10 cm, mats to 3 m across. On sand base, shallow soil, on rock platform, sandstone substrate.	Unlikely Unsuitable habitat present. Closest record approximately 17 km south-east in Purnululu National Park. Suitable search effort did not record the species.	NM, DBCA

Family	Taxon	Status		Description	Likelihood of occurrence	Source
		BC Act/ DBCA	EPBC Act			
Poaceae	<i>Triodia bunglensis</i>	P2		Tussock-forming perennial, grass-like or herb, ca 1.5 m high, foliage resinous, panicle spiciform. Fl. Nov to Dec or Apr or Jun to Jul. Sandstone. Cliffs, gorges & domes, often in fissures & cracks.	Unlikely The survey area does not contain suitable habitat. Suitable search effort did not record the species.	NM, DBCA
Proteaceae	<i>Grevillea miniata</i>	P4		Spreading to erect shrub or tree, 1.8-5 m high. Fl. yellow-orange, Apr or Jun to Aug. Skeletal sandy soils or sandy loam over quartzite or sandstone. Cliffs or rocky slopes, sometimes along watercourses.	Unlikely Suitable habitat present however species is distinctive and would have been recorded if present. Closest records are approximately 17 km north and 17 km south-east of the survey area. Suitable search effort did not record the species.	NM, DBCA
Pteridaceae	<i>Taenitis pinnata</i>	P2		Rhizomatous, perennial, herb or (fern), to 0.8 m high, rhizome bristly; blade simple or 1-pinnate; pinnae narrow; sori intermittent along veins, irregular. Fl. Apr or Jul. Sandstone cliffs.	Unlikely Only known records have been recorded from Purnululu National Park, approximately 40 km south east of the survey area. Suitable search effort did not record the species.	NM
Rutaceae	<i>Boronia jucunda</i>	P1		Slender, aromatic shrub, to 0.7 m high, branches obviously glandular; leaves trifoliolate; sepals longer and wider than petals. Fl. white, May to Jun. Quartzite. Rocky areas in open eucalypt woodland.	Unlikely Species is distinctive and would have been recorded if present. Suitable habitat present within the survey area, however suitable search effort did not record the species.	NM, DBCA
Rutaceae	<i>Boronia minutipinna</i>	P2		Shrub, to 0.5 m high, leaves pinnate, pinnae 17-35; sepals longer and wider than petals. Fl. white-pink, Jul. Sand. Amongst boulders on plateau. Gorges.	Unlikely Closest records are east near Purnululu National Park. No suitable habitat within the survey area, suitable search effort did not record the species.	NM

Flora likelihood of occurrence assessment of conservation significant flora identified in the desktop assessment as potentially occurring within the Beagle Bay survey area

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–)	Likelihood of occurrence	Source
		EPBC Act	WC Act /DBCA			
Araceae	<i>Colocasia esculenta</i> var. <i>aquatilis</i>		P3	Thin wispy shrub to 1.4 m; stem reddish, hairy; leaves light green; pods small, dark. Aquatic lily to 1.5 m. Leaves to 30 cm across. Flowers yellow Occur in swamps, shallow pools	Unlikely - species is found in growing in swamp areas. Suitable swamp areas habitat is not present within the survey area. The closest known record is located approximately 1.5 km north east of the survey area.	NatureMap WAHERB
Asteraceae	<i>Thespidium basiflorum</i>		P1	Herb to 15 cm branching from base; leaves light green, alternate, toothed; flowers thickly clustered mostly around base of stem, occurs in sandy soils, creek bed.	Unlikely - species is found in growing in creek bed. Suitable habitat is not present within the survey area. The closest known record is located approximately 16 km north of the survey area.	NatureMap WAHERB
Byblidaceae	<i>Byblis guehoi</i>		P1	Flowers lilac-pink to violet, outer surface cream white. In a clump from a single stem, plenty of sticky glands, appearing olive-grey in colour. Occurs in areas of sand and loam silt.	Unlikely - species found growing in sandy areas Suitable habitat present within the survey area, however suitable search effort did not record the species. The closest known record is located approximately 12 km north east of the survey area.	NatureMap WAHERB
Convolvulaceae	<i>Ipomoea tolmerana</i> subsp. <i>occidentalis</i>		P1	Perennial vine with mid mauve flowers, growing up to 1 m tall. This species is cryptic as its flowers fall before midday. Rocky sandstone with shallow organic loam soil	Unlikely - species is found in growing in loamy soil. Suitable habitat is not present within the survey area. The closest known record is located approximately 15 km south of the survey area.	NatureMap WAHERB
Convolvulaceae	<i>Jackeumontia</i> sp. Broome (A.A. Mitchell 3028)		P1	This species is undescribed, the following information is indicative based on Florabase collections: Scrambling herbaceous perennial up to 0.4 m tall with light mauve flowers, Disturbed Pindan plains, light reddish brown sandy clay loam.	Unlikely - Suitable habitat present within the survey area, however suitable search effort did not record the species.	NatureMap WAHERB

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–)	Likelihood of occurrence	Source
		EPBC Act	WC Act /DBCA			
Convolvulaceae	<i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)		P3	This species is undescribed, the following information is indicative based on Florabase collections: 0.3 m tall, located in Pindan plains and coastal plains in a variety of soil types, sand and clay- loam.	Unlikely - Suitable habitat present within the survey area, however suitable search effort did not record the species.	NatureMap WAHERB
Cyperaceae	<i>Cyperus haspan</i> subsp. <i>haspan</i>		P1	Rhizomatous, tufted perennial, grass-like or herb (sedge), 0.2-0.6 m high. Fl. greenbrown, Feb to Sep. Sand, clay, alluvium. Swamps, along watercourses or in pools.	Unlikely – species is found in growing in swamp area. Suitable habitat is not present within the survey area The closest known record is located approximately 3 km south of the survey area.	NatureMap WAHERB
Fabaceae	<i>Aphyllodium glossocarpum</i>		P3	1.7m tall shrub with purple flowers. Shrub to 2 m, pea flower lilac-pink to purple. Occur in sandy areas	Unlikely – species is found in growing in sandy areas. Suitable habitat present, however suitable search effort did not record the species. The closest known record is located approximately 3 km north of the survey area.	NatureMap WAHERB
Fabaceae	<i>Glycine pindanica</i>		P3	Prostrate or scrambling perennial, herb or climber. Fl. pink/blue-purple, Feb to Mar or June. Pindan soils.	Unlikely – the species is found in growing in pindan soils. The species has been recorded 17 km north east of the survey area, suitable habitat is present, however suitable search effort did not record the species.	NatureMap WAHERB
Haemodoraceae	<i>Haemodorum capitatum</i>		P1	Bulbous perennial to 0.5 m, flowers brick red. Pindan shrubland and drainage flats.	Unlikely –The species has been recorded 12 km north east of the survey area. Suitable habitat is present in the survey area, however suitable search effort did not record the species.	NatureMap WAHERB
Lentibulariaceae	<i>Utricularia stellaris</i>		P1	Emergent aquatic, bladders green, flowers yellow.	Unlikely - Suitable habitat is not present, however suitable search effort did not record the species.	NatureMap WAHERB

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–)	Likelihood of occurrence	Source
		EPBC Act	WC Act /DBCA			
Loranthaceae	<i>Dendrophthoe odontocalyx</i>		P3	Hemi-parasite on <i>Melaleuca viridiflora</i> . Haustoria simple. Flowers pale orange with slight reddish tinge on anther filaments.	Unlikely - The species has been recorded 3 km north of the survey area, suitable habitat is present within the survey area, however suitable search effort did not record the species.	NatureMap WAHERB
Menyanthaceae	<i>Nymphoides beaglensis</i>		P3	Small waterlily, leaves floating, heart shaped; flowers white and purple, emergent. Semi-aquatic herb, spreading 18 cm in shallow water. Flower white, pale mauve beneath petals. Flat, sandy clay, seasonal swamps.	Unlikely - species is found in growing in swamp area Suitable habitat is not present within the survey area The closest known record is located approximately 6 km north east of the survey area.	NatureMap WAHERB
Stylidiaceae	<i>Stylidium costulatum</i>		P3	Herb to 25 cm; stems upper light green, below basal leaves red; leaves basally rosetted; flowers light to dark pink. Flat, sandy clay, seasonal swamps.	Unlikely - species is found growing in swamp areas. Suitable habitat is not present. The closest known record is located approximately 3 km north west of the survey area.	NatureMap WAHERB

Flora likelihood of occurrence assessment of conservation significant flora identified in the desktop assessment as potentially occurring within the Ardyaloon survey areas

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–)	Likelihood of occurrence	Source
		EPBC Act	WC Act /DBCA			
Apocynaceae	<i>Parsonsia kimberleyensis</i>		P1	Climber, to 3 m high. Fl. yellow/green, May to Jun. Vine thickets.	Unlikely - species is found in growing in vine thickets. Suitable habitat is not present. The closest known record is located approximately 7.5 km north-west of the survey area.	NatureMap WAHERB
Fabaceae	<i>Alysicarpus suffruticosus</i>		P2	Erect, compact shrub, ca 0.3 m high. Fl. pink, Apr. Sandy clay. Creek crossing.	Unlikely - species is found in growing in creek crossing. Suitable habitat is not present.	NatureMap WAHERB TPFL
Fabaceae	<i>Cullen candidum</i>		P1	Shrub, to 3 m high. Fl. white, Sep to Oct. Clayey sand.	Unlikely - Species is found in growing in clayey sand. Suitable habitat is not present. The closest known record is located approximately 4 km east of the survey area.	NatureMap TPFL
Fabaceae	<i>Tephrosia valleculata</i>		P3	Erect, few-stemmed shrub, to 2 m high. Fl. orange green, Apr to Sep. Sandy, often shallow, soil around sandstone. Rock outcrops	Unlikely - species is found growing on rocky outcrops. Suitable habitat is present, however suitable search effort did not record the species. The closest known record is located approximately 7 km east of the survey area.	NatureMap WAHERB
Haemodoraceae	<i>Haemodorum capitatum</i>		P1	Bulbous perennial to 0.5 m, flowers brick red. Pindan shrubland.	Unlikely - The species has been recorded 12 km north east of the survey area. Suitable habitat is not present.	NatureMap WAHERB
Lentibulariaceae	<i>Utricularia bidentata</i>		P3	Small herb 15 cm, flowers purple. Abundance: uncommon. Pindan woodland.	Unlikely - The species has been recorded 13 km north east of the survey area. Suitable habitat is present however suitable search effort did not record the species.	NatureMap WAHERB
Myrtaceae	<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>		P3	Tree, 4-8 m high. Fl. cream-white, apparently Jan to Dec. Damp habitats (swamps, seepages).	Unlikely - species is found growing in swamp areas.	NatureMap WAHERB

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–)	Likelihood of occurrence	Source
		EPBC Act	WC Act /DBCA			
					Suitable habitat is not present. The closest known record is located approximately 12 km south west of the survey area.	
Poaceae	<i>Triodia acutispicula</i>		P3	Tussock-forming resinous perennial, grass-like or herb, 0.5-1.5 m high, Fl. cream-brown, Jan to Apr. Sandy soils. River levees, pindan plains, rocky hillslopes & outcrops.	Recorded - This species was recorded across the north and south survey areas	NatureMap WAHERB
Rubiaceae	<i>Paranotis halfordii</i>		P3	Habitat is incompletely known, collection notes suggest that it occurs in moist sandy soils in herbfields, including sandflats near waterways and rocky sandstone cliff tops.	Unlikely - previously recorded within a 20 km buffer of the survey area. Suitable habitat is not present.	NatureMap
Sapindaceae	<i>Cupaniopsis anacardioides</i>		P3	Tree, to 11 m high. Fl. green-yellow, Jun to Jul. Vine thickets	Unlikely - species is found growing in vine thickets. Suitable habitat is not present	NatureMap WAHERB
Stylidiaceae	<i>Stylidium pindanicum</i> (Pindan Triggerplant)		P3	Herb to 25 cm; stems upper light green, below basal leaves red; leaves basally rosetted; flowers light to dark pink. Flat, sandy clay, seasonal swamps.	Unlikely - species is found growing in swamp areas. Suitable habitat is not present. The closest known record is located approximately 3 km north west of the survey area.	NatureMap WAHERB
Zygophyllaceae	<i>Tribulopsis</i> sp. Koolan Island (K.F. Kenneally 8278)		P1	Prostrate herb. Fl. yellow, Jun. Skeletal sand, sandstone. Gorges, shelly beaches, mudflats, mangroves.	Unlikely - species is found in growing in Skeletal sand, sandstone. Gorges, shelly beaches, mudflats, mangroves. Suitable habitat is not present. The closest known record is located approximately 16 km north east of the survey area.	NatureMap WAHERB

Flora likelihood of occurrence assessment of conservation significant flora identified in the desktop assessment as potentially occurring within the Djarindjin survey area

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–, DEE 2018)	Likelihood of occurrence	Source
		EPBC Act	BC Act /DBCA			
Apocynaceae	<i>Parsonsia kimberleyensis</i>		P1	Climber; stem thick, greyish, many lenticels; leaves glossy dark green, paler beneath; flowers inconspicuous, green in dense heads.	Unlikely - species is found in growing in Shrubs and trees of vine thicket. Suitable habitat present. The closest known record is located approximately 13 km north east of the survey area.	NatureMap WAHERB
Haemodoraceae	<i>Haemodorum capitatum</i>		P1	Bulbous perennial to 0.5 m, flowers brick red. Pindan shrubland.	Unlikely - The closest known record is located approximately 13 km north west of the project area. Suitable habitat is present in the survey area, however, suitable search effort did not record the species.	NatureMap WAHERB
Lentibulariaceae	<i>Utricularia bidentata</i>		P3	Herb, flowers lilac, Small herb 15 cm, flowers purple. Pindan woodland.	Unlikely - The closest known record is located approximately 15 km south west of the project area. Suitable habitat is present in the survey area, however, suitable search effort did not record the species.	NatureMap WAHERB
Myrtaceae	<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>		P3	Tree to 8 m; bark grey; leaves discolorous pale green to whitish below; flowers white-cream, turning orange with age. Coastal dunes, drainage basins.	Unlikely The closest known record is located approximately 5 km north east of the survey area. Suitable habitat does not occur in the survey area.	NatureMap WAHERB
Poaceae	<i>Triodia acutispicula</i>		P3	Bunched spinifex grass. Leaves basal to 40 cm long x ca 7 mm, terete and sharp pointed. Main stems to 1.2 m. found on Plain/Red sand.	Unlikely - species is found in growing on Plain/Red sand areas Suitable habitat present, however, suitable search effort did not record the	NatureMap WAHERB

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–, DEE 2018)	Likelihood of occurrence	Source
		EPBC Act	BC Act /DBCA			
					species. The closest known record is located approximately 5 km north east of the survey area.	
Stylidiaceae	<i>Stylidium pindanicum</i> (Pindan Triggerplant)		P3	Herb to 25 cm; stems upper light green, below basal leaves red; leaves basally rosetted; flowers light to dark pink. Flat, sandy clay, seasonal swamps.	Unlikely. The closest known record is located approximately 16 km north east of the survey area. Suitable habitat does not occur in the survey area.	NatureMap WAHERB

Flora likelihood of occurrence assessment of conservation significant flora identified in the desktop assessment as potentially occurring within the Bidyadanga survey area

Family	Taxon	Status		Description (if available) (WA Herbarium 1998–)	Likelihood of occurrence	Source
		EPBC Act	WC Act /DBCA			
Convolvulaceae	<i>Bonamia oblongifolia</i>		P3	Perennial, herb or shrub. Fl. blue, Feb. Sandy or gravelly soils.	Unlikely - Suitable habitat is present in the survey area, however, suitable search effort did not record the species.	NatureMap WAHERB
Convolvulaceae	<i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)		P3	This species is undescribed, the following information is indicative based on Florabase collections: 0.3 m tall, located in Pindan plains and coastal plains in a variety of soil types, sand and clay- loam.	Unlikely - Suitable habitat is present in the survey area, however, suitable search effort did not record the species.	NatureMap WAHERB
Fabaceae	<i>Tephrosia andrewii</i>		P3	Ascending, multistemmed shrub, to 0.8 m high. Flowers orange, April or October. Grows in sand. In pindan country.	Recorded –during the initial survey (GHD 2021) and current survey	-
Malvaceae	<i>Seringia katatona</i>		P3	Open woodland of <i>Corymbia zygophylla</i> over regrowth of sparse 1 m tall <i>Acacia eriopoda</i> shrubland over mid-dense shrubland and grasses of <i>Seringia</i> sp., <i>Triodia</i> sp.	Unlikely - Suitable habitat is present in the survey area, however, suitable search effort did not record the species.	WAHERB

Appendix E

Fauna survey results

Fauna recorded in the survey area

Fauna likelihood of occurrence assessment

Bilby Plot Summary

Fauna recorded within the Warmun survey area

Family	Taxon	Common Name	Status
BIRDS			
Accipitridae	<i>Haliastur sphenurus</i>	Whistling Kite	
Accipitridae	<i>Milvus migrans</i>	Black Kite	
Alaudidae	<i>Mirafra javanica</i>	Horsfield's Bush Lark	
Alcedinidae	<i>Dacelo leachii</i>	Blue-winged Kookaburra	
Artamidae	<i>Artamus leucorhynchus</i>	White-breasted Woodswallow	
Artamidae	<i>Cracticus migrogularis</i>	Pied Butcherbird	
Artamidae	<i>Gymnprhina tibicen</i>	Australian Magpie	
Cacatuidae	<i>Cacatua sanguinea</i>	Little Corella	
Columbidae	<i>Geopelia cuneata</i>	Diamond Dove	
Columbidae	<i>Geopelia striata</i>	Peaceful Dove	
Columbidae	<i>Geophaps plumifera</i>	Spinifex Pigeon	
Columbidae	<i>Ocyphaps lophotes</i>	Crested Pigeon	
Corvidae	<i>Corvus orru</i>	Torresian Crow	
Falconidae	<i>Falco cenchroides</i>	Nankeen Kestrel	
Locustellidae	<i>Cincloramphus mathewsi</i>	Rufous Songlark	
Maluridae	<i>Malurus assimilis</i>	Variagated fairy-wren	
Meliphagidae	<i>Lichenostomus flavescens</i>	Yellow-tinted honeyeater	
Meliphagidae	<i>Manorina flavigula</i>	Yellow-throated Miner	
Meliphagidae	<i>Philemon argenticeps</i>	Silver-crowned Friarbird	
Monarchidae	<i>Grallina cyanoleuca</i>	Magpie-lark	
Pachycephalidae	<i>Pachycephala rufiventris</i>	Rufous Whistler	
Ptilonorhynchidae	<i>Chlamydera nuchalis</i>	Great Bowerbird	
Turnicidae	<i>Turnix pyrrhothorax</i>	Red-chested Button-quail	
MAMMALS			
Canidae	<i>Canis familiaris</i>	Dog	Introduced
Felidae	<i>Felis catus</i>	Feral Cat	Introduced
Macropodidae	<i>Osphranter robustus erobescens</i>	Euro	
REPTILES			
Agamidae	<i>Ctenophorus slateri</i>	Dragon	
Pythonidae	<i>Aspidites melanocephalus</i>	Black-headed Python	
Varanidae	<i>Varanus acanthurus</i>	Spiny-tailed Monitor	
AMPHIBIAN			
Myobatrachidae	<i>Notaden melanoscapus</i>	Northern Spadefoot Frog	

Fauna recorded in the Dampier Peninsula

Family	Taxon	Common Name	Status
Ardyaloon survey area			
BIRDS			
Accipitridae	<i>Haliastur sphenurus</i>	whistling kite	
Alcedinidae	<i>Todiramphus sanctus</i>	Sacred Kingfisher	
Columbidae	<i>Geopelia striata placida</i>	Peaceful dove	
Cuculidae	<i>Centropus phasianinus</i>	Pheasant coucal	
Cuculidae	<i>Cacomantis variolosus</i>	Brush Cuckoo	
Estrildidae	<i>Poephila acuticauda</i>	Long tailed finch	
Falconidae	<i>Falco berigora</i>	Brown falcon	
Maluridae	<i>Malurus melanocephalus</i>	Red backed fairy wren	
Meliphagidae	<i>Ptilotula flavescens</i>	Yellow tinted honey eater	
Meliphagidae	<i>Conopophila rufogularis</i>	Rufous throated honey eater	
Meliphagidae	<i>Philemon citreogularis</i>	Little Friarbird	
Meropidae	<i>Merops ornatus</i>	Rainbow bee-eater	MA
Neosittidae	<i>Daphoenositta chrysoptera leucoptera</i>	Varied Sittella (White-winged Sittella)	
Pachycephalidae	<i>Pachycephala rufiventris</i>	Rufous whistler	
Pachycephalidae	<i>Pachycephala lanioides</i>	White breasted whistler	
Pomatostomidae	<i>Pomatostomus temporalis</i>	grey crowned babbler	
Rhipiduridae	<i>Rhipidura rufiventris</i>	Northern fantail	
Zosteropidae	<i>Zosterops luteus</i>	Yellow white eye	
MAMMALS			
Canidae	<i>Canis familiaris</i>	Dog	Introduced
Equidae	<i>Equus africanus asinus</i>	Donkey	Introduced
REPTILES			
Pythonidae	<i>Liasis olivaceus olivaceus</i>	Olive Python	
Scincidae	<i>Carlia rufilatus</i>	Red-Sided Rainbow-Skink	
AMPHIBIA			
Myobatrachidae	<i>Uperoleia stridera</i>	Mole toadlet	
Bidayadanga survey area			
BIRDS			
Alcedinidae	<i>Dacelo leachii</i>	Blue winged Kookaburra	
Cacatuidae	<i>Cacatua sanguinea sanguinea</i>	Little Corella	
Campephagidae	<i>Coracina novaehollandiae</i>	Black faced cuckoo shrike	
Corvidae	<i>Corvus orru</i>	Torresian crow	
Estrildidae	<i>Taeniopygia castanotis</i>	Australian Zebra Finch	
Maluridae	<i>Malurus melanocephalus</i>	Red-backed fairy wren	
Maluridae	<i>Malurus assimilis</i>	Variegated fairy wren	
Monarchidae	<i>Grallina cyanoleuca</i>	Magpie lark	
Pardalotidae	<i>Pardalotus rubricatus</i>	Red browed pardalote	

Family	Taxon	Common Name	Status
Pomatostomidae	<i>Pomatostomus temporalis</i>	Grey crowned babbler	
Psittaculidae	<i>Aprosmictus erythropterus</i>	Red winged parrot	
Psittaculidae	<i>Melopsittacus undulatus</i>	Budgerigar	
Rhipiduridae	<i>Rhipidura leucophrys</i>	Willie wagtail	
MAMMALS			
Canidae	<i>Canis familiaris</i>	Dog	Introduced
Notamacropus	<i>Agilis nigrescens</i>	Agile Wallaby	
REPTILES			
Agamidae	<i>Ctenophorus isolepis</i>	Military dragon	
Scincidae	<i>Morethia ruficauda</i>	Lined Firetail Skink	
Scincidae	<i>Tiliqua scincoides intermedia</i>	Northern Blue-Tongued Skink	
Scincidae	<i>Ctenotus colletti</i>	Collette's skink	
Djarindjin survey area			
BIRDS			
Alcedinidae	<i>Dacelo leachii</i>	Blue winged Kookaburra	
Campephagidae	<i>Coracina novaehollandiae</i>	Black faced cuckoo shrike	
Cuculidae	<i>Chalcites minutillus</i>	Little bronze cuckoo	
Maluridae	<i>Malurus melanocephalus</i>	Red-backed fairy wren	
Meliphagidae	<i>Philemon citreogularis</i>	Little Friarbird	
Monarchidae	<i>Grallina cyanoleuca</i>	Magpie lark	
Neosittidae	<i>Daphoenositta chrysoptera leucoptera</i>	Varied Sittella (White-winged Sittella)	
Pachycephalidae	<i>Colluricincla harmonica</i>	Grey shrikethrush	
Psittaculidae	<i>Aprosmictus erythropterus</i>	Red winged parrot	
Rhipiduridae	<i>Rhipidura leucophrys</i>	Willie wagtail	
MAMMALS			
Canidae	<i>Canis familiaris</i>	Dog	Introduced
REPTILES			
Agamidae	<i>Chlamydosaurus kingii</i>	Frill-necked Lizard	
Beagle Bay survey area			
BIRDS			
Corvidae	<i>Corvus orru</i>	Torresian crow	
Columbidae	<i>Geopelia striata placida</i>	Peaceful dove	
Psittaculidae	<i>Aprosmictus erythropterus</i>	Red-winged Parrot	
Psittaculidae	<i>Trichoglossus moluccanus</i>	Rainbow Lorikeet	
Cuculidae	<i>Chalcites basalis</i>	Horsfield's Bronze Cuckoo	
Maluridae	<i>Malurus assimilis</i>	Variegated fairy wren	
Estrildidae	<i>Stizoptera bichenovii</i>	Double barred finch	
Pachycephalidae	<i>Pachycephala rufiventris</i>	Rufous whistler	
Maluridae	<i>Malurus melanocephalus</i>	Red-backed Fairywren	
Alcedinidae	<i>Dacelo leachii</i>	Blue-winged Kookaburra	

Family	Taxon	Common Name	Status
MAMMALS			
<i>Equidae</i>	<i>Equus africanus asinus</i>	Donkey	Introduced
AMPHIBIA			
<i>Pelodyadidae</i>	<i>Litoria caerulea</i>	Green Tree Frog	

MA - Marine migratory species (listed under EPBC Act)

Fauna 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	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. OR Species known distribution overlaps with the survey area and there is suitable habitat within the survey area.
Unlikely	Species assessed as unlikely include those species previously recorded within 10 km of the survey area however: There is limited (i.e. the type, quality and quantity of the habitat is generally poor or restricted) habitat in the survey area. 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. OR Those species that have a known distribution overlapping with the survey area however: There is limited habitat in the survey area (i.e. the type, quality and quantity of the habitat is generally poor or restricted). 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.
Highly unlikely	Species that are considered highly unlikely to occur in the survey area include: Those species that have no suitable habitat within the survey area. Those species that have become locally extinct, or are not known to have ever been present in the region of the survey area.

Definitions

Term	Description
study area	a 40 km buffer around the survey area
survey area	the area subject to the current survey
locality	the area within an approximate 20 km radius of the survey area

Significant fauna likelihood of occurrence assessment - Warmun

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC 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. Generally 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).	Unlikely No suitable habitat present in the survey area.	NM DBCA
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR, Mi	CR, Mi	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).	Unlikely No suitable habitat present.	PMST
<i>Cecropis daurica</i>	Red-rumped Swallow	Mi	Mi	The Red-rumped Swallow breeds in Europe and Asia and tropical Africa. In Australia the bird is a vagrant to Christmas Island and northern Australia during the non-breeding season. It occurs in open country, overhead wires, swamps, grasslands and along the coast (Pizzey and Knight 2012).	Unlikely A rare vagrant of the Kimberley region.	PMST
<i>Cuculus optatus</i>	Oriental Cuckoo, Horsfield's Cuckoo	Mi	Mi	Non-breeding habitat only: monsoonal rainforest, vine thickets, wet sclerophyll forest or open Casuarina, Acacia or Eucalyptus woodlands. Frequently at edges or ecotones between habitat types. Riparian forest is favoured habitat in the Kimberley region. Typically in	Unlikely No suitable habitat present.	PMST

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC Act			
				denser vegetation with more closed canopy (DCCEEW 2023).		
<i>Erythrotriorchis radiatus</i>	Red Goshawk	VU	EN	The Red Goshawk occurs in coastal and sub-coastal areas in wooded and forested lands of tropical and warm-temperate Australia (Marchant & Higgins 1993). Riverine forests are also used frequently. Such habitats typically support high bird numbers and biodiversity, especially medium to large species which the goshawk requires for prey. The Red Goshawk nests in large trees, frequently the tallest and most massive in a tall stand, and nest trees are invariably within 1 km of permanent water (DCCEEW 2023).	Unlikely The survey area does not contain habitat preferred by the Red Goshawk.	PMST
<i>Erythrura gouldiae</i>	Gouldian Finch	P4	EN	The Gouldian Finch inhabits open woodlands that are dominated by Eucalyptus trees and support a ground cover of Sorghum and other grasses (Boekel 1980). The critical components of suitable core habitat for the Gouldian Finch appear to be the presence of favoured annual and perennial grasses (especially Sorghum), a nearby source of surface water and, in the breeding season, unburnt hollow-bearing Eucalyptus trees (especially <i>E. tintinnans</i> , <i>E. brevifolia</i> and <i>E. leucophloia</i>) (Higgins et al. 2006).	Likely There is suitable habitat within the survey area. This species prefers open woodlands and grassland, not far from water. May forage on seed of grasses when seasonally suitable within the survey area.	NM, PMST, DBCA
<i>Falco hypoleucos</i>	Grey Falcon	VU	VU	The Grey Falcon is an Australian endemic, usually confined to the arid inland. It inhabits <i>Triodia</i> grassland, <i>Acacia</i> shrubland, and lightly timbered arid woodland (Morcombe 2004).	Likely The survey area is within the known distribution of this species. The survey area provides suitable foraging habitat. This species is therefore likely to occur at least on an occasional/opportunistic basis.	PMST
<i>Falco peregrinus</i>	Peregrine Falcon	OS		The Peregrine Falcon is found on and near cliffs, gorges, timbered watercourses, riverine environments, wetlands, plains, open woodlands, and pylons and spires of buildings, though less frequently in desert regions (Morcombe 2004; Pizzey and Knight 2012). They are not common but can be found almost anywhere throughout WA (Nevill 2013).	Likely The survey area provides suitable foraging habitat, however lacks suitable breeding habitat. Therefore likely to occur at least on an occasional basis.	NM DBCA

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC Act			
<i>Falcunculus frontatus whitei</i>	Crested Shrike-tit (northern)	P3	VU	Open forest, woodland, mallee, riverside and watercourse trees, cypress pines and banksia woodland (Morcombe 2006). Crested shrike-tits have been recorded in eight different woodland types in northern Australia, mainly those that are dominated by Darwin Woollybutt (<i>Eucalyptus miniata</i>), Darwin Stringybark (<i>E. tetradonta</i>) or Smooth-stemmed Bloodwood (<i>E. bleeseri</i>) (Robinson & Woinarski 1992).	Unlikely According to ATLAS (2023) there are no records of this species occurring within 100 km of the survey area. The survey area is not considered core habitat for this species.	PMST
<i>Hirundo rustica</i>	Barn Swallow	Mi	Mi	In Australia, the Barn Swallow is recorded in open country in coastal lowlands, often near water, towns and cities. Birds are often sighted perched on overhead wires, and also in or over freshwater wetlands, paperbark Melaleuca woodland, mesophyll shrub thickets and tussock grassland (DEE 2019).	Unlikely This species is a rare vagrant to Australia and any use is irregular and opportunistic	PMST
<i>Malurus coronatus coronatus</i>	Purple-crowned Fairy-wren (western)	EN	EN	The Purple-crowned Fairy-wren (western) occurs along waterways in the Kimberley Division of Western Australia, and east to the Victoria River Downs in the Northern Territory. Its distribution includes parts of the Fitzroy River, Drysdale River, Durack River and Ord River systems in Western Australia (DCCEEW 2023). The Purple-crowned Fairy-wren (western) inhabits dense, riparian vegetation in the wet-dry tropics of Western Australia and the Northern Territory. It is found near permanent rivers and springs (or associated billabongs and swamps), where it occupies dense thickets of <i>Pandanus aquaticus</i> or canegrass and also occurs, less frequently, in rushes and shrubs (DCCEEW 2023). The Purple-crowned Fairy-wren (western) is said to rarely occur more than 10 m from permanent rivers and springs (DCCEEW 2023).	Unlikely The survey area does not contain suitable habitat for this species.	PMST
<i>Motacilla cinerea</i>	Grey Wagtail	Mi	Mi	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.	Unlikely This species is a rare vagrant to Australia and any use is irregular and opportunistic.	PMST
<i>Motacilla flava</i>	Yellow Wagtail	Mi	Mi	Occurs in open country near swamps, salt marshes, sewerage ponds, grassed surrounds to airfields, bare	Unlikely	PMST

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC Act			
				ground; occasionally on drier inland plains. Roosts in mangroves and other dense vegetation. Rare but regular visitor around Australia coast, especially the NW coast, Broome to Darwin (Morcombe 2004).	The survey area does not provide suitable habitat for this species.	
<i>Pezoporus occidentalis</i>	Night Parrot	CR	EN	Night Parrots usually inhabit arid or semi-arid grasslands that are dominated by spinifex, though they have also been recorded in shrublands dominated by samphire, bluebush and saltbush (Morcombe 2006).	Unlikely The survey area lacks suitable habitat for this species.	PMST
<i>Plegadis falcinellus</i>	Glossy Ibis	Mi	Mi	Flocks congregate and roost on dead trees near water. Uses shallows of swamps, floodwaters, sewerage ponds, flooded, moist or irrigated pasture; occasionally feeds in sheltered marine habitats. Common across coastal North, less common elsewhere (Morcombe 2004).	Unlikely The survey area lacks suitable habitat for this species.	NM DBCA
<i>Polytelis alexandrae</i>	Princess Parrot	P4	VU	The Princess Parrot is confined to arid regions of Western Australia, the Northern Territory, and South Australia. The Princess Parrot inhabits sand dunes and sand flats in the arid zone of western and central Australia. It occurs in open savannah woodlands and shrublands that usually consist of scattered stands of Eucalyptus (including <i>E. gongylocarpa</i> , <i>E. chippendalei</i> and mallee species), <i>Casuarina</i> or <i>Allocasuarina</i> trees; an understorey of shrubs such as <i>Acacia</i> (especially <i>A. aneura</i>), <i>Cassia</i> , <i>Eremophila</i> , <i>Grevillea</i> , <i>Hakea</i> and <i>Senna</i> ; and a ground cover dominated by <i>Triodia</i> species. It also frequents <i>Eucalyptus</i> or <i>Allocasuarina</i> trees in riverine or littoral areas (DCCEE 2023).	Unlikely The survey does lacks preferred habitat for this species.	PMST
<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN	The Australian Painted Snipe is restricted to Australia with historical records from around the Perth region in Western Australia. Prefers fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds. The nest consists of a scrape in the ground, lined with grasses and leaves. Breeding is often in response to local conditions; generally occurs from September to December. Incubation and care of young is all undertaken by the male only. Forages	Highly unlikely The survey area lacks suitable habitat (wetlands, dams, shorelines).	PMST

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC Act			
				nocturnally on mud-flats and in shallow water. Feeds on worms, molluscs, insects and some plant-matter (DCCEEW 2023).		
<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. They are typically associated with emergent, aquatic plants or grass, and dominated by taller fringing vegetation, such as dense stands of rushes or reeds, shrubs, or dead or live trees, especially <i>Melaleuca</i> and River Red Gums <i>E. camaldulensis</i> . They also frequent inundated grasslands, short herbage or wooded floodplains, where floodwaters are temporary or receding. They can occasionally be found at drying or stony small wetlands, but rarely use brackish wetlands, or dry stunted saltmarsh (Nevill 2013).	Unlikely No suitable habitat within the survey area.	NM DBCA
<i>Tringa stagnatilis</i>	Marsh Sandpiper	IA	MA, 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 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 .At the Top End they often use ephemeral pools on inundated freshwater and tidal floodplains (Higgins & Davies 1996).	Unlikely, no suitable habitat present	DBCA
<i>Tyto novaehollandiae kimberli</i>	Masked Owl (northern)	P1	VU	The range of the Masked Owl is a broad coastal band around most of mainland Australia and throughout Tasmania, and for the most part is less than 300 km from the coast. Population numbers are low on the mainland and several states give this species special conservation status. The Masked Owl inhabits heavy forests, and will hunt over open woodlands, timbered waterways and open country on the fringe of these areas. The main requirements are tall trees with suitable hollows for nesting and roosting and adjacent areas for foraging. Masked Owls are territorial, and	Unlikely This species prefers heavily timbered forests and tall woodlands for nesting. The survey area does not support suitable habitat.	PMST

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC Act			
				pairs remain in or near the territory all year round (Birdlife Australia 2019).		
MAMMALS						
<i>Dasyurus hallucatus</i>	Northern Quoll	EN	EN	The Northern Quoll occupies a diversity of habitats across its range which includes rocky areas, eucalypt forest and woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert (DCCEEW 2023).	Unlikely There are no recent records within close proximity to the survey area. Warmun is located outside of the current known distribution for this species (DCCEEW 2023).	PMST
<i>Leggadina lakedownensis</i>	Northern short-tailed Mouse, Lakeland Downs Mouse, Kerekenga	P4		The Lakeland Down's short-tailed mouse occurs across northern Australia, from Cape York to the Pilbara (Western Australia), with one population on Thevenard Island (Western Australia). A population has been established on Serrurier Island (Western Australia) by translocation of Thevenard Island individuals. Known to occur on sandy soils and cracking clays in Western Australia, and tropical tussock grasslands or woodlands in Queensland. On Thevenard Island, occupies Acacia shrublands and low shrubs on deep sandy soils.	Unlikely The habitats within the survey area are not considered suitable for this species.	NM DBCA
<i>Macroderma gigas</i>	Ghost Bat	VU	VU	The Ghost Bat occurs in a wide range of habitats, and requires an undisturbed cave, deep fissure or disused mine shaft in which to roost. It is patchily distributed across Australia, and is sensitive to disturbance (Van Dyck and Strahan 2008).	Unlikely There are no known records from the area. No suitable roosting habitat within the survey area.	PMST
<i>Macrotis lagotis</i>	Greater Bilby	VU	VU	The Greater Bilby usually spends the daytime in burrows, often built against termite mounds, spinifex hummock or shrubs (Van Dyck and Strahan 2008). The Greater Bilby occupies three major vegetation types; open tussock grassland on uplands and hills, mulga woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas. In the south of its range, the Greater Bilby lives on rises and ridges among sparse grasses, especially mitchell grass <i>Astrebla</i> and short shrubs. In Western Australia there are disjunct populations in the Gibson Desert, south-western Kimberley, inland areas of the	Unlikely The survey area does not contain suitable habitat for this species. There are no local records.	PMST

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC Act			
				Pilbara and northern Great Sandy Desert. The current occurrence of this species is strongly associated with higher rainfall and temperatures, which promote areas of higher plant and food production (DCCEEW 2023).		
<i>Petropseudes dahl</i>	Rock Ringtail Possum, Wogoit	P3		The rock ringtail possum lives exclusively in rocky outcrops and prefers areas with large boulders and deeply fissured rock. It uses the crevices to hide by just sticking its head into the crevice with the body exposed. It is strictly nocturnal; it only moves out of it sheltered rock crevices to climbing trees to feed at night. They commonly feed within 100 m of their rocky outcrop homes. They eat leaves, fruit, blossoms, flowers, and occasionally feed on termites. It does not make a nest and has been observed occasionally to be sleeping in well protected rock ledges during the day (Atlas of Living Australia 2023).	Unlikely The habitats within the survey area are not considered suitable for this species.	NM DBCA
<i>Trichosurus vulpecula arnhemensis</i>	Northern Brushtail Possum	VU	VU	A nocturnal and arboreal species that inhabits forests and tall woodlands of the monsoon tropics of the Kimberley and Top End typically in areas with adequate dense canopy density allowing the possum some arboreal habitat connectivity via canopy tree foliage. It feeds primarily on foliage, blossom and fruits, but will also forage on ground for invertebrates (Menkhorst and Knight 2004). Shelters in tree hollow. This species adapts well to rural and urban habitats (Ganslosser et.al 1991) although appears to be in general decline (Woinarski 2004).	Unlikely The vegetation within the survey area is sparse (tree canopy) and unlikely to be suitable for the northern brushtail possum.	PMST
<i>Wyulda squamicaudata</i>	Scaly-tailed Possum	P4		The scaly-tailed possum is nocturnal and shelters exclusively in rocks. The diet mainly consists of fruits, blossoms, and leaves of <i>Eucalyptus</i> , <i>Terminalia</i> , etc. The scaly-tailed possum has also been known to feed on insects and small vertebrates. The species' type location is in the eastern Kimberley, at Violet Valley near Warmun (recorded 1917), but most records are of their occurrence are in the north-west of the region. The preferred habitat is sandstone based woodlands where it can shelter in rock piles and fissures and feed in the trees. They are associated with denser vegetation over rocks and boulders that provide daytime shelter and refuge. Their presence is	Unlikely Limited suitable habitat is available within the survey area. This species appears to have all but disappeared from most of the drier parts of its range. The majority of Wyulda records are presently from the western Kimberley where the annual rainfall is above 900 mm (AWC).	NM DBCA

Taxon	Common name	Status		Description	Likelihood of occurrence	Source
		BC Act / DBCA	EPBC Act			
				threatened by frequent and high intensity fires and predation by cats (Atlas of Living Australia 2023).		

Fauna likelihood of assessment - Ardyaloon

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
Birds						
<i>Actitis hypoleucos</i>	Common Sandpiper	IA	MI	The species utilises 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. The muddy margins utilised by the species are often narrow, and may be steep. The species is often associated with mangroves, and sometimes found in areas of mud littered with rocks or snags (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however, no potentially suitable habitat present within the survey area	NatureMap DBCA
<i>Anous stolidus</i> (all sub-species)	Common Noddy	IA	MI	The Common Noddy is found in tropical and sub-tropical seas off the west, north and east coasts of Australia, from the Abrolhos Islands in WA to the islands of the Great Barrier Reef in Qld, as well as Norfolk and Lord Howe Islands. Some are seen almost annually in NSW as far south as Sydney. It also ranges across tropical parts of the Pacific, Indian and Atlantic Oceans (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Apus pacificus</i>	Fork-tailed Swift	IA	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 Cocklebidy 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).	Unlikely, typically areal feeders during non-breeding season when present locally, and very rarely utilising terrestrial habitats	NatureMap DBCA
<i>Arenaria interpres</i>	Ruddy Turnstone	IA	MI	In Australia, Ruddy Turnstones are widespread around the coast of the mainland and off-shore islands. They breed on the northern coasts of Europe, Asia and North America. They are found on coastlines around the world, when not breeding or on passage. They are found singly or in small groups along the coastline and only occasionally inland. They are mainly found	Unlikely, tidal coastline is located in proximity to the survey area, however, no potentially suitable	NatureMap DBCA

				on exposed rocks or reefs, often with shallow pools, and on beaches. In the north, they are found in a wider range of habitats, including mudflats (DCCEE 2022).	habitat present within the survey area	
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	IA	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, sedgeland and other ephemeral wetlands, but leave when they dry (DCCEE 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area	NatureMap DBCA
<i>Calidris alba</i>	Sanderling	IA	MI	In Australia, the species is almost always found on the coast, mostly on open sandy beaches exposed to open sea-swell, and also on exposed sandbars and spits, and shingle banks, where they forage in the wave-wash zone and amongst rotting seaweed. Sanderlings also occur on beaches that may contain wave-washed rocky outcrops. Less often the species occurs on more sheltered sandy shorelines of estuaries, inlets and harbours (DCCEE 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area	NatureMap DBCA
<i>Calidris canutus</i>	Red Knot, Knot	EN	EN	In Australasia the Red Knot mainly inhabits intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours; sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs. They are occasionally seen on terrestrial saline wetlands near the coast, such as lakes, lagoons, pools and pans, and recorded on sewage ponds and saltworks, but rarely use freshwater swamps. They rarely use inland lakes or swamps (DCCEE 2022). They are found near mudflats and estuaries from Murchison to Bunbury but are then uncommon from Wilson Inlet to Esperance. In the Perth region they are mainly found in Alfred Cove and Peel Inlet (Nevill 2013).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area	NatureMap DBCA
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	CR	Curlew Sandpipers mainly occur in areas with soft mud conditions, including 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 found inland 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. In WA, they are widespread around coastal and subcoastal plains from Cape Arid to south-west Kimberley Division, but are more sparsely distributed between Carnarvon	Unlikely, no suitable habitat present	NatureMap EPBC

				and Dampier Archipelago (DEE 2019). They are common on the Swan Coastal Plain, particularly near large drying lakes like Thompson and Forrestdale, and Peel Inlet. They are less common along the southern coast to Esperance (Nevill 2013).		
<i>Calidris ruficollis</i>	Red-necked Stint	IA	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, estuaries, intertidal mudflats and protected sandy or coralline shores (Pizzey and Knight 2012).	Unlikely, no suitable habitat present	NatureMap EPBC DBCA
<i>Calidris tenuirostris</i>	Great Knot	CR	CR	The Great Knot has been recorded around the entirety of the Australian coast, with a few scattered records inland. It is now absent from some sites along the south coast where it used to be a regular visitor (Garnett and Crowley 2000). The greatest numbers are found in northern Australia; where the species is common on the coasts of the Pilbara and Kimberley, from the Dampier Archipelago to the Northern Territory border, and in the Northern Territory from Darwin and Melville Island, through Arnhem Land to the south-east Gulf of Carpentaria. In Australasia, the species typically prefers sheltered coastal habitats, with large intertidal mudflats or sandflats. This includes inlets, bays, harbors, estuaries and lagoons (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area	NatureMap EPBC
<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU	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 Top End of the Northern Territory, including on Groote Eylandt (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area	NatureMap EPBC
<i>Charadrius mongolus</i>	Lesser Sand Plover	EN	EN	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 south-eastern 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,	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area	NatureMap EPBC

				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 river beds (Marchant & Higgins 1993). In north-western Australia, the species appears to use the Port Hedland saltworks in preference to nearby beaches.		
<i>Erythrotriorchis radiatus</i>	Red Goshawk	VU	VU	The Red Goshawk occurs in coastal and sub-coastal areas in wooded and forested lands of tropical and warm-temperate Australia (Marchant & Higgins 1993). Riverine forests are also used frequently. Such habitats typically support high bird numbers and biodiversity, especially medium to large species which the goshawk requires for prey. The Red Goshawk nests in large trees, frequently the tallest and most massive in a tall stand, and nest trees are invariably within one km of permanent water (DCCEEW 2022).	Unlikely – uncommon in the Dampierland. Local occurrence would be as vagrant	EPBC DBCA
<i>Erythrura gouldiae</i>	Gouldian Finch	P4	EN	The Gouldian Finch inhabits open woodlands that are dominated by Eucalyptus trees and support a ground cover of Sorghum and other grasses (Boekel 1980). The critical components of suitable core habitat for the Gouldian Finch appear to be the presence of favoured annual and perennial grasses (especially Sorghum), a nearby source of surface water and, in the breeding season, unburnt hollow-bearing Eucalyptus trees (especially <i>E. tintinnans</i> , <i>E. brevifolia</i> and <i>E. leucophloia</i>) (Higgins et al. 2006).	Likely, known to occur locally, may forage on seed of a range of locally occurring grasses when seasonally suitable within the survey area.	NatureMap EPBC DBCA
<i>Falco hypoleucos</i>	Grey Falcon	VU	EN	The Grey Falcon inhabits lightly timbered country, especially stony, inland plains and Acacia scrub, gibber deserts, sandridges, pastoral lands, and timbered watercourses, but seldom in driest deserts.	Likely, the species is known to persist in the region, however use would be foraging only with no breeding habitat present such as tall structures or trees	PMST
<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 (DCCEEW 2022, Morcombe 2004).	Likely, the species is known to persist in the region, however use would be foraging only with no breeding habitat present, such as tall structures or steep topography.	NatureMap EPBC

<i>Fregata ariel</i>	Lesser Frigatebird	IA	MI	The Lesser Frigatebird is said to be the most common and widespread frigatebird in Australian seas (DCCEEW 2022). It is common in tropical seas, breeding on remote islands, including Christmas Island in the Indian Ocean in recent years. These birds are most likely to be seen from the mainland prior to the onset of a tropical cyclone, and once this abates they disappear again	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap EPBC
<i>Gelochelidon nilotica</i>	Gull-billed Tern	IA	MI	The Gull-billed Tern is nomadic or migratory species in Australia. Gull-billed Terns are found in freshwater swamps, brackish and salt lakes, beaches and estuarine mudflats, floodwaters, sewage farms, irrigated croplands and grasslands, where resources are favourable. They are only rarely found over the ocean. The Gull-billed Tern. Although essentially an inland species, outside breeding season it shows a distinct preference for saltmarshes and lagoons near the coast. Movements are not fully understood but it is common and widespread in Australia (Morcombe 2004).	Unlikely, no suitable habitat (wetland) present	NatureMap EPBC
<i>Hydroprogne caspia</i>	Caspian Tern	IA	MI	The Caspian Tern is mostly found in sheltered coastal embayments (harbours, lagoons, inlets, bays, estuaries and river deltas) and those with sandy or muddy margins are preferred. They also occur on near-coastal or inland terrestrial wetlands that are either fresh or saline, especially lakes (including ephemeral lakes), waterholes, reservoirs, rivers and creeks. They also use artificial wetlands, including reservoirs, sewage ponds and saltworks. In offshore areas the species prefers sheltered situations, particularly near islands, and is rarely seen beyond reefs (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area	NatureMap EPBC
<i>Limosa lapponica</i> (all subspecies)	Bar-tailed Godwit	VU, IA	VU, MI	Bar-tailed Godwits arrive in Australia each year in August from breeding grounds in the northern hemisphere. Birds are more numerous in northern Australia Bar-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).	Unlikely, no suitable habitat present	NatureMap EPBC DBCA
<i>Limosa limosa</i>	Black-tailed Godwit	IA	MI	In Australia the Black-tailed Godwit has a primarily coastal habitat environment. The species is commonly found in sheltered bays, estuaries and lagoons with large intertidal mudflats or sandflats, or spits and banks of mud, sand or shell-grit; occasionally recorded on rocky coasts or coral islets. The use of habitat often depends on the stage of the tide. It is also found in shallow and sparsely vegetated, near-coastal, wetlands; such as saltmarsh, saltflats, river pools, swamps, lagoons and floodplains. There are a few inland records, around shallow, freshwater and saline lakes, swamps, dams and bore-	Unlikely, no suitable habitat present	NatureMap DBCA

				overflows. They also use lagoons in sewage farms and saltworks (Higgins & Davies 1996).		
<i>Numenius madagascariensis</i>	Eastern Curlew	CR	CR	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).	Unlikely, no suitable habitat present	NatureMap EPBC DBCA
<i>Numenius minutus</i>	Little Curlew, Little Whimbrel	IA	MI	Little Curlews generally spend the non-breeding season in northern Australia from Port Hedland in WA to the Queensland coast (Minton 2002 pers. comm.). There are records of the species from inland Australia, and widespread but scattered records on the east coast. The Little Curlew is most often found feeding in short, dry grassland and sedgeland, including dry floodplains and blacksoil plains, which have scattered, shallow freshwater pools or areas seasonally inundated. Open woodlands with a grassy or burnt understory, dry saltmarshes, coastal swamps, mudflats or sandflats of estuaries or beaches on sheltered coasts, mown lawns, gardens, recreational areas, ovals, racecourses and verges of roads and airstrips are also used (Higgins & Davies 1996).	Unlikely, no suitable habitat present	NatureMap EPBC
<i>Numenius phaeopus</i>	Whimbrel	IA	MI	The Whimbrel is often found on the intertidal mudflats of sheltered coasts. It is also found in harbours, lagoons, estuaries and river deltas, often those with mangroves, but also open, un-vegetated mudflats. It is occasionally found on sandy or rocky beaches, on coral or rocky islets, or on intertidal reefs and platforms. It has been infrequently recorded using saline or brackish lakes near coastal areas. It also used saltflats with saltmarsh, or saline grasslands with standing water left after high spring-tides, and in similar habitats in sewage farms and saltfields (Higgins & Davies 1996). There are a small number of inland records from saline lakes and canegrass swamps. It has also been recorded in coastal dunes and a football field.	Unlikely, no suitable habitat present	NatureMap EPBC
<i>Onychoprion anaethetus</i>	Bridled tern			In Australia, Bridled Terns are widespread, breeding on offshore islands in western, northern and north-eastern Australia, extending from Cape Leeuwin in the south-west, around northern Australia to north-eastern and mid-eastern	Highly Unlikely, no habitat present and the species utilises marine	DBCA

				Queensland, extending through the Great Barrier Reef and Coral Sea as far south as Lady Elliott Island (approximately 24° S). Exceptionally, a pair bred in South Australia, within a large colony of Crested Terns (<i>Thalasseus bergii</i>), on Baudin Rocks, in 1968 and 1969. Further, the species breeds at one mainland site in far-southern Western Australia (at Knobby Head near Cape Hamelin) (DCCEEW 2022).	environments and offshore islands.	
<i>Pandion cristatus</i>	Osprey, Eastern Osprey	IA	MI	The breeding range of the Eastern Osprey extends around the northern coast of Australia (including many offshore islands) from Albany in WA to Lake Macquarie in NSW; with a second isolated breeding population on the coast of South Australia, extending from Head of Bight east to Cape Spencer and Kangaroo Island. Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands (DCCEEW 2022).	Unlikely, no suitable nesting habitat present, although opportunistic visitation may occur due to near-coastal location of survey area.	NatureMap DBCA
<i>Phaethon rubricauda</i>	Red-tailed Tropicbird		VU	In Australia, it nests on Queensland's coral islands (including Raine Island and Lady Elliot Island), and Ashmore Reef and Rottneest Island off Western Australia, as well as Sugarloaf Rock at Cape Naturaliste and Busselton on the Western Australian coastline itself, and the offshore territories of the Cocos (Keeling) Islands, Norfolk and Lord Howe islands. In New Zealand territory it breeds on the Kermadec Islands. It frequents areas of ocean with water temperatures from 24 to 30 °C (75 to 86 °F) and salinity under 35% in the southern hemisphere and 33.5% in the northern hemisphere. In the Pacific Ocean, the southern boundary of its range runs along the 22 °C (72 °F) summer surface isotherm. The warm waters of the Leeuwin Current facilitate the species nesting at Cape Leeuwin in southwestern Australia, yet is only a rare visitor to New South Wales at corresponding latitudes on the Australian east coast (Higgins et al 1990).	Unlikely, Pelagic species. The survey area lacks potentially suitable breeding habitat.	NatureMap DBCA
<i>Plegadis falcinellus</i>	Glossy Ibis	IA	MI	The Glossy Ibis' preferred habitat for foraging and breeding are fresh water 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 (DCCEEW 2022).	Unlikely, no suitable habitat present	PMST DBCA
<i>Pluvialis fulva</i>	Pacific Golden Plover	IA	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	Unlikely, no suitable habitat present	NatureMap DBCA

				harbours, estuaries and lagoons, and also in evaporation ponds in saltworks. The species is also sometimes recorded on islands, sand and coral cays and exposed reefs and rocks (DCCEEW 2022).		
<i>Pluvialis squatarola</i>	Grey Plover	IA	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).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Papasula abbotti</i>	Abbott's Booby		EN	Currently, Abbott's Booby is only known to breed on Christmas Island and to forage in the waters surrounding the island Within Christmas Island, most nests are found in the tall plateau forest on the central and western areas of the island, and in the upper terrace forest of the northern coast. The species was once thought to be restricted to areas above 150 m, mostly on the sides of north-west facing slopes but a survey in 1991 located them in some new areas Some of these areas had been known but were not recorded in a 1981 survey This revised distribution would be due partly to movement of the birds but the survey also discovered previously unknown nesting areas (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	EPBC
<i>Pezoporus occidentalis</i>	Night Parrot		CR	The Night Parrot is a highly elusive nocturnal ground dwelling parrot found in the arid and semi-arid zones of Australia; it is one of only three ground-dwelling parrots in Australia. The Night Parrot was thought to be extinct but in 2013 it was rediscovered in Queensland (Pullen Pullen Reserve). Subsequently, the Night Parrot Recovery Team confirms that there is one population recently recorded in the Diamantina National Park/Pullen Pullen Reserve area in western Queensland, and other recent records in the Wiluna district of central WA, and the Lake Gregory area of northern WA .Purported records at Kalamurina in SA and Goneaway NP in Queensland have not been confirmed (DCCEEW 2022).	Highly Unlikely, the species is not known from this region and limited available habitat	EPBC
<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN	The Australian Painted Snipe is restricted to Australia with historical records from around the Perth region in WA. Prefers fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds. The nest consists of a scrape in the ground, lined with grasses and leaves. Breeding is often in response to local conditions; generally occurs from September to December.	Unlikely, no suitable habitat likely to be present	EPBC

				Incubation and care of young is all undertaken by the male only. Forages nocturnally on mud-flats and in shallow water. Feeds on worms, molluscs, insects and some plant-matter (DCCEEW 2022).		
<i>Sterna dougallii</i> (all sub-species)	Roseate Tern	IA	MI	The Roseate Tern occurs in coastal and marine areas in subtropical and tropical seas. The species inhabits rocky and sandy beaches, coral reefs, sand cays and offshore islands. Birds rarely occur in inshore waters or near the mainland, usually venturing into these areas only accidentally, when nesting islands are nearby (Higgins & Davies 1996). The usually roosts or loafs in the intertidal zone on islands, including on the upper sections of beaches, above the high-water mark (but still in the wash-zone) on banks, spits and bars, usually of coral or sand. Birds occasionally roost on exposed rubble banks or on rocky features, such as cliffs, headlands, plateaux, stacks and ledges, among rocks or in crags (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Sterna hirundo</i> (all sub-species)	Common Tern	IA	MI	In northern Australia there are scattered records in the Kimberley Division of WA, but the species has recently been found to be one of the most abundant species recorded in ground surveys of waterbirds of the Top End of the Northern Territory. In Australia, they are recorded in all marine zones, but are commonly observed in near-coastal waters, both on ocean beaches, platforms and headlands and in sheltered waters, such as bays, harbours and estuaries with muddy, sandy or rocky shores (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap
<i>Sternula albifrons</i>	Little Tern	IA	MI	In Australia, Little Terns inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas, lakes, bays, harbours and inlets, especially those with exposed sandbanks or sand-spits, and also on exposed ocean beaches (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Sula leucogaster</i> (all sub-species)	Brown Booby	IA	MI	In Australia, the Brown Booby is found from Bedout Island in WA, around the coast of the Northern Territory to the Bunker Group of islands in Queensland with occasional reports further south in New South Wales and Victoria. The species is reported further south to Tweed Heads, NSW, and to near Onslow, WA and may be becoming more common in these areas. The Brown Booby uses both marine and terrestrial habitat. The species occurs in, but is not restricted to, tropical waters of all major oceans, often staying close to breeding islands (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Thalasseus bergii</i>	Crested Tern	IA	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,	Highly Unlikely, no habitat present and the species utilises	NatureMap

				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 (DCCEEW 2022).	marine environments	
<i>Tringa brevipes</i>	Grey-tailed Tattler	P4, IA	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 (DCCEEW 2022).	Unlikely, no suitable habitat present	
<i>Tringa glareola</i>	Wood Sandpiper)	IA	MI	Within Australia, the Grey-tailed Tattler has a primarily northern coastal distribution and is found in most coastal regions (Higgins & Davies 1996). The Grey-tailed Tattler is often found on sheltered coasts with reefs and rock platforms or with intertidal mudflats. It can also be found at intertidal rocky, coral or stony reefs as well as platforms and islets that are exposed at low tide (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Tringa nebularia</i>	Common Greenshank, greenshank	IA	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 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 (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area	NatureMap DBCA
<i>Tringa totanus</i>	Common Redshank, redshank	IA	MI	In Australia, the Common Redshank has been recorded at scattered locations. In WA the species is vargrant to the south-west with records at Peel Inlet, Coodanup, the Gascoyne region, Coral Bay and Carnarvon (Higgins & Davis 1996). It is regular and widespread in the north-west, from the Dampier Saltfields to Roebuck Bay and Broome. The Common Redshank is found at sheltered coastal wetlands such as bays, river estuaries, lagoons, inlets and saltmarsh (with bare open flats and banks of mud or sand). They are also found around saltlakes, freshwater lagoons, artificial wetlands and saltworks and sewage farms (Higgins & Davies 1996).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area	NatureMap DBCA
<i>Tyto novaehollandiae kimberli</i>	Masked Owl	P1	VU	The range of the Masked Owl is a broad coastal band around most of mainland Australia and throughout Tasmania, and for the most part is less than 300 km from the coast. Population numbers are low on the mainland and several states give this species special conservation status. The Masked Owl inhabits	Highly Unlikely, This species is not known from this region. All known records are from	EPBC

				heavy forests, and will hunt over open woodlands, timbered waterways and open country on the fringe of these areas. The main requirements are tall trees with suitable hollows for nesting and roosting and adjacent areas for foraging. Masked Owls are territorial, and pairs remain in or near the territory all year round (Birdlife Australia 2019)	central and Northern Kimberley.	
<i>Xenus cinereus</i>	Terek Sandpiper	IA	MI	In Australia, the Terek Sandpiper has a primarily coastal distribution, with occasional records inland. It is more widespread and common in northern and eastern Australia than southern Australia (DCCEEW 2022). The Terek Sandpiper mostly forages in the open, on soft wet intertidal mudflats or in sheltered estuaries, embayments, harbours or lagoons. The species has also been recorded on islets, mudbanks, sandbanks and spits, and near mangroves and occasionally in samphire (<i>Halosarcia</i> spp.). Birds are seldom near the edge of water, however, birds may wade into the water (Marchant & Higgins 1993).	Unlikely, no suitable habitat present	NatureMap
Mammals						
<i>Macroderma gigas</i>	Ghost bat	VU	VU	The Ghost Bat occurs in a wide range of habitats, and requires an undisturbed cave, deep fissure or disused mine shaft in which to roost. It is patchily distributed across Australia, and is sensitive to disturbance (Van Dyck and Strahan 2008).	Highly Unlikely, this species is not known from the area. Unlikely that appropriate habitat is present (lack of bisected rocky cave-forming geomorphology).	EPBC

<i>Macrotis lagotis</i>	Greater Bilby, Dalgyte, Ninu	VU	VU	In WA the species is restricted to the north, including the Pilbara, Sandy and Gibson Deserts. The Greater Bilby usually spends the daytime in burrows, often built against termite mounds, spinifex hummock or shrubs (Van Dyck and Strahan 2008). Extant population occur in a variety of habitats, usually on landforms with level to low slope topography and light to medium soils. It occupies three major vegetation types; open tussock grassland on uplands and hills, mulga woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas. Laterite and rock feature substrates are an important part of the species' habitat. These habitat support shrub species, such as <i>Acacia kempeana</i> , <i>A. hilliana</i> and <i>A. rhodophloia</i> , which have root-dwelling larvae that provide a constant food source. The current occurrence of this species is strongly associated with higher rainfall and temperatures, which promote areas of higher plant and food production (DCCEEW 2022).	Likely, the species is known to occur locally based on previous records. Based on close proximity of records, habitat characteristics, and transieny nomadic behavoiur, this species is likely forage or move through the survey area, and the survey area habitat is potential burrowing habitat. Being close to the community may impact on the species numbers and distribution.	NatureMap
<i>Saccolaimus saccolaimus nudicluniatus</i>	Bare-rumped Sheath-tailed Bat,	P3	VU	The Bare-rumped Sheathtail Bat occurs mostly in lowland areas, typically in a range of woodland, forest and open environments (DotE 2016). The Bare-rumped Sheathtail Bat has been suggested to forage over habitat edges such as the edge of rainforest and in forest clearings (Churchill 1998). There is no information is available on foraging habitat shifts between the dry and wet seasons. The small number of confirmed roosts located in Australia have all been in tree hollows. Overseas other subspecies (perhaps distinct species to the form(s) occurring in Australia) commonly roost in caves, overhangs and man-made structures. However, in Australia no individuals have been found roosting in caves. For example, a survey conducted of about 1000 coastal caves in the Wet Tropics region failed to locate this species (DotE 2016). In 2011, morphological analyses of four <i>S. flaviventris</i> specimens held at the WAM indicated that they had been misidentified and are likely to belong to the species <i>S. saccolaimus</i> (Milne pers. comm., 2013). The bare-rumped sheath-tail bat is therefore likely to be distributed through the Kimberley region of WA as far west as Broome, however this has not been confirmed through genetic analyses (Milne pers. comm., 2013).	Highly Unlikely, this species is not known from the area. The species is only known from further north in the Kimberley.	EPBC

<i>Trichosurus vulpecula arnhemensis</i>	Northern Brushtail Possum	VU	VU	A nocturnal and arboreal species that inhabits forests and tall woodlands of the monsoon tropics of the Kimberley and Top End typically in areas with adequate dense canopy density allowing the possum some arboreal habitat connectivity via canopy tree foliage. It shelters in tree hollows and feeds primarily on foliage, blossom and fruits, but will also forage on ground for invertebrates (Menkhorst and Knight 2004).	Unlikely, no suitable habitat present	PMST
<i>Xeromys myoides</i>	Water mouse		VU	This small rodent has dark grey silky fur above white below. Three separate populations are known: (Northern Territory, central south Queensland, south-east Queensland). Habitat includes mangroves, saltmarsh, sedgelands, clay pans, heathlands and freshwater wetlands. Not known to occur in WA (Van Dyck and Strahan 2008).	Highly unlikely, Not known to occur locally or regionally and survey area lacks suitable wetland habitat.	EPBC
<i>Mormopterus cobourgiensis</i>	North-western free-tailed bat	P1		This bat occurs along the northern WA coast from Exmouth to Dampier Peninsula. Prefers mangroves and adjacent coastal vegetation (Menkhorst and Knight 2004)	Unlikely, no suitable habitat present.	EPBC
Reptiles						
<i>Simoselaps minimus</i>	Dampierland Burrowing snake	P2		This small fossorial snake is known only from Dampier Land, in the south-west Kimberley, WA. Known to occur in coastal dunes and sandy junction between dunes and adjacent <i>Acacia</i> shrublands. Occasional records occur from near-coastal Pindan. Poorly known but presumed to be similar to other <i>Simoselaps</i> ; a sand-swimmer feeding largely or wholly on skinks of the genus <i>Lerista</i> (Wilson and Swan 2017).	Likely. Potentially suitable habitat (near-coastal Pindan shrubland on sandy soil) is likely to occur within the survey area.	NatureMap DBCA
<i>Lerista separanda</i>	Dampierland plain slider, skink	P2		Dampier Land, west Kimberley	Likely. Potentially suitable habitat (near-coastal Pindan shrubland on sandy soil) occurs within the survey area.	DBCA

Fauna Likelihood of Occurrence – Beagle Bay

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the project area	Source
		BC Act / DBCA	EPBC Act			
Birds						
<i>Anous tenuirostris melanops</i>	Australian Lesser Noddy	EN	VU	The Australian subspecies of the Australian lesser noddy <i>A. t. melanops</i> breeds only on three islands in the Houtman Abrolhos, off Western Australia, where it nests in mangroves. The birds remain near the breeding islands all year (Higgins and Davies 1996).	Highly Unlikely – there is no suitable habitat (mangroves) for this species in the survey area	EPBC PMST
<i>Apus pacificus</i>	Fork-tailed Swift	IA	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 Cocklebidy 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).	Unlikely, typically aerial feeders during non-breeding season when present locally, and very rarely utilising terrestrial habitats	NatureMap DBCA
<i>Calidris canutus</i>	Red Knot, Knot	EN	EN	In Australasia the Red Knot mainly inhabits intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours; sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs. They are occasionally seen on terrestrial saline wetlands near the coast, such as lakes, lagoons, pools and pans, and recorded on sewage ponds and saltworks, but rarely use freshwater swamps. They rarely use inland lakes or swamps (DCCEEW 2022). They are found near mudflats and estuaries from Murchison to Bunbury but are then uncommon from Wilson Inlet to Esperance. In the Perth region they are mainly found in Alfred Cove and Peel Inlet (Nevill 2013).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area	NatureMap
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	CR	Curlew Sandpipers mainly occur in areas with soft mud conditions, including 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 found inland less often, including around ephemeral and permanent	Unlikely, no suitable habitat present	NatureMap EPBC PMST

				lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters. In WA, they are widespread around coastal and subcoastal plains from Cape Arid to south-west Kimberley Division, but are more sparsely distributed between Carnarvon and Dampier Archipelago (DEE 2019). They are common on the Swan Coastal Plain, particularly near large drying lakes like Thompson and Forrestdale, and Peel Inlet. They are less common along the southern coast to Esperance (Nevill 2013).		
<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU	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 Top End of the Northern Territory, including on Groote Eylandt (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area	NatureMap EPBC PMST
<i>Charadrius veredus</i>	Oriental Plover	MI	MI	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, harbours and estuaries, and occasionally sandy ocean beaches, coral reefs, wave-cut rock platforms and rocky outcrops. In north-western Australia, the species appears to use the Port Hedland saltworks in preference to nearby beaches. The species is seldom recorded away from the coast, at margins of lakes, soaks and swamps associated with artesian bores (Marchant & Higgins 1993).	Highly Unlikely – there is no suitable habitat in the survey area for this species. The nearest record for this species is 14 km east of the survey area.	NatureMap DBCA
<i>Erythrotriorchis radiatus</i>	Red Goshawk	VU	VU	The Red Goshawk occurs in coastal and sub-coastal areas in wooded and forested lands of tropical and warm-temperate Australia (Marchant & Higgins 1993). Riverine forests are also used frequently. Such habitats typically support high bird numbers and biodiversity, especially medium to large species which the goshawk requires for prey. The Red Goshawk nests in large trees, frequently the tallest and most massive in a tall stand, and nest trees are invariably within one km of permanent water (DCCEEW 2022).	Unlikely – uncommon in the Dampierland. Local occurrence would be as vagrant	EPBC PMST
<i>Erythrura gouldiae</i>	Gouldian Finch	P4	EN	The Gouldian Finch inhabits open woodlands that are dominated by Eucalyptus trees and support a ground cover of Sorghum and other grasses (Boekel 1980). The critical components of suitable core habitat for the Gouldian Finch appear to be the presence of favoured annual and perennial grasses (especially Sorghum), a nearby source of surface	Likely, known to occur locally, may forage on seed of a range of locally occurring grasses when seasonally	NatureMap EPBC PMST DBCA

				water and, in the breeding season, unburnt hollow-bearing Eucalyptus trees (especially <i>E. tintinnans</i> , <i>E. brevifolia</i> and <i>E. leucophloia</i>) (Higgins et al. 2006).	suitable within the survey area. Nearest record is approximately 2 km north.	
<i>Falco hypoleucos</i>	Grey Falcon	VU	EN	The Grey Falcon inhabits lightly timbered country, especially stony, inland plains and Acacia scrub, gibber deserts, sandridges, pastoral lands, and timbered watercourses, but seldom in driest deserts.	Likely, the species is known to persist in the region, however use would be foraging only with no breeding habitat present such as tall structures or trees	EPBC PMST
<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 (DCCEEW 2022, Morcombe 2004).	Likely, the species is known to persist in the region, however use would be foraging only with no breeding habitat present, such as tall structures or steep topography. Nearest record is approximately 12 km east of the survey area.	NatureMap EPBC PMST DBCA
<i>Gelochelidon nilotica</i>	Gull-billed Tern	IA	MI	The Gull-billed Tern is nomadic or migratory species in Australia. Gull-billed Terns are found in freshwater swamps, brackish and salt lakes, beaches and estuarine mudflats, floodwaters, sewage farms, irrigated croplands and grasslands, where resources are favourable. They are only rarely found over the ocean. The Gull-billed Tern. Although essentially an inland species, outside breeding season it shows a distinct preference for saltmarshes and lagoons near the coast. Movements are not fully understood but it is common and widespread in Australia (Morcombe 2004).	Unlikely, no suitable habitat (wetland) present	NatureMap EPBC PMST
<i>Glareola maldivarum</i>	Oriental pratincole	MI	MI	In non-breeding grounds in Australia, the Oriental Pratincole usually inhabits open plains, floodplains or short grassland (including farmland or airstrips), often with extensive bare areas. They often occur near terrestrial wetlands, such as billabongs, lakes or creeks, and artificial wetlands such as	Likely, nearest record is approximately 1 km north east, the survey area is considered	NatureMap DBCA

				reservoirs, saltworks and sewage farms, especially around the margins. The species also occurs along the coast, inhabiting beaches, mudflats and islands, or around coastal lagoons (Lloyd and Lloyd 1991).	marginal habitat, as it lacks coastal or wetland areas. May occasionally hawk over survey area or in proximity.	
<i>Limosa lapponica</i> (all subspecies)	Bar-tailed Godwit	VU, IA	VU, MI	Bar-tailed Godwits arrive in Australia each year in August from breeding grounds in the northern hemisphere. Birds are more numerous in northern Australia Bar-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).	Unlikely, no suitable habitat present	NatureMap EPBC PMST
<i>Numenius madagascariensis</i>	Eastern Curlew	CR	CR	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).	Unlikely, no suitable habitat present	NatureMap EPBC PMST
<i>Numenius minutus</i>	Little Curlew, Little Whimbrel	IA	MI	Little Curlews generally spend the non-breeding season in northern Australia from Port Hedland in WA to the Queensland coast (Minton 2002 pers. comm.). There are records of the species from inland Australia, and widespread but scattered records on the east coast. The Little Curlew is most often found feeding in short, dry grassland and sedge land, including dry floodplains and blacksoil plains, which have scattered, shallow freshwater pools or areas seasonally inundated. Open woodlands with a grassy or burnt understory, dry saltmarshes, coastal swamps, mudflats or sandflats of estuaries or beaches on sheltered coasts, mown lawns, gardens, recreational areas, ovals, racecourses and verges of roads and airstrips are also used (Higgins & Davies 1996).	Unlikely, no suitable habitat present. Nearest record is approximately 1 km north of the survey area.	NatureMap EPBC PMST DBCA
<i>Pandion cristatus</i>	Osprey, Eastern Osprey	IA	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	Unlikely – the habitat in the survey area is not	NatureMap EPBC PMST

				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 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.	preferred for this species, as it mainly forages on fish. The species might utilise nearby habitat within the mangroves and tidal flats. Nearest record is 9 km west.	DBCA
<i>Papasula abbotti</i>	Abbott's Booby		EN	Currently, Abbott's Booby is only known to breed on Christmas Island and to forage in the waters surrounding the island. Within Christmas Island, most nests are found in the tall plateau forest on the central and western areas of the island, and in the upper terrace forest of the northern coast. The species was once thought to be restricted to areas above 150 m, mostly on the sides of north-west facing slopes but a survey in 1991 located them in some new areas. Some of these areas had been known but were not recorded in a 1981 survey. This revised distribution would be due partly to movement of the birds but the survey also discovered previously unknown nesting areas (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	EPBC PMST
<i>Pezoporus occidentalis</i>	Night Parrot		CR	The Night Parrot is a highly elusive nocturnal ground dwelling parrot found in the arid and semi-arid zones of Australia; it is one of only three ground-dwelling parrots in Australia. The Night Parrot was thought to be extinct but in 2013 it was rediscovered in Queensland (Pullen Pullen Reserve). Subsequently, the Night Parrot Recovery Team confirms that there is one population recently recorded in the Diamantina National Park/Pullen Pullen Reserve area in western Queensland, and other recent records in the Wiluna district of central WA, and the Lake Gregory area of northern WA. Purported records at Kalamurina in SA and Goneaway NP in Queensland have not been confirmed (DCCEEW 2022).	Highly Unlikely, the species is not known from this region and limited available habitat	EPBC PMST
<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN	The Australian Painted Snipe is restricted to Australia with historical records from around the Perth region in WA. Prefers fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber. Nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds. The nest consists of a scrape in the ground, lined with grasses and leaves. Breeding is often in response to local conditions; generally occurs from September to December. Incubation and care of young is all undertaken by the male only. Forages nocturnally on mud-	Unlikely, no suitable habitat likely to be present	EPBC PMST

				flats and in shallow water. Feeds on worms, molluscs, insects and some plant-matter (DCCEEW 2022).		
<i>Sterna dougallii</i> (all sub-species)	Roseate Tern	IA	MI	The Roseate Tern occurs in coastal and marine areas in subtropical and tropical seas. The species inhabits rocky and sandy beaches, coral reefs, sand cays and offshore islands. Birds rarely occur in inshore waters or near the mainland, usually venturing into these areas only accidentally, when nesting islands are nearby (Higgins & Davies 1996). The usually roosts or loafs in the intertidal zone on islands, including on the upper sections of beaches, above the high-water mark (but still in the wash-zone) on banks, spits and bars, usually of coral or sand. Birds occasionally roost on exposed rubble banks or on rocky features, such as cliffs, headlands, plateaux, stacks and ledges, among rocks or in crags (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments. Nearest record is 16 km west of the survey area.	NatureMap DBCA
<i>Tringa brevipes</i>	Grey-tailed Tattler	P4, IA	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 (DCCEEW 2022).	Unlikely, no suitable habitat present. Nearest known record is 8 km west of the survey area.	DBCA
<i>Tringa nebularia</i>	Common Greenshank, greenshank	IA	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 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 (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area. Nearest record is 16 km west of the survey area.	NatureMap DBCA
<i>Tyto novaehollandiae kimberli</i>	Masked Owl	P1	VU	The range of the Masked Owl is a broad coastal band around most of mainland Australia and throughout Tasmania, and for the most part is less than 300 km from the coast. Population numbers are low on the mainland and several states give this species special conservation status. The Masked Owl inhabits heavy forests, and will hunt over open woodlands, timbered waterways and open country on the fringe of these areas. The main requirements are tall trees with suitable hollows for nesting and roosting and adjacent areas for	Highly Unlikely, This species is not known from this region. All known records are from central and Northern Kimberley.	EPBC PMST

				foraging. Masked Owls are territorial, and pairs remain in or near the territory all year round (Birdlife Australia 2019)		
Mammals						
<i>Macroderma gigas</i>	Ghost bat	VU	VU	The Ghost Bat occurs in a wide range of habitats, and requires an undisturbed cave, deep fissure or disused mine shaft in which to roost. It is patchily distributed across Australia, and is sensitive to disturbance (Van Dyck and Strahan 2008).	Highly Unlikely, this species is not known from the area. Unlikely that appropriate habitat is present (lack of bisected rocky cave-forming geomorphology).	EPBC PMST
<i>Macrotis lagotis</i>	Greater Bilby, Dalgyte, Ninu	VU	VU	In WA the species is restricted to the north, including the Pilbara, Sandy and Gibson Deserts. The Greater Bilby usually spends the daytime in burrows, often built against termite mounds, spinifex hummock or shrubs (Van Dyck and Strahan 2008). Extant population occur in a variety of habitats, usually on landforms with level to low slope topography and light to medium soils. It occupies three major vegetation types; open tussock grassland on uplands and hills, mulga woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas. Laterite and rock feature substrates are an important part of the species' habitat. These habitat support shrub species, such as <i>Acacia kempeana</i> , <i>A. hillioniana</i> and <i>A. rhodophloia</i> , which have root-dwelling larvae that provide a constant food source. The current occurrence of this species is strongly associated with higher rainfall and temperatures, which promote areas of higher plant and food production (DCCEEW 2022).	Likely, the species is known to occur locally based on previous records (nearest 0.05 km north). Based on close proximity of records, habitat characteristics, and transient, nomadic behaviour, this species is likely forage or move through the survey area, and the survey area habitat is potential burrowing habitat. Being close to the community may impact on the species numbers and distribution.	NatureMap DBCA
<i>Saccolaimus saccolaimus nudicluniatus</i>	Bare-rumped Sheath-tailed Bat,	P3	VU	The Bare-rumped Sheath-tailed Bat occurs mostly in lowland areas, typically in a range of woodland, forest and open environments (DotE 2016). The Bare-rumped Sheath-tailed Bat has been suggested to forage over habitat edges such as the edge of rainforest and in forest clearings (Churchill 1998). There is no information is available on foraging habitat shifts between the dry and wet seasons. The small number of confirmed roosts located in Australia have all been in tree hollows. Overseas other subspecies (perhaps distinct	Highly Unlikely, this species is not known from the area. The species is only known from further north in the Kimberley.	EPBC PMST

				species to the form(s) occurring in Australia) commonly roost in caves, overhangs and man-made structures. However, in Australia no individuals have been found roosting in caves. For example, a survey conducted of about 1000 coastal caves in the Wet Tropics region failed to locate this species (DotE 2016). In 2011, morphological analyses of four <i>S. flaviventris</i> specimens held at the WAM indicated that they had been misidentified and are likely to belong to the species <i>S. saccolaimus</i> (Milne pers. comm., 2013). The bare-rumped sheath-tail bat is therefore likely to be distributed through the Kimberley region of WA as far west as Broome, however this has not been confirmed through genetic analyses (Milne pers. comm., 2013).		
<i>Trichosurus vulpecula arnhemensis</i>	Northern Brushtail Possum	VU	VU	A nocturnal and arboreal species that inhabits forests and tall woodlands of the monsoon tropics of the Kimberley and Top End typically in areas with adequate dense canopy density allowing the possum some arboreal habitat connectivity via canopy tree foliage. It shelters in tree hollows and feeds primarily on foliage, blossom and fruits, but will also forage on ground for invertebrates (Menkhorst and Knight 2004).	Unlikely, no suitable habitat present	EPBC PMST
<i>Vespadelus douglasorum</i>	Yellow-lipped Cave Bat	P2		Confined to the Western Kimberley mostly in relatively high rainfall areas (> 800mm). Forages in woodlands, particularly riparian vegetation in proximity to rocky habitat where in will roost in caves and crevices.	Unlikely – Nearest record approximately 10 km south east. The survey area represents the western edge of the species known range. May occasionally forage locally although unlikely to roost as no suitable habitat.	DBCA
<i>Xeromys myoides</i>	Water mouse		VU	This small rodent has dark grey silky fur above white below. Three separate populations are known: (Northern Territory, central south Queensland, south-east Queensland). Habitat Includes mangroves, saltmarsh, sedgelands, clay pans, heathlands and freshwater wetlands. Not known to occur in WA (Van Dyck and Strahan 2008).	Highly unlikely, Not known to occur locally or regionally and survey area lacks suitable wetland habitat.	EPBC PMST

Fauna Likelihood of Occurrence - Bidyadanga

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
Birds						
<i>Bubulcus ibis</i>	Cattle Egret	-	MA	The Cattle Egret is highly sociable and can be found in small groups to large flocks. It arrived in northern Australia in 1950 and is commonly found in wetlands, both marine and fresh and usually forages in shallows of open waters – swamps, billabongs, floodplain pools, mudflats, and mangrove channels (Morcombe 2004).	Unlikely – there is no suitable habitat in the survey area for this species.	EPBC PMST
<i>Actitis hypoleucos</i>	Common Sandpiper	IA	MI	The species utilises 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 further upstream; around lakes, pools, billabongs, reservoirs, dams and claypans, and occasionally piers and jetties. The muddy margins utilised by the species are often narrow, and may be steep. The species is often associated with mangroves, and sometimes found in areas of mud littered with rocks or snags (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however, no suitable habitat actually present in survey area. Nearest record is 2.5 km northwest of survey area.	NatureMap DBCA EPBC PMST
<i>Anous stolidus</i> (all sub-species)	Common Noddy	IA	MI	The Common Noddy is found in tropical and sub-tropical seas off the west, north and east coasts of Australia, from the Abrolhos Islands in WA to the islands of the Great Barrier Reef in Qld, as well as Norfolk and Lord Howe Islands. Some are seen almost annually in NSW as far south as Sydney. It also ranges across tropical parts of the Pacific, Indian and Atlantic Oceans (DCCEEW 2022).	Highly Unlikely, no suitable habitat present in the survey area, this species is a coastal and pelagic species.	NatureMap EPBC PMST
<i>Apus pacificus</i>	Fork-tailed Swift	IA	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 Cocklebidy 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).	Unlikely, typically areal feeders during non-breeding season when present locally, and very rarely utilising terrestrial habitats. Nearest record is 10 km northeast of the survey area.	NatureMap DBCA EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
<i>Calonectris leucomelas</i>	Streaked Shearwater		MI	The streaked shearwater is a large, pale-faced shearwater that breeds in on islands off the southern Russian Far East, Japan, east China, Korea and Taiwan and migrates in the non breeding season to the waters between Papua New Guinea and Australia. The species rarely ventures south past the Kimberley with scattered records along the Pilbara coast (ALA 2021). It prefers pelagic seas, shelf waters and further out; it is rarely found inshore (Morcombe 2004).	Highly Unlikely – no suitable habitat present in the survey area.	EPBC PMST
<i>Arenaria interpres</i>	Ruddy Turnstone	IA	MI	In Australia, Ruddy Turnstones are widespread around the coast of the mainland and off-shore islands. They breed on the northern coasts of Europe, Asia and North America. They are found on coastlines around the world, when not breeding or on passage. They are found singly or in small groups along the coastline and only occasionally inland. They are mainly found on exposed rocks or reefs, often with shallow pools, and on beaches. In the north, they are found in a wider range of habitats, including mudflats (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however, no potentially suitable habitat present within the survey area. Nearest record is 2.5 km northwest of the survey area.	NatureMap DBCA
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	IA	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, sedgeland and other ephemeral wetlands, but leave when they dry (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area. Nearest record is 2.5 km northwest of the survey area.	NatureMap DBCA EPBC PMST
<i>Calidris alba</i>	Sanderling	IA	MI	In Australia, the species is almost always found on the coast, mostly on open sandy beaches exposed to open sea-swell, and also on exposed sandbars and spits, and shingle banks, where they forage in the wave-wash zone and amongst rotting seaweed. Sanderlings also occur on beaches that may contain wave-washed rocky outcrops. Less often the species occurs on more sheltered sandy shorelines of estuaries, inlets and harbours (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey	NatureMap DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
					area. Nearest record is 2.5 km northwest of the survey area.	
<i>Calidris canutus</i>	Red Knot, Knot	EN	EN	In Australasia the Red Knot mainly inhabits intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours; sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs. They are occasionally seen on terrestrial saline wetlands near the coast, such as lakes, lagoons, pools and pans, and recorded on sewage ponds and saltworks, but rarely use freshwater swamps. They rarely use inland lakes or swamps (DCCEEW 2022). They are found near mudflats and estuaries from Murchison to Bunbury but are then uncommon from Wilson Inlet to Esperance. In the Perth region they are mainly found in Alfred Cove and Peel Inlet (Nevill 2013).	Highly Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area	EPBC PMST NatureMap
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	CR	Curlew Sandpipers mainly occur in areas with soft mud conditions, including 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 found inland 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. In WA, they are widespread around coastal and subcoastal plains from Cape Arid to south-west Kimberley Division, but are more sparsely distributed between Carnarvon and Dampier Archipelago (DEE 2019). They are common on the Swan Coastal Plain, particularly near large drying lakes like Thompson and Forrestdale, and Peel Inlet. They are less common along the southern coast to Esperance (Nevill 2013).	Highly Unlikely, no suitable habitat present in the survey area. Nearest record is 10 km northeast of the survey area.	NatureMap EPBC PMST DBCA
<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	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present.	EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				shallow water or soft mud at the edge of wetlands (Higgins & Davies 1996).		
<i>Limicola falcinellus</i>	Broad-billed Sandpiper	MI	MI	The Broad-billed Sandpiper occurs in sheltered parts of the coast, favouring estuarine mudflats but also occasionally occur on saltmarshes, shallow freshwater lagoons, saltworks and sewage farms, and in areas with large soft intertidal mudflats, which may have shell or sandbanks nearby. Occasionally they occur on reefs or rocky platforms. They have also been recorded in creeks, swamps and lakes near the coast, particularly those with bare mudflats or sand exposed by receding water. They often favour mud among, or fringed by, mangroves, particularly on the seaward side and sometimes occur in estuaries edged by saltmarsh. They are rarely recorded inland. Foraging occurs on exposed flats of soft mud or wet sand at edges of coastal and near-coastal wetlands, often around channels on mudflats or in accumulated mud in swales between shell banks. In northern Australia, they forage in soft mud near mangroves, but may remain on same muddy section, even though fresher substrate may be exposed by the receding tide. They also forage in shallow water on muddy edges of ponds. They roost on the banks of sheltered sandy, shelly or shingly beaches (Higgins & Davies 1996). They nest on the ground, frequently in the top of a tussock (Cramp 1985).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present. Nearest record is 2.5 km northwest of the survey area.	NatureMap DBCA
<i>Calidris ruficollis</i>	Red-necked Stint	IA	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, estuaries, intertidal mudflats and protected sandy or coralline shores (Pizzey and Knight 2012).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present. Nearest record is 2.5 km northwest of the survey area.	NatureMap DBCA
<i>Calidris tenuirostris</i>	Great Knot	CR	CR	The Great Knot has been recorded around the entirety of the Australian coast, with a few scattered records inland. It is now absent from some sites along the south coast where it used to be a regular visitor (Garnett and Crowley 2000). The greatest numbers are found in northern Australia; where the species is common on the coasts of the Pilbara and Kimberley, from the Dampier Archipelago to the Northern Territory border, and in the	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to	NatureMap DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				Northern Territory from Darwin and Melville Island, through Arnhem Land to the south-east Gulf of Carpentaria. In Australasia, the species typically prefers sheltered coastal habitats, with large intertidal mudflats or sandflats. This includes inlets, bays, harbors, estuaries and lagoons (DCCEEW 2022).	be present within the survey area. Nearest record is 2.5 km northwest of the survey area.	
<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU	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 Top End of the Northern Territory, including on Groote Eylandt (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area. Nearest record is 2.5 km northwest of the survey area.	NatureMap EPBC PMST DBCA
<i>Charadrius mongolus</i>	Lesser Sand Plover	EN	EN	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 south-eastern 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 river beds (Marchant & Higgins 1993). In north-western Australia, the species appears to use the Port Hedland saltworks in preference to nearby beaches.	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area. Nearest record is 7.8 km north.	NatureMap DBCA
<i>Charadrius veredus</i>	Oriental Plover	MI	MI	The Oriental Plover is a non-breeding visitor to Australia, where the species occurs in both coastal and inland areas, mostly in northern Australia. Most records are along the north-western coast, between Exmouth Gulf and Derby in Western Australia,	Unlikely - Nearest record is 10 km northeast of the survey area. This is	EPBC PMST DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				<p>and there are records at a few scattered sites elsewhere, mainly along the northern coast, such as in the Top End, the Gulf of Carpentaria and on Cape York Peninsula. The species also often occurs further inland on the 'blacksoil' plains of northern Western Australia, the Northern Territory and north-western Queensland.</p> <p>Immediately after arriving in non-breeding grounds in northern Australia, Oriental Plovers spend a few weeks in coastal habitats such as estuarine mudflats and sandbanks, on sandy or rocky ocean beaches or nearby reefs, or in near-coastal grasslands, before dispersing further inland (DAWE 2021).</p>	species is more likely to utilise expansive habitat outside of the survey area.	
<i>Erythrotriorchis radiatus</i>	Red Goshawk	VU	VU	The Red Goshawk occurs in coastal and sub-coastal areas in wooded and forested lands of tropical and warm-temperate Australia (Marchant & Higgins 1993). Riverine forests are also used frequently. Such habitats typically support high bird numbers and biodiversity, especially medium to large species which the goshawk requires for prey. The Red Goshawk nests in large trees, frequently the tallest and most massive in a tall stand, and nest trees are invariably within one km of permanent water (DCCEEW 2022).	Unlikely – uncommon in the Dampierland. Local occurrence would be as vagrant	EPBC PMST
<i>Glareola maldivarum</i>	Oriental Pratincole	MI	MI	In non-breeding grounds in Australia, the Oriental Pratincole usually inhabits open plains, floodplains or short grassland (including farmland or airstrips), often with extensive bare areas. They often occur near terrestrial wetlands, such as billabongs, lakes or creeks, and artificial wetlands such as reservoirs, saltworks and sewage farms, especially around the margins. The species also occurs along the coast, inhabiting beaches, mudflats and islands, or around coastal lagoons (Lloyd and Lloyd 1991).	Likely, Nearest record is approximately 2.5 km north of the survey area. The survey area is considered marginal habitat, as it lacks coastal or wetland areas. May occasionally hawk over survey area or in proximity.	EPBC PMST NatureMap DBCA
<i>Falco hypoleucos</i>	Grey Falcon	VU	EN	The Grey Falcon inhabits lightly timbered country, especially stony, inland plains and Acacia scrub, gibber deserts, sandridges, pastoral lands, and timbered watercourses, but seldom in driest deserts.	Likely, the species is known to persist in the region, however use would be foraging only with no breeding habitat present	EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
					such as tall structures or trees	
<i>Fregata ariel</i>	Lesser Frigatebird	IA	MI	The Lesser Frigatebird is said to be the most common and widespread frigatebird in Australian seas (DCCEEW 2022). It is common in tropical seas, breeding on remote islands, including Christmas Island in the Indian Ocean in recent years. These birds are most likely to be seen from the mainland prior to the onset of a tropical cyclone, and once this abates they disappear again.	Highly Unlikely, no habitat present and the species utilises marine environments. Nearest record is 8 km north.	NatureMap EPBC PMST DBCA
<i>Gelochelidon nilotica</i>	Gull-billed Tern	IA	MI	The Gull-billed Tern is nomadic or migratory species in Australia. Gull-billed Terns are found in freshwater swamps, brackish and salt lakes, beaches and estuarine mudflats, floodwaters, sewage farms, irrigated croplands and grasslands, where resources are favourable. They are only rarely found over the ocean. The Gull-billed Tern. Although essentially an inland species, outside breeding season it shows a distinct preference for saltmarshes and lagoons near the coast. Movements are not fully understood but it is common and widespread in Australia (Morcombe 2004).	Unlikely, no suitable habitat (wetland) present. Nearest record is 10 km northeast.	NatureMap DBCA
<i>Hydroprogne caspia</i>	Caspian Tern	IA	MI	The Caspian Tern is mostly found in sheltered coastal embayments (harbours, lagoons, inlets, bays, estuaries and river deltas) and those with sandy or muddy margins are preferred. They also occur on near-coastal or inland terrestrial wetlands that are either fresh or saline, especially lakes (including ephemeral lakes), waterholes, reservoirs, rivers and creeks. They also use artificial wetlands, including reservoirs, sewage ponds and saltworks. In offshore areas the species prefers sheltered situations, particularly near islands, and is rarely seen beyond reefs (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat is likely to be present within the survey area. Nearest record is 2.5 km northwest.	NatureMap EPBC DBCA
<i>Limosa lapponica (all subspecies)</i>	Bar-tailed Godwit	VU, IA	VU, MI	Bar-tailed Godwits arrive in Australia each year in August from breeding grounds in the northern hemisphere. Birds are more numerous in northern Australia Bar-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).	Unlikely, no suitable habitat present within the survey area. Nearest record is 2.5 km northwest	NatureMap EPBC PMST DBCA
<i>Hirundo rustica</i>	Barn Swallow	IA	MI	In Australia, the Barn Swallow is recorded in open country in coastal lowlands, often near water, towns and cities. Birds are	Unlikely, this species is a rare	EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				often sighted perched on overhead wires, and also in or over freshwater wetlands, paperbark Melaleuca woodland, mesophyll shrub thickets and tussock grassland (DAWE 2021).	vagrant to Australia and any use is irregular and opportunistic.	
<i>Limosa limosa</i>	Black-tailed Godwit	IA	MI	In Australia the Black-tailed Godwit has a primarily coastal habitat environment. The species is commonly found in sheltered bays, estuaries and lagoons with large intertidal mudflats or sandflats, or spits and banks of mud, sand or shell-grit; occasionally recorded on rocky coasts or coral islets. The use of habitat often depends on the stage of the tide. It is also found in shallow and sparsely vegetated, near-coastal, wetlands; such as saltmarsh, saltflats, river pools, swamps, lagoons and floodplains. There are a few inland records, around shallow, freshwater and saline lakes, swamps, dams and bore-overflow. They also use lagoons in sewage farms and saltworks (Higgins & Davies 1996).	Unlikely, no suitable habitat (wetland) present. Nearest record is 8 km north.	NatureMap DBCA
<i>Limnodromus semipalmatus</i>	Asian Dowitcher	IA	MI	The Asian Dowitcher occurs in sheltered coastal Environments, such as embayments, coastal lagoons, estuaries and tidal creeks. They are known to frequent shallow water and exposed mudflats or sandflats. In Australia the Port Hedland Saltworks provides crucial habitat for the species. The species is commonly found in the round ponds and channels of saltworks and sewage farms. It is also found at near-coastal swamps and lakes (Higgins & Davies 1996).	Highly Unlikely – no suitable habitat present in the survey area.	EPBC PMST
<i>Merops ornatus</i>	Rainbow Bee-eater	-	MA	The Rainbow Bee-eater is distributed across much of mainland Australia and occurs on several near-shore islands. Occurs in a range of diverse habitats. Relevant habitat includes inland and coastal sand dune systems, and in mangroves in northern Australia, and has been recorded in various other habitat types including heathland, sedgeland, vine forest and vine thicket, and on beaches (Higgins 1999).	Likely, common and widespread species. Suitable habitat exists in the survey area.	EPBC PMST
<i>Numenius madagascariensis</i>	Eastern Curlew	CR	CR	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	Unlikely, no suitable habitat present. Nearest record is 2.5 km northwest	NatureMap EPBC PMST DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				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).		
<i>Numenius minutus</i>	Little Curlew, Little Whimbrel	IA	MI	Little Curlews generally spend the non-breeding season in northern Australia from Port Hedland in WA to the Queensland coast (Minton 2002 pers. comm.). There are records of the species from inland Australia, and widespread but scattered records on the east coast. The Little Curlew is most often found feeding in short, dry grassland and sedgeland, including dry floodplains and blacksoil plains, which have scattered, shallow freshwater pools or areas seasonally inundated. Open woodlands with a grassy or burnt understory, dry saltmarshes, coastal swamps, mudflats or sandflats of estuaries or beaches on sheltered coasts, mown lawns, gardens, recreational areas, ovals, racecourses and verges of roads and airstrips are also used (Higgins & Davies 1996).	Unlikely, no suitable habitat present. Nearest record is 10 km north east of the survey area.	NatureMap DBCA
<i>Numenius phaeopus</i>	Whimbrel	IA	MI	The Whimbrel is often found on the intertidal mudflats of sheltered coasts. It is also found in harbours, lagoons, estuaries and river deltas, often those with mangroves, but also open, un-vegetated mudflats. It is occasionally found on sandy or rocky beaches, on coral or rocky islets, or on intertidal reefs and platforms. It has been infrequently recorded using saline or brackish lakes near coastal areas. It also used saltflats with saltmarsh, or saline grasslands with standing water left after high spring-tides, and in similar habitats in sewage farms and saltfields (Higgins & Davies 1996). There are a small number of inland records from saline lakes and canegrass swamps. It has also been recorded in coastal dunes and a football field.	Unlikely, no suitable habitat present. Nearest record is 2.5 km northwest	NatureMap DBCA
<i>Pandion cristatus</i>	Osprey, Eastern Osprey	IA	MI	The breeding range of the Eastern Osprey extends around the northern coast of Australia (including many offshore islands) from Albany in WA to Lake Macquarie in NSW; with a second isolated breeding population on the coast of South Australia, extending from Head of Bight east to Cape Spencer and Kangaroo Island. Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands (DCCEE 2022).	Unlikely, no suitable nesting habitat present, although opportunistic visitation may occur due to near-coastal location of survey area. Nearest record approximately 14	NatureMap DBCA EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
					km north of the survey area.	
<i>Phaethon lepturus</i>	White-tailed Tropicbird	IA	MI	The species is primarily oceanic in tropical waters, rarely inshore, and only is near land when breeding. Nests are located on islands and atolls utilising a variety of habitats from closed canopy rainforest to bare sandy ground and rugged rocky terrain (Commonwealth of Australia, 2020).	Highly Unlikely, no habitat present and the species utilises marine environments and offshore islands.	EPBC PMST
<i>Plegadis falcinellus</i>	Glossy Ibis	IA	MI	The Glossy Ibis' preferred habitat for foraging and breeding are fresh water 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 (DCCEEW 2022).	Unlikely, no suitable habitat present. Nearest record is 10 km northeast of the survey area.	NatureMap DBCA
<i>Pluvialis fulva</i>	Pacific Golden Plover	IA	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 evaporation ponds in saltworks. The species is also sometimes recorded on islands, sand and coral cays and exposed reefs and rocks (DCCEEW 2022).	Unlikely, no suitable habitat present. Nearest record is 2.5 km northwest.	NatureMap DBCA
<i>Pluvialis squatarola</i>	Grey Plover	IA	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).	Unlikely, no suitable habitat present. Nearest record is 2.5 km northwest.	NatureMap DBCA
<i>Papasula abbotti</i>	Abbott's Booby		EN	Currently, Abbott's Booby is only known to breed on Christmas Island and to forage in the waters surrounding the island. Within Christmas Island, most nests are found in the tall plateau forest on the central and western areas of the island, and in the upper terrace forest of the northern coast. The species was once thought to be restricted to areas above 150 m, mostly on the	Highly Unlikely, no habitat present and the species utilises marine environments	EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				sides of north-west facing slopes but a survey in 1991 located them in some new areas Some of these areas had been known but were not recorded in a 1981 survey This revised distribution would be due partly to movement of the birds but the survey also discovered previously unknown nesting areas (DCCEEW 2022).		
<i>Pezoporus occidentalis</i>	Night Parrot		CR	The Night Parrot is a highly elusive nocturnal ground dwelling parrot found in the arid and semi-arid zones of Australia; it is one of only three ground-dwelling parrots in Australia. The Night Parrot was thought to be extinct but in 2013 it was rediscovered in Queensland (Pullen Pullen Reserve). Subsequently, the Night Parrot Recovery Team confirms that there is one population recently recorded in the Diamantina National Park/Pullen Pullen Reserve area in western Queensland, and other recent records in the Wiluna district of central WA, and the Lake Gregory area of northern WA .Purported records at Kalamurina in SA and Goneaway NP in Queensland have not been confirmed (DCCEEW 2022).	Highly Unlikely, the species is not known from this region and limited available habitat	EPBC PMST
<i>Polytelis alexandrae</i>	Princess Parrot	P4	VU	The Princess Parrot inhabits sand dunes and sand flats in the arid zone of western and central Australia. It occurs in open savanna woodlands and shrublands that usually consist of scattered stands of Eucalyptus (including <i>E. gongylocarpa</i> , <i>E. chippendalei</i> and mallee species), Casuarina or Allocasuarina trees; an understorey of shrubs such as Acacia (especially <i>A. aneura</i>), Cassia, Eremophila, Grevillea, Hakea and Senna; and a ground cover dominated by <i>Triodia</i> species (Allen 1987; Baxter & Henderson 2000;). It also frequents Eucalyptus or Allocasuarina trees in riverine or littoral areas (Carter 1993b).	Unlikely - Nearest record is 14 km south. Not likely to utilise habitats available in the survey area.	EPBC PMST DBCA
<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN	The Australian Painted Snipe is restricted to Australia with historical records from around the Perth region in WA. Prefers fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds. The nest consists of a scrape in the ground, lined with grasses and leaves. Breeding is often in response to local conditions; generally occurs from September to December. Incubation and care of young is all undertaken by the male only. Forages nocturnally on mud-flats and in shallow water. Feeds on worms, molluscs, insects and some plant-matter (DCCEEW 2022).	Unlikely, no suitable habitat likely to be present	EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
<i>Sterna dougallii</i> (all sub-species)	Roseate Tern	IA	MI	The Roseate Tern occurs in coastal and marine areas in subtropical and tropical seas. The species inhabits rocky and sandy beaches, coral reefs, sand cays and offshore islands. Birds rarely occur in inshore waters or near the mainland, usually venturing into these areas only accidentally, when nesting islands are nearby (Higgins & Davies 1996). The usually roosts or loafs in the intertidal zone on islands, including on the upper sections of beaches, above the high-water mark (but still in the wash-zone) on banks, spits and bars, usually of coral or sand. Birds occasionally roost on exposed rubble banks or on rocky features, such as cliffs, headlands, plateaux, stacks and ledges, among rocks or in crags (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap EPBC PMST
<i>Sterna hirundo</i> (all sub-species)	Common Tern	IA	MI	In northern Australia there are scattered records in the Kimberley Division of WA, but the species has recently been found to be one of the most abundant species recorded in ground surveys of waterbirds of the Top End of the Northern Territory. In Australia, they are recorded in all marine zones, but are commonly observed in near-coastal waters, both on ocean beaches, platforms and headlands and in sheltered waters, such as bays, harbours and estuaries with muddy, sandy or rocky shores (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments. Nearest record 14 km south of the survey area.	NatureMap DBCA
<i>Sternula albifrons</i>	Little Tern	IA	MI	In Australia, Little Terns inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas, lakes, bays, harbours and inlets, especially those with exposed sandbanks or sand-spits, and also on exposed ocean beaches (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments. Nearest record 2.5 km northwest of the survey area.	NatureMap DBCA EPBC PMST
<i>Sula leucogaster</i> (all sub-species)	Brown Booby	IA	MI	In Australia, the Brown Booby is found from Bedout Island in WA, around the coast of the Northern Territory to the Bunker Group of islands in Queensland with occasional reports further south in New South Wales and Victoria. The species is reported further south to Tweed Heads, NSW, and to near Onslow, WA and may be becoming more common in these areas. The Brown Booby uses both marine and terrestrial habitat. The species occurs in, but is not restricted to, tropical waters of all major oceans, often staying close to breeding islands (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments. Nearest record 18 km north.	NatureMap DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
<i>Thalasseus bergii</i>	Crested Tern	IA	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 (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments. Nearest record 2.5 km northwest.	NatureMap DBCA
<i>Tringa brevipes</i>	Grey-tailed Tattler	P4, IA	MI	Within Australia, the Grey-tailed Tattler has a primarily northern coastal distribution and is found in most coastal regions (Higgins & Davies 1996). The Grey-tailed Tattler is often found on sheltered coasts with reefs and rock platforms or with intertidal mudflats. It can also be found at intertidal rocky, coral or stony reefs as well as platforms and islets that are exposed at low tide (DAWE 2021).	Unlikely, no suitable habitat present. Nearest record 2.5 km northwest.	NatureMap DBCA
<i>Tringa nebularia</i>	Common Greenshank, greenshank	IA	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 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 (DCCEEW 2022).	Unlikely, tidal coastline is located in proximity to the survey area, however no potentially suitable habitat present within the survey area. Nearest record 2.5 km northwest.	NatureMap DBCA EPBC PMST
<i>Tringa stagnatilis</i>	Marsh Sandpiper	IA	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 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).	Highly Unlikely, this species is known to occur locally within tidal coastline areas, however the survey area lacks suitable habitat (wetlands, dams, shorelines). Nearest record 10 km northeast.	EPBC PMST DBCA
<i>Xenus cinereus</i>	Terek Sandpiper	IA	MI	In Australia, the Terek Sandpiper has a primarily coastal distribution, with occasional records inland. It is more	Unlikely, no suitable habitat present.	NatureMap

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				widespread and common in northern and eastern Australia than southern Australia (DCCEE 2022). The Terek Sandpiper mostly forages in the open, on soft wet intertidal mudflats or in sheltered estuaries, embayments, harbours or lagoons. The species has also been recorded on islets, mudbanks, sandbanks and spits, and near mangroves and occasionally in samphire (<i>Halosarcia</i> spp.). Birds are seldom near the edge of water, however, birds may wade into the water (Marchant & Higgins 1993).	Nearest record 2.5 km northwest.	DBCA
<i>Cuculus optatus</i>	Oriental Cuckoo	IA	MI	The Oriental Cuckoo prefers rainforest margins, monsoon forest, vine scrubs, riverine thickets, wetter, densely canopied eucalypt forests, paperbark swamps and mangroves. It departs Australia in autumn; some remain through Australian winter (Marcombe 2004).	Highly Unlikely – no suitable habitat available	EPBC PMST
<i>Chalcites osculans</i>	Black-eared Cuckoo	IA	MI	The Black-eared Cuckoo occurs across most of the Australian mainland, particularly drier habitats: open woodlands, mulga, and mallee; sparsely vegetated arid country with spinifex, grasslands or salt marsh; widely scattered trees and shrubs; lines of vegetation along watercourses. It migrates into the southwest and southeast for the summer and present across northern Australia throughout the year (Morcombe 2004).	Unlikely, no suitable habitat present in the survey area.	EPBC PMST
<i>Motacilla cinerea</i>	Grey Wagtail	IA	MI	A migratory species that regularly visits northern Australia particularly the area from Broome to Darwin (Morcombe 2004). The species prefers coastal habitat near to water where it prefers to forage. However the species has been recorded further inland feeding on plains (Morcombe 2004).	Unlikely, this species is a rare vagrant to Australia and any use is irregular and opportunistic.	EPBC PMST
<i>Motacilla flava</i>	Yellow Wagtail	IA	MI	A migratory species that regularly visits northern Australia particularly the area from Broome to Darwin (Morcombe 2004). The species prefers coastal habitat near to water where it prefers to forage. However the species has been recorded further inland feeding on plains (Morcombe 2004).	Unlikely, this species is a rare vagrant to Australia and any use is irregular and opportunistic.	EPBC PMST
Mammals						

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
<i>Macroderma gigas</i>	Ghost bat	VU	VU	The Ghost Bat occurs in a wide range of habitats, and requires an undisturbed cave, deep fissure or disused mine shaft in which to roost. It is patchily distributed across Australia, and is sensitive to disturbance (Van Dyck and Strahan 2008).	Highly Unlikely, this species is not known from the area. Unlikely that appropriate habitat is present (lack of bisected rocky cave-forming geomorphology).	EPBC PMST
<i>Macrotis lagotis</i>	Greater Bilby, Dalgyte, Ninu	VU	VU	In WA the species is restricted to the north, including the Pilbara, Sandy and Gibson Deserts. The Greater Bilby usually spends the daytime in burrows, often built against termite mounds, spinifex hummock or shrubs (Van Dyck and Strahan 2008). Extant population occur in a variety of habitats, usually on landforms with level to low slope topography and light to medium soils. It occupies three major vegetation types; open tussock grassland on uplands and hills, mulga woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas. Laterite and rock feature substrates are an important part of the species' habitat. These habitat support shrub species, such as <i>Acacia kempeana</i> , <i>A. hilliana</i> and <i>A. rhodophloia</i> , which have root-dwelling larvae that provide a constant food source. The current occurrence of this species is strongly associated with higher rainfall and temperatures, which promote areas of higher plant and food production (DCCEE 2022).	Likely, the species is known to occur locally based on previous records (nearest 1 km southwest). Based on close proximity of records, habitat characteristics, and transient nomadic behaviour, this species is likely forage or move through the survey area, and the survey area habitat is potential burrowing habitat. Being close to the community may impact on the species numbers and distribution.	NatureMap EPBC PMST DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
<i>Isoodon auratus auratus</i>	Golden Bandicoot (Mainland), wintarru	VU	VU	<p>The golden bandicoot was formerly widespread in western, central and northern Australia extending to western Queensland, New South Wales and Victoria (Friend 1990; Ellis et al., 1991). It is now extinct on the mainland except in a few locations in the north-west Kimberley between Mitchell Plateau in the north (McKenzie et al., 2008) and Yampi Peninsula in the south (Palmer 2009; S. Legge pers. comm., in Woinarski et al., 2014).</p> <p>The golden bandicoot occurs on the Kimberley mainland at Yampi Peninsula, Artesian Range, George Water and Prince Regent Nature Reserve, Western Australia. It also occurs on Lachlan (12 km²), Augustus (190 km²), Storr (19 km²) and Uwins (32.5 km²) Islands in the Kimberley (Gibson and McKenzie 2012), and Marchinbar Island (210 km²) in the Northern Territory (Woinarski et al. 1999), with recent introductions to Guluwuru (2007) and Raragala (2008-09) Islands in the Wessel group (Palmer 2009).</p>	<p>Highly Unlikely - The nearest record for this species is approximately 2 km southwest of the survey area, but these records are historical, dating to the early 1900s. There is no suitable habitat in the survey area, to support this species.</p>	DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
<i>Lagorchestes conspicillatus leichardti</i>	Spectacled hare-wallaby (mainland)	P4	-	The Spectacled Hare-wallaby was once widely distributed across the lower latitudes of northern Australia from eastern Queensland, through Northern Territory to the Pilbara and Kimberley in Western Australia, with a subspecies on Barrow Island. In the Pilbara region this species has declined drastically, possibly due to fox predation and because frequent burning of spinifex grasslands has prevented the development of the large hummocks required for shelter (Van Dyck and Strahan 2008). They live in open woodlands, shrublands and hummock grasslands, sheltering under vegetation or in burrows during the day and searching for herbs, grass and fruits at night. "	Unlikely – This species nearest known record is 12 km northeast of the survey area. This record is from 2001. The survey area would not support this species due to lack of suitable habitat, and the range reduction of this species also makes it unlikely for it to be present in the local area.	DBCA
<i>Saccolaimus saccolaimus nudicluniatu</i>	Bare-rumped Sheath-tailed Bat,	P3	VU	The Bare-rumped Sheath-tail Bat occurs mostly in lowland areas, typically in a range of woodland, forest and open environments (DotE 2016). The Bare-rumped Sheath-tail Bat has been suggested to forage over habitat edges such as the edge of rainforest and in forest clearings (Churchill 1998). There is no information available on foraging habitat shifts between the dry and wet seasons. The small number of confirmed roosts located in Australia have all been in tree hollows. Overseas other subspecies (perhaps distinct species to the form(s) occurring in Australia) commonly roost in caves, overhangs and man-made structures. However, in Australia no individuals have been found roosting in caves. For example, a survey conducted of about 1000 coastal caves in the Wet Tropics region failed to locate this species (DotE 2016). In 2011, morphological analyses of four <i>S. flaviventris</i> specimens held at the WAM indicated that they had been misidentified and are likely to belong to the species <i>S. saccolaimus</i> (Milne pers. comm., 2013). The bare-rumped sheath-tail bat is therefore likely to be distributed through the Kimberley region of WA as far west as	Highly Unlikely, this species is not known from the area. The species is only known from further north in the Kimberley.	EPBC PMST

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				Broome, however this has not been confirmed through genetic analyses (Milne pers. comm., 2013).		
<i>Mormopterus cobourgiensis</i>	North-western free-tailed bat	P1	-	The Little North-western Freetail Bat occurs along the Western Australian coast from Lake McLeod to Point Torment, occurring sparsely across its range. The Western Australian populations have only been recorded from mangrove stands, particularly those that include mature mangroves (Van Dyck and Strahan 2008). It roosts in crevices and sprouts of the dead upper branches of the mangrove <i>Avicennia marina</i> . The genus for this species is in the process of being renamed in a taxonomic review of molossids by Terry Reardon, which has shown the genus <i>Mormopterus</i> does not occur in Australia (Churchill 2008).	Unlikely - Nearest record 18 km north of the survey area. No mangrove habitat in the survey area.	DBCA
<i>Trichosurus vulpecula arnhemensis</i>	Northern Brushtail Possum	VU	VU	A nocturnal and arboreal species that inhabits forests and tall woodlands of the monsoon tropics of the Kimberley and Top End typically in areas with adequate dense canopy density allowing the possum some arboreal habitat connectivity via canopy tree foliage. It shelters in tree hollows and feeds primarily on foliage, blossom and fruits, but will also forage on ground for invertebrates (Menkhorst and Knight 2004).	Unlikely, no suitable habitat present	EPBC PMST
Reptiles						
<i>Liopholis kintorei</i>	Great Desert Skink	VU	VU	The Great Desert Skink occurs on arid sand-flats and clay-based or loamy soils vegetated with spinifex (Wilson and Swan 2010). Populations in the Gibson Desert occur on sandplains with a surface cover of fine gravel (Pearson et al. 2001). Vegetation usually consists of hummock grassland (<i>Triodia basedowii</i> , <i>Triodia pungens</i> and <i>Triodia schinzii</i>), with some scattered shrubs and occasional trees (e.g. <i>Acacia</i> spp., <i>Eucalyptus</i> spp., <i>Hakea</i> spp., <i>Grevillea</i> spp. and <i>Allocasuarina decaisneana</i>) (McAlpin 2001). Sites in WA are dominated by <i>Triodia basedowii</i> and <i>Triodia schinzii</i> with some <i>Eremophila leucophylla</i> shrubs (Pearson et al. 2001). The population at Patjarr WA occurs on a gravelly undulating plain with scattered Black Gidgee (<i>Acacia pruinocarpa</i>) or Mulga over <i>Triodia basedowii</i> and low shrubs (McAlpin 2001).	Highly Unlikely – No suitable habitat.	EPBC PMST
<i>Ctenotus angusticeps</i>	Airlie Island Skink	P3	VU	This species was formerly known from only two widely separated localities in Western Australia: Airlie Island, off the north-west coast and Roebuck Bay, just south of Broome. On Airlie Island it inhabits <i>Acacia</i> shrublands, coastal spinifex and	Unlikely - Nearest record is 15 km north of the survey area. There is not	NatureMap DBCA

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
				tussock grasses. On the mainland, the Airlie Island Ctenotus generally inhabits samphire shrubland in the intertidal zone along mangrove (Grey Mangrove (<i>Avicennia marina</i>) with occasional Red Mangrove (<i>Rhizophora stylosa</i>) margins, however, subtle differences in vegetation/topography exist among sites where the species has been recorded. The Roebuck Bay lizards have been observed on coastal mudflats vegetated with samphire (Wilson and Swan 2010). Earlier this year (2012) this species was recorded in Port Hedland in samphire adjacent to mangroves. Recent surveys to determine the extent of this species' distribution outside of Port Hedland recorded species 70 km west and 50 km east of Port Hedland and an additional 10 locations between Karratha and Broome (BHPB pers. comm.) therefore showing the distribution of this species is more widespread than previously thought.	likely to be suitable habitat in the survey area for this species.	

Fauna Likelihood of Occurrence - Djarindjin

Taxa	Common Name	Status		Description and habitat requirements	Likelihood of occurrence within the survey area	Source
		BC Act / DBCA	EPBC Act			
Birds						
<i>Actitis hypoleucos</i>	Common Sandpiper	IA	MI	The species utilises 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. The muddy margins utilised by the species are often narrow, and may be steep. The species is often associated with mangroves, and sometimes found in areas of mud littered with rocks or snags (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Anous stolidus</i> (all sub-species)	Common Noddy	IA	MI	The Common Noddy is found in tropical and sub-tropical seas off the west, north and east coasts of Australia, from the Abrolhos Islands in WA to the islands of the Great Barrier Reef in Qld, as well as Norfolk and Lord Howe Islands. Some are seen almost annually in NSW as far south as Sydney. It also ranges across tropical parts of the Pacific, Indian and Atlantic Oceans (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Apus pacificus</i>	Fork-tailed Swift	IA	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).	Unlikely, typically solely areal very rarely utilising terrestrial habitats	NatureMap
<i>Arenaria interpres</i>	Ruddy Turnstone	IA	MI	In Australia, Ruddy Turnstones are widespread around the coast of the mainland and off-shore islands. They breed on the northern coasts of Europe, Asia and North America. They are found on coastlines around the world, when not breeding or on passage. They are found singly or in small groups along the coastline and only occasionally inland. They are mainly found	Unlikely, no suitable habitat present	NatureMap DBCA

				on exposed rocks or reefs, often with shallow pools, and on beaches. In the north, they are found in a wider range of habitats, including mudflats (DCCEEW 2022).		
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	IA	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, sedgeland and other ephemeral wetlands, but leave when they dry (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Calidris alba</i>	Sanderling	IA	MI	In Australia, the species is almost always found on the coast, mostly on open sandy beaches exposed to open sea-swell, and also on exposed sandbars and spits, and shingle banks, where they forage in the wave-wash zone and amongst rotting seaweed. Sanderlings also occur on beaches that may contain wave-washed rocky outcrops. Less often the species occurs on more sheltered sandy shorelines of estuaries, inlets and harbours (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Calidris canutus</i>	Red Knot, Knot	EN	EN	In Australasia the Red Knot mainly inhabits intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours; sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs. They are occasionally seen on terrestrial saline wetlands near the coast, such as lakes, lagoons, pools and pans, and recorded on sewage ponds and saltworks, but rarely use freshwater swamps. They rarely use inland lakes or swamps (DCCEEW 2022). They are found near mudflats and estuaries from Murchison to Bunbury but are then uncommon from Wilson Inlet to Esperance. In the Perth region they are mainly found in Alfred Cove and Peel Inlet (Nevill 2013).	Unlikely, no suitable habitat present	NatureMap DBCA PMST
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	CR	Curlew Sandpipers mainly occur in areas with soft mud conditions, including 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 found inland 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. In WA, they are widespread around coastal and subcoastal plains from Cape Arid to south-west Kimberley Division, but are more sparsely distributed between Carnarvon and Dampier Archipelago (DEE 2019). They are common on the	Unlikely, no suitable habitat present	NatureMap DBCA PMST

				Swan Coastal Plain, particularly near large drying lakes like Thompson and Forrestdale, and Peel Inlet. They are less common along the southern coast to Esperance (Nevill 2013).		
<i>Calidris ruficollis</i>	Red-necked Stint	IA	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, estuaries, intertidal mudflats and protected sandy or coralline shores (Pizzey and Knight 2012).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Calidris tenuirostris</i>	Great Knot	CR	CR	The Great Knot has been recorded around the entirety of the Australian coast, with a few scattered records inland. It is now absent from some sites along the south coast where it used to be a regular visitor (Garnett and Crowley 2000). The greatest numbers are found in northern Australia; where the species is common on the coasts of the Pilbara and Kimberley, from the Dampier Archipelago to the Northern Territory border, and in the Northern Territory from Darwin and Melville Island, through Arnhem Land to the south-east Gulf of Carpentaria. In Australasia, the species typically prefers sheltered coastal habitats, with large intertidal mudflats or sandflats. This includes inlets, bays, harbors, estuaries and lagoons (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU	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 Top End of the Northern Territory, including on Groote Eylandt (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Charadrius mongolus</i>	Lesser Sand Plover	EN	EN	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 south-eastern 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,	Unlikely, no suitable habitat present	NatureMap DBCA

				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 river beds (Marchant & Higgins 1993). In north-western Australia, the species appears to use the Port Hedland saltworks in preference to nearby beaches.		
<i>Erythrotriorchis radiatus</i>	Red Goshawk	VU	VU	The Red Goshawk occurs in coastal and sub-coastal areas in wooded and forested lands of tropical and warm-temperate Australia (Marchant & Higgins 1993). Riverine forests are also used frequently. Such habitats typically support high bird numbers and biodiversity, especially medium to large species which the goshawk requires for prey. The Red Goshawk nests in large trees, frequently the tallest and most massive in a tall stand, and nest trees are invariably within one km of permanent water (DCCEEW 2022).	Unlikely – uncommon in the Dampierland. Local occurrence would be as vagrant	PMST
<i>Erythrura gouldiae</i>	Gouldian Finch	P4	EN	The Gouldian Finch inhabits open woodlands that are dominated by Eucalyptus trees and support a ground cover of Sorghum and other grasses (Boekel 1980). The critical components of suitable core habitat for the Gouldian Finch appear to be the presence of favoured annual and perennial grasses (especially Sorghum), a nearby source of surface water and, in the breeding season, unburnt hollow-bearing Eucalyptus trees (especially <i>E. tintinnans</i> , <i>E. brevifolia</i> and <i>E. leucophloia</i>) (Higgins et al. 2006).	Likely, known to occur locally, may forage on seed of a range of locally occurring grasses when seasonally suitable within the survey area.	NatureMap PMST DBCA
<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 (DCCEEW 2022, Morcombe 2004).	Likely, the species is known to persist in the region, however use would be foraging only with no breeding habitat present, such as tall structures or steep topography.	DBCA
<i>Fregata ariel</i>	Lesser Frigatebird	IA	MI	The Lesser Frigatebird is said to be the most common and widespread frigatebird in Australian seas (DCCEEW 2022). It is common in tropical seas, breeding on remote islands, including Christmas Island in the Indian Ocean in recent years. These birds are most likely to be seen from the mainland prior to the onset of a tropical cyclone, and once this abates they disappear again	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA

<i>Gelochelidon nilotica</i>	Gull-billed Tern	IA	MI	The Gull-billed Tern is nomadic or migratory species in Australia. Gull-billed Terns are found in freshwater swamps, brackish and salt lakes, beaches and estuarine mudflats, floodwaters, sewage farms, irrigated croplands and grasslands, where resources are favourable. They are only rarely found over the ocean. The Gull-billed Tern. Although essentially an inland species, outside breeding season it shows a distinct preference for saltmarshes and lagoons near the coast. Movements are not fully understood but it is common and widespread in Australia (Morcombe 2004).	Unlikely, no suitable habitat (wetland) present	NatureMap DBCA
<i>Hydroprogne caspia</i>	Caspian Tern	IA	MI	The Caspian Tern is mostly found in sheltered coastal embayments (harbours, lagoons, inlets, bays, estuaries and river deltas) and those with sandy or muddy margins are preferred. They also occur on near-coastal or inland terrestrial wetlands that are either fresh or saline, especially lakes (including ephemeral lakes), waterholes, reservoirs, rivers and creeks. They also use artificial wetlands, including reservoirs, sewage ponds and saltworks. In offshore areas the species prefers sheltered situations, particularly near islands, and is rarely seen beyond reefs (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Limosa lapponica (all subspecies)</i>	Bar-tailed Godwit	VU, IA	VU, MI	Bar-tailed Godwits arrive in Australia each year in August from breeding grounds in the northern hemisphere. Birds are more numerous in northern Australia Bar-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).	Unlikely, no suitable habitat present	NatureMap DBCA PMST
<i>Limosa limosa</i>	Black-tailed Godwit	IA	MI	In Australia the Black-tailed Godwit has a primarily coastal habitat environment. The species is commonly found in sheltered bays, estuaries and lagoons with large intertidal mudflats or sandflats, or spits and banks of mud, sand or shell-grit; occasionally recorded on rocky coasts or coral islets. The use of habitat often depends on the stage of the tide. It is also found in shallow and sparsely vegetated, near-coastal, wetlands; such as saltmarsh, saltflats, river pools, swamps, lagoons and floodplains. There are a few inland records, around shallow, freshwater and saline lakes, swamps, dams and bore-overflows. They also use lagoons in sewage farms and saltworks (Higgins & Davies 1996).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Numenius madagascariensis</i>	Eastern Curlew	CR	CR	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	Unlikely, no suitable habitat present	NatureMap PMST DBCA

				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).		
<i>Numenius minutus</i>	Little Curlew, Little Whimbrel	IA	MI	Little Curlews generally spend the non-breeding season in northern Australia from Port Hedland in WA to the Queensland coast (Minton 2002 pers. comm.). There are records of the species from inland Australia, and widespread but scattered records on the east coast. The Little Curlew is most often found feeding in short, dry grassland and sedgeland, including dry floodplains and blacksoil plains, which have scattered, shallow freshwater pools or areas seasonally inundated. Open woodlands with a grassy or burnt understory, dry saltmarshes, coastal swamps, mudflats or sandflats of estuaries or beaches on sheltered coasts, mown lawns, gardens, recreational areas, ovals, racecourses and verges of roads and airstrips are also used (Higgins & Davies 1996).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Numenius phaeopus</i>	Whimbrel	IA	MI	The Whimbrel is often found on the intertidal mudflats of sheltered coasts. It is also found in harbours, lagoons, estuaries and river deltas, often those with mangroves, but also open, un-vegetated mudflats. It is occasionally found on sandy or rocky beaches, on coral or rocky islets, or on intertidal reefs and platforms. It has been infrequently recorded using saline or brackish lakes near coastal areas. It also used saltflats with saltmarsh, or saline grasslands with standing water left after high spring-tides, and in similar habitats in sewage farms and saltfields (Higgins & Davies 1996). There are a small number of inland records from saline lakes and canegrass swamps. It has also been recorded in coastal dunes and a football field.	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Onychoprion anaethetus</i>	Bridled tern			In Australia, Bridled Terns are widespread, breeding on offshore islands in western, northern and north-eastern Australia, extending from Cape Leeuwin in the south-west, around northern Australia to north-eastern and mid-eastern Queensland, extending through the Great Barrier Reef and Coral Sea as far south as Lady Elliott Island (approximately 24° S). Exceptionally, a pair bred in South Australia, within a large colony of Crested Terns (<i>Thalasseus bergii</i>), on Baudin Rocks, in 1968 and 1969. Further, the species breeds at one mainland site in far-southern Western Australia (at Knobby Head near Cape Hamelin) (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments and offshore islands.	DBCA

<i>Pandion cristatus</i>	Osprey, Eastern Osprey	IA	MI	The breeding range of the Eastern Osprey extends around the northern coast of Australia (including many offshore islands) from Albany in WA to Lake Macquarie in NSW; with a second isolated breeding population on the coast of South Australia, extending from Head of Bight east to Cape Spencer and Kangaroo Island. Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands (DCCEEW 2022).	Unlikely, no suitable habitat present, although opportunistic visitation may occur.	NatureMap DBCA
<i>Pluvialis fulva</i>	Pacific Golden Plover	IA	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 evaporation ponds in saltworks. The species is also sometimes recorded on islands, sand and coral cays and exposed reefs and rocks (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Pluvialis squatarola</i>	Grey Plover	IA	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).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Papasula abbotti</i>	Abbott's Booby		EN	Currently, Abbott's Booby is only known to breed on Christmas Island and to forage in the waters surrounding the island. Within Christmas Island, most nests are found in the tall plateau forest on the central and western areas of the island, and in the upper terrace forest of the northern coast. The species was once thought to be restricted to areas above 150 m, mostly on the sides of north-west facing slopes but a survey in 1991 located them in some new areas. Some of these areas had been known but were not recorded in a 1981 survey. This revised distribution would be due partly to movement of the birds but the survey also discovered previously unknown nesting areas (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	PMST
<i>Pezoporus occidentalis</i>	Night Parrot		CR	The Night Parrot is a highly elusive nocturnal ground dwelling parrot found in the arid and semi-arid zones of Australia; it is one of only three ground-dwelling parrots in Australia. The Night Parrot was thought to be extinct but in 2013 it was rediscovered in Queensland (Pullen Pullen Reserve). Subsequently, the Night	Highly Unlikely, the species is not known from this region and limited available habitat	PMST

				Parrot Recovery Team confirms that there is one population recently recorded in the Diamantina National Park/Pullen Pullen Reserve area in western Queensland, and other recent records in the Wiluna district of central WA, and the Lake Gregory area of northern WA .Purported records at Kalamurina in SA and Goneaway NP in Queensland have not been confirmed (DCCEEW 2022).		
<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN	The Australian Painted Snipe is restricted to Australia with historical records from around the Perth region in WA. Prefers fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber nests on the ground amongst tall vegetation, such as grasses, tussocks or reeds. The nest consists of a scrape in the ground, lined with grasses and leaves. Breeding is often in response to local conditions; generally occurs from September to December. Incubation and care of young is all undertaken by the male only. Forages nocturnally on mud-flats and in shallow water. Feeds on worms, molluscs, insects and some plant-matter (DCCEEW 2022).	Unlikely, no suitable habitat likely to be present	PMST
<i>Sterna dougallii</i> (all sub-species)	Roseate Tern	IA	MI	The Roseate Tern occurs in coastal and marine areas in subtropical and tropical seas. The species inhabits rocky and sandy beaches, coral reefs, sand cays and offshore islands. Birds rarely occur in inshore waters or near the mainland, usually venturing into these areas only accidentally, when nesting islands are nearby (Higgins & Davies 1996). The usually roosts or loafs in the intertidal zone on islands, including on the upper sections of beaches, above the high-water mark (but still in the wash-zone) on banks, spits and bars, usually of coral or sand. Birds occasionally roost on exposed rubble banks or on rocky features, such as cliffs, headlands, plateaux, stacks and ledges, among rocks or in crags (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Sterna hirundo</i> (all sub-species)	Common Tern	IA	MI	In northern Australia there are scattered records in the Kimberley Division of WA, but the species has recently been found to be one of the most abundant species recorded in ground surveys of waterbirds of the Top End of the Northern Territory. In Australia, they are recorded in all marine zones, but are commonly observed in near-coastal waters, both on ocean beaches, platforms and headlands and in sheltered waters, such as bays, harbours and estuaries with muddy, sandy or rocky shores (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Sternula albifrons</i>	Little Tern	IA	MI	In Australia, Little Terns inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas, lakes, bays, harbours and inlets, especially those with exposed	Highly Unlikely, no habitat present and the species utilises	NatureMap DBCA

				sandbanks or sand-spits, and also on exposed ocean beaches (DCCEEW 2022).	marine environments	
<i>Sula leucogaster</i> (all sub-species)	Brown Booby	IA	MI	In Australia, the Brown Booby is found from Bedout Island in WA, around the coast of the Northern Territory to the Bunker Group of islands in Queensland with occasional reports further south in New South Wales and Victoria. The species is reported further south to Tweed Heads, NSW, and to near Onslow, WA and may be becoming more common in these areas. The Brown Booby uses both marine and terrestrial habitat. The species occurs in, but is not restricted to, tropical waters of all major oceans, often staying close to breeding islands (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Thalasseus bergii</i>	Crested Tern	IA	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 (DCCEEW 2022).	Highly Unlikely, no habitat present and the species utilises marine environments	NatureMap DBCA
<i>Tringa brevipes</i>	Grey-tailed Tattler	P4, IA	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 (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Tringa glareola</i>	Wood Sandpiper	IA	MI	Within Australia, the Grey-tailed Tattler has a primarily northern coastal distribution and is found in most coastal regions (Higgins & Davies 1996). The Grey-tailed Tattler is often found on sheltered coasts with reefs and rock platforms or with intertidal mudflats. It can also be found at intertidal rocky, coral or stony reefs as well as platforms and islets that are exposed at low tide (DCCEEW 2022).	Unlikely, no suitable habitat present	DBCA
<i>Tringa nebularia</i>	Common Greenshank, greenshank	IA	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 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 (DCCEEW 2022).	Unlikely, no suitable habitat present	NatureMap DBCA

<i>Tringa totanus</i>	Common Redshank, redshank	IA	MI	In Australia, the Common Redshank has been recorded at scattered locations. In WA the species is vargrant to the south-west with records at Peel Inlet, Coodanup, the Gascoyne region, Coral Bay and Carnarvon (Higgins & Davis 1996). It is regular and widespread in the north-west, from the Dampier Saltfields to Roebuck Bay and Broome. The Common Redshank is found at sheltered coastal wetlands such as bays, river estuaries, lagoons, inlets and saltmarsh (with bare open flats and banks of mud or sand). They are also found around saltlakes, freshwater lagoons, artificial wetlands and saltworks and sewage farms (Higgins & Davies 1996).	Unlikely, , no suitable habitat present	NatureMap DBCA
<i>Tyto novaehollandiae kimberli</i>	Masked Owl	P1	VU	The range of the Masked Owl is a broad coastal band around most of mainland Australia and throughout Tasmania, and for the most part is less than 300 km from the coast. Population numbers are low on the mainland and several states give this species special conservation status. The Masked Owl inhabits heavy forests, and will hunt over open woodlands, timbered waterways and open country on the fringe of these areas. The main requirements are tall trees with suitable hollows for nesting and roosting and adjacent areas for foraging. Masked Owls are territorial, and pairs remain in or near the territory all year round (Birdlife Australia 2019)	Highly Unlikely, This species is not known from this region. All known records are from central and Northern Kimberley.	PMST
<i>Xenus cinereus</i>	Terek Sandpiper	IA	MI	In Australia, the Terek Sandpiper has a primarily coastal distribution, with occasional records inland. It is more widespread and common in northern and eastern Australia than southern Australia (DCCEEW 2022). The Terek Sandpiper mostly forages in the open, on soft wet intertidal mudflats or in sheltered estuaries, embayments, harbours or lagoons. The species has also been recorded on islets, mudbanks, sandbanks and spits, and near mangroves and occasionally in samphire (<i>Halosarcia</i> spp.). Birds are seldom near the edge of water, however, birds may wade into the water (Marchant & Higgins 1993).	Unlikely, no suitable habitat present	NatureMap DBCA
<i>Tringa stagnatilis</i>	Marsh Sandpiper	IA	MA, 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 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 .At the Top End they often use ephemeral pools on inundated freshwater and tidal floodplains (Higgins & Davies 1996).	Unlikely, no suitable habitat present	NatureMap

Mammals						
<i>Macroderma gigas</i>	Ghost bat	VU	VU	The Ghost Bat occurs in a wide range of habitats, and requires an undisturbed cave, deep fissure or disused mine shaft in which to roost. It is patchily distributed across Australia, and is sensitive to disturbance (Van Dyck and Strahan 2008).	Highly Unlikely, this species is not known from the area. No habitat present	PMST
<i>Macrotis lagotis</i>	Greater Bilby, Dalgyte, Ninu	VU	VU	In WA the species is restricted to the north, including the Pilbara, Sandy and Gibson Deserts. The Greater Bilby usually spends the daytime in burrows, often built against termite mounds, spinifex hummock or shrubs (Van Dyck and Strahan 2008). Extant population occur in a variety of habitats, usually on landforms with level to low slope topography and light to medium soils. It occupies three major vegetation types; open tussock grassland on uplands and hills, mulga woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas. Laterite and rock feature substrates are an important part of the species' habitat. These habitat support shrub species, such as <i>Acacia kempeana</i> , <i>A. hilliana</i> and <i>A. rhodophloia</i> , which have root-dwelling larvae that provide a constant food source. The current occurrence of this species is strongly associated with higher rainfall and temperatures, which promote areas of higher plant and food production (DCCEEW 2022).	Likely, the species is known to occur locally based on previous records. Based on close proximity of records, habitat characteristics, and transiency nomadic behaviour, this species is likely forage or move through the survey area, and the survey area habitat is potential burrowing habitat. Being close to the community may impact on the species numbers and distribution.	NatureMap DBCA PMST
<i>Saccolaimus saccolaimus nudicluniatus</i>	Bare-rumped Sheath-tailed Bat,	P3	VU	The Bare-rumped Sheath-tail Bat occurs mostly in lowland areas, typically in a range of woodland, forest and open environments (DotE 2016). The Bare-rumped Sheath-tail Bat has been suggested to forage over habitat edges such as the edge of rainforest and in forest clearings (Churchill 1998). There is no information is available on foraging habitat shifts between the dry and wet seasons. The small number of confirmed roosts located in Australia have all been in tree hollows. Overseas other subspecies (perhaps distinct species to the form(s) occurring in Australia) commonly roost in caves, overhangs and man-made structures. However, in Australia no individuals have been found roosting in caves. For example, a survey conducted of about 1000 coastal caves in the Wet Tropics region failed to locate this species (DotE 2016). In 2011, morphological analyses of four <i>S. flaviventris</i> specimens held at the WAM indicated that they had been misidentified and are likely to	Highly Unlikely, this species is not known from the area. The species is only known from further north in the Kimberley.	PMST

				belong to the species <i>S. saccolaimus</i> (Milne pers. comm., 2013). The bare-rumped sheath-tail bat is therefore likely to be distributed through the Kimberley region of WA as far west as Broome, however this has not been confirmed through genetic analyses (Milne pers. comm., 2013).		
<i>Mormopterus cobourgianus</i>	North-western free-tailed bat	P1		This bat occurs along the northern WA coast from Exmouth to Dampier Peninsula. Prefers mangroves and adjacent coastal vegetation (Menkhorst and Knight 2004)	Highly Unlikely, this species requires mangrove hollows to shelter. No habitat present	DBCA
Reptiles						
<i>Simoselaps minimus</i>	Dampierland Burrowing snake	P2		This small fossorial snake is known only from Dampier Land, in the south-west Kimberley, WA. Known to occur in coastal dunes and sandy junction between dunes and adjacent <i>Acacia</i> shrublands. Occasional records occur from near-coastal Pindan. Poorly known but presumed to be similar to other <i>Simoselaps</i> ; a sand-swimmer feeding largely or wholly on skinks of the genus <i>Lerista</i> (Wilson and Swan 2017).	Likely. Potentially suitable habitat (near-coastal Pindan shrubland on sandy soil) occurs within the project area.	NatureMap DBCA
<i>Lerista separanda</i>	Dampierland plain slider, skink	P2		Dampier Land, west Kimberley	Likely. Potentially suitable habitat (near-coastal Pindan shrubland on sandy soil) occurs within the project area.	NatureMap DBCA

Bilby Plot Summary



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