
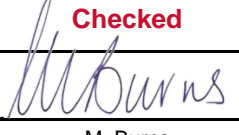





**BINDULI GAS PIPELINE**  
**Native Vegetation Clearing Permit**  
**Supporting Document**

Document No		22002-RP-HSE-0003			
Rev	Date	Status	Originated	Checked	Approved
1.0	21/09/2022	Issued for Use			
			J. Morrissey Access and Approvals Advisor	M. Burns Access and Approvals Lead	R. Cipriano Project Manager

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## 1. Introduction

### 1.1 Background

APA Operations Pty Ltd (APA) are engaged to design, build and operate a new lateral gas pipeline for supply of natural gas to the Lynas Kalgoorlie West facility rare earth processing plant from the Goldfields Gas Pipeline (GGP). This new gas lateral and associated facilities will be called the Binduli Gas Pipeline (BIN), and will be constructed on Pipeline Licence (PL) (Application Number STP-PLA-0051).

The Binduli Gas Pipeline facilities (the Project) include the Binduli Pipeline Offtake and the Karrawang Delivery Station. The hot tap connection will be about 800m south of Kalgoorlie West MLV at KP1367.21, with pipeline approximately 1.45 km long leading to the Karrawang Delivery Station.

Works in the GGP licence area (PL24) include the hot tap into the GGP, and the installation of buried piping to the boundary of the GGP licence area. The new Binduli Gas Pipeline Licence will start at the boundary of the PL24 licence area, at a buried girth weld, and end at the outlet of the Karrawang Delivery Station. Works in the BIN pipeline licence area consist of the installation of buried pipeline, and the construction of the Karrawang Delivery Station.

This Native Vegetation Clearing Permit (NVCP) application is being submitted for the proposed clearing required for the construction and ongoing maintenance of the BIN. The proposed clearing under this NVCP application will be within the footprint of PL Application (STP-PLA-0051), which is 1.45 km long and up to 25m wide (approximately). The extent of the NVCP Application Area is shown in Figure 1-1, with a total clearing area of 4 ha.

### 1.2 Purpose and Scope

The purpose of this document is to support the application for a NVCP (Purpose Permit) under the Environmental Protection Act 1986 (EP Act) to allow for the clearing of native vegetation necessary for the completion of the works outlined above.

This report provides an assessment against the ten Land Clearing Principles described within Schedule 5 of the EP Act to support the application for a NVCP purpose permit for the BIN project.

This report presents information about the existing environment and documents environmental impacts management measures to prevent or minimise adverse impacts associated with the proposed clearing.

### 1.3 Responsible Person

All requirements associated with this assessment document and NVCP application should be addressed to:

Name: Julie Morrissey

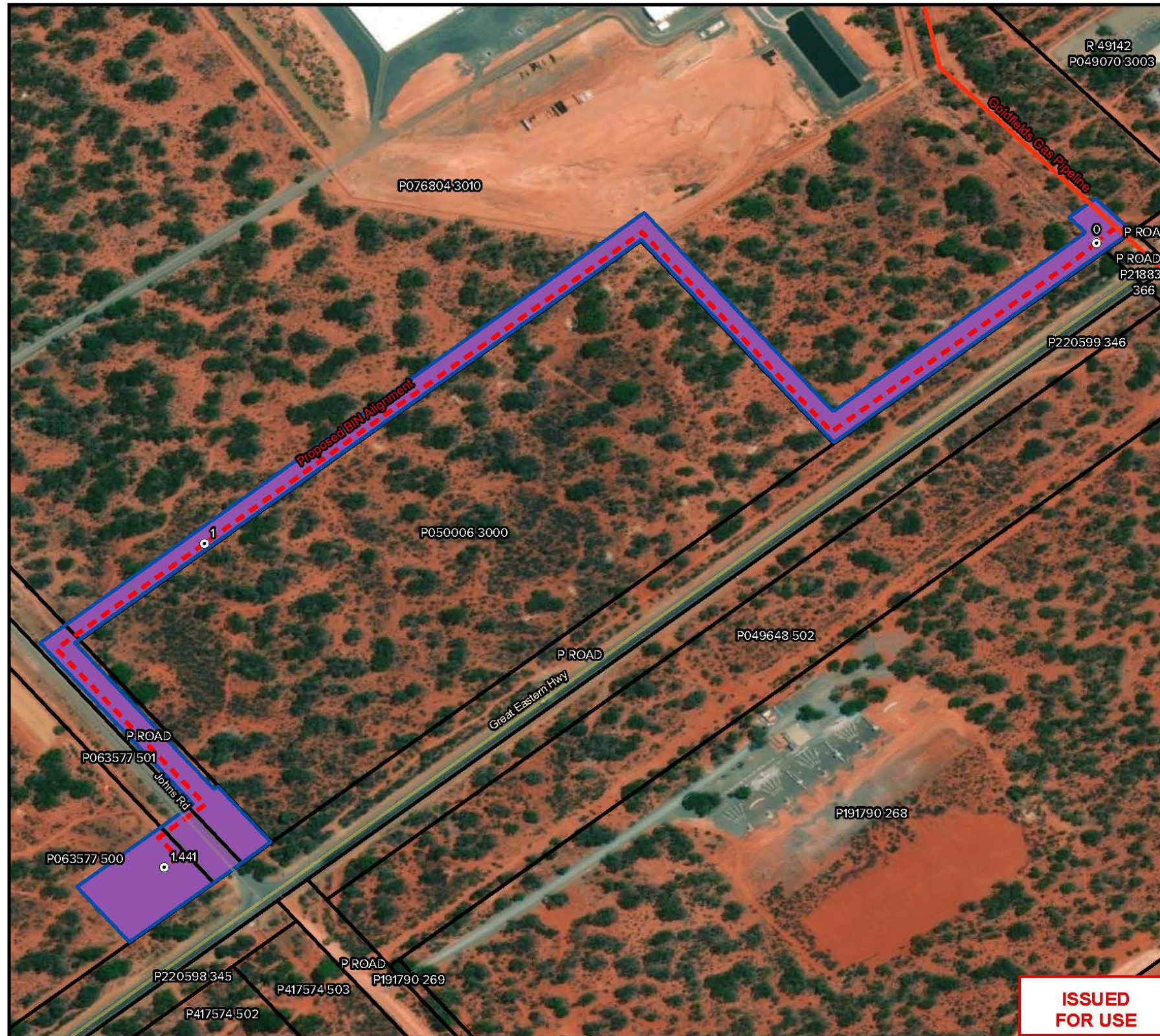
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**PROJECT:** Binduli Pipeline (BIN)  
**TITLE:** Binduli Project - NVCP Application Area  
**SUBTITLE:**  
**DATE:** 10/08/2022

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**DATA SOURCE:**  
 Service Layer Credits: World Imagery: Maxar  
 Coastline, Roads, Towns, Geonoma: LGATE  
 Pipelines, KP's, Delivery Station Layout: APA Group  
 Vegetation Unit: Botanica Consulting (2021)

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**LEGEND:**

- Kilometre Points (KP)
- Proposed Alignment
- APA Existing Assets
- Construction Right of Way (CROW)
- Cadastre
- NVCP Application Area

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**MIDAS NUMBER:** BIN-MAP-L-0017  
**DOCUMENT NUMBER:** BIN.2373-MAP-L-0003.01

Revision	Description	Drawn	Checked	Appvd.	Date
1.1	Issued For Use	AL	JM		25/08/22
1.0	Issued For Use	AL	JM	JM	10/08/22
0.1	Draft	AL	JM		10/08/22

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**SCALE:** 1:5,000 @ A4  
  
 Metres  
 Coordinate System: GCS GDA 1994

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**LOCATION DIAGRAM:**

APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of the map. The map is confidential and the information and details contained in it are and remain the property of APA Group. © APA Group 2022.

Figure 1-1: NVCP Application Area



## 2. Site Description

### 2.1 Location of Project

The BIN project area is located approximately 6 km south-west of Kalgoorlie, Western Australia. The pipeline starts at the Goldfields Gas Pipeline at Kilometre Point 1367, and transverses across land owned by the Water Corporation, over Johns Road and terminates at the proposed Lynas Kalgoorlie Rare Earths Processing Facility.

The BIN project spans approximately 1.4 km, over a number of land parcels and mining tenements. A summary of the land parcels and mining tenements intersected by the Binduli project is provided in Error! Reference source not found..

**Table 2-1: Land parcels and mining tenements intersected by the Binduli Pipeline**

Interest	Detail
Freehold	Lot 3010 on Deposited Plan 78804; owned by Water Corporation
Crown Land	Lot 500 on Deposited Plan 63577; owned by Department of Planning, Lands and Heritage (DPLH), leased by the City of Kalgoorlie-Boulder (CKB), and sub-leased by Lynas Kalgoorlie Pty Ltd (Lynas)
Road	Johns Road (Lot 501 on Deposited Plan 63577), and Road Reserve (PIN 11469659); managed by CKB
Miscellaneous Licence (Pending)	L 26/288; held by BHP Nickel West Pty Ltd
Prospecting Licence (Pending)	P 26/4611; held by Frederick John Smith

Note: Lynas have already completed clearing for the purpose of constructing the Rare Earth Processing Facility. The application area associated with the Lynas permit overlaps with a portion of the BIN CROW, as the Karrawang Delivery Station will be constructed on Lot 500.

### 2.1 Land Tenure

The NVCP Application area applies the clearing of the CROW for the BIN project, from the GGP to Johns Road, Yailkari under PL Application (STP-PLA-0051). **Table 2-2** summarises the land parcels to be cleared under this application.

**Table 2-2: Land Parcels within NVCP application**

Land Parcel	Detail
Lot 3010 on Deposited Plan 78804	Freehold land; owned by Water Corporation
Johns Road (Lot 501 on Deposited Plan 63577) and Road Reserve (PIN 11469659)	Johns Road; managed by CKB
Lot 500 on Deposited Plan 63577	Crown Land

Evidence of ownership of Lot 3010 is provided in Appendix 1.

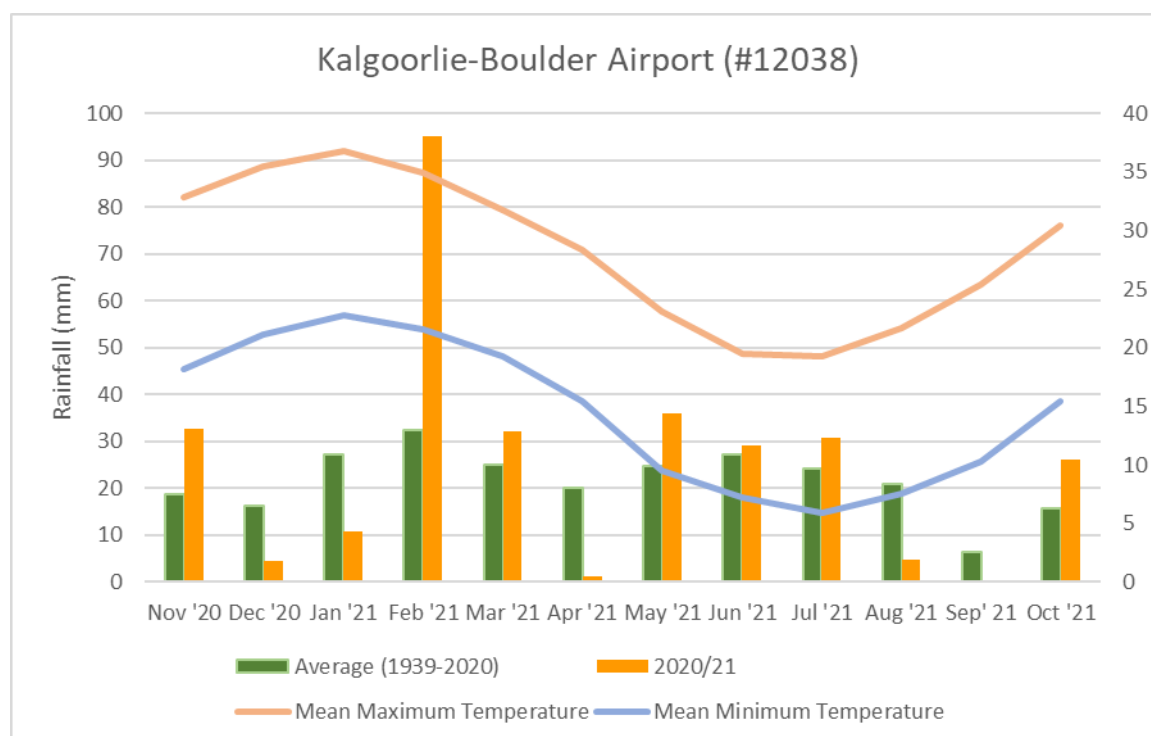
Water Corporation have provided authorisation to APA to undertake works within Lot 3010. Refer to Appendix 2.

## 3. Regional Background

This section is taken from the Botanica (2022) survey report. Refer to Appendix 3.

### 3.1 Climate

The climate of the Eastern Goldfield subregion is characterised as arid to semi-arid with 200-300 mm of rainfall, sometimes in summer but usually in winter (Cowan 2001). Rainfall data for the Kalgoorlie-Boulder Airport (#12038) weather station, located approximately 3 km east of the survey area, is shown in Figure 3-1. Mean monthly rainfall ranges from 31.65 mm in February to 13.5 mm in September, with a mean annual rainfall of 264.9 mm. The survey was conducted in October and November 2021, with the preceding months (August-September) being characterised by below-average rainfall. Climate conditions may represent a survey constraint, with potentially below-average presence of flowering material and ephemeral species.



**Figure 3-1: Climate data for Kalgoorlie-Boulder Airport (BoM, 2021a)**

### 3.2 Geology, Soils and Landforms

The Eastern Goldfield subregion (5,102,428 ha) lies on the Yilgarn Craton's Eastern Goldfields Terrain, which is described as gently undulating plains with a subdued relief, interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying geology is of gneisses and granites eroded into a flat plane covered with tertiary soils and with scattered exposures of bedrock. Calcareous earths are the dominant soil group and cover much of the plains and greenstone areas. A series of large playa lakes in the western half are the remnants of an ancient major drainage line (Cowan 2001).

In accordance with Beard (1990) the survey area is located in the Coolgardie Botanical District of the Southwestern Interzone Province. The landscape is described as gently undulating with

occasional ranges of low hills, with sandplains in the western part and some large playa lakes. Soils are principally brown calcareous earths, which overlays the Proterozoic granite and gneiss of the Fraser Range block and Archaean granite, with infolded volcanics and meta-sediments, of the Yilgarn block.

The survey area lies within the Kalgoorlie Province, located in the southern Goldfields between Paynes Find, Menzies, Southern Cross and Balladonia. The landscape consists of undulating plains (with some sandplains, hills and salt lakes) on the granitic rocks and greenstone of the Yilgarn Craton. Soils range from calcareous loamy earths and red loamy earths with some salt lake soils to red deep sands, yellow sandy earths, shallow loams and loamy duplexes. Vegetation communities are predominately Eucalypt woodlands with some acacia-casuarina thickets, mulga shrublands, halophytic shrublands and spinifex grasslands.

The Kalgoorlie Province is further divided into six soil-landscape zones, with the survey area located in the Kambalda Zone.

The Kambalda zone is located in the south-eastern Goldfields between Menzies, Norseman and the Fraser Range and contains flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton. Soils consist of calcareous loamy earths and red loamy earths with salt lakes soils and some redbrown hardpan shallow loams and red sandy duplexes. Vegetation includes red mallee, blackbutt-salmon gum-gimlet woodlands with mulga and halophytic shrublands (and some spinifex grasslands).

The soil landscape zones are further divided into soil landscape systems, with the survey area located within the Mx43 landscape system, as described in **Table 3-1**, in accordance with soil landscape system mapping data (Government of Western Australia, 2019).

**Table 3-1: Soil landscape systems within the BIN project area**

Soil Landscape System	Description	Extent within Survey Area
Mx43	Gently undulating valley plains and pediments; some outcrop of basic rock.	4 ha (100%)

### 3.3 Topography and Hydrology

According to the Geoscience Australia database (2015), there are no permanent or ephemeral inland waters or drainage lines within the survey area.

Groundwater Dependent Ecosystems (GDE) include biological assemblages of species such as wetlands or woodlands that use groundwater either opportunistically or as their primary water source. For the purposes of this report, a GDE is defined as any vegetation community that derives part of its water budget from groundwater and must be assumed to have some degree of groundwater dependency. In accordance with the BoM Atlas of Groundwater Dependent Ecosystems (BoM, 2020b) database, there are no potential terrestrial or aquatic GDE's within the survey area.

### 3.4 Flora and Vegetation

In accordance with Tille (2006), the vegetation of the Kambalda Zone is typified by the preponderance of stony plains with acacia shrublands and halophytic shrublands, low hills with eucalypt or acacia woodlands with halophytic undershrubs, stony plains with acacia shrublands and alluvial plains with eucalypt woodlands and halophytic undershrubs rangeland.

More broadly, the vegetation of the Kalgoorlie Province is described by Tille (2006) as woodlands of redwood (*Eucalyptus transcontinentalis*), red mallee (*E. oleosa*), Dundas blackbutt (*E. dundasii*), merrit (*E. flocktoniae*) and salmon gum (*E. salmonophloia*), found on undulating plains over granite.

### 3.4.1 Significant Flora

No Threatened flora species were recorded within the survey area.

No Priority or otherwise significant flora were recorded within the survey area.

### 3.4.2 Remnant Vegetation Communities

A total of two broad-scale vegetation communities were identified within the survey area. Vegetation community descriptions and extent are listed below in **Table 3-2**. Vegetation community descriptions and extents were determined from field survey results, aerial imagery interpretation and extrapolation of the communities.

The survey found CLP-MW1 was the most widespread community in the survey area, occupying 2.7 ha (65.9%), while CLP-EW1 was the most restricted with 1.1 ha (26.8%). The most diverse vegetation type was CLP-EW1 with 27 species (69.2%), while the least diverse was CLP-MW1 with 25 species (64.1%).

### 3.4.3 Significant Vegetation Communities

No Threatened, Priority or otherwise significant ecological communities were identified within the survey area.

### 3.4.4 Threatened and Priority Ecological Communities

No threatened or priority ecological communities were recorded in the survey area.

## 3.5 Terrestrial Fauna and Fauna Habitat



### 3.5.1 Fauna Habitat

Based on vegetation and associated landforms identified during the flora and vegetation assessment, two broad scale terrestrial fauna habitats were identified as occurring within the survey area. **Table 3-3** provides the area and a visual representation of fauna habitat types.

### 3.5.2 Significant Fauna

No evidence of significant fauna species were observed during the field survey.

**Table 3-2: Vegetation types within the survey area**

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Landform	Image
CLP-EW1 1.1 ha (27.5%)	Eucalyptus Woodland	<i>Eucalyptus salmonophloia</i> and <i>E. griffithsii</i> open woodland over <i>Eremophila scoparia</i> and <i>Acacia hemiteles</i> shrubland over <i>Ptilotus obovatus</i> , <i>Atriplex vesicaria</i> and <i>Maireana triptera</i> low sparse shrubland	Clay-loam plain	
CLP-MW1 2.6 ha (65%)	Eucalyptus Mallee Woodland	<i>Eucalyptus griffithsii</i> , <i>E. yilgarnensis</i> and <i>E. oleosa</i> open mallee woodland over <i>Acacia hemiteles</i> and <i>Eremophila scoparia</i> open shrubland over <i>Ptilotus obovatus</i> , <i>Scaevola spinescens</i> and <i>Maireana triptera</i> low sparse shrubland	Clay-loam plain	
0.3 ha (7.5%)	N/A	Cleared Vegetation	N/A	N/A

**Table 3-3: Main terrestrial fauna habitats within the survey area**

Fauna Habitat	Description	Representative Fauna Attributes	Conservation Significant Species that possibly occur in habitat
<p><i>Eucalyptus</i> woodland on clay-loam plain</p> <p>Area= 2.6 ha (65%)</p>	<p><i>Eucalyptus</i> open woodland over <i>Acacia</i> and <i>Eremophila</i> shrubland over mixed low shrubland</p>	<ul style="list-style-type: none"> <li>• Ground not especially suited to burrowing species.</li> <li>• Moderately diverse vegetation strata supporting diverse avifauna assemblage.</li> <li>• Moderately dense vegetation and low to moderate leaf litter.</li> </ul>	<p>Malleefowl <i>Leipoa ocellata</i></p>
<p><i>Eucalyptus</i> mallee woodland on clay-loam plain</p> <p>Area= 1.1 ha (27.5%)</p>	<p><i>Eucalyptus</i> open mallee woodland over <i>Acacia</i> and <i>Eremophila</i> shrubland over mixed low shrubland</p>	<ul style="list-style-type: none"> <li>• Ground not especially suited to burrowing species.</li> <li>• Moderately diverse vegetation strata supporting diverse avifauna assemblage.</li> <li>• Low to moderately dense vegetation and moderate leaf litter.</li> </ul>	<p>Malleefowl <i>Leipoa ocellata</i></p>

## 4. Proposed Clearing

### 4.1 Schedule

APA intends that, subject to final design, approvals, and commercial, access, and other agreements, construction will be over an eight-week period (December 2022 to January 2023). APA intends substantial completion (except for minor works and final commissioning) by February 2023.

### 4.2 Clearing Area

APA is seeking permission to clear land within the NVCP Application Area for establishment of the CROW for the BIN project. The CROW will allow vehicles and equipment to move along the pipeline alignment, and accommodate staging of equipment, construction materials, trenching, storage of trench spoil and topsoil. This NVCP application requests to clear up to 4 ha of native vegetation within the area outlined in Figure 1-1.

A Shapefile is provided for the NVCP Application Area (refer to Attachment 1).

### 4.3 Access

Access to the NVCP Application Area will be from existing roads and tracks.

### 4.4 Clearing Methods

Clearing of native vegetation will be undertaken for the pipeline construction. The vegetation will be cleared and pushed into separate piles at the side of the CROW and ancillary areas using bulldozers. Topsoil will be stripped to a minimum depth of approximately 100 mm (depending on the soil profile) using graders, and pushed into windrows at the side of the



cleared areas (adjacent to, but separate from, the stockpiled vegetation), where it will not be disturbed by construction works.

During operation of the pipeline, woody vegetation overlying the pipeline may need to be pruned to maintain line of sight between pipeline markers as required under the PP Act. The frequency and severity of pruning will be dependent on regrowth characteristics.

## 4.5 Rehabilitation

All cleared areas along the CROW, other than a 4 m wide access track adjacent to the pipeline, will be rehabilitated following completion of pipeline installation.

The Karrawang Delivery Station footprint will be fenced and remain cleared, with a 10 m firebreak cleared around the fence line.

Rehabilitation will include the return of pre-clearing contours and drainage lines, ripping of compacted surfaces and the respread of topsoil and cleared vegetation.

# 5. Assessment against the Clearing Principles

## 5.1 Biological Diversity

### Clearing Principle A

*Native vegetation should not be cleared if it comprises a high level of biological diversity.*

The survey found:

- No evidence of significant fauna species or habitats.
- No Threatened flora species.
- No Priority or otherwise significant flora.
- No Threatened, Priority or otherwise significant ecological communities.
- The Coolgardie 9 vegetation association retains >96% of its pre-European extent, and development within the survey area will not significantly reduce the current extent of this vegetation association
- The survey area is not located within or adjacent to conservation areas, Environmentally Sensitive Areas or Nationally Important Wetlands.

As the proposal does not include removal of vegetation comprising a high level of biological diversity, the proposed clearing is **unlikely to be at variance with Clearing Principle A**.

## 5.2 Significant Fauna Habitat

### Clearing Principle B

*Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to WA.*

According to the EPA Environmental Factor Guideline for Terrestrial Fauna (EPA, 2016c) significant fauna includes:

- Fauna being identified as a Threatened or Priority species;
- Fauna species with restricted distribution;
- Fauna subject to a high degree of historical impact from threatening processes; and



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### Native Vegetation Clearing Permit Supporting Document

- Fauna providing an important function required to maintain the ecological integrity of a significant ecosystem.
- The area to be cleared contains:
- No evidence of significant fauna species or habitats (none were observed during the field survey).

As the proposal does not include removal of any significant fauna species or habitat, the proposed clearing is **unlikely to be at variance with Clearing Principle B**.

### 5.3 Significant Flora

#### Clearing Principle C

*Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora.*

According to the EPA Environmental Factor Guideline for Flora and Vegetation (EPA, 2016b) significant flora includes:

- flora being identified as threatened or priority species;
- locally endemic flora or flora associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems);
- new species or anomalous features that indicate a potential new species;
- flora 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; and
- flora with relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.
- The area to be cleared contains:
- No Threatened flora species (none were recorded within the survey area).
- No Priority or otherwise significant flora (none were recorded within the survey area).

As the proposal does not include removal of any Threatened, Priority or otherwise significant ecological communities, the proposed clearing is **unlikely to be at variance with Clearing Principle C**.

### 5.4 Threatened Ecological Communities

#### Clearing Principle D

*Native vegetation should not be cleared if it comprises the whole or part of or is necessary for the maintenance of a threatened ecological community (TEC).*

The Protected Matters search (DAWE, 2020a) did not identify any Threatened Ecological Communities recorded within 40 km of the survey area. Analysis of the Priority Ecological Communities within the Goldfields region (DBCA, 2017) did not identify any significant vegetation assemblages as likely or possibly occurring within the survey area.

According to the EPA Environmental Factor Guideline for Flora and Vegetation (EPA, 2016b) significant vegetation includes:

- vegetation being identified as threatened or priority ecological communities;
- vegetation with restricted distribution;

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- vegetation subject to a high degree of historical impact from threatening processes;
- vegetation which provides a role as a refuge; and
- vegetation providing an important function required to maintain ecological integrity of a significant ecosystem.
- The area to be cleared contains:
- No Threatened, Priority or otherwise significant ecological communities were identified within the survey area.

As the proposal does not include removal of any Threatened, Priority or otherwise significant ecological communities, the proposed clearing is not at variance with Clearing Principle D.

## 5.5 Remnant Vegetation

### Clearing Principle E

*Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.*

Areas retaining less than 30% of their pre-European vegetation extent generally experience exponentially accelerated species loss, while areas with less than 10% are considered “endangered” (EPA, 2000).

The Pre-European vegetation association spatial mapping dataset (DPIRD, 2018) identified the Coolgardie 9 vegetation association as occurring within the survey area. The association description and its remaining extent, as specified in the 2018 Statewide Vegetation Statistics (DBCA, 2019b) are provided in **Table 5-1**.

The area to be cleared contains:

- The Coolgardie 9 vegetation which association retains >96% of its pre-European extent, and development within the survey area will not significantly reduce the current extent of this vegetation association.

**Table 5-1: Pre-European vegetation associations within the survey area**

Vegetation Association	Current Extent (ha)	Pre-European extent remaining	% Protected for Conservation	Floristic Description	Extent within Survey Area
Coolgardie 9	95,688	96.88	-	Medium woodland; coral gum ( <i>Eucalyptus torquata</i> ) & goldfields blackbutt ( <i>E. lesouefii</i> )	4 ha (100%)

As the proposal does not include removal of vegetation associations retaining less than 30% of their pre-European vegetation extent, the proposed clearing is **unlikely to be at variance with Clearing Principle E**.

## 5.6 Watercourses and Wetlands

### Clearing Principle F

*Native vegetation should not be cleared if it is growing, in, or in association with, an environment associated with a watercourse or wetland.*

No permanent or ephemeral water bodies or drainage lines were identified within the survey area.

As the proposal does not include the removal of any vegetation associated with watercourses or wetlands, the proposed clearing is **unlikely to be at variance with Clearing Principle F.**

## 5.7 Land Degradation

### Clearing Principle G

*Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.*

The survey area and surrounding region has not been extensively cleared. Clearing associated with the proposal is minor, and consists of only 4 ha. Clearing within the survey area is not considered likely to lead to land degradation issues such as salinity, water logging or acidic soils.

As the proposal is not likely to cause appreciable land degradation, the proposed clearing is **not at variance with Clearing Principle G.**

## 5.8 Conservation Areas

### Clearing Principle H

*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.*

The survey area is not located within or adjacent to conservation areas, Environmentally Sensitive Areas or Nationally Important Wetlands.

As the proposal is not likely to have an impact on the environmental values of any adjacent or nearby conservation areas, the proposed clearing is **unlikely to be at variance with Clearing Principle H.**

## 5.9 Groundwater and Surface Water Quality

### Clearing Principle I

*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.*

The project occurs within the large area of the proclaimed Goldfields Groundwater Area. No Public Drinking Water Source Areas occur in the survey area or surrounds.

No permanent or ephemeral water bodies or drainage lines were identified within the survey area. No known or potential groundwater dependent ecosystems (GDEs) were identified within the survey area.

The proposal does not include the clearing of any vegetation associated with waterbodies, drainage lines, or GDEs. The scale of the clearing is also minor, at only 4 ha.

As the proposal is not likely to cause deterioration in the quality of surface or underground water, the proposed clearing is **unlikely to be at variance with Clearing Principle I.**

## 5.10 Flooding

### Clearing Principle J

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

Rainfall in the Eastern Goldfields subregion has an average rainfall of 200-300mm and an evaporation rate of 2400 mm. Rainfall data for Kalgoorlie-Boulder indicates that rainfall is spread throughout the year and rainfall events are unlikely to result in localised flooding.

As the proposal is not likely to increase the incidence or intensity of flooding within the survey area or surrounds, the clearing is **unlikely to be at variance with Clearing Principle J**.

### 5.11 Summary of Assessment against the Clearing Principles

Based on the outcomes from the survey undertaken, Botanica assessed the results of the desktop and field survey with regards to the native vegetation clearing principles listed under Schedule 5 of the EP Act. The assessment found that the proposed vegetation clearing activities are unlikely to be at variance with any of the clearing principles (**Table 5-2**).

**Table 5-2: Assessment against native vegetation clearing principles**

Clearing Principle		Assessment	Outcome
a	Native vegetation should not be cleared if it comprises a high level of biological diversity.	Vegetation within the survey area is considered to be of low biological diversity and is well represented outside of the survey area.  There are no Threatened or Priority Ecological Communities within the survey area.	Clearing is <b>unlikely to be at variance</b> with this principle
b	Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to WA.	The basic fauna search did not record any evidence for the presence of significant fauna or habitat within the survey area.	Clearing is <b>unlikely to be at variance</b> with this principle
c	Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora.	No Threatened Flora taxa, pursuant to the BC Act and the EPBC Act were identified within the survey area.	Clearing is <b>unlikely to be at variance</b> with this principle
d	Native vegetation should not be cleared if it comprises the whole or part of or is necessary for the maintenance of a threatened ecological community (TEC).	No TEC listed under the EPBC Act or by the BC Act occur within the survey area.	Clearing is <b>not at variance</b> with this principle
e	Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared	The Coolgardie 9 vegetation association retain >96% of its original pre-European vegetation extent.	Clearing is <b>unlikely to be at variance</b> with this principle
f	Native vegetation should not be cleared if it is growing, in, or in association with, an environment associated with a watercourse or wetland	No permanent or ephemeral water bodies or drainage lines were identified within the survey area.	Clearing is <b>unlikely to be at variance</b> with this principle
g	Native vegetation should not be cleared if the clearing of the	The survey area and surrounding region has not been extensively cleared. Clearing within the survey area is not considered likely to lead	Clearing is <b>unlikely to be at variance</b> with this principle

Clearing Principle		Assessment	Outcome
	vegetation is likely to cause appreciable land degradation.	to land degradation issues such as salinity, water logging or acidic soils.	
h	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.	The survey area is not located within or adjacent to conservation areas, Environmentally Sensitive Areas or Nationally Important Wetlands.	Clearing is <b>unlikely to be at variance</b> with this principle
i	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.	No permanent or ephemeral water bodies or drainage lines were identified within the survey area. No known or potential GDE's were identified within the survey area.	Clearing is <b>not at variance</b> with this principle
j	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	Rainfall in the Eastern Goldfields subregion has an average rainfall of 200-300mm and an evaporation rate of 2400 mm. Rainfall data for Kalgoorlie-Boulder indicates that rainfall is spread throughout the year and rainfall events are unlikely to result in localised flooding. Clearing within the survey area is not likely to increase the incidence or intensity of flooding within the survey area or surrounds.	Clearing is <b>unlikely to be at variance</b> with this principle

## 6. Reporting and Auditing

Annual clearing amounts will be reported to DMIRS via the EARS2 online system as part of the AER and NVCP processes.

Upon approval of this Clearing Permit, subsequent environmental approvals will be sought to construct and develop the Binduli project. These approvals will include additional conditions and commitments relating to environmental monitoring and reporting.

## 7. Conclusion

The proposed clearing involves the development of a CROW for the construction of the BIN project.

The proposed clearing supports vegetation ranging from 'Good' to Completely Degraded' (Botanica 2021) condition. The vegetation and habitats present within the NVCP Application Area are well represented on a regional scale of what would be expected from similar landforms in the region. Impacts of the BIN construction and ongoing maintenance are considered are unlikely to influence the conservation status of the flora and fauna species present within the project area, with impacts to vegetation expected to be minor, short term and at a local scale.

No significant water courses intersect the NVCP Application Area, and land degradation as a result of the clearing is not expected. The vegetation represents limited value as fauna habitat, with all habitats broadly represented outside of the NVCP Application Area.

## **BINDULI GAS PIPELINE**

### Native Vegetation Clearing Permit Supporting Document

The proposed clearing is not likely to impact significantly upon any of the ten clearing principles and a range of environmental management measures are in place to ensure clearing will be managed to minimise any potential adverse impacts.

Rehabilitation of the construction areas will be undertaken at completion of the pipeline construction, to minimise exposed areas and the long-term loss of vegetation cover. Ongoing maintenance clearing of the pipeline footprint for operational safety reasons will be managed to minimise soil disturbance.

## 8. References

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# APPENDIX 1 - EVIDENCE OF OWNERSHIP



WESTERN



AUSTRALIA

REGISTER NUMBER <b>3010/DP76804</b>	
DUPLICATE EDITION <b>1</b>	DATE DUPLICATE ISSUED <b>9/6/2014</b>

**RECORD OF CERTIFICATE OF TITLE**  
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **2835** FOLIO **48**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

*BGRoberts*  
REGISTRAR OF TITLES



**LAND DESCRIPTION:**

LOT 3010 ON DEPOSITED PLAN 76804

**REGISTERED PROPRIETOR:**  
(FIRST SCHEDULE)

WATER CORPORATION OF 629 NEWCASTLE STREET, LEEDERVILLE  
(AF M604621 ) REGISTERED 10/4/2014

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**  
(SECOND SCHEDULE)

1. F924685 EASEMENT TO HER MAJESTY. RECORDED 10/7/1995.  
\*M769588 NOTIFICATION. THE GRANTEEES OF EASEMENT F924685 ARE NOW ALINTA ENERGY GGT PTY LTD, SOUTHERN CROSS PIPELINES AUSTRALIA PTY LTD AND SOUTHERN CROSS PIPELINES (NPL) AUSTRALIA PTY LTD. PURSUANT TO SECTION 20(5) OF THE PETROLEUM PIPELINES ACT 1969. RECORDED 16/9/2014.
2. \*J749237 TAKING ORDER. THE DESIGNATED PURPOSE OF WATER SUPPLY. REGISTERED 18/5/2006.
3. H547646 EASEMENT TO THE STATE ENERGY COMMISSION OF WESTERN AUSTRALIA. SEE INSTRUMENT H547646. REGISTERED 11/9/2000.
4. H607271 EASEMENT TO THE STATE ENERGY COMMISSION OF WESTERN AUSTRALIA FOR ELECTRICITY TRANSMISSION PURPOSES. REGISTERED 27/11/2000.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP76804  
PREVIOUS TITLE: 2635-570, LR3121-267, LR3161-914  
PROPERTY STREET ADDRESS: 392 GREAT EASTERN HWY, YILKARI.  
LOCAL GOVERNMENT AUTHORITY: CITY OF KALGOORLIE-BOULDER  
RESPONSIBLE AGENCY: WATER CORPORATION

END OF PAGE 1 - CONTINUED OVER

RECORD OF CERTIFICATE OF TITLE

REGISTER NUMBER: 3010/DP76804

VOLUME/FOLIO: 2835-48

PAGE 2

NOTE 1: M769588 DUP C/T NOT PRODUCED FOR DOCUMENT M769588.

## APPENDIX 2 - LANDOWNER AUTHORISATION



**TO THE DEPARTMENT OF MINES, INDUSTRY REGULATION AND SAFETY (DMIRS)**

**AUTHORITY TO LODGE AN APPLICATION FOR A NATIVE VEGETATION CLEARING PERMIT**

**Water Corporation  
629 Newcastle St  
Leederville WA**

I, Brian Lanyon Handcock, Manager Property Portfolio, under Power of Attorney N704556 act for the Water Corporation as the landowner of the land described as:

- Lot 3010 on Deposited Plan 076804 (48/2835)

I appoint APA Group and Lynas Kalgoorlie Pty Ltd, to jointly act as my agent for the purposes of seeking a Native Vegetation Clearing Permit for the following purpose:

- To enable the construction and implementation of the Binduli Gas Pipeline Project.

Dated this day of 14<sup>th</sup> SEPTEMBER 2022

A handwritten signature in black ink, appearing to read "B. L. Handcock", written over a horizontal line.

Brian Lanyon Handcock



# APPENDIX 3 - FLORA AND FAUNA REPORT

# BINDULI PROJECT

## Flora, Vegetation and Fauna Assessment of Kalgoorlie West Proposed Pipeline



Final  
December 2021

Prepared by



33 Brewer St PERTH WA 6000 | 0419 916 034

## Document Information

**Prepared for:** APA Group  
**Project Name:** Binduli Project  
**Tenements:** -  
**Job Reference:** Flora, Vegetation and Fauna Assessment  
**Job Number:** 2021/150  
**Date:** 10/12/2021  
**Version:** Version 1 (DRAFT)

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## Quality Assurance

An internal quality review process has been implemented to each project task undertaken by BC. Each document and its contents is carefully reviewed by core members of the Consultancy team and signed off at Director Level prior to issue to the client. Draft documents are submitted to the client for comment and acceptance prior to final production.

Cover Photo: Vegetation within Kalgoorlie West Proposed Pipeline survey area (26/11/2021)

**Prepared by:** Kelby Jennings  
Senior Environmental Consultant  
Botanica Consulting

**Reviewed by:** Andrea Williams  
Director  
Botanica Consulting

**Approved by:** Jim Williams  
Director  
Botanica Consulting

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## 1 EXECUTIVE SUMMARY

Botanica Consulting Pty Ltd (Botanica) was commissioned by APA Group (APA) to undertake a reconnaissance flora/vegetation survey and basic fauna survey of the proposed Binduli pipeline corridor in West Kalgoorlie (referred to as the 'survey area'). The survey area is approximately 1.5 km in length and 25 m in width, for a total area of approximately 4 ha. The survey area is located approximately 6 km south-west of Kalgoorlie, Western Australia. The proposed pipeline starts at the Goldfields Gas Pipeline at Kilometre Point 1367, and transverses across land owned by the Water Corp, over Johns Road and terminates at the proposed Lynas Kalgoorlie Rare Earths Processing Facility (located on General Lease G26/169).

The survey area lies within the Eastern Goldfield (COO3) subregion of the Coolgardie Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA).

The Eastern Goldfield subregion (5,102,428 ha) lies on the Yilgarn Craton's Eastern Goldfields Terrain, which is described as gently undulating plains with a subdued relief, interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying geology is of gneisses and granites eroded into a flat plane covered with tertiary soils and with scattered exposures of bedrock. Calcareous earths are the dominant soil group and cover much of the plains and greenstone areas. A series of large playa lakes in the western half are the remnants of an ancient major drainage line (Cowan 2001).

The vegetation consists of Mallees, Acacia thickets and shrub-heaths on sandplains, with diverse *Eucalyptus* woodlands occurring around salt lakes, on ranges, and in valleys. Salt lakes support dwarf shrublands of samphire. Woodlands and *Dodonaea* shrubland occur on basic granulite of the Fraser Range, and the area is rich in endemic Acacias.

In accordance with Beard (1990) the survey area is located in the Coolgardie Botanical District of the Southwestern Interzone Province. The landscape is described as gently undulating with occasional ranges of low hills, with sandplains in the western part and some large playa lakes. Soils are principally brown calcareous earths, which overlays the Proterozoic granite and gneiss of the Fraser Range block and Archaean granite, with infolded volcanics and meta-sediments, of the Yilgarn block. Vegetation is predominately *Eucalyptus* woodlands, with slopes and flats containing *E. longicornis* alongside *E. salubris* and *E. salmonophloia*. Woodland understories range from tall sclerophyll shrubland dominated by *Melaleuca pauperiflora* to soft-leaved saltbush shrubland of *Atriplex vesicaria* and *A. nummularia*. Some hill slopes contain mallees of *E. livida* or *E. loxophleba*, while ironstone ridges are covered in thickets of *Acacia quadrimarginea*, *Allocasuarina acutivalvis* and *A. campestris*. Other vegetation assemblages include species-rich scrub-heaths and *Allocasuarina* thickets on sandplains, merging into *Acacia* thickets and Kwongan vegetation to the north.

The dominant land uses of the Eastern Goldfield subregion includes Unallocated Crown Land (UCL) and Crown reserves and pastoral grazing, with conservation areas and mining leases also present (Cowan, 2001). The survey area is not located within a pastoral lease.

Prior to the field assessment a literature review was undertaken of previous flora and fauna assessments conducted within the local region. Documents reviewed included:

- Botanica Consulting Pty Ltd. (2021). *Detailed Flora/ Vegetation Survey and Basic Fauna Survey of the Crake Project Area*. Unpublished report prepared on behalf of Horizon Resources Ltd, February 2021.
- Botanica Consulting Pty Ltd. (2021). *Detailed Flora/ Vegetation Survey and Basic Fauna Survey of the Teal Project Area*. Unpublished report prepared on behalf of Horizon Resources Ltd, February 2021.

In addition to the literature review, searches of the following databases were undertaken to aid in the compilation of a list of significant flora within the survey area:

- Department of Biodiversity, Conservation and Attractions (DBCA) Threatened/ Priority Flora spatial data (DBCA, 2019a);
- DBCA NatureMap database (DBCA, 2021b); and
- EPBC Protected Matters search tool (DAWE, 2021a).

The NatureMap species search and EPBC Protected Matters search were conducted with a 40 km buffer from the survey area.

The NatureMap desktop search identified 792 vascular flora species as occurring within 40 km of the survey area, representing 304 genera from 73 families. The most diverse families were Asteraceae (108 species), Fabaceae (104 species) and Myrtaceae (89 species). The most dominant genera were Acacia (53 species), Eucalyptus (48 species) and Eremophila (35 species). This total includes 89 introduced (weed) species (11.2%).

The assessment of the DBCA Priority/ Threatened flora database records (DBCA, 2019), NatureMap (DBCA, 2020) and Protected Matters searches (DAWE, 2020a) and previous relevant literature identified 34 significant flora species recorded within a 40 km radius of the survey area. These consist of two Threatened, 11 Priority 1, five Priority 2, 12 Priority 3 and four Priority 4 taxa (Appendix C).

These taxa were assessed for distribution and known habitat to determine their likelihood of occurrence within the survey area. The assessment did not identify any taxa as likely to occur in the survey area. The assessment identified eight taxa as possibly occurring in the survey area; consisting of two Priority 1, four Priority 3 and two Priority 4 taxa.

The Protected Matters search (DAWE, 2020a) did not identify any Threatened Ecological Communities recorded within 40 km of the survey area. Analysis of the Priority Ecological Communities within the Goldfields region (DBCA, 2017) did not identify any significant vegetation assemblages as likely or possibly occurring within the survey area.

All vegetation associations retain >96% of their pre-European extent.

According to the results of the NatureMap search (DBCA, 2021b), a total of 263 terrestrial vertebrate fauna taxa have been recorded within 40 km of the survey area, consisting of 150 bird, 29 mammal, 78 reptile and six amphibian taxa. This total includes nine introduced (feral) species (3.4%).

The desktop review identified ten terrestrial vertebrate fauna species of conservation significance as previously being recorded in the regional area, consisting of eight Threatened, and two migratory or otherwise protected species. In addition, 11 migratory wading/shorebird species were assessed collectively due to their similar habitat requirements.

Habitat and distribution data was used to determine the likelihood of occurrence within the survey area. The assessment identified one significant fauna species as potentially occurring in the survey area, which is listed as Vulnerable under Commonwealth and State legislation.

No Environmentally Sensitive Areas were identified within the survey area.

There are no wetlands of international importance (Ramsar Wetlands) or national importance (Australian Nature Conservation Agency Wetlands) within the survey area.

There are no proposed or gazetted conservation reserves within the survey area.

The closest significant environmental feature is the Kurrawang Hills Nature Reserve, which is DBCA-managed land located approximately 4.7 km south-west of the survey area. Disturbances within the survey area are unlikely to impact this area.

Botanica conducted a reconnaissance flora/vegetation and basic fauna survey on the 26<sup>th</sup> October and 15<sup>th</sup> November 2021, with the area traversed on foot and 4WD by Jim Williams (Director/Principal Botanist, Diploma of Horticulture).

The field survey identified 39 vascular flora taxa within the survey area. These taxa represented 21 genera across 14 families, with the most diverse families being Chenopodiaceae (12 species), Myrtaceae (six species) and Scrophulariaceae (five species). Dominant genera include Eucalyptus (six species), Eremophila (five species) and Maireana (four species).

Of this total, two species (5.1%) were introduced (weed) species. Neither of these species are listed as a Weed of National Significance or a Declared Pest in Western Australia.

No Threatened flora species were recorded within the survey area.

No Priority or otherwise significant flora were recorded within the survey area.

A total of two broad-scale vegetation communities were identified within the survey area. Vegetation community descriptions and extents were determined from field survey results, aerial imagery interpretation and extrapolation of the communities.

The survey found CLP-MW1 was the most widespread community in the survey area, occupying 2.6 ha (65.0%), while CLP-EW1 was the most restricted with 1.1 ha (27.5%). The most diverse vegetation type was CLP-EW1 with 27 species (69.2%), while the least diverse was CLP-MW1 with 25 species (64.1%).

No Threatened or Priority ecological communities or otherwise significant vegetation were identified within the survey area.

Based on vegetation and associated landforms identified during the flora and vegetation assessment, two broad scale terrestrial fauna habitats were identified as occurring within the survey area.

No evidence of the presence of Malleefowl, including nesting mounds, tracks or other signs, were recorded within the survey area. No other evidence of significant fauna species were observed during the survey.

Native vegetation condition within the survey area was categorised as 'good'. Disturbances within the survey area include access roads and cumulative historical impacts.

The assessment found that the proposed vegetation clearing activities are unlikely to be at variance with any of the clearing principles.

## 2 INTRODUCTION

Botanica Consulting Pty Ltd (Botanica) was commissioned by APA Group (APA) to undertake a reconnaissance flora/ vegetation survey and basic fauna survey of the proposed Binduli pipeline corridor in West Kalgoorlie (referred to as the 'survey area'). The survey area is approximately 1.5 km in length and 25 m in width, for a total area of approximately 4 ha. The survey area is located approximately 6 km south-west of Kalgoorlie, Western Australia. The proposed pipeline starts at the Goldfields Gas Pipeline at Kilometre Point 1367, and transverses across land owned by the Water Corp, over Johns Road, and terminates at the proposed Lynas Kalgoorlie Rare Earths Processing Facility (located on General Lease G26/169).

### 2.1 Objectives

The flora assessment was conducted in accordance with the requirements of a reconnaissance flora survey as defined in *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016* (EPA, 2016a). The objectives of the assessment were to:

- gather background information on flora and vegetation in the target area (literature review, database and map-based searches);
- identify significant flora, vegetation and ecological communities and assess the potential sensitivity to impact;
- conduct a field survey to verify / ground truth the desktop assessment findings;
- undertake floristic community mapping to a scale appropriate for the bioregion and described according to the National Vegetation Information System (NVIS) structure and floristics;
- undertake vegetation condition mapping;
- assess the project area's plant species diversity, density, composition, structure and weed cover, using NVIS classification system for vegetation description;
- assess Matters of National Environmental Significance (MNES) and indicate whether potential impacts on MNES as protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) are likely to require referral of the project to the Commonwealth DAWE; and
- determine the State legislative context of environmental aspects required for the assessment.

The fauna assessment was conducted in accordance with the requirements of a basic terrestrial fauna survey as defined in *Technical Guidance - Terrestrial Fauna Surveys for Environmental Impact Assessment – June 2020* (EPA, 2020). The objectives of the assessment were to:

- Undertake a literature review, including map-based information searches of all current and relevant literature sources and databases relating to the survey area;
- Undertake a desktop investigation to identify any previously recorded occurrences of or potentially occurring Threatened and Priority listed fauna within the survey area;
- Undertake searches on available databases for details relating to any Threatened and Priority listed fauna previously identified as occurring or potentially occurring within the survey area;
- Conduct fauna habitat mapping and identify habitat types which are suitable for each significant fauna considered likely or possible to occur, or fauna recorded in the survey area;
- Compile an inventory of fauna species occurrences within the survey area;
- Undertake opportunistic, low intensity sampling of fauna; and
- Report on the conservation status of species present using the Western Australian Museum and EPBC Act databases for presence of Threatened and Priority listed fauna species within the survey area.



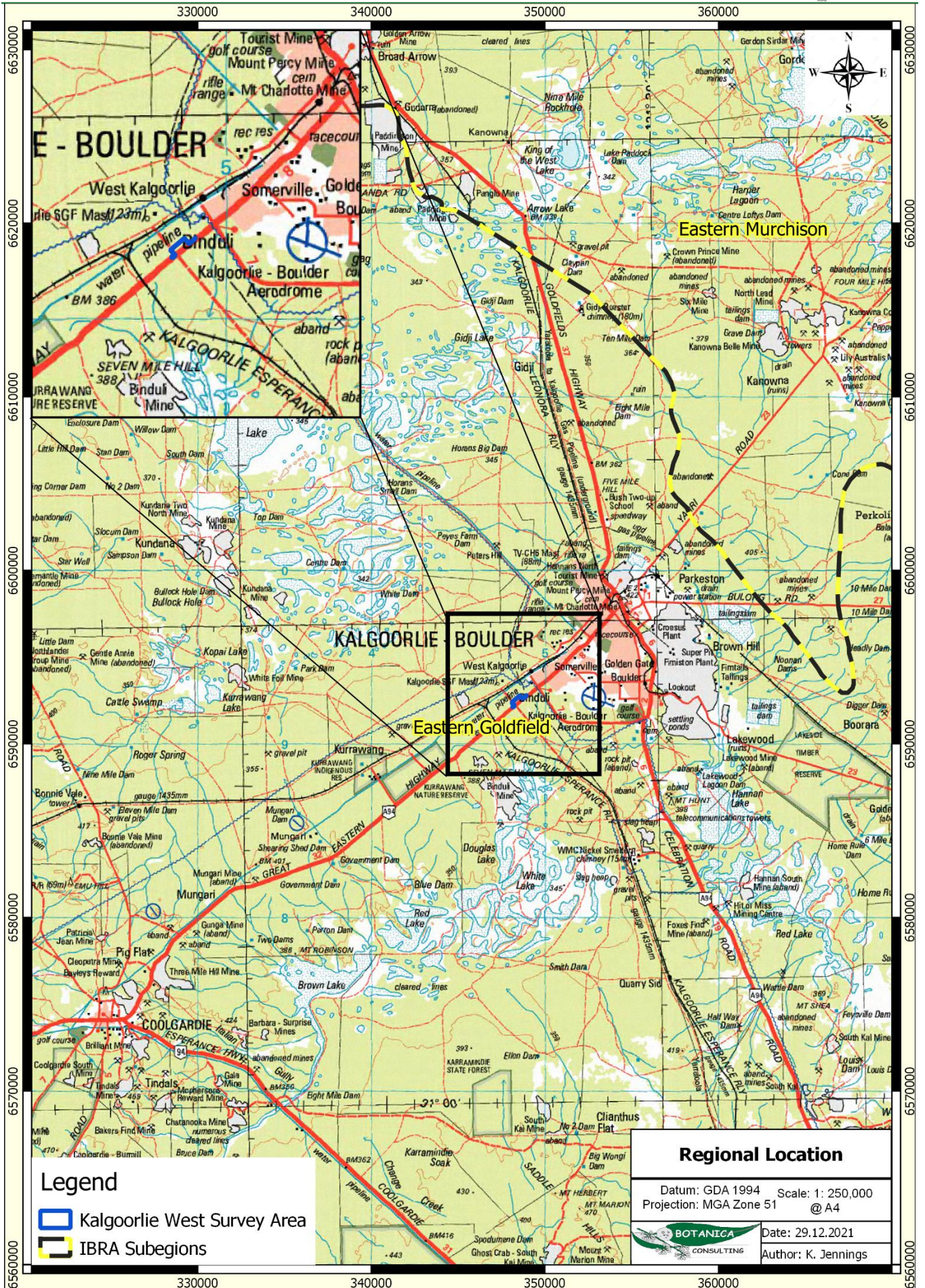


Figure 2-1: Regional map of the desktop survey area/ survey area



## 3 BIOPHYSICAL ENVIRONMENT

### 3.1 Regional Environment

The survey area lies within the Eastern Goldfield (COO3) subregion of the Coolgardie Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA).

The Eastern Goldfield subregion (5,102,428 ha) lies on the Yilgarn Craton's Eastern Goldfields Terrain, which is described as gently undulating plains with a subdued relief, interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying geology is of gneisses and granites eroded into a flat plane covered with tertiary soils and with scattered exposures of bedrock. Calcareous earths are the dominant soil group and cover much of the plains and greenstone areas. A series of large playa lakes in the western half are the remnants of an ancient major drainage line (Cowan 2001).

The vegetation consists of Mallees, Acacia thickets and shrub-heaths on sandplains, with diverse *Eucalyptus* woodlands occurring around salt lakes, on ranges, and in valleys. Salt lakes support dwarf shrublands of samphire. Woodlands and *Dodonaea* shrubland occur on basic granulite of the Fraser Range, and the area is rich in endemic Acacias.

In accordance with Beard (1990) the survey area is located in the Coolgardie Botanical District of the Southwestern Interzone Province. The landscape is described as gently undulating with occasional ranges of low hills, with sandplains in the western part and some large playa lakes. Soils are principally brown calcareous earths, which overlays the Proterozoic granite and gneiss of the Fraser Range block and Archaean granite, with infolded volcanics and meta-sediments, of the Yilgarn block. Vegetation is predominately *Eucalyptus* woodlands, with slopes and flats containing *E. longicornis* alongside *E. salubris* and *E. salmonophloia*. Woodland understories range from tall sclerophyll shrubland dominated by *Melaleuca pauperiflora* to soft-leaved saltbush shrubland of *Atriplex vesicaria* and *A. nummularia*. Some hill slopes contain mallees of *E. livida* or *E. loxophleba*, while ironstone ridges are covered in thickets of *Acacia quadrimarginea*, *Allocasuarina acutivalvis* and *A. campestris*. Other vegetation assemblages include species-rich scrub-heaths and *Allocasuarina* thickets on sandplains, merging into *Acacia* thickets and Kwongan vegetation to the north.

### 3.2 Land Use

The dominant land uses of the Eastern Goldfield subregion includes Unallocated Crown Land (UCL) and Crown reserves and pastoral grazing, with conservation areas and mining leases also present (Cowan, 2001). The survey area is not located within a Pastoral Lease.

### 3.3 Soil Landscape Systems

The survey area lies within the Kalgoorlie Province, located in the southern Goldfields between Paynes Find, Menzies, Southern Cross and Balladonia. The landscape consists of undulating plains (with some sandplains, hills and salt lakes) on the granitic rocks and greenstone of the Yilgarn Craton. Soils range from calcareous loamy earths and red loamy earths with some salt lake soils to red deep sands, yellow sandy earths, shallow loams and loamy duplexes. Vegetation communities are predominately Eucalypt woodlands with some acacia-casuarina thickets, mulga shrublands, halophytic shrublands and spinifex grasslands.



The Kalgoorlie Province is further divided into six soil-landscape zones, with the survey area located in the Kambalda Zone.

The Kambalda zone is located in the south-eastern Goldfields between Menzies, Norseman and the Fraser Range and contains flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton. Soils consist of calcareous loamy earths and red loamy earths with salt lakes soils and some redbrown hardpan shallow loams and red sandy duplexes. Vegetation includes red mallee, blackbutt-salmon gum-gimlet woodlands with mulga and halophytic shrublands (and some spinifex grasslands).

The soil landscape zones are further divided into soil landscape systems, with the survey area located within the Mx43 landscape system, as described in Table 3-1 and shown in Figure 2-1, in accordance with soil landscape system mapping data (Government of Western Australia, 2019).

**Table 3-1: Soil landscape systems within the survey area**

Soil Landscape System	Description	Extent within Survey Area
Mx43	Gently undulating valley plains and pediments; some outcrop of basic rock.	4 ha (100%)





Figure 3-1: Map of soil landscape systems within the survey area



### 3.4 Regional Vegetation

In accordance with Tille (2006), the vegetation of the Kambalda Zone is typified by the preponderance of stony plains with acacia shrublands and halophytic shrublands, low hills with eucalypt or acacia woodlands with halophytic undershrubs, stony plains with acacia shrublands and alluvial plains with eucalypt woodlands and halophytic undershrubs rangeland.

More broadly, the vegetation of the Kalgoorlie Province is described by Tille (2006) as woodlands of redwood (*Eucalyptus transcontinentalis*), red mallee (*E. oleosa*), Dundas blackbutt (*E. dundasii*), merri (*E. flocktoniae*) and salmon gum (*E. salmonophloia*), found on undulating plains over granite. Other vegetation includes:

- Some hummock grasslands with red mallee over spinifex (*Triodia scariosa*) and thickets of Acacia, Casuarina and Melaleuca spp.
- Plains on greenstone have woodlands of York gum (*E. loxophleba*), salmon gum and gimlet (*E. salubris*).
- The valley plains have:
  - Woodlands of salmon gum, red mallee, Goldfields blackbutt (*E. lesouefii*), gimlet, York gum and morrel (*E. longicornis*). These sometimes have an understorey of saltbush (*Atriplex* spp.), pearl bluebush (*Maireana sedifolia*), sago bluebush (*M. pyramidata*) and *Eremophila* spp.
  - There are areas of spinifex grasslands with red mallee, mallees (e.g. *E. youngiana*) and marble gum (*E. gongylocarpa*).
  - Low woodlands of mulga (*Acacia aneura*) and black sheoak (*Casuarina pauper*) over bluebush and saltbush are also present.
- Apart from the bare salt lake surfaces:
  - Saline valley floors have shrublands of samphire (*Tecticornia* spp.) and *Frankenia* spp. in lower areas, shrublands of saltbush and bluebush on red deep sandy duplexes, and woodlands of salmon gum, merri, red mallee, gimlet and York gum.
  - *Acacia neurophylla*, *A. beauverdiana* and *A. resinimarginea* thickets grow on gently sloping uplands on granite, with thickets of acacia, casuarina and melaleuca. There are also scrub-heaths and York gum-salmon gum-gimlet woodlands on these uplands.
- The hilly terrain on greenstone supports woodlands of salmon gum, Goldfields blackbutt, coral gum (*E. torquata*), York gum, gimlet, morrel, Dundas blackbutt and black sheoak. Thickets of granite wattle (*Acacia quadrimarginea*) are also present.
- The stony plains support scattered woodlands of Goldfields blackbutt, gimlet and salmon gum, along with shrublands of saltbush and bluebush.
- Sandplains in the west have:
  - Acacia (*A. coolgardiensis*, *A. ramulosa*, *A. aneura*, *A. burkittii* and *A. tetragonophylla*) shrublands, commonly with patchy native pine (*Callitris glaucophylla*, *C. preissii*) and mallees (*E. leptopoda*, *E. longicornis* and *E. loxophleba*).
  - Native box (*Bursaria occidentalis*), *Melaleuca uncinata* and *Hakea recurva* may also be present.
  - Hard spinifex (*T. basedowii*) grasslands with mulga, marble gum and mallees (e.g. *E. kingsmillii*) are found on sandplains to the east.
  - The sandy-surfaced plains support acacia, casuarina and melaleuca thickets; woodlands of York gum, cypress pine (*Callitris columellaris*), salmon gum, gimlet and mulga; and shrublands of bowgada (*A. ramulosa*).

### 3.5 Conservation Values

The Eastern Goldfield subregion contains 16 vegetation associations, predominately open *Eucalyptus* woodlands, that have at least 85 per cent of their total current range within the bioregion (Cowan 2001). The subregion is considered a centre of endemism for Eucalypts in the Goldfields Woodlands region, and is also noted for the diversity of *Acacia* spp. and ephemeral flora communities of the tertiary sandplain shrublands and the valley floors of woodland areas.

The subregion contains one wetland of national importance: Rowles Lagoon System, located approximately 60 km north-west of the survey area. In addition, there are seven wetlands of subregional importance (Cowan, 2001). Other significant assemblages in the region include plant assemblages of the Fraser Range and the Woodline Hills.

No ecosystems are listed as threatened under WA State legislation occur within the subregion, but 18 communities and vegetation associations are thought to be at risk for a variety of reasons. Grazing from livestock, goats and rabbits and impacts from mining are the main threatening processes in the region, with changed fire regimes, erosion and sedimentation also causing significant impacts.

#### 3.5.1 Great Western Woodlands

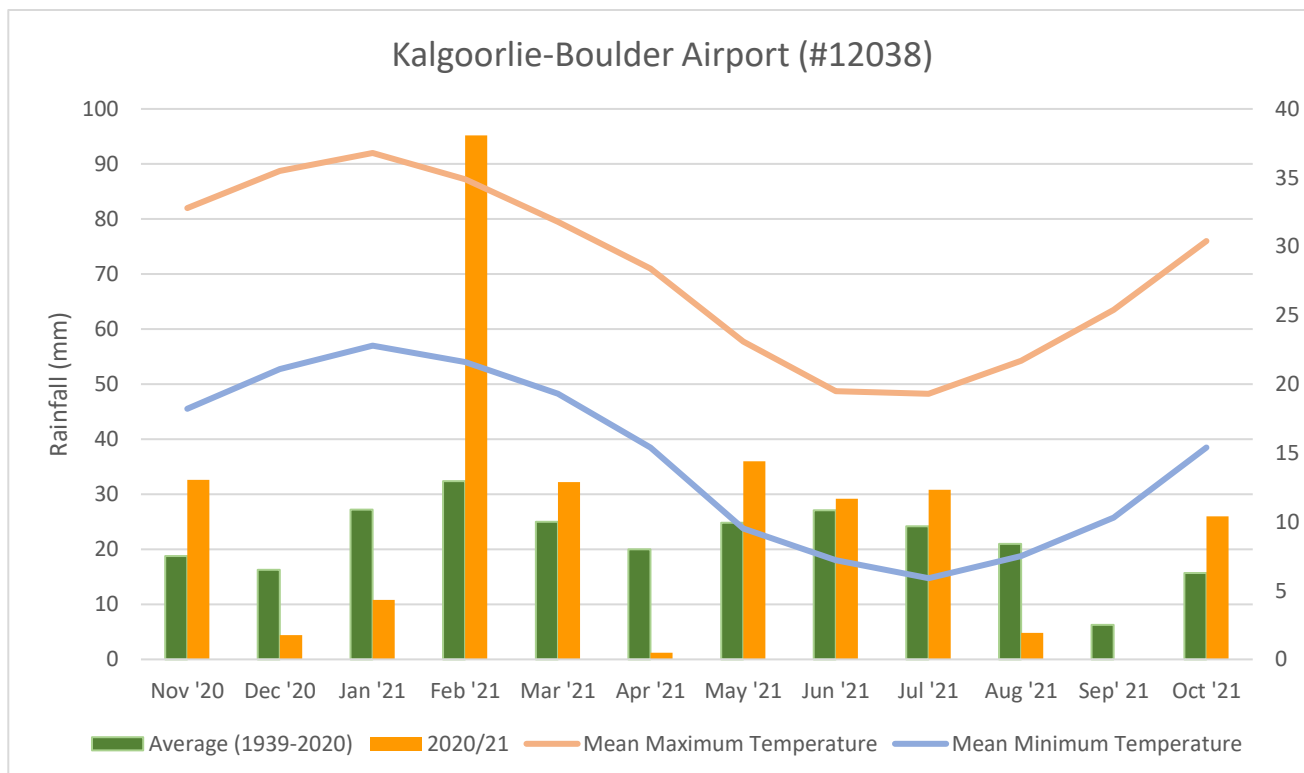
The survey area lies within the Great Western Woodlands, considered by The Wilderness Society of WA to be of global biological and conservation importance as one of the largest and healthiest temperate woodlands on Earth, containing many endemic taxa. The region covers almost 16 million hectares (160,000 square kilometres), from the southern edge of the Western Australian Wheatbelt to the pastoral lands of the Mulga country in the north, the inland deserts to the northeast, and the treeless Nullarbor Plain to the east.

The Great Western Woodlands provides a connection between southwest forests and inland deserts (Gondwana Link) as well as linking the north-west passage to Shark Bay. The majority of the Great Western Woodlands is unallocated crown land (61.1%) with other interests including pastoral leases (20.4%), conservation reserves (15.4%) ex pastoral (2%) managed by the Department of Biodiversity, Conservation and Attractions (DBCA) and private land (approximately 1%).

No specific management strategy or formal conservation status applies to the Great Western Woodlands. The Great Western Woodlands currently includes towns, highways, roads, railways, private property, Crown Reserves, agricultural activities and mining tenements.

### 3.6 Climate

The climate of the Eastern Goldfield subregion is characterised as arid to semi-arid with 200-300 mm of rainfall, sometimes in summer but usually in winter (Cowan 2001). Rainfall data for the Kalgoorlie-Boulder Airport (#12038) weather station, located approximately 3 km east of the survey area, is shown in **Figure 3-2**. Mean monthly rainfall ranges from 31.65 mm in February to 13.5 mm in September, with a mean annual rainfall of 264.9 mm. The survey was conducted in October and November 2021, with the preceding months (August-September) being characterised by below-average rainfall. Climate conditions may represent a survey constraint, with potentially below-average presence of flowering material and ephemeral species.



**Figure 3-2: Climate data for Kalgoorlie-Boulder Airport (BoM, 2021a)**

### 3.7 Hydrology

According to the Geoscience Australia database (2015), there are no permanent or ephemeral inland waters or drainage lines within the survey area (Figure 3-3).

Groundwater Dependent Ecosystems (GDE) include biological assemblages of species such as wetlands or woodlands that use groundwater either opportunistically or as their primary water source. For the purposes of this report, a GDE is defined as any vegetation community that derives part of its water budget from groundwater and must be assumed to have some degree of groundwater dependency. In accordance with the BoM *Atlas of Groundwater Dependent Ecosystems* (BoM, 2020b) database, there are no potential terrestrial or aquatic GDE's within the survey area.



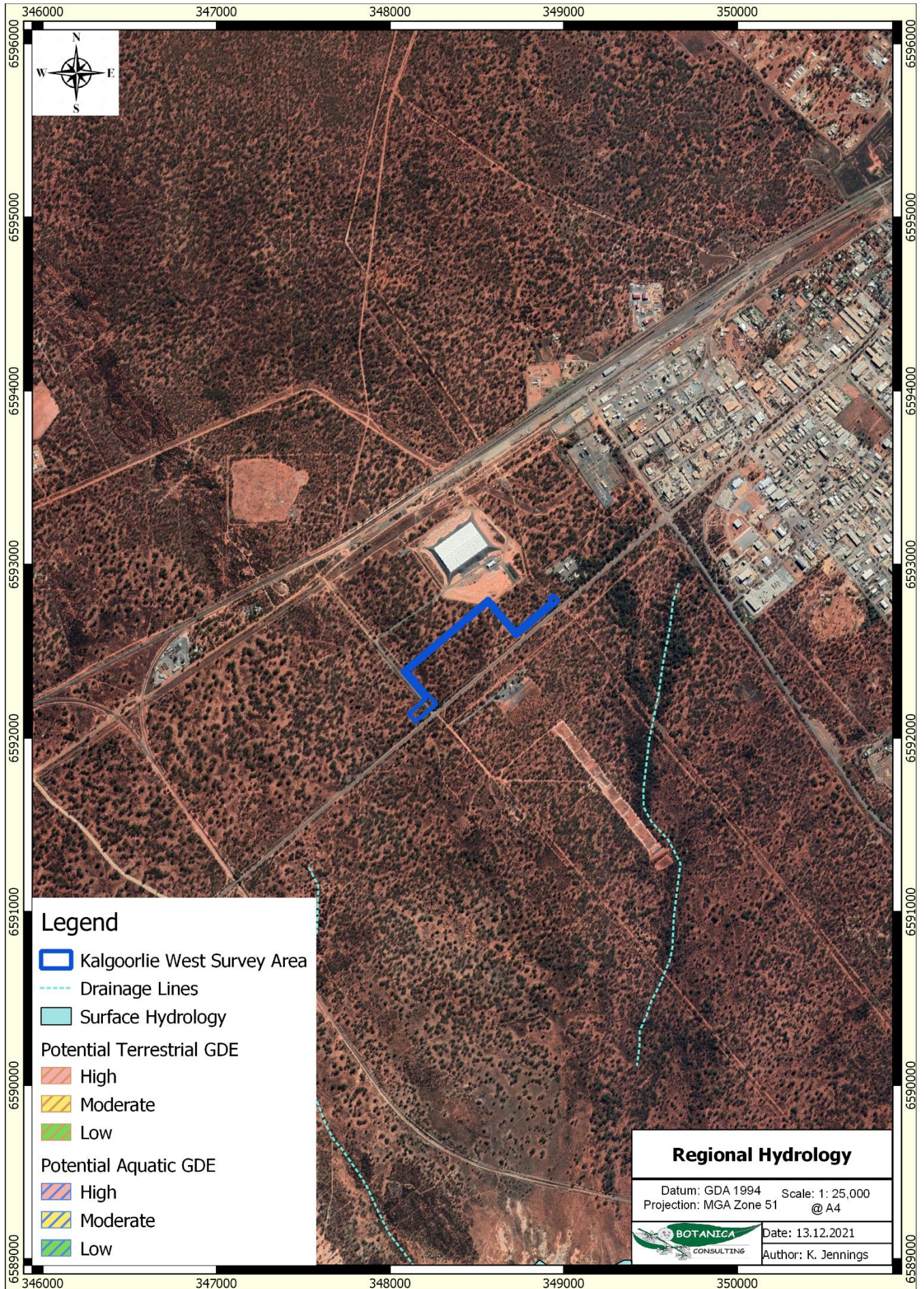


Figure 3-3: Regional hydrology of the survey area



## 4 SURVEY METHODOLOGY

### 4.1 Desktop Assessment

Prior to the field assessment a literature review was undertaken of previous flora and fauna assessments conducted within the local region. Documents reviewed included:

- Botanica Consulting Pty Ltd. (2021). *Detailed Flora/ Vegetation Survey and Basic Fauna Survey of the Crake Project Area*. Unpublished report prepared on behalf of Horizon Resources Ltd, February 2021.
- Botanica Consulting Pty Ltd. (2021). *Detailed Flora/ Vegetation Survey and Basic Fauna Survey of the Teal Project Area*. Unpublished report prepared on behalf of Horizon Resources Ltd, February 2021.

In addition to the literature review, searches of the following databases were undertaken to aid in the compilation of a list of significant flora within the survey area:

- DBCA Threatened/ Priority Flora spatial data (DBCA, 2019a);
- DBCA NatureMap database (DBCA, 2021b); and
- EPBC Protected Matters search tool (DAWE, 2021a).

The NatureMap species search and EPBC Protected Matters search were conducted with a 40 km buffer from the survey area.

Significant flora species identified by the desktop review were assessed with regards to their population extent and distribution and preferred habitat to determine their likelihood of occurrence within the survey area.

The assessment categorised flora species as follows:

- Unlikely- Suitable habitat is not expected to occur and/or the survey area is outside the known range of the species.
- Possible- Suitable habitat may be present, and the area is within the known range of the species. This option is also used when there is insufficient information to determine the preferred habitat of a species.
- Likely- Suitable habitat is expected to occur and there are records within 10 km of the survey area.
- Previously Recorded- A record for this species is located within the survey area. Field survey will ground-truth currently occurring individuals and populations.

It should be noted that these lists are based on observations from a broader area than the assessment area (40 km radius) and therefore may include taxa not present. The databases also often include very old records that may be incorrect or in some cases the taxa in question have become locally or regionally extinct. Information from these sources should therefore be taken as indicative only and local knowledge and information also needs to be taken into consideration when determining what actual species may be present within the specific area being investigated.

The conservation significance of species was assessed using data from the following sources:

- EPBC Act. Administered by the Australian Government (DAWE);
- *Biodiversity Conservation (BC) Act 2016*. Administered by the WA Government (DBCA);
- Red List produced by the Species Survival Commission of the World Conservation Union (also known as the IUCN Red List – the acronym derived from its former name of the International Union for Conservation of Nature and Natural Resources). The Red List has no legislative power in Australia but is used as a framework for State and Commonwealth categories and criteria; and
- Priority Fauna list and Flora list. A non-legislative list maintained by DBCA for management purposes (released December 2018).

Descriptions of conservation significant species and communities are provided in Appendix A.

#### **4.2 Flora and Vegetation Field Assessment**

Botanica conducted a reconnaissance flora/ vegetation and basic fauna survey on the 26<sup>th</sup> October and 15<sup>th</sup> November 2021, with the area traversed on foot and 4WD by Jim Williams (Director/Principal Botanist, Diploma of Horticulture). The survey effort is shown below in Figure 4-1.



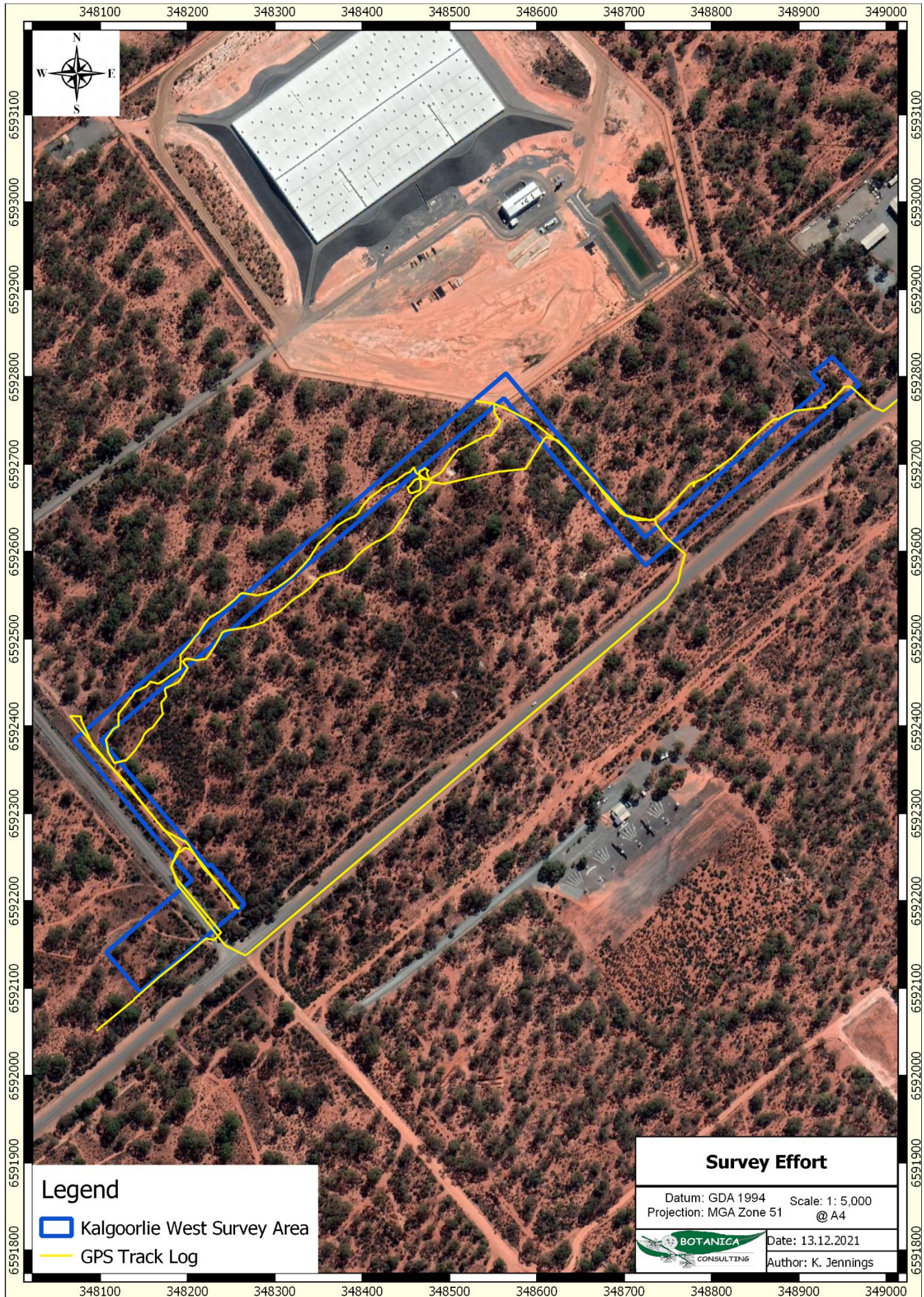


Figure 4-1: GPS track log of the survey effort



#### 4.2.1 Flora Assessment

Prior to the commencement of field work, aerial photography was inspected and obvious differences in the vegetation assemblages were identified. The different vegetation communities identified were then inspected during the field survey to assess their validity. A handheld GPS unit was used to record the coordinates of the boundaries between existing vegetation communities. At each sample point, the following information was recorded:

- GPS location;
- Photograph of vegetation;
- Dominant taxa for each stratum;
- All vascular taxa (including annual taxa);
- Landform classification;
- Vegetation condition rating;
- Collection and documentation of unknown plant specimens; and
- GPS location, photograph and collection of flora of conservation significance if encountered.

Unknown specimens collected during the survey were identified with the aid of samples housed at the Botanica Herbarium and Western Australian Herbarium. Vegetation was classified in accordance with NVIS classifications.

#### 4.3 Data Analysis Tools

Following field assessments, vegetation types and condition were mapped using the GIS program QGIS, and the hectare area/ percentage area of each vegetation type and condition within the survey area was calculated. Spatial maps illustrating the location of vegetation types and any significant flora/ vegetation and fauna were generated using QGIS.

#### 4.4 Terrestrial Fauna Field Assessment

Fauna habitat types were identified across the survey area based on broad major vegetation groups and associated landform. A handheld GPS unit was used to record the coordinates of the boundaries between fauna habitats and each habitat was photographed.

The main aim of the fauna habitat assessment was to determine the likelihood of a species of conservation significance utilising habitat within the survey area. The habitat information obtained was also used to aid in finalising the overall potential fauna list.

Available information on the habitat requirements of the species of conservation significance listed as possibly occurring in the area (determined from the desktop assessment) was researched. During the field survey, the habitats within the survey area were assessed and specific elements identified, if present, to determine the likelihood of listed Threatened and Priority species utilising habitat within the survey area.

Opportunistic observations of fauna species were made during all field survey work.

Fauna of conservation significance identified during the literature review and database searches as previously being recorded in the general area were assessed and ranked for their likelihood of occurrence within the survey area. The rankings and criteria used were:

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

#### 4.5 Scientific Licences

**Table 4-1: Scientific Licenses of Botanica Staff coordinating the survey**

Licensed Staff	Permit Number	Valid
Jim Williams	FB62000108 (licence to take flora for scientific purposes)	27/05/2019-27/05/2022

#### 4.6 Survey Limitations and Constraints

It is important to note that flora surveys will entail limitations notwithstanding careful planning and design. Potential limitations are listed in Table 4-2.

The conclusions presented in this report are based upon field data and environmental assessments and/or testing carried out over a limited period of time and are therefore merely indicative of the environmental condition of the site at the time of the field assessments. Also, it should be recognised that site conditions can change with time. Information not available at the time of this assessment which may subsequently become available may alter the conclusions presented.

Some species are reported as potentially occurring based on there being suitable habitat (quality and extent) within the survey area or immediately adjacent. The habitat requirements and ecology of many of the species known to occur in the wider area are however often not well understood or documented. It can therefore be difficult to exclude species from the potential list based on a lack of a specific habitats or microhabitats within the survey area. As a consequence of this limitation, the potential species list produced is most likely an overestimation of those species that actually utilise the survey area for some purpose.

In recognition of survey limitations, a precautionary approach has been adopted for this assessment. Any flora species that would possibly occur within the survey area (or immediately adjacent), as identified through ecological databases, publications, discussions with local experts/residents and the habitat knowledge of the author, has been listed as having the potential to occur.

**Table 4-2: Limitations and constraints associated with the flora/ vegetation and fauna survey**

Variable	Potential Impact on Survey	Details
Access problems	Not a constraint	The survey was conducted via 4WD and on foot. Numerous access tracks were present within the survey area providing ease of access.
Competency/ Experience	Not a constraint	The Botanica personnel that conducted the survey were regarded as suitably qualified and experienced. <b>Coordinating Staff:</b> Jim Williams (Botanist) <b>Data Interpretation:</b> Jim Williams (Botanist), and Kelby Jennings (Senior Environmental Consultant).
Timing of survey, weather & season	Minor constraint	Fieldwork was undertaken within the EPA's recommended survey period (September - November) for the South-West and Interzone Province. However, unfavourable climate conditions may impact the presence of flowering material and ephemeral species.
Area disturbance	Not a constraint	The majority of the survey area was in good condition and comprised of native vegetation.
Survey Effort/ Extent	Not a constraint	Survey intensity was appropriate for the size/significance of the area with a reconnaissance flora survey and basic fauna survey completed to identify vegetation types/ fauna habitats and significant flora, fauna and vegetation.
Availability of contextual information at a regional and local scale	Not a constraint	Conservation significant flora database searches provided by the DBCA were used to identify any potential locations of Threatened/Priority flora species.  BoM, DWER, DPIRD, DBCA and DAWE databases were reviewed to obtain appropriate regional desktop information on the biophysical environment of the local region.  Botanica has conducted a number of surveys within Coolgardie Bioregion and was also able to obtain information about the area from previous research conducted within the local area. Results of previous assessments in the local area were reviewed to provide context on the local environment.
Completeness	Not a constraint	In the opinion of Botanica, the survey area was covered sufficiently in order to identify vegetation assemblages. All observed flora individuals were able to be identified to species level. Fieldwork was undertaken within the EPA's recommended survey period (September - November) for the South-West and Interzone Province.  The vegetation associations for this study were based on visual descriptions of locations in the field. The distribution of these vegetation associations outside the survey area is not known, however vegetation associations identified were categorised via comparison to vegetation distributions throughout WA given on NVIS (DotEE, 2017).

## 5 RESULTS

### 5.1 Desktop Assessment

#### 5.1.1 Flora

The NatureMap desktop search identified 792 vascular flora species as occurring within 40 km of the survey area, representing 304 genera from 73 families. The most diverse families were Asteraceae (108 species), Fabaceae (104 species) and Myrtaceae (89 species). The most dominant genera were *Acacia* (53 species), *Eucalyptus* (48 species) and *Eremophila* (35 species). This total includes 89 introduced (weed) species (11.2%).

##### 5.1.1.1 Introduced Flora

The desktop review identified 89 introduced flora (weed) species as potentially occurring in the vicinity of the survey area. These species represented 29 families, with the most commonly represented being Asteraceae and Poaceae (15 species each) and Fabaceae, Cactaceae and Brassicaceae (six species each). Of these, eight are listed as both a Declared Pest on the Western Australian Organism List (WAOL) under the *Biosecurity and Agriculture Management (BAM) Act 2007*. Of these, six are also listed as a Weed of National Significance, plus an additional WONS to total nine potentially occurring significant weeds (Table 5-1).

The full list of potential weed species is contained in Appendix B.

**Table 5-1: Significant introduced flora potentially occurring within 40 km of the survey area**

Family	Taxon	Common Name	WAOL Status	Control Category	WONS
Boraginaceae	<i>Echium plantagineum</i>	Paterson's Curse	Declared Pest - s22(2)	No Control Category, Whole of State	No
Cactaceae	<i>Cylindropuntia fulgida</i> var. <i>mamillata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Cylindropuntia imbricata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Cylindropuntia kleiniae</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Cylindropuntia tunicata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Opuntia elata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Opuntia ficus-indica</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
Fabaceae	<i>Alhagi maurorum</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	No
Solanaceae	<i>Lycium ferocissimum</i>	African Boxthorn	Permitted - s11	No Control Category	Yes

### 5.1.1.2 Significant Flora

The assessment of the DBCA Priority/ Threatened flora database records (DBCA, 2019), NatureMap (DBCA, 2020) and Protected Matters searches (DAWE, 2020a) and previous relevant literature identified 34 significant flora species recorded within a 40 km radius of the survey area. These consist of two Threatened, 11 Priority 1, five Priority 2, 12 Priority 3 and four Priority 4 taxa (Appendix C).

These taxa were assessed for distribution and known habitat to determine their likelihood of occurrence within the survey area. The assessment did not identify any taxa as likely to occur in the survey area. The assessment identified eight taxa as possibly occurring in the survey area; consisting of two Priority 1, four Priority 3 and two Priority 4 taxa. The full flora likelihood assessment is listed in Appendix C. The locations of the DBCA database records are illustrated spatially in Figure 5-1.

**Table 5-2: Significant flora potentially occurring within the survey area**

Status	Taxon	Habitat	Comments	Likelihood
P1	<i>Eremophila praecox</i>	Red/brown sandy loam. Undulating plains.	Within known range, habitat may be present	Possible
	<i>Rhodanthe uniflora</i>	Brown earth. Open eucalyptus woodland.	Within known range, habitat may be present	Possible
P3	<i>Chrysocephalum apiculatum</i> subsp. <i>norsemanense</i>	Red sandy soils	Within known range, habitat may be present	Possible
	<i>Lepidium fasciculatum</i>	-	Little known, scattered but widespread records	Possible
	<i>Notisia intonsa</i>	Red/brown clay, stony saline loam.	Within known range, habitat may be present	Possible
	<i>Phlegmatospermum eremaeum</i>	Stony loam.	Widespread, scattered range, habitat may be present	Possible
P4	<i>Eremophila caerulea</i> subsp. <i>merrallii</i>	Sand, clay or loam. Undulating plains.	Within known range, habitat may be present	Possible
	<i>Eucalyptus jutsonii</i> subsp. <i>jutsonii</i>	Red to pale orange deep sands. Undulating areas and on dunes.	Within known range, habitat may be present	Possible



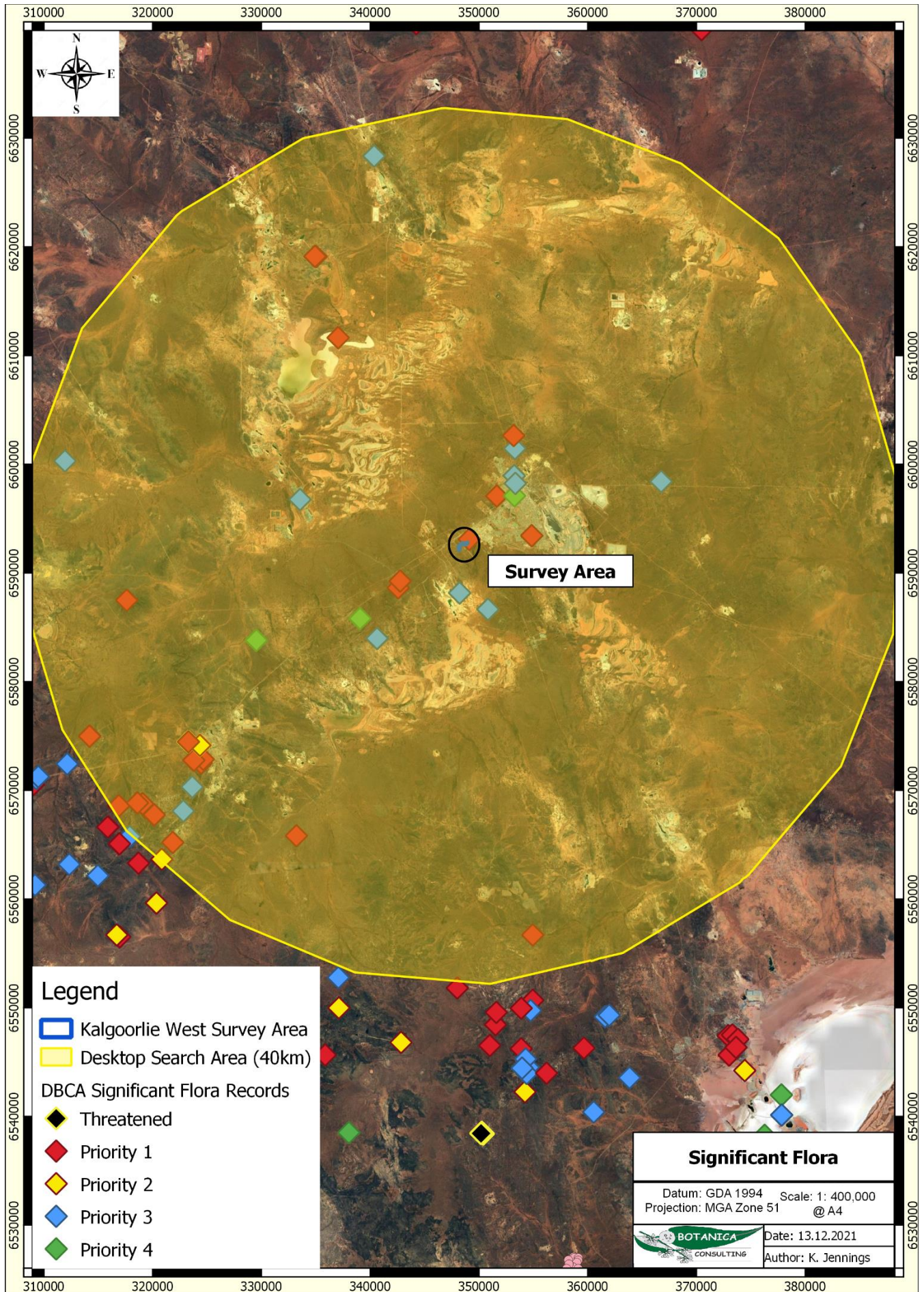


Figure 5-1: Significant flora within the desktop search area



## 5.1.2 Vegetation and Ecological Communities

### 5.1.2.1 Vegetation Associations

The Pre-European vegetation association spatial mapping dataset (DPIRD, 2018) identified the Coolgardie 9 vegetation association as occurring within the survey area (Figure 5-2). The association description and its remaining extent, as specified in the 2018 Statewide Vegetation Statistics (DBCA, 2019b) are provided in Table 5-3. Areas retaining less than 30% of their pre-European vegetation extent generally experience exponentially accelerated species loss, while areas with less than 10% are considered “endangered” (EPA, 2000). The Coolgardie 9 vegetation association retains >96% of its pre-European extent, and development within the survey area will not significantly reduce the current extent of this vegetation association.

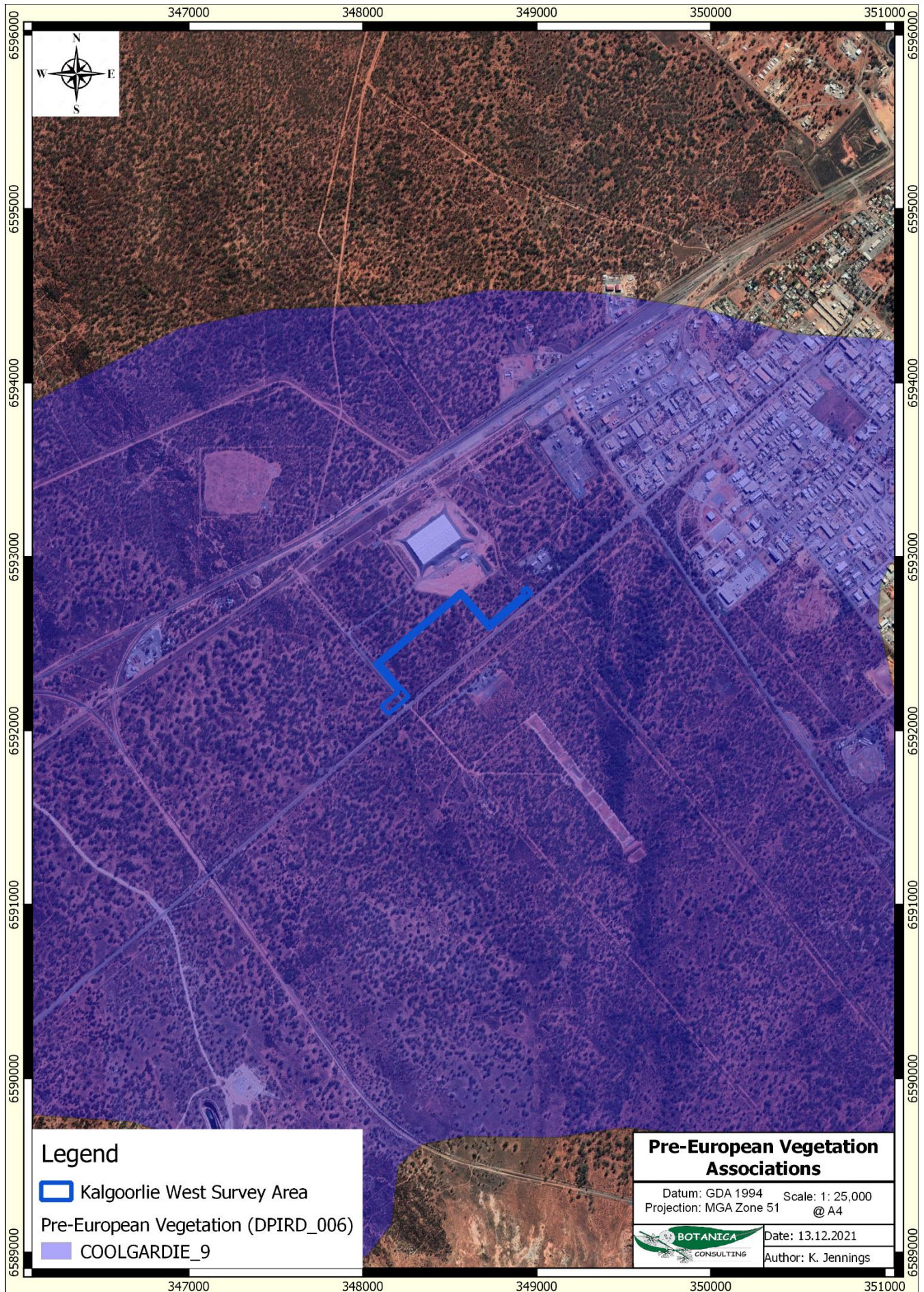
**Table 5-3: Pre-European vegetation associations within the survey area**

Vegetation Association	Current Extent (ha)	Pre-European extent remaining	% Protected for Conservation	Floristic Description	Extent within Survey Area
Coolgardie 9	95,688	96.88	-	Medium woodland; coral gum ( <i>Eucalyptus torquata</i> ) & goldfields blackbutt ( <i>E. lesouefii</i> )	4 ha (100%)

### 5.1.2.2 Significant Ecological Communities

The Protected Matters search (DAWE, 2020a) did not identify any Threatened Ecological Communities recorded within 40 km of the survey area. Analysis of the Priority Ecological Communities within the Goldfields region (DBCA, 2017) did not identify any significant vegetation assemblages as likely or possibly occurring within the survey area.





**Figure 5-2: Pre-European vegetation systems within the survey area**



### 5.1.3 Fauna

According to the results of the NatureMap search (DBCA, 2021b), a total of 263 terrestrial vertebrate fauna taxa have been recorded within 40 km of the survey area, consisting of 150 bird, 29 mammal, 78 reptile and six amphibian taxa. This total includes nine introduced (feral) species (3.4%).

#### 5.1.3.1 Introduced (Feral) Fauna

The NatureMap and EPBC database searches identified 14 feral fauna species, representing eight families, as potentially occurring in the survey area (Table 5-4).

**Table 5-4: Potentially occurring introduced fauna**

Family	Taxa	Common Name
Bovidae	<i>Bos taurus</i>	European Cattle
	<i>Capra hircus</i>	Goat
	<i>Ovis aries</i>	Sheep
Canidae	<i>Canis lupus familiaris</i>	Domestic Dog
	<i>Vulpus vulpus</i>	Red Fox
Columbidae	<i>Columba livia</i>	Domestic Pigeon
	<i>Streptopelia chinensis</i>	Spotted Turtle-Dove
	<i>Streptopelia senegalensis</i>	Laughing Turtle-Dove
Equidae	<i>Equus asinus</i>	Donkey, Ass
	<i>Equus caballus</i>	Horse
Felidae	<i>Felis catus</i>	Cat
Gekkonidae	<i>Hemidactylus frenatus</i>	Asian House Gecko
Leporidae	<i>Oryctolagus cuniculus</i>	Rabbit
Muridae	<i>Mus musculus</i>	House Mouse

#### 5.1.3.2 Conservation Significant Fauna

The desktop review identified ten terrestrial vertebrate fauna species of conservation significance as previously being recorded in the regional area, consisting of eight Threatened, and two migratory or otherwise protected species. In addition, 11 migratory wading/shorebird species were assessed collectively due to their similar habitat requirements. The full fauna likelihood assessment is listed in Appendix D.

Habitat and distribution data was used to determine the likelihood of occurrence within the survey area. The assessment identified one significant fauna species as potentially occurring in the survey area, listed as Vulnerable under the EPBC Act and BC Act (Table 5-5).

**Table 5-5: Potentially occurring significant fauna**

Species	Conservation Status			Habitat Description	Assessment	Likelihood
	EPBC Act	BC Act	DBCA Priority			
Malleefowl <i>Leipoa ocellata</i>	VU	VU	-	Scrublands and woodlands dominated by mallee and wattle species (DAWE, 2020b).	Possibly Occurs. Habitat likely marginal and unsuitable for breeding. Occasional transients only.	Possible

## 5.2 Field Assessment

### 5.2.1 Flora

The field survey identified 39 vascular flora taxa within the survey area. These taxa represented 21 genera across 14 families, with the most diverse families being Chenopodiaceae (12 species), Myrtaceae (six species) and Scrophulariaceae (five species). Dominant genera include *Eucalyptus* (six species), *Eremophila* (five species) and *Maireana* (four species). Of the flora recorded, two species (5.1%) were introduced (weed) species. The full field species inventory is listed in Appendix 5.

#### 5.2.1.1 Introduced Flora

A total of two species of introduced flora were recorded within the survey area (Table 5-6). Neither of these species are listed as a Weed of National Significance or a Declared Pest in Western Australia.

**Table 5-6: Introduced flora species within the survey area**

Family	Species	Common Name
Asteraceae	<i>Centaurea melitensis</i>	Maltese Cockspur
Brassicaceae	<i>Carrichtera annua</i>	Ward's Weed

#### 5.2.1.2 Significant Flora

According to the EPA *Environmental Factor Guideline for Flora and Vegetation* (EPA, 2016b) significant flora includes:

- flora being identified as threatened or priority species;
- locally endemic flora or flora associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems);
- new species or anomalous features that indicate a potential new species;
- flora 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; and
- flora with relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

No Threatened flora species were recorded within the survey area.

No Priority or otherwise significant flora were recorded within the survey area.



### 5.2.2 Vegetation Communities

A total of two broad-scale vegetation communities were identified within the survey area. Vegetation community descriptions and extent are listed below in Table 5-7 and illustrated spatially in Figure 5-3. Vegetation community descriptions and extents were determined from field survey results, aerial imagery interpretation and extrapolation of the communities.

The survey found CLP-MW1 was the most widespread community in the survey area, occupying 2.6 ha (65.0%), while CLP-EW1 was the most restricted with 1.1 ha (27.5%). The most diverse vegetation type was CLP-EW1 with 27 species (69.2%), while the least diverse was CLP-MW1 with 25 species (64.1%).



Table 5-7: Summary of vegetation types within the survey area

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Landform	Image
CLP-EW1 1.1 ha (27.5%)	Eucalyptus Woodland	<i>Eucalyptus salmonophloia</i> and <i>E. griffithsii</i> open woodland over <i>Eremophila scoparia</i> and <i>Acacia hemiteles</i> shrubland over <i>Ptilotus obovatus</i> , <i>Atriplex vesicaria</i> and <i>Maireana triptera</i> low sparse shrubland	Clay-loam plain	
CLP-MW1 2.6 ha (65.0%)	Eucalyptus Mallee Woodland	<i>Eucalyptus griffithsii</i> , <i>E. yilgarnensis</i> and <i>E. oleosa</i> open mallee woodland over <i>Acacia hemiteles</i> and <i>Eremophila scoparia</i> open shrubland over <i>Ptilotus obovatus</i> , <i>Scaevola spinescens</i> and <i>Maireana triptera</i> low sparse shrubland	Clay-loam plain	
0.3 ha (7.5%)	N/A	Cleared Vegetation	N/A	N/A



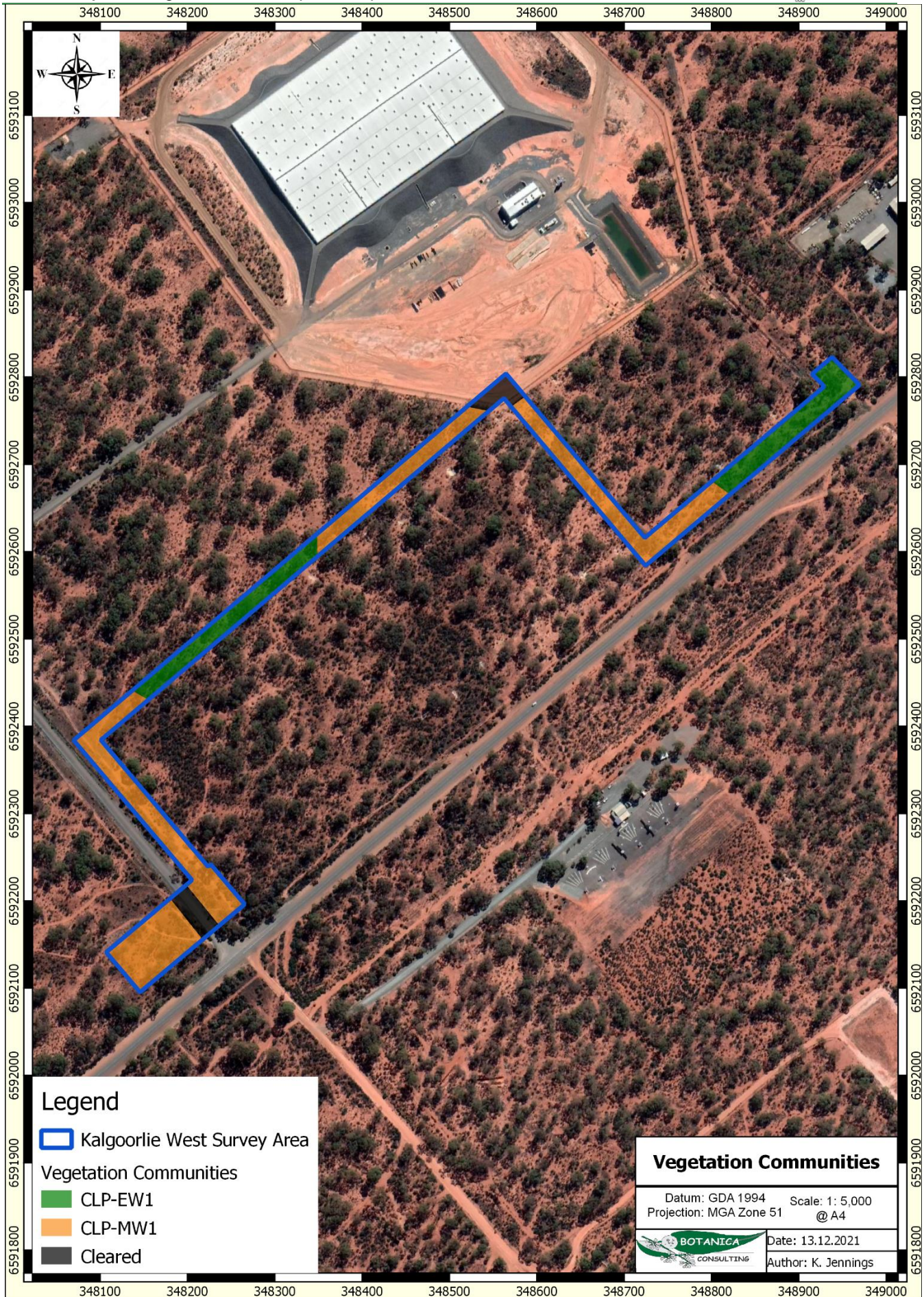


Figure 5-3: Vegetation types within the survey area



### 5.2.3 Vegetation Condition

Based on the vegetation condition rating scale adapted from Keighery (1994) and Trudgen, (1988), native vegetation within the survey area ranged from 'good to 'completely degraded'. (Table 5-8; Figure 5-4). Vegetation condition rating descriptions are listed in Appendix F. Disturbances within the survey area include access roads and cumulative historical impacts.

**Table 5-8: Vegetation condition rating within the survey area**

Condition rating	Description	Area (ha)	Area (%)
Good	Obvious signs of damage caused by human activity since European settlement, such as historical clearing, changed fire regimes and low levels of grazing by feral animals	3.7	92.5
Completely Degraded	Existing Clearing (access roads)	0.3	7.5
<b>TOTAL</b>		<b>4.0</b>	<b>100</b>





Figure 5-4: Vegetation condition within the survey area



#### 5.2.4 Significant Vegetation

According to the EPA *Environmental Factor Guideline for Flora and Vegetation* (EPA, 2016b) significant vegetation includes:

- vegetation being identified as threatened or priority ecological communities;
- vegetation with restricted distribution;
- vegetation subject to a high degree of historical impact from threatening processes;
- vegetation which provides a role as a refuge; and
- vegetation providing an important function required to maintain ecological integrity of a significant ecosystem.



No Threatened, Priority or otherwise significant ecological communities were identified within the survey area.

#### 5.2.5 Fauna Habitat

Based on vegetation and associated landforms identified during the flora and vegetation assessment, two broad scale terrestrial fauna habitats were identified as occurring within the survey area. Table 4-7 provides the area and a visual representation of fauna habitat types, and the extent of fauna habitats is shown spatially in Figure 5-5.



**Table 5-9: Main terrestrial fauna habitats within the survey area**

Fauna Habitat	Description	Representative Fauna Attributes	Conservation Significant Species that possibly occur in habitat	Example Image
<p><i>Eucalyptus</i> woodland on clay-loam plain</p> <p>Area= 2.6 ha (65.0%)</p>	<p><i>Eucalyptus</i> open woodland over <i>Acacia</i> and <i>Eremophila</i> shrubland over mixed low shrubland</p>	<ul style="list-style-type: none"> <li>• Ground not especially suited to burrowing species.</li> <li>• Moderately diverse vegetation strata supporting diverse avifauna assemblage.</li> <li>• Moderately dense vegetation and low to moderate leaf litter.</li> </ul>	<p>Malleefowl <i>Leipoa ocellata</i></p>	
<p><i>Eucalyptus</i> mallee woodland on clay-loam plain</p> <p>Area= 1.1 ha (27.5%)</p>	<p><i>Eucalyptus</i> open mallee woodland over <i>Acacia</i> and <i>Eremophila</i> shrubland over mixed low shrubland</p>	<ul style="list-style-type: none"> <li>• Ground not especially suited to burrowing species.</li> <li>• Moderately diverse vegetation strata supporting diverse avifauna assemblage.</li> <li>• Low to moderately dense vegetation and moderate leaf litter.</li> </ul>	<p>Malleefowl <i>Leipoa ocellata</i></p>	



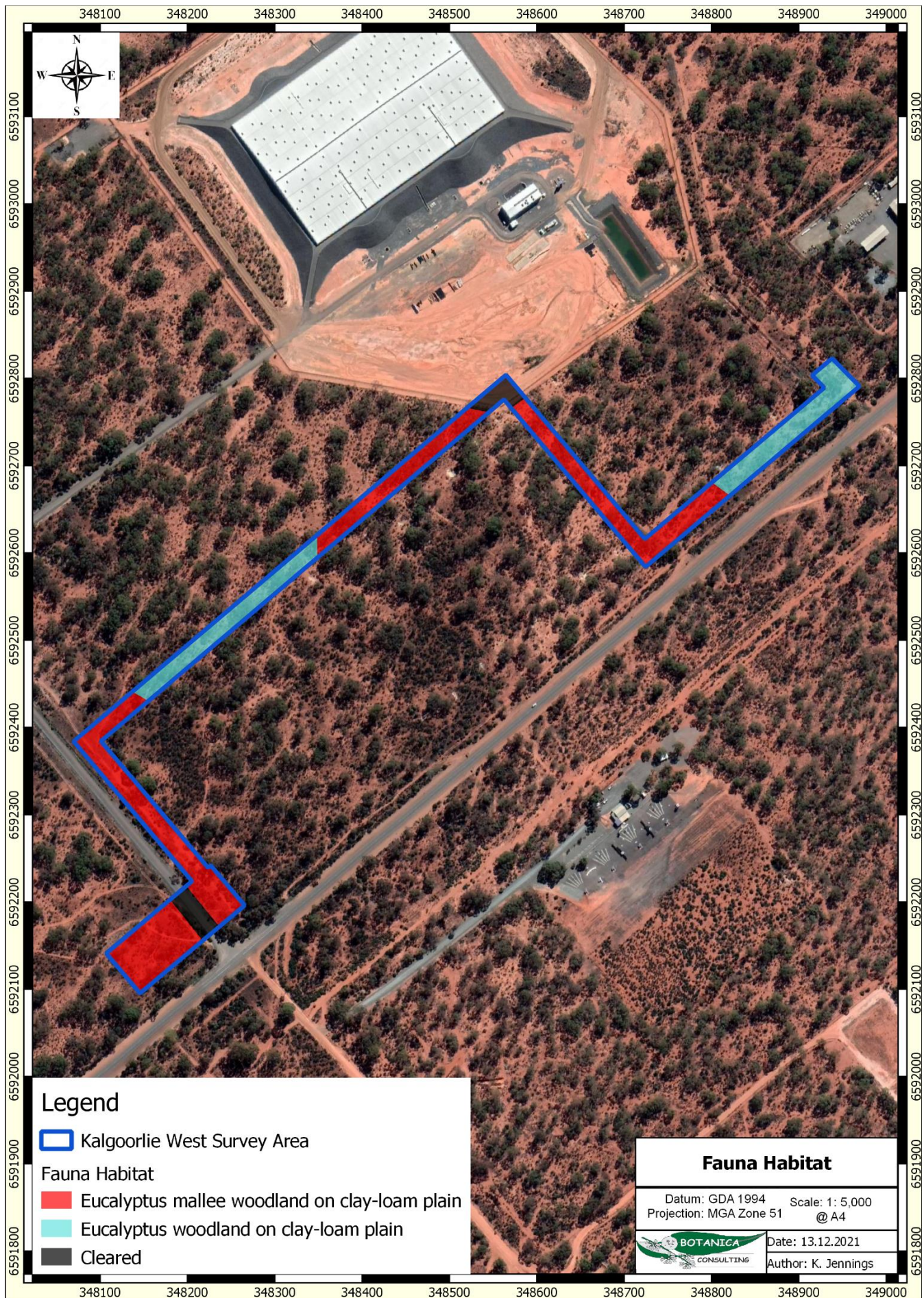


Figure 5-5: Fauna habitats within the survey area



### 5.2.6 Significant Fauna

According to the EPA *Environmental Factor Guideline for Terrestrial Fauna* (EPA, 2016c) significant fauna includes:

- Fauna being identified as a Threatened or Priority species;
- Fauna species with restricted distribution;
- Fauna subject to a high degree of historical impact from threatening processes; and
- Fauna providing an important function required to maintain the ecological integrity of a significant ecosystem.

No evidence of significant fauna species were observed during the field survey.

The current status of some species on site and/or in the general area is difficult to determine, however, based on the habitats present and, in some cases, direct observations or recent nearby records, the following species of conservation significance can be regarded as possibly utilising the survey area for some purpose at times, these being:

- **Malleefowl (*Leipoa ocellata*) - Vulnerable (EPBC Act and BC Act)**

This species is occasionally recorded in the Eastern Goldfields subregion. Habitat appears marginal/or unsuitable for breeding due to the open nature of the vegetation. No evidence of current or recent malleefowl activity (inactive or active mounds, tracks, feathers or bird observations etc.) were observed within the survey area. Significant impact unlikely.

It should be noted that while habitats onsite for the species listed above are considered possibly suitable, some or all may be marginal in extent/quality and therefore the fauna species considered as possibly occurring may in fact only visit the area for short periods as infrequent vagrants.

### 5.3 Matters of National Environmental Significance

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

The EPBC Act protects matters of national environmental significance and is used by the Commonwealth DAWE to list threatened taxa and ecological communities into categories based on the criteria set out in the Act ([www.environment.gov.au/epbc/index.html](http://www.environment.gov.au/epbc/index.html)). The Act provides a national environmental assessment and approval system for proposed developments and enforces strict penalties for unauthorised actions that may affect matters of national environmental significance. Matters of national environmental significance as defined by the Commonwealth EPBC Act include:

- Nationally threatened flora and fauna species;
- World heritage properties;
- National heritage places;
- Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed);
- Nationally threatened ecological communities;
- Commonwealth marine area;
- The Great Barrier Reef Marine Park; and
- Nuclear actions (including uranium mining) a water resource, in relation to coal seam gas development and large coal mining development.

No matters of national environmental significance as defined by the Commonwealth EPBC Act were identified within the survey area.

### 5.4 Matters of State Environmental Significance

#### 5.4.1 *Environmental Protection Act WA 1986*

The EP Act provides for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment. The Act is administered by The Department of Water and Environment Regulation (DWER), which is the State Government's environmental regulatory agency.

Under Section 51C of the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations (Regulations) WA 2004* any clearing of native vegetation in Western Australia that is not eligible for exemption under Schedule 6 of the *EP Act 1986* or under the Regulations 2004 requires a clearing permit from the DWER or DMIRS. Under Section 51A of the *EP Act 1986* native vegetation includes aquatic and terrestrial vegetation indigenous to Western Australia, and intentionally planted vegetation declared by regulation to be native vegetation, but not vegetation planted in a plantation or planted with commercial intent. Section 51A of the *EP Act 1986* defines clearing as "the killing or destruction of; the removal of; the severing or ringbarking of trunks or stems of; or the doing of substantial damage to some or all of the native vegetation in an area, including the flooding of land, the burning of vegetation, the grazing of stock or an act or activity that results in the above". Exemptions under Schedule 6 of the EP Act and the EP Regulations do not apply in ESAs as declared under Section 51B of the EP Act or TEC listed under State and Commonwealth legislation.

No evidence of the survey area containing any TEC or Threatened flora or fauna was found during the survey period. The survey area is not located within an ESA.



#### 5.4.2 Biodiversity Conservation Act 2016

This Act is used by the Western Australian DBCA for the conservation and protection of biodiversity and biodiversity components in Western Australia and to promote the ecologically sustainable use of biodiversity components in the State. Taxa are classified as 'Threatened' when their populations are geographically restricted or are threatened by local processes (see following sections for Threatened definitions). Under this Act all native flora and fauna are protected throughout the State. Financial penalties are enforced under this Act if threatened species are collected without an appropriate license.

Under Section 54(1) of the BC Act, habitat is eligible for listing as critical habitat if:

- a) it is critical to the survival of a threatened species or a threatened ecological community; and
- b) its listing is otherwise in accordance with the ministerial guidelines.

No threatened species or critical habitat listed under the BC Act were recorded within the survey area.

### 5.5 Other areas of Conservation Significance

The DBCA lists 'Priority' species and communities which are under consideration for declaration as 'Threatened' under the BC Act. These Priority species/ communities have no formal legal protection until they are endorsed by the Minister as being Threatened.

No Priority species or PEC as listed DBCA were identified within the survey area.

No Environmentally Sensitive Areas were identified within the survey area.

There are no wetlands of international importance (Ramsar Wetlands) or national importance (Australian Nature Conservation Agency Wetlands) within the survey area.

There are no proposed or gazetted conservation reserves within the survey area. Both proposed and gazetted conservation reserves are managed by DBCA with gazetted conservation reserves vested with the Conservation and Parks Commission of Western Australia. The Conservation and Parks Commission is an independent statutory authority that was established under the Conservation and Land Management (CALM) Act 1984 in November 2000 and is the controlling body in which the State's conservation estate, including national parks, conservation parks, nature reserves, state forests and timber reserves, are vested. The Conservation and Parks Commission develops policies and provides independent advice to the Minister for Environment with respect to conservation, the management of ecological biodiversity and the application of ecologically sustainable forest management. The DBCA manages land on behalf of the Conservation and Parks Commission.

The closest significant environmental feature is the Kurrawang Hills Nature Reserve, which is DBCA-managed land located approximately 4.7 km south-west of the survey area. Disturbances within the survey area are unlikely to impact this area. The location of proposed and vested Conservation Reserves, ESA's and Nationally Important Wetlands in relation to the survey area is provided in Figure 4 3.



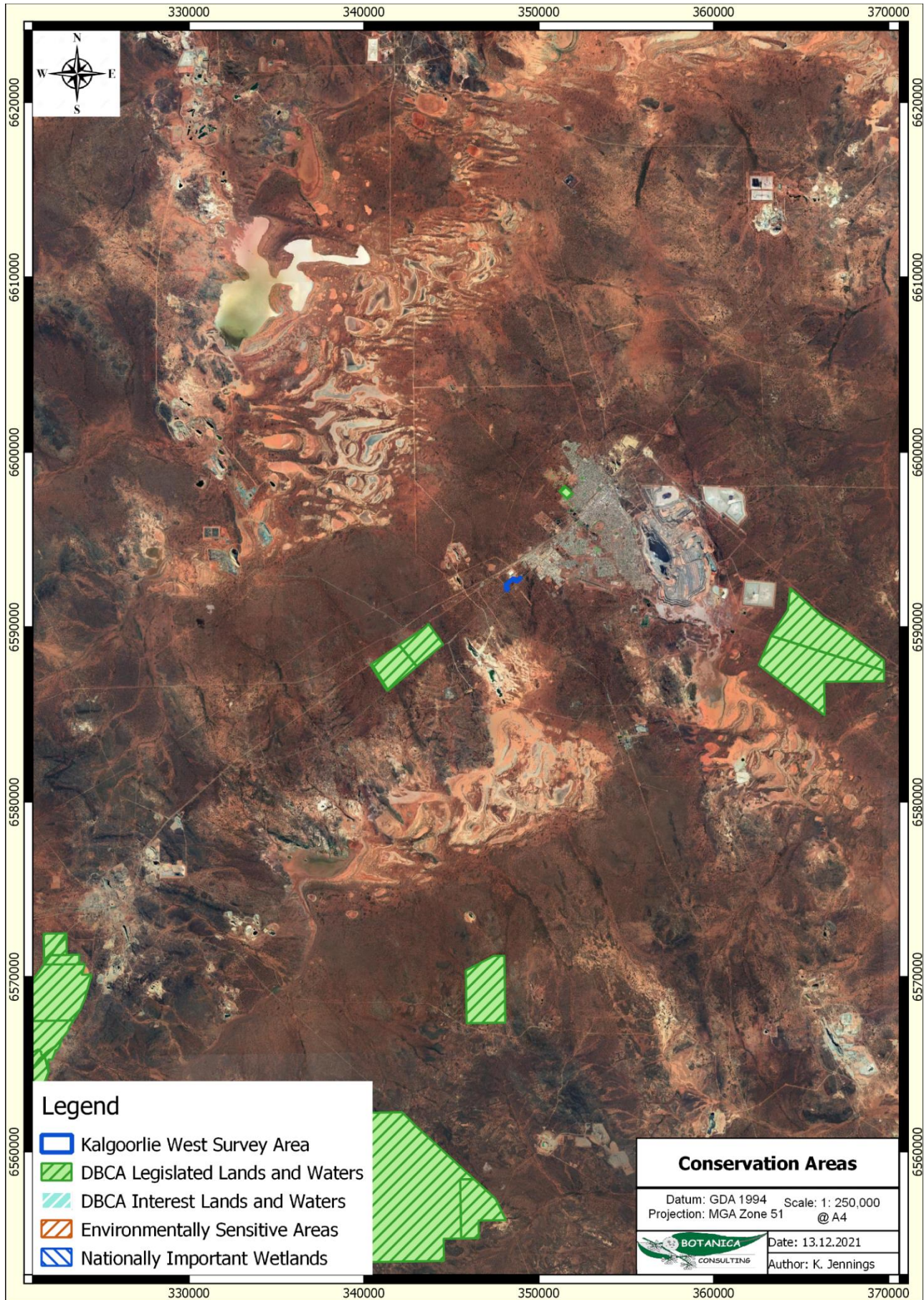


Figure 5-6: Areas of conservation significance



## 5.6 Native Vegetation Clearing Principles

Based on the outcomes from the survey undertaken, Botanica assessed the results of the desktop and field survey with regards to the native vegetation clearing principles listed under Schedule 5 of the EP Act (Table 5-10). The assessment found that the proposed vegetation clearing activities are unlikely to be at variance with any of the clearing principles.

**Table 5-10: Assessment against native vegetation clearing principles**

Letter	Principle	Assessment	Outcome
<b>Native vegetation should not be cleared if it:</b>			
(a)	comprises a high level of biological diversity.	Vegetation within the survey area is considered to be of low biological diversity and is well represented outside of the survey area.  There are no Threatened or Priority Ecological Communities within the survey area.	Clearing is unlikely to be at variance with this principle
(b)	comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to WA.	The basic fauna search did not record any evidence for the presence of significant fauna or habitat within the survey area.	Clearing is unlikely to be at variance with this principle
(c)	includes, or is necessary for the continued existence of rare flora.	No Threatened Flora taxa, pursuant to the BC Act and the EPBC Act were identified within the survey area.	Clearing is unlikely to be at variance with this principle
(d)	comprises the whole or part of or is necessary for the maintenance of a threatened ecological community (TEC).	No TEC listed under the EPBC Act or by the BC Act occur within the survey area.	Clearing is not at variance with this principle
(e)	is significant as a remnant of native vegetation in an area that has been extensively cleared	The Coolgardie 9 vegetation association retain >96% of its original pre-European vegetation extent.	Clearing is unlikely to be at variance with this principle
(f)	is growing, in, or in association with, an environment associated with a watercourse or wetland	No permanent or ephemeral water bodies or drainage lines were identified within the survey area.	Clearing is unlikely to be at variance with this principle
(g)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The survey area and surrounding region has not been extensively cleared. Clearing within the survey area is not considered likely to lead to land degradation issues such as salinity, water logging or acidic soils.	Clearing is unlikely to be at variance with this principle
(h)	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.	The survey area is not located within or adjacent to conservation areas, Environmentally Sensitive Areas or Nationally Important Wetlands.	Clearing is unlikely to be at variance with this principle
(i)	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.	No permanent or ephemeral water bodies or drainage lines were identified within the survey area. No known or potential GDE's were identified within the survey area.	Clearing is unlikely to be at variance with this principle
(j)	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	Rainfall in the Eastern Goldfields subregion has an average rainfall of 200-300mm and an evaporation rate of 2400 mm. Rainfall data for Kalgoorlie-Boulder indicates that rainfall is spread throughout the year and rainfall events are unlikely to result in localised flooding. Clearing within the survey area is not likely to	Clearing is unlikely to be at variance with this principle

Letter	Principle	Assessment	Outcome
	Native vegetation should not be cleared if it:		
		increase the incidence or intensity of flooding within the survey area or surrounds.	



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## APPENDIX A: CONSERVATION RATINGS BC ACT AND EPBC ACT

### Definitions of Conservation Significant Species

Code	Category
State categories of Threatened and Priority species	
<b>Threatened Species (T)</b>	
Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as Threatened species under section 26(2) of the Biodiversity Conservation Act 2016 (BC Act).	
CR	<p><b>Critically Endangered</b></p> <p>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”.</p> <p>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. Published under schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for critically endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for critically endangered flora.</p>
EN	<p><b>Endangered</b></p> <p>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”.</p> <p>Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for endangered flora.</p>
VU	<p><b>Vulnerable</b></p> <p>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”.</p> <p>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. Published under schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for vulnerable fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for vulnerable flora.</p>
<b>Extinct species</b>	
Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.	
EX	<p><b>Extinct</b></p> <p>Species where “<i>there is no reasonable doubt that the last member of the species has died</i>”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).</p> <p>Published as presumed extinct under schedule 4 of the <i>Wildlife Conservation (Specially Protected Fauna) Notice 2018</i> for extinct fauna or the <i>Wildlife Conservation (Rare Flora) Notice 2018</i> for extinct flora.</p>
EW	<p><b>Extinct in the Wild</b></p> <p>Species that “<i>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</i>”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).</p> <p>Currently there are no Threatened fauna or Threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.</p>
<b>Specially protected species</b>	
Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.	
Species that are listed as Threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.	
IA	<p><b>International Agreement/ Migratory</b></p> <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 <i>Convention on the Conservation of Migratory Species of Wild Animals</i> (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> <p>Published as migratory birds protected under an international agreement under schedule 5 of the <i>Wildlife Conservation (Specially Protected Fauna) Notice 2018</i>.</p>



Code	Category
CD	<p><b>Species of special conservation interest</b> Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as Threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act). Published as conservation dependent fauna under schedule 6 of the <i>Wildlife Conservation (Specially Protected Fauna) Notice 2018</i>.</p>
OS	<p><b>Other specially protected species</b> 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). Published as other specially protected fauna under schedule 7 of the <i>Wildlife Conservation (Specially Protected Fauna) Notice 2018</i>.</p>
<p><b>Priority species</b> Possibly Threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of Priority for survey and evaluation of conservation status so that consideration can be given to their declaration as Threatened Fauna or Flora. 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.</p>	
P1	<p><b>Priority 1: Poorly-known species</b> 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>
P2	<p><b>Priority 2: Poorly-known species</b> 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>
P3	<p><b>Priority 3: Poorly-known species</b> 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>
P4	<p><b>Priority 4: Rare, Near Threatened and other species in need of monitoring</b> (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands. (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent. (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.</p>
<p><b>Commonwealth categories of Threatened species</b></p>	
EX	<p><b>Extinct</b> Taxa where there is no reasonable doubt that the last member of the species has died.</p>
EW	<p><b>Extinct in the Wild</b> Taxa where it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.</p>
CR	<p><b>Critically Endangered</b> Taxa that are facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.</p>
EN	<p><b>Endangered</b> Taxa which are 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.</p>

Code	Category
VU	<p><b>Vulnerable</b></p> <p>Taxa which are not critically endangered or endangered and is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.</p>
CD	<p><b>Conservation Dependent</b></p> <p>Taxa which are the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered; or (b) the following subparagraphs are satisfied:</p> <p>(i) the species is a species of fish;</p> <p>(ii) the species is the focus of a plan of management that provides for actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long term survival in nature are maximised;</p> <p>(iii) the plan of management is in force under a law of the Commonwealth or of a State or Territory;</p> <p>(iv) cessation of the plan of management would adversely affect the conservation status of the species.</p>

### Definitions of conservation significant communities

Category Code	Category
<b>State categories of Threatened Ecological Communities (TEC)</b>	
PD	<p><b>Presumed Totally Destroyed</b></p> <p>An ecological community will be listed as Presumed Totally Destroyed if there are no recent records of the community being extant and either of the following applies:</p> <ul style="list-style-type: none"> <li>records within the last 50 years have not been confirmed despite thorough searches or known likely habitats or;</li> <li>all occurrences recorded within the last 50 years have since been destroyed.</li> </ul>
	<p><b>Critically Endangered</b></p> <p>An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future, meeting any one of the following criteria:</p> <p>The estimated geographic range and distribution has been reduced by at least 90% and is either continuing to decline with total destruction imminent, or is unlikely to be substantially rehabilitated in the immediate future due to modification;</p> <p>The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;</p> <p>The ecological community is highly modified with potential of being rehabilitated in the immediate future.</p>
	<p><b>Endangered</b></p> <p>An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. The ecological community must meet any one of the following criteria:</p> <p>The estimated geographic range and distribution has been reduced by at least 70% and is either continuing to decline with total destruction imminent in the short-term future, or is unlikely to be substantially rehabilitated in the short-term future due to modification;</p> <p>The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;</p> <p>The ecological community is highly modified with potential of being rehabilitated in the short-term future.</p>
VU	<p><b>Vulnerable</b></p> <p>An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing high risk of total destruction in the medium to long term future. The ecological community must meet any one of the following criteria:</p> <p>The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated;</p> <p>The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution;</p> <p>The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.</p>

Category Code	Category
<b>Commonwealth categories of Threatened Ecological Communities (TEC)</b>	
CE	<b>Critically Endangered</b> If, at that time, an ecological community is facing an extremely high risk of extinction in the wild in the immediate future (indicative timeframe being the next 10 years).
EN	<b>Endangered</b> If, at that time, an ecological community is not critically endangered but is facing a very high risk of extinction in the wild in the near future (indicative timeframe being the next 20 years).
VU	<b>Vulnerable</b> If, at that time, an ecological community is not critically endangered or endangered, but is facing a high risk of extinction in the wild in the medium-term future (indicative timeframe being the next 50 years).
<b>Priority Ecological Communities</b>	
P1	<b>Poorly-known ecological communities</b>
	Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist.
P2	<b>Poorly-known ecological communities</b>
	Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, un-allocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation.
P3	<b>Poorly known ecological communities</b>
	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 within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or;
P4	Communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing and inappropriate fire regimes.
	<b>Ecological communities that are adequately known, rare but not threatened</b> or meet criteria for near threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.
P5	<b>Conservation Dependent ecological communities</b>
	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.



## APPENDIX B: POTENTIALLY OCCURRING INTRODUCED (WEED) FLORA SPECIES

Family	Taxon	Common Name	WAOL Status	Control Category	WONS
Aizoaceae	<i>Aizoon pubescens</i>	-	Permitted - s11	No Control Category	No
	<i>Mesembryanthemum crystallinum</i>	Iceplant	Permitted - s11	No Control Category	No
	<i>Mesembryanthemum nodiflorum</i>	Slender Iceplant	Permitted - s11	No Control Category	No
Amaranthaceae	<i>Amaranthus viridis</i>	Green Amaranth	Permitted - s11	No Control Category	No
Anacardiaceae	<i>Schinus molle</i> var. <i>areira</i>	-	Permitted - s11	No Control Category	No
Apocynaceae	<i>Asclepias curassavica</i>	Redhead Cottonbush	Permitted - s11	No Control Category	No
	<i>Orbea variegata</i>	-	Permitted - s11	No Control Category	No
Asparagaceae	<i>Agave americana</i>	Century Plant	Permitted - s11	No Control Category	No
Asteraceae	<i>Arctotheca calendula</i>	Cape Weed, African Marigold	Permitted - s11	No Control Category	No
	<i>Carthamus lanatus</i>	Saffron Thistle	Permitted - s11	No Control Category	No
	<i>Centaurea melitensis</i>	Maltese Cockspur, Malta Thistle	Permitted - s11	No Control Category	No
	<i>Cichorium intybus</i>	Chicory	Permitted - s11	No Control Category	No
	<i>Conyza bonariensis</i>	Flaxleaf Fleabane	Permitted - s11	No Control Category	No
	<i>Conyza sumatrensis</i>	-	Permitted - s11	No Control Category	No
	<i>Gazania linearis</i>	-	Permitted - s11	No Control Category	No
	<i>Helianthus annuus</i>	Sunflower, Common Sunflower	Permitted - s11	No Control Category	No
	<i>Lactuca serriola</i> forma <i>serriola</i>	-	Permitted - s11	No Control Category	No
	<i>Monoculus monstrosus</i>	-	Permitted - s11	No Control Category	No
	<i>Oligocarpus calendulaceus</i>	-	Permitted - s11	No Control Category	No
	<i>Oncosiphon suffruticosum</i>	Calomba Daisy	Permitted - s11	No Control Category	No
	<i>Sonchus oleraceus</i>	Common Sowthistle	Permitted - s11	No Control Category	No
	<i>Symphotrichum squamatum</i>	Bushy Starwort	Permitted - s11	No Control Category	No
<i>Xanthium spinosum</i>	Spiny Cocklebur	Permitted - s11	No Control Category	No	
Boraginaceae	<i>Buglossoides arvensis</i>	Corn Gromwell	Permitted - s11	No Control Category	No
	<i>Echium plantagineum</i>	Paterson's Curse	Declared Pest - s22(2)	No Control Category, Whole of State	No
	<i>Heliotropium europaeum</i>	Common Heliotrope	Permitted - s11	No Control Category	No
	<i>Heliotropium supinum</i>	Prostrate Heliotrope	Permitted - s11	No Control Category	No
Brassicaceae	<i>Alyssum linifolium</i>	Flax-leaf Alyssum	Permitted - s11	No Control Category	No
	<i>Brassica tournefortii</i>	Mediterranean Turnip	Permitted - s11	No Control Category	No
	<i>Capsella bursa-pastoris</i>	Shepherd's Purse	Permitted - s11	No Control Category	No
	<i>Carrichtera annua</i>	Ward's Weed	Permitted - s11	No Control Category	No
	<i>Sisymbrium irio</i>	London Rocket	Permitted - s11	No Control Category	No
	<i>Sisymbrium orientale</i>	Indian Hedge Mustard	Permitted - s11	No Control Category	No
Cactaceae	<i>Cylindropuntia fulgida</i> var. <i>mamillata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Cylindropuntia imbricata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Cylindropuntia kleiniae</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Cylindropuntia tunicata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Opuntia elata</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes
	<i>Opuntia ficus-indica</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	Yes

Family	Taxon	Common Name	WAOL Status	Control Category	WONS
Caryophyllaceae	<i>Spergularia diandra</i>	Lesser Sand Spurry	Permitted - s11	No Control Category	No
Chenopodiaceae	<i>Chenopodium album</i>	Fat Hen	Permitted - s11	No Control Category	No
	<i>Chenopodium murale</i>	Nettle-leaf Goosefoot	Permitted - s11	No Control Category	No
Crassulaceae	<i>Bryophyllum delagoense</i>	-	Permitted - s11	No Control Category	No
Cucurbitaceae	<i>Cucumis myriocarpus</i> subsp. <i>myriocarpus</i>	Paddy Melon	Permitted - s11	No Control Category	No
Didiereaceae	<i>Portulacaria afra</i>	-	Permitted - s11	No Control Category	No
Fabaceae	<i>Acacia pycnantha</i>	Golden Wattle	Permitted - s11	No Control Category	No
	<i>Alhagi maurorum</i>	-	Declared Pest - s22(2)	C3 Management, Whole of State	No
	<i>Erythrostemon gilliesii</i>	-	Permitted - s11	No Control Category	No
	<i>Medicago minima</i>	Small Burr Medic	Permitted - s11	No Control Category	No
	<i>Medicago polymorpha</i>	Burr Medic	Permitted - s11	No Control Category	No
	<i>Vicia monantha</i> subsp. <i>triflora</i>	-	Permitted - s11	No Control Category	No
Geraniaceae	<i>Erodium aureum</i>	-	Permitted - s11	No Control Category	No
	<i>Erodium cicutarium</i>	Common Storksbill	Permitted - s11	No Control Category	No
Lamiaceae	<i>Marrubium vulgare</i>	Horehound	Permitted - s11	No Control Category	No
	<i>Salvia reflexa</i>	Mintweed	Permitted - s11	No Control Category	No
	<i>Salvia verbenaca</i>	Wild Sage	Permitted - s11	No Control Category	No
Lythraceae	<i>Lythrum hyssopifolia</i>	Lesser Loosestrife	Permitted - s11	No Control Category	No
Malvaceae	<i>Malva parviflora</i>	Marshmallow	Permitted - s11	No Control Category	No
Oxalidaceae	<i>Oxalis bowiei</i>	Bowie Wood Sorrel	Permitted - s11	No Control Category	No
	<i>Oxalis pes-caprae</i>	Soursob	Permitted - s11	No Control Category	No
Papaveraceae	<i>Argemone ochroleuca</i> subsp. <i>ochroleuca</i>	-	Permitted - s11	No Control Category	No
	<i>Papaver hybridum</i>	Rough Poppy	Permitted - s11	No Control Category	No
Plumbaginaceae	<i>Limonium sinuatum</i>	Perennial Sea Lavender	Permitted - s11	No Control Category	No
Poaceae	<i>Bromus catharticus</i>	Prairie Grass	Permitted - s11	No Control Category	No
	<i>Bromus diandrus</i>	Great Brome	Permitted - s11	No Control Category	No
	<i>Cenchrus ciliaris</i>	Buffel Grass	Permitted - s11	No Control Category	No
	<i>Cenchrus setaceus</i>	Fountain Grass	Permitted - s11	No Control Category	No
	<i>Ehrharta villosa</i>	Pyp Grass	Permitted - s11	No Control Category	No
	<i>Eragrostis curvula</i>	African Lovegrass	Permitted - s11	No Control Category	No
	<i>Hordeum glaucum</i>	Northern Barley Grass	Permitted - s11	No Control Category	No
	<i>Hordeum leporinum</i>	Barley Grass	Permitted - s11	No Control Category	No
	<i>Pentameris airoides</i> subsp. <i>airoides</i>	-	Permitted - s11	No Control Category	No
	<i>Phalaris paradoxa</i>	Paradoxa Grass	Permitted - s11	No Control Category	No
	<i>Rostraria pumila</i>	-	Permitted - s11	No Control Category	No
	<i>Schismus arabicus</i>	Araby Grass	Permitted - s11	No Control Category	No
	<i>Schismus barbatus</i>	Kelch Grass	Permitted - s11	No Control Category	No
	<i>Sorghum halepense</i>	Johnson Grass	Permitted - s11	No Control Category	No
	<i>Urochloa panicoides</i>	-	Permitted - s11	No Control Category	No
Polygonaceae	<i>Polygonum aviculare</i>	Wireweed	Permitted - s11	No Control Category	No
	<i>Rumex vesicarius</i>	Ruby Dock	Permitted - s11	No Control Category	No
Solanaceae	<i>Datura ferox</i>	Fierce Thornapple	Permitted - s11	No Control Category	No
	<i>Datura innoxia</i>	-	Permitted - s11	No Control Category	No
	<i>Lycium ferocissimum</i>	African Boxthorn	Permitted - s11	No Control Category	Yes

Family	Taxon	Common Name	WAOL Status	Control Category	WONS
	<i>Nicotiana glauca</i>	Tree Tobacco	Permitted - s11	No Control Category	No
	<i>Solanum nigrum</i>	Black Berry Nightshade	Permitted - s11	No Control Category	No
Urticaceae	<i>Urtica urens</i>	Small Nettle	Permitted - s11	No Control Category	No
Verbenaceae	<i>Glandularia aristigera</i>	-	Permitted - s11	No Control Category	No
Verbenaceae	<i>Phyla canescens</i>	-	Permitted - s11	No Control Category	No
Zygophyllaceae	<i>Tribulus terrestris</i>	Caltrop	Permitted - s11	No Control Category	No



## APPENDIX C: SIGNIFICANT FLORA LIKELIHOOD ASSESSMENT

Status			Taxon	Habitat	Comments	Likelihood
EPBC Act	BC Act	DBCA				
EN	EN	-	<i>Gastrolobium graniticum</i>	Sand, sandy loam, granite. Margins of rock outcrops, along drainage lines.	Outside known range of species	Unlikely
EN	EN	-	<i>Thelymitra stellata</i>	Sand, gravel, lateritic loam.	Outside known range of species	Unlikely
-	-	P1	<i>Acacia coatesii</i>	Red soil, low rocky hills	Outside known range of species	Unlikely
-	-	P1	<i>Acacia websteri</i>	Red sand, clay or loam. Low-lying areas, flats.	Outside known range of species	Unlikely
-	-	P1	<i>Dampiera luteiflora</i>	Yellow sand, sandy gravel. Sandplains.	Habitat unlikely to be present	Unlikely
-	-	P1	<i>Eremophila praecox</i>	Red/brown sandy loam. Undulating plains.	Within known range, habitat may be present	Possible
-	-	P1	<i>Eremophila xantholaema</i>	-	Outside known range of species	Unlikely
-	-	P1	<i>Phebalium appressum</i>	Yellow sandplain.	Outside known range of species	Unlikely
-	-	P1	<i>Ptilotus chortophytus</i>	Rocky hills, quartz	Outside known range of species	Unlikely
-	-	P1	<i>Ptilotus procumbens</i>	Red clay.	Outside known range of species	Unlikely
-	-	P1	<i>Rhodanthe uniflora</i>	Brown earth. Open eucalyptus woodland.	Within known range, habitat may be present	Possible
-	-	P1	<i>Thryptomene</i> sp. Coolgardie (E. Kelso s.n. 1902)	-	Outside known range of species	Unlikely
-	-	P1	<i>Thryptomene planiflora</i>	-	Outside known range of species	Unlikely
-	-	P2	<i>Austrostipa</i> sp. Dowerin (G. Wiehl F 8004)	-	Outside known range of species	Unlikely
-	-	P2	<i>Elachanthus pusillus</i>	-	Outside known range of species	Unlikely
-	-	P2	<i>Goodenia salina</i>	Well-drained, saline, grey or brown loamy clay. Low gypseous dunes near salt pans.	Outside known range of species	Unlikely
-	-	P2	<i>Hakea rigida</i>	Sandy soils, yellow sand.	Outside known range of species	Unlikely
-	-	P2	<i>Lepidium merrallii</i>	Clay loam.	Outside known range of species	Unlikely
-	-	P3	<i>Alyxia tetanifolia</i>	Sandy clay, loam, concretionary gravel. Drainage lines, near lakes.	Outside known range of species	Unlikely
-	-	P3	<i>Angianthus prostratus</i>	Red clay or loamy soils. Saline depressions.	Outside known range of species	Unlikely
-	-	P3	<i>Austrostipa blackii</i>	-	Outside known range of species	Unlikely
-	-	P3	<i>Chrysocephalum apiculatum</i> subsp. <i>norsemanense</i>	Red sandy soils	Within known range, habitat may be present	Possible
-	-	P3	<i>Cyathostemon verrucosus</i>	-	Outside known range of species	Unlikely
-	-	P3	<i>Gompholobium cinereum</i>	Yellow sand, clayey sand, brown loam, sandy gravel, laterite. Well-drained open sites, slopes, plains, roadsides.	Outside known range of species	Unlikely
-	-	P3	<i>Grevillea georgeana</i>	Stony loam/clay. Ironstone hilltops & slopes.	Outside known range of species	Unlikely
-	-	P3	<i>Isolepis australiensis</i>	Silty sand, sandy clay. Lake margins, pools.	Outside known range of species	Unlikely
-	-	P3	<i>Lepidium fasciculatum</i>	-	Little known, scattered but widespread records	Possible
-	-	P3	<i>Melaleuca coccinea</i>	Sandy loam over granite. Granite outcrops, sandplain, river valleys.	Within known range, habitat unlikely to be present	Unlikely
-	-	P3	<i>Notisia intonsa</i>	Red/brown clay, stony saline loam.	Within known range, habitat may be present	Possible

Status			Taxon	Habitat	Comments	Likelihood
EPBC Act	BC Act	DBCA				
-	-	P3	<i>Phlegmatospermum eremaeum</i>	Stony loam.	Widespread, scattered range, habitat may be present	Possible
-	-	P4	<i>Eremophila caerulea</i> subsp. <i>merrallii</i>	Sand, clay or loam. Undulating plains.	Within known range, habitat may be present	Possible
-	-	P4	<i>Eucalyptus jutsonii</i> subsp. <i>jutsonii</i>	Red to pale orange deep sands. Undulating areas and on dunes.	Within known range, habitat may be present	Possible
-	-	P4	<i>Eucalyptus websteriana</i> subsp. <i>websteriana</i>	Rocky rises.	Outside known range of species	Unlikely
-	-	P4	<i>Frankenia glomerata</i>	White sand.	Outside known range of species	Unlikely

## APPENDIX D: SIGNIFICANT FAUNA LIKELIHOOD ASSESSMENT

Species	Conservation Status			Habitat Description	Assessment	Likelihood
	EPBC Act	BC Act	DFCA Priority			
Night Parrot <i>Pezoporus occidentalis</i>	EN	CR	-	Most habitat records are of <i>Triodia</i> (Spinifex) grasslands and/or chenopod shrublands in the arid and semi-arid zones, or <i>Astrelba</i> spp. (Mitchell grass), shrubby samphire and chenopod associations, scattered trees and shrubs, <i>Acacia aneura</i> (Mulga) woodland, treeless areas and bare gibber are associated with sightings of the species. Roosting and nesting sites are consistently reported as within clumps of dense vegetation, primarily old and large Spinifex ( <i>Triodia</i> ) clumps, but sometimes other vegetation types (DAWE, 2020b).	Outside known range of species.	Would Not Occur
Carnaby's Cockatoo <i>Calyptrorhynchus latirostris</i>	EN	EN	-	Carnaby's Cockatoo is endemic to, and widespread in, the south-west of Western Australia. It occurs from the wheatbelt, in areas that receive between 300 and 750 mm of rainfall annually, across to wetter regions in the extreme south-west, including the Swan Coastal Plain and the southern coast. Its range extends from Cape Arid in the south-east to Kalbarri in the north, and inland to Hatter Hill, Gibb Rock, Narebeen, Noongar, Wongan Hills, Nugadong, near Perenjori, Wilroy and Nabawa.	Outside known range of species.	Would Not Occur
Grey Falcon <i>Falco hypoleucos</i>	VU	VU	-	The Grey Falcon occurs at low densities across inland Australia. The species frequents timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined water courses. The species has been observed hunting in treeless areas and frequents tussock grassland and open woodland, especially in winter. While breeding Grey Falcons feed almost exclusively on birds. Prey species include doves, pigeons, small parrots and cockatoos and finches, but a variety of other bird prey species has been recorded. Nonavian prey recorded by direct observation include small mammals and lizards.	At extreme of known range. Very occasional transients only.	Unlikely
Malleefowl <i>Leipoa ocellata</i>	VU	VU	-	Scrublands and woodlands dominated by mallee and wattle species (DAWE, 2020b).	Habitat likely marginal and unsuitable for breeding. Occasional transients only.	Possible
Fork-tailed Swift <i>Apus pacificus</i>	MI	MI	-	Low to very high airspace over varied habitat from rainforest to semi desert (Birdlife Australia, 2019).	Very occasional transients only.	Unlikely
Migratory Shorebirds (Various species)	IA/MI	IA/MI	P3-P4	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 (DAWE, 2020b).	No suitable habitat present.	Would Not Occur
Grey Wagtail <i>Motacilla cinerea</i>	MI	MI	-	Running water in disused quarries, sandy, rocky streams in escarpments and rainforest, sewerage ponds, ploughed fields and airfields (Morecombe 2004).	No suitable habitat present.	Would Not Occur
Western Spiny-tailed Skink <i>Egernia stokesii</i> subsp. <i>badia</i>	EN	EN	-	The Western Spiny-tailed Skink is known to occur in a broad semi-arid area in south-west WA, between Shark Bay and Minnivale and east to Cue.	No documented records in the region.	Would Not Occur
Numbat <i>Myrmecobius fasciatus</i>	EN	EN	-	Previously widespread in arid and semi-arid Australia, the species is now restricted to two isolated wild populations in south-west Western Australia and a number of translocations to predator proof locations.	No documented records in the region.	Would Not Occur



Species	Conservation Status			Habitat Description	Assessment	Likelihood
	EPBC Act	BC Act	DFCA Priority			
Chuditch <i>Dasyurus geoffroii</i>	VU	VU	-	Previously occurred throughout arid and semi-arid Australia but is now restricted to south-west Western Australia. (DAWE, 2020b).	Considered to be locally and regionally extinct.	Unlikely
Bilby <i>Macrotis lagotis</i>	VU	VU	-	Within Western Australia, the Bilby is generally restricted to the Gibson Desert, Little Sandy Desert, Great Sandy Desert and parts of the Pilbara and Southern Kimberley. Within their current range, they inhabit open tussock grassland on uplands and hills, <i>Acacia aneura</i> (mulga) woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas	Outside known current range of species.	Would Not Occur

## APPENDIX E: LIST OF SPECIES IDENTIFIED WITHIN THE SURVEY AREA

(W) denotes introduced (weed) species; (A) denotes ephemeral (annual) species

Family	Taxon	CLP-MW1	CLP-EW1
Amaranthaceae	<i>Ptilotus exaltatus</i> (A)		*
	<i>Ptilotus holosericeus</i>	*	*
	<i>Ptilotus obovatus</i>	*	*
Asteraceae	<i>Centaurea melitensis</i> (W)		*
	<i>Olearia muelleri</i>	*	
Boraginaceae	<i>Halgania andromedifolia</i>	*	
Brassicaceae	<i>Carrichtera annua</i> (W)		*
Casuarinaceae	<i>Casuarina pauper</i>		*
Chenopodiaceae	<i>Atriplex nummularia</i>		*
	<i>Atriplex stipitata</i>	*	
	<i>Atriplex vesicaria</i>		*
	<i>Eriochiton sclerolaenoides</i>		*
	<i>Maireana georgei</i>	*	*
	<i>Maireana sedifolia</i>	*	*
	<i>Maireana trichoptera</i>		*
	<i>Maireana triptera</i>	*	*
	<i>Rhagodia preissii</i>		*
	<i>Sclerolaena cuneata</i>		*
	<i>Sclerolaena cuneata</i>		*
	<i>Sclerolaena diacantha</i>	*	*
Fabaceae	<i>Acacia hemiteles</i>	*	*
	<i>Senna cardiosperma</i>	*	
Goodeniaceae	<i>Scaevola spinescens</i>	*	*
Malvaceae	<i>Sida calyxhymenia</i>		*
Myrtaceae	<i>Eucalyptus griffithsii</i>	*	*
	<i>Eucalyptus lesouefii</i>	*	
	<i>Eucalyptus oleosa</i>	*	
	<i>Eucalyptus salmonophloia</i>		*
	<i>Eucalyptus transcontinentalis</i>	*	
	<i>Eucalyptus yilgarnensis</i>	*	
Pittosporaceae	<i>Pittosporum angustifolium</i>	*	*
Santalaceae	<i>Exocarpos aphyllus</i>	*	*
	<i>Santalum spicatum</i>	*	
Scrophulariaceae	<i>Eremophila caperata</i>	*	
	<i>Eremophila decipiens</i>	*	
	<i>Eremophila glabra</i>	*	*
	<i>Eremophila oldfieldii</i> subsp. <i>angustifolium</i>	*	
	<i>Eremophila scoparia</i>	*	*
Zygophyllaceae	<i>Roepera eremaea</i> (A)		*

## APPENDIX F: VEGETATION CONDITION RATING

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



## APPENDIX G: NATUREMAP SPECIES LIST (40KM BUFFER)

# NatureMap Species Report

Created By Guest user on 10/12/2021

**Current Names Only** Yes  
**Core Datasets Only** Yes  
**Method** 'By Circle'  
**Centre** 121° 24' 54" E, 30° 47' 28" S  
**Buffer** 40km  
**Group By** Family

Family	Species	Records
Acanthizidae	10	588
Acarosporaceae	3	16
Accipitridae	8	51
Actinopodidae	1	4
Aegothelidae	1	4
Agamidae	12	141
Aizoaceae	6	16
Amaranthaceae	16	75
Anacardiaceae	1	4
Anatidae	11	303
Anhingidae	1	2
Apiaceae	1	6
Apocynaceae	6	40
Araliaceae	1	4
Araneidae	8	24
Ardeidae	3	30
Artamidae	3	35
Asparagaceae	3	6
Asphodelaceae	1	4
Asteraceae	108	403
Barychelidae	1	1
Boidae	1	3
Boraginaceae	10	48
Bothriuridae	1	4
Bovidae	3	5
Branchipodidae	1	11
Brassicaceae	18	54
Bryaceae	2	2
Burramyidae	1	56
Buthidae	1	5
Cacatuidae	1	23
Cactaceae	6	10
Campanulaceae	2	8
Campephagidae	3	92
Caprimulgidae	1	3
Carphodactylidae	1	1
Caryophyllaceae	2	3
Casuaridae	1	45
Casuarinaceae	5	27
Celastraceae	1	1
Charadriidae	5	30
Cheluidae	1	1
Chenopodiaceae	77	411
Cladoniaceae	2	4
Colchicaceae	1	1
Collemataceae	1	3
Columbidae	4	207
Convolvulaceae	3	6
Corvidae	3	289
Cracticidae	4	437
Crassulaceae	3	4
Cuculidae	4	21
Cucurbitaceae	1	1
Cupressaceae	2	16
Cyperaceae	8	11
Cyprinidae	1	1
Cyzicidae	1	1
Daphniidae	1	6
Dasyuridae	6	78
Desidae	2	2
Dicaeidae	1	22
Dicruridae	3	270
Didiereaceae	1	1
Dilleniaceae	2	2
Diplodactylidae	8	126
Droseraceae	1	1
Dytiscidae	1	1
Elaeocarpaceae	1	2
Elapidae	15	106
Emballonuridae	1	2
Ericaceae	2	2
Estrilidae	1	12
Euphorbiaceae	11	16
Fabaceae	104	415
Falconidae	4	57
Felidae	1	17
Fissidentaceae	1	1

Frankeniaceae	8	23
Gekkonidae	5	146
Gentianaceae	1	1
Geraniaceae	4	16
Gnaphosidae	1	1
Goodeniaceae	26	105
Graphidaceae	5	13
Grimmiaceae	1	1
Halcyonidae	2	4
Haloragaceae	3	13
Hersiliidae	1	1
Hirundinidae	4	96
Hydnaceae	1	1
Hydrophilidae	2	2
Hylidae	1	1
Icmadophilaceae	1	2
Idiopidae	1	3
Lamiaceae	20	100
Lamponidae	3	8
Laridae	1	4
Lecanoraceae	1	1
Lecideaceae	1	1
Leporidae	1	61
Limnodynastidae	4	64
Loganiaceae	3	3
Loranthaceae	6	13
Lycaenidae	3	23
Lycosidae	5	10
Lythraceae	1	1
Macropodidae	3	26
Maluridae	3	116
Malvaceae	19	69
Megalosporaceae	1	10
Megapodiidae	1	42
Meliaceae	1	1
Meiphagidae	10	1118
Meropidae	1	40
Montiaceae	5	13
Motacillidae	2	3
Muridae	3	97
Myobatrachidae	1	29
Myrmecobiidae	1	1
Myrtaceae	89	470
Nemesiidae	2	5
Neosittidae	1	4
Nicodamidae	1	6
Nitriaceae	1	2
Nyctaginaceae	1	1
Orchidaceae	6	8
Ostracoda	1	1
Otididae	1	2
Oxalidaceae	2	3
Oxyopidae	3	12
Pachycephalidae	5	274
Papaveraceae	2	2
Pardalotidae	3	200
Parmeliaceae	29	67
Peltulaceae	1	1
Petrociidae	5	91
Phalacrocoracidae	2	14
Phasianidae	1	1
Phelloriniaceae	1	1
Pholcidae	1	1
Physciaceae	3	6
Pileolariaceae	1	2
Pittosporaceae	3	10
Plantaginaceae	3	9
Plumbaginaceae	1	1
Poaceae	53	138
Podargidae	1	6
Podicipedidae	2	61
Polygalaceae	2	3
Polygonaceae	3	4
Pomatostomidae	2	63
Portulacaceae	1	1
Pottiaceae	6	9
Proteaceae	24	68
Psittacidae	11	128
Psoraceae	3	25
Pteridaceae	2	4
Pygopodidae	5	16
Rallidae	3	30
Ranunculaceae	1	1
Recurvirostridae	4	32
Restionaceae	2	2
Rhamnaceae	5	24
Rhizocarpaceae	1	1
Ricciaceae	1	1
Ruppiaceae	1	2
Rutaceae	8	21
Salticidae	4	15
Santalaceae	3	37
Sapindaceae	8	96
Scincidae	27	238
Scolopacidae	8	19
Scolopendridae	2	11
Scrophulariaceae	37	384
Solanaceae	18	63
Sparassidae	2	13
Sternophoridae	1	1
Stylidiaceae	3	6
Tachyglossidae	1	8
Teloschistaceae	5	11
Thamnocephalidae	1	1
Theraphosidae	1	3



Theridiidae	1	12
Threskiornithidae	2	12
Thylacomyidae	1	3
Thymelaeaceae	2	3
Triopsidae	1	4
Trochanteriidae	1	3
Turnicidae	1	1
Tytonidae	1	2
Urodacidae	3	17
Urticaceae	1	1
Ustilaginaceae	1	1
Varanidae	3	25
Verbenaceae	2	2
Verrucariaceae	4	8
Vespertilionidae	7	131
Violaceae	1	5
Zodariidae	1	1
Zosteropidae	1	27
Zygophyllaceae	5	12
<b>TOTAL</b>	<b>1191</b>	<b>10034</b>

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
<b>Acanthizidae</b>				
1.	24260 <i>Acanthiza apicalis</i> (Broad-tailed Thornbill, Inland Thornbill)			
2.	24261 <i>Acanthiza chrysorrhoa</i> (Yellow-rumped Thornbill)			
3.	24264 <i>Acanthiza robustirostris</i> (Slaty-backed Thornbill)			
4.	24265 <i>Acanthiza uropygialis</i> (Chestnut-rumped Thornbill)			
5.	25528 <i>Aphelocephala leucopsis</i> (Southern Whiteface)			
6.	24266 <i>Aphelocephala leucopsis</i> subsp. <i>castaneiventris</i> (Southern Whiteface)			
7.	25530 <i>Gerygone fusca</i> (Western Gerygone)			
8.	34001 <i>Hylacola cauta</i> subsp. <i>whitlocki</i> (Shy Groundwren)			
9.	24278 <i>Pyrrholaemus brunneus</i> (Redthroat)			
10.	30948 <i>Smicronis brevirostris</i> (Weebill)			
<b>Acarosporaceae</b>				
11.	27574 <i>Acarospora citrina</i>			
12.	27576 <i>Acarospora nodulosa</i>			
13.	28195 <i>Acarospora nodulosa</i> var. <i>reagens</i>			
<b>Accipitridae</b>				
14.	25535 <i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)			
15.	25536 <i>Accipiter fasciatus</i> (Brown Goshawk)			
16.	24285 <i>Aquila audax</i> (Wedge-tailed Eagle)			
17.	<i>Elanus axillaris</i>			
18.	25540 <i>Elanus caeruleus</i> (Black-shouldered Kite)			
19.	24290 <i>Elanus caeruleus</i> subsp. <i>axillaris</i> (Australian Black-shouldered Kite)			
20.	24295 <i>Haliastur sphenurus</i> (Whistling Kite)			
21.	47965 <i>Hieraaetus morphnoides</i> (Little Eagle)			
<b>Actinopodidae</b>				
22.	<i>Missulena occatoria</i>			
<b>Aegothelidae</b>				
23.	25544 <i>Aegotheles cristatus</i> (Australian Owlet-nightjar)			
<b>Agamidae</b>				
24.	25458 <i>Ctenophorus caudicinctus</i> (Ring-tailed Dragon)			
25.	24871 <i>Ctenophorus cristatus</i> (Bicycle Dragon)			
26.	24873 <i>Ctenophorus fordi</i> (Mallee Sand Dragon)			
27.	24874 <i>Ctenophorus isolepis</i> subsp. <i>citrinus</i> (Yellow Military Dragon)			
28.	24882 <i>Ctenophorus nuchalis</i> (Central Netted Dragon)			
29.	24886 <i>Ctenophorus reticulatus</i> (Western Netted Dragon)			
30.	24888 <i>Ctenophorus salinarum</i> (Salt Pan Dragon)			
31.	24889 <i>Ctenophorus scutulatus</i> (Lozenge-marked Dragon)			
32.	24904 <i>Moloch horridus</i> (Thorny Devil)			
33.	24907 <i>Pogona minor</i> subsp. <i>minor</i> (Dwarf Bearded Dragon)			
34.	30814 <i>Tympanocryptis cephalus</i> (Pebble Dragon)			
35.	39408 <i>Tympanocryptis lineata</i> (Lined Earless Dragon)			
<b>Aizoaceae</b>				
36.	48513 <i>Aizoon pubescens</i>	Y		
37.	11681 <i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>			
38.	2807 <i>Gunnioopsis quadrifida</i> (Sturts Pigface)			
39.	2813 <i>Mesembryanthemum crystallinum</i> (Iceplant)	Y		
40.	2814 <i>Mesembryanthemum nodiflorum</i> (Slender Iceplant)	Y		
41.	2822 <i>Tetragonia eremaea</i>			
<b>Amaranthaceae</b>				
42.	2648 <i>Alternanthera denticulata</i> (Lesser Joyweed)			
43.	2652 <i>Alternanthera nodiflora</i> (Common Joyweed)			
44.	2671 <i>Amaranthus viridis</i> (Green Amaranth)	Y		
45.	2690 <i>Ptilotus aevoides</i>			
46.	2707 <i>Ptilotus carlsonii</i>			
47.	38463 <i>Ptilotus chortophytus</i>		P1	
48.	48602 <i>Ptilotus eremita</i>			
49.	2721 <i>Ptilotus exaltatus</i> (Tall Mulla Mulla)			
50.	2727 <i>Ptilotus gaudichaudii</i>			
51.	2729 <i>Ptilotus grandiflorus</i>			
52.	2730 <i>Ptilotus helichrysoides</i>			
53.	2732 <i>Ptilotus holosericeus</i>			
54.	2747 <i>Ptilotus obovatus</i> (Cotton Bush)			
55.	2751 <i>Ptilotus polystachyus</i> (Prince of Wales Feather)			
56.	2752 <i>Ptilotus procumbens</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
57.	43203 <i>Surreya diandra</i>			
<b>Anacardiaceae</b>				
58.	17056 <i>Schinus molle</i> var. <i>areira</i>	Y		
<b>Anatidae</b>				
59.	24312 <i>Anas gracilis</i> (Grey Teal)			
60.	24313 <i>Anas platyrhynchos</i> (Mallard)			
61.	24315 <i>Anas rhynchotis</i> (Australasian Shoveler)			
62.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
63.	24318 <i>Aythya australis</i> (Hardhead)			
64.	24319 <i>Biziura lobata</i> (Musk Duck)			
65.	24321 <i>Chenonetta jubata</i> (Australian Wood Duck, Wood Duck)			
66.	24322 <i>Cygnus atratus</i> (Black Swan)			
67.	24326 <i>Malacorhynchus membranaceus</i> (Pink-eared Duck)			
68.	24329 <i>Stictonetta naevosa</i> (Freckled Duck)			
69.	24331 <i>Tadorna tadornoides</i> (Australian Shelduck, Mountain Duck)			
<b>Anhingidae</b>				
70.	47414 <i>Anhinga novaehollandiae</i> (Australasian Darter)			
<b>Apiaceae</b>				
71.	6218 <i>Daucus glochidiatus</i> (Australian Carrot)			
<b>Apocynaceae</b>				
72.	6565 <i>Alyxia buxifolia</i> (Dysentery Bush)			
73.	14636 <i>Alyxia tetanifolia</i>		P3	
74.	6580 <i>Asclepias curassavica</i> (Redhead Cottonbush)	Y		
75.	12949 <i>Marsdenia australis</i>			
76.	20233 <i>Orbea variegata</i>	Y		Y
77.	48986 <i>Vincetoxicum lineare</i>			
<b>Araliaceae</b>				
78.	6279 <i>Trachymene ornata</i> (Spongefruit)			
<b>Araneidae</b>				
79.	<i>Argiope protensa</i>			
80.	<i>Argiope trifasciata</i>			
81.	<i>Austracantha minax</i>			
82.	<i>Backobourkia heroine</i>			
83.	<i>Celaenia excavata</i>			
84.	<i>Cyrtophora parnasia</i>			
85.	<i>Eriophora biapicata</i>			
86.	<i>Nephila edulis</i>			
<b>Ardeidae</b>				
87.	41324 <i>Ardea modesta</i> (great egret, white egret)			
88.	24341 <i>Ardea pacifica</i> (White-necked Heron)			
89.	<i>Egretta novaehollandiae</i>			
<b>Artamidae</b>				
90.	25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)			
91.	24353 <i>Artamus cyanopterus</i> (Dusky Woodswallow)			
92.	24356 <i>Artamus personatus</i> (Masked Woodswallow)			
<b>Asparagaceae</b>				
93.	1505 <i>Agave americana</i> (Century Plant)	Y		
94.	1215 <i>Chamaexeros fimbriata</i>			
95.	1338 <i>Thysanotus manglesianus</i> (Fringed Lily)			
<b>Asphodelaceae</b>				
96.	1366 <i>Bulbine semibarbata</i> (Leek Lily)			
<b>Asteraceae</b>				
97.	7817 <i>Actinobole uliginosum</i> (Flannel Cudweed)			
98.	7834 <i>Angianthus prostratus</i>		P3	
99.	7836 <i>Angianthus tomentosus</i> (Camel-grass)			
100.	7838 <i>Arctotheca calendula</i> (Cape Weed, African Marigold)	Y		
101.	7846 <i>Asteridea athrixioides</i>			
102.	7847 <i>Asteridea chaetopoda</i>			
103.	7871 <i>Brachyscome ciliaris</i>			
104.	7878 <i>Brachyscome iberidifolia</i>			
105.	7880 <i>Brachyscome lineariloba</i>			
106.	7882 <i>Brachyscome perpusilla</i>			
107.	7899 <i>Calotis breviradiata</i>			
108.	7903 <i>Calotis hispidula</i> (Bindy Eye)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
109.	7905 <i>Calotis multicaulis</i> (Many-stemmed Burr-daisy)			
110.	7911 <i>Carthamus lanatus</i> (Saffron Thistle)	Y		
111.	7916 <i>Centaurea melitensis</i> (Maltese Cockspur, Malta Thistle)	Y		
112.	7922 <i>Cephalopterum drummondii</i> (Pompom Head)			
113.	7924 <i>Ceratogyne obionoides</i> (Wingwort)			
114.	47074 <i>Chrysocephalum apiculatum</i> subsp. <i>norsemanense</i>		P3	
115.	13138 <i>Chrysocephalum puteale</i>			
116.	7935 <i>Cichorium intybus</i> (Chicory)	Y		
117.	7939 <i>Conyza bonariensis</i> (Flaxleaf Fleabane)	Y		
118.	20074 <i>Conyza sumatrensis</i>	Y		
119.	7943 <i>Cotula australis</i> (Common Cotula)			
120.	13353 <i>Craspedia haplorrhiza</i>			Y
121.	7949 <i>Cratystylis conocephala</i> (Greybush)			
122.	7950 <i>Cratystylis microphylla</i> (Small-leaved Grey Bush)			
123.	7951 <i>Cratystylis subspinescens</i> (Australian Sage, Spiny Grey Bush)			
124.	7964 <i>Elachanthus pusillus</i> (Elacanth)		P2	
125.	12720 <i>Erymophyllum glossanthus</i>			
126.	12739 <i>Erymophyllum ramosum</i>			
127.	14377 <i>Erymophyllum ramosum</i> subsp. <i>ramosum</i>			
128.	16311 <i>Gazania linearis</i>	Y		
129.	12780 <i>Gilberta tenuifolia</i>			
130.	7989 <i>Gnephosis brevifolia</i> (Short-leaved Gnephosis)			
131.	7998 <i>Gnephosis macrocephala</i>			
132.	8002 <i>Gnephosis tenuissima</i>			
133.	8008 <i>Helianthus annuus</i> (Sunflower, Common Sunflower)	Y		
134.	8045 <i>Helipterum craspedioides</i> (Yellow Billy Buttons)			
135.	12743 <i>Hyalosperma glutinosum</i>			
136.	15447 <i>Hyalosperma glutinosum</i> subsp. <i>glutinosum</i>			
137.	12756 <i>Hyalosperma zacchaeus</i>			
138.	8087 <i>Isoetopsis graminifolia</i> (Cushion Grass)			
139.	8094 <i>Kippistia suaedifolia</i>			
140.	29046 <i>Lactuca serriola</i> forma <i>serriola</i>	Y		
141.	13284 <i>Lawrencella rosea</i>			
142.	19237 <i>Leiocarpa websteri</i>			
143.	12628 <i>Lemooria burkittii</i>			
144.	8105 <i>Millotia myosotidifolia</i>			
145.	12631 <i>Millotia perpusilla</i>			
146.	8107 <i>Minuria cunninghamii</i> (Bush Minuria)			
147.	8108 <i>Minuria gardneri</i>			
148.	8110 <i>Minuria leptophylla</i> (Minnie Daisy)			
149.	29418 <i>Monoculus monstrosus</i>	Y		
150.	14186 <i>Myriocephalus pygmaeus</i>			
151.	48227 <i>Notisia intonsa</i>		P3	
152.	8134 <i>Olearia exiguiifolia</i> (Small-leaved Daisy Bush)			
153.	8136 <i>Olearia homolepis</i>			
154.	19023 <i>Olearia incana</i>			
155.	8140 <i>Olearia muelleri</i> (Goldfields Daisy)			
156.	8145 <i>Olearia pimeleoides</i> (Pimelea Daisybush, Burrobunga)			
157.	8149 <i>Olearia rudis</i> (Rough Daisybush)			
158.	44401 <i>Olearia</i> sp. <i>Eremicola</i> (Diels & Pritzel s.n. PERTH 00449628)			
159.	8152 <i>Olearia subspicata</i> (Spiked Daisy Bush)			
160.	19828 <i>Oligocarpus calendulaceus</i>	Y		
161.	20661 <i>Oncosiphon suffruticosum</i> (Calomba Daisy)	Y		
162.	12642 <i>Ozothamnus cassiope</i>			
163.	45238 <i>Podolepis aristata</i> subsp. <i>affinis</i>			
164.	8173 <i>Podolepis capillaris</i> (Wiry Podolepis)			
165.	8177 <i>Podolepis lessonii</i>			
166.	8180 <i>Podolepis rugata</i> (Pleated Podolepis)			
167.	12731 <i>Podotheca wilsonii</i>			
168.	8187 <i>Pogonolepis muelleriana</i>			
169.	8188 <i>Pogonolepis stricta</i>			
170.	13306 <i>Rhodanthe battii</i>			
171.	13308 <i>Rhodanthe charsleyae</i>			
172.	13241 <i>Rhodanthe chlorocephala</i> subsp. <i>rosea</i>			
173.	13242 <i>Rhodanthe chlorocephala</i> subsp. <i>splendida</i>			
174.	13301 <i>Rhodanthe floribunda</i>			
175.	13293 <i>Rhodanthe haigii</i>			
176.	13294 <i>Rhodanthe laevis</i>			
177.	13234 <i>Rhodanthe manglesii</i>			
178.	13295 <i>Rhodanthe nullarborensis</i>			



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179.	13249 <i>Rhodanthe oppositifolia</i> subsp. <i>oppositifolia</i>			
180.	13252 <i>Rhodanthe pygmaea</i>			
181.	13253 <i>Rhodanthe rubella</i>			
182.	13254 <i>Rhodanthe stricta</i>			
183.	13237 <i>Rhodanthe uniflora</i>		P1	
184.	8200 <i>Schoenia cassiniana</i> ( <i>Schoenia</i> )			
185.	13287 <i>Schoenia filifolia</i> subsp. <i>filifolia</i>			
186.	20722 <i>Senecio dolichocephalus</i>			
187.	8207 <i>Senecio glossanthus</i> ( <i>Slender Groundsel</i> )			
188.	25881 <i>Senecio lacustrinus</i>			
189.	8213 <i>Senecio magnificus</i> ( <i>Showy Groundsel</i> )			
190.	20161 <i>Senecio pinnatifolius</i>			
191.	8231 <i>Sonchus oleraceus</i> ( <i>Common Sowthistle</i> )	Y		
192.	8238 <i>Streptoglossa liatroides</i>			
193.	25902 <i>Symphytotrichum squamatum</i> ( <i>Bushy Starwort</i> )	Y		
194.	13298 <i>Thiseltonia gracillima</i>			
195.	12652 <i>Trichanthodium skirrophorum</i>			
196.	8253 <i>Triptilodiscus pygmaeus</i>			
197.	11387 <i>Vittadinia cervicularis</i> var. <i>cervicularis</i>			
198.	11788 <i>Vittadinia dissecta</i> var. <i>hirta</i>			
199.	8268 <i>Vittadinia humerata</i>			
200.	8273 <i>Vittadinia sulcata</i>			
201.	13331 <i>Waitzia acuminata</i> var. <i>acuminata</i>			
202.	46093 <i>Waitzia fitzgibbonii</i>			
203.	13328 <i>Waitzia nitida</i>			
204.	8287 <i>Xanthium spinosum</i> ( <i>Bathurst Burr, Common Cockleburr, Spiny Cockleburr, Spiny Clotburr</i> )	Y		
<b>Barychelidae</b>				
205.	<i>Idiommata blackwallii</i>			
<b>Boidae</b>				
206.	25240 <i>Morelia spilota</i> subsp. <i>imbricata</i> ( <i>Carpet Python</i> )			
<b>Boraginaceae</b>				
207.	6675 <i>Buglossoides arvensis</i> ( <i>Corn Gromwell</i> )	Y		
208.	6681 <i>Echium plantagineum</i> ( <i>Paterson's Curse</i> )	Y		
209.	6684 <i>Halgania andromedifolia</i>			
210.	29840 <i>Halgania cyanea</i> var. <i>Allambi Str</i> ( <i>B.W. Strong 676</i> )			
211.	31117 <i>Halgania cyanea</i> var. <i>Charleville</i> ( <i>R.W. Purdie +111</i> )			
212.	6691 <i>Halgania integerrima</i>			
213.	6710 <i>Heliotropium europaeum</i> ( <i>Common Heliotrope</i> )	Y		
214.	6717 <i>Heliotropium supinum</i> ( <i>Prostrate Heliotrope</i> )	Y		Y
215.	6723 <i>Omphalolappula concava</i> ( <i>Burr Stickseed</i> )			
216.	6727 <i>Trichodesma zeylanicum</i> ( <i>Camel Bush, Kumbalin</i> )			
<b>Bothriuridae</b>				
217.	<i>Cercophonius michaelseni</i>			
<b>Bovidae</b>				
218.	24251 <i>Bos taurus</i> ( <i>European Cattle</i> )	Y		
219.	24253 <i>Capra hircus</i> ( <i>Goat</i> )	Y		
220.	34016 <i>Ovis aries</i> ( <i>Sheep</i> )			
<b>Branchipodidae</b>				
221.	<i>Parartemia</i> sp.			
<b>Brassicaceae</b>				
222.	2990 <i>Alyssum linifolium</i> ( <i>Flax-leaf Alyssum</i> )	Y		
223.	31876 <i>Arabidella chrysodema</i>			
224.	2992 <i>Arabidella trisecta</i>			
225.	3000 <i>Brassica tournefortii</i> ( <i>Mediterranean Turnip</i> )	Y		
226.	3004 <i>Capsella bursa-pastoris</i> ( <i>Shepherd's Purse</i> )	Y		
227.	3008 <i>Carrichtera annua</i> ( <i>Ward's Weed</i> )	Y		
228.	3026 <i>Lepidium fasciculatum</i> ( <i>Bundled Peppergrass</i> )		P3	
229.	3031 <i>Lepidium merrallii</i>		P2	
230.	3033 <i>Lepidium oxytrichum</i>			
231.	3034 <i>Lepidium papillosum</i> ( <i>Warty Peppergrass</i> )			Y
232.	3037 <i>Lepidium phlebopetalum</i> ( <i>Veined Peppergrass</i> )			
233.	3059 <i>Phlegmatospermum eremaum</i>		P3	
234.	3070 <i>Sisymbrium irio</i> ( <i>London Rocket</i> )	Y		
235.	3072 <i>Sisymbrium orientale</i> ( <i>Indian Hedge Mustard</i> )	Y		
236.	3076 <i>Stenopetalum filifolium</i>			
237.	3077 <i>Stenopetalum lineare</i> ( <i>Narrow Thread Petal</i> )			

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238.	30212 <i>Stenopetalum lineare</i> var. <i>lineare</i>			
239.	3079 <i>Stenopetalum pedicellare</i>			
<b>Bryaceae</b>				
240.	32331 <i>Bryum lanatum</i>			
241.	44608 <i>Rosulabryum billardieri</i>			
<b>Burramyidae</b>				
242.	24086 <i>Cercartetus concinnus</i> (Western Pygmy-possum, Mundarda)			
<b>Buthidae</b>				
243.	<i>Isometroides vescus</i>			
<b>Cacatuidae</b>				
244.	<i>Eolophus roseicapillus</i>			
<b>Cactaceae</b>				
245.	20759 <i>Cylindropuntia fulgida</i> var. <i>mamillata</i>	Y		
246.	33077 <i>Cylindropuntia imbricata</i>	Y		
247.	45513 <i>Cylindropuntia kleiniae</i>	Y		Y
248.	20281 <i>Cylindropuntia tunicata</i>	Y		Y
249.	31799 <i>Opuntia elata</i>	Y		
250.	44779 <i>Opuntia ficus-indica</i>	Y		
<b>Campanulaceae</b>				
251.	7397 <i>Isotoma petraea</i> (Rock Isotome, Tundiwari)			
252.	7386 <i>Wahlenbergia gracilentia</i> (Annual Bluebell)			
<b>Campephagidae</b>				
253.	24361 <i>Coracina maxima</i> (Ground Cuckoo-shrike)			
254.	25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
255.	24367 <i>Lalage tricolor</i> (White-winged Triller)			
<b>Caprimulgidae</b>				
256.	24368 <i>Eurostopodus argus</i> (Spotted Nightjar)			
<b>Carphodactylidae</b>				
257.	24971 <i>Nephurus vertebralis</i>			
<b>Caryophyllaceae</b>				
258.	2914 <i>Spergularia diandra</i> (Lesser Sand Spurry)	Y		
259.	8900 <i>Spergularia marina</i>			
<b>Casuariidae</b>				
260.	24470 <i>Dromaius novaehollandiae</i> (Emu)			
<b>Casuarinaceae</b>				
261.	1721 <i>Allocasuarina campestris</i>			
262.	13906 <i>Allocasuarina eriochlamys</i> subsp. <i>eriochlamys</i>			
263.	1730 <i>Allocasuarina helmsii</i>			
264.	1742 <i>Casuarina obesa</i> (Swamp Sheoak, Kuli)			
265.	12658 <i>Casuarina pauper</i> (Black Oak)			
<b>Celastraceae</b>				
266.	4737 <i>Tripterococcus brunonis</i> (Winged Stackhousia)			
<b>Charadriidae</b>				
267.	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
268.	47937 <i>Eiseyornis melanops</i> (Black-fronted Dotterel)			
269.	24379 <i>Erythronyx cinctus</i> (Red-kneed Dotterel)			
270.	48135 <i>Thinornis rubricollis</i> (Hooded Plover, Hooded Dotterel)		P4	
271.	24386 <i>Vanellus tricolor</i> (Banded Lapwing)			
<b>Cheluidae</b>				
272.	43380 <i>Chelodina colliei</i> (South-western Snake-necked Turtle)			
<b>Chenopodiaceae</b>				
273.	2449 <i>Atriplex acutibractea</i> (Toothed Saltbush)			
274.	11435 <i>Atriplex acutibractea</i> subsp. <i>acutibractea</i>			
275.	11489 <i>Atriplex acutibractea</i> subsp. <i>karoniensis</i>			
276.	2450 <i>Atriplex amnicola</i> (Swamp Saltbush)			
277.	2453 <i>Atriplex codonocarpa</i> (Flat-topped Saltbush)			
278.	2455 <i>Atriplex eardleyae</i>			
279.	2459 <i>Atriplex holocarpa</i> (Pop Saltbush)			
280.	12042 <i>Atriplex lindleyi</i> subsp. <i>inflata</i>			
281.	2469 <i>Atriplex nummularia</i> (Old Man Saltbush)			
282.	11516 <i>Atriplex nummularia</i> subsp. <i>spatulata</i> (Old Man Saltbush)			
283.	2472 <i>Atriplex pumilio</i>			

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284.	11791 <i>Atriplex quadrivalvata</i> var. <i>quadrivalvata</i>			
285.	2475 <i>Atriplex semibaccata</i> (Berry Saltbush)			
286.	2478 <i>Atriplex spongiosa</i> (Pop Saltbush)			
287.	2479 <i>Atriplex stipitata</i> (Mallee Saltbush)			
288.	2480 <i>Atriplex suberecta</i>			
289.	2481 <i>Atriplex vesicaria</i> (Bladder Saltbush)			
290.	2483 <i>Chenopodium album</i> (Fat Hen)	Y		
291.	2487 <i>Chenopodium curvispicatum</i>			
292.	2494 <i>Chenopodium murale</i> (Nettle-leaf Goosefoot)	Y		
293.	2498 <i>Didymanthus roei</i>			
294.	2499 <i>Dissocarpus paradoxus</i> (Curious Saltbush)			
295.	33501 <i>Dysphania cristata</i> (Crested Goosefoot)			
296.	2502 <i>Dysphania kalpari</i> (Rat's Tail, Kalpari)			
297.	33480 <i>Dysphania pumilio</i> (Clammy Goosefoot)			
298.	11704 <i>Einadia nutans</i> subsp. <i>eremaea</i> (Climbing Saltbush)			
299.	2510 <i>Enchylaena lanata</i>			
300.	2511 <i>Enchylaena tomentosa</i> (Barrier Saltbush)			
301.	12064 <i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (Barrier Saltbush)			
302.	2514 <i>Eriochiton sclerolaenoides</i> (Woolly Bindii)			
303.	2533 <i>Maireana amoena</i>			
304.	2535 <i>Maireana appressa</i>			
305.	2536 <i>Maireana atkinsiana</i> (Bronze Bluebush)			
306.	2537 <i>Maireana brevifolia</i> (Small Leaf Bluebush)			
307.	2538 <i>Maireana carnososa</i> (Cottony Bluebush)			
308.	2542 <i>Maireana erioclada</i>			
309.	2543 <i>Maireana eriosphaera</i>			
310.	2544 <i>Maireana georgei</i> (Satiny Bluebush)			
311.	2545 <i>Maireana glomerifolia</i> (Ball Leaf Bluebush)			
312.	2546 <i>Maireana integra</i>			
313.	2554 <i>Maireana pentagona</i> (Hairy Bluebush)			
314.	2555 <i>Maireana pentatropis</i>			
315.	2557 <i>Maireana platycarpa</i> (Shy Bluebush)			
316.	2560 <i>Maireana pyramidata</i> (Sago Bush)			
317.	2561 <i>Maireana radiata</i>			
318.	2563 <i>Maireana sedifolia</i> (Pearl Bluebush, Myall)			
319.	2565 <i>Maireana suaedifolia</i>			
320.	2567 <i>Maireana tomentosa</i> (Felt Bluebush)			
321.	11662 <i>Maireana tomentosa</i> subsp. <i>tomentosa</i>			
322.	2568 <i>Maireana trichoptera</i> (Downy Bluebush)			
323.	2569 <i>Maireana triptera</i> (Threewinged Bluebush)			
324.	2570 <i>Maireana turbinata</i>			
325.	2581 <i>Rhagodia drummondii</i>			
326.	2582 <i>Rhagodia eremaea</i> (Thorny Saltbush)			
327.	2587 <i>Roycea divaricata</i>			
328.	30434 <i>Salsola australis</i>			
329.	2606 <i>Sclerolaena cuneata</i> (Yellow Bindii)			
330.	2609 <i>Sclerolaena diacantha</i> (Grey Copperburr)			
331.	2610 <i>Sclerolaena drummondii</i>			
332.	2612 <i>Sclerolaena eurotioides</i> (Fluffy Bindii)			
333.	2615 <i>Sclerolaena fusiformis</i>			
334.	8877 <i>Sclerolaena gardneri</i>			
335.	2625 <i>Sclerolaena obliquicuspis</i> (Limestone Bindii)			
336.	2626 <i>Sclerolaena parviflora</i> (Small-flower Saltbush)			
337.	31719 <i>Tecticornia chartacea</i>			
338.	31492 <i>Tecticornia disarticulata</i>			
339.	46513 <i>Tecticornia doliiformis</i>			
340.	33236 <i>Tecticornia halocnemoides</i> (Shrubby Samphire)			
341.	33319 <i>Tecticornia indica</i> subsp. <i>bidens</i>			
342.	33299 <i>Tecticornia pergranulata</i> subsp. <i>elongata</i>			
343.	33297 <i>Tecticornia pergranulata</i> subsp. <i>pergranulata</i> (Blackseed Samphire)			
344.	31618 <i>Tecticornia pruinosa</i>			
345.	33218 <i>Tecticornia pterygosperma</i> subsp. <i>pterygosperma</i>			
346.	31853 <i>Tecticornia</i> sp. <i>Burnerbinmah</i> (D. Edinger et al. 101)			
347.	33216 <i>Tecticornia</i> sp. <i>Dennys Crossing</i> (K.A. Shepherd & J. English KS 552)			
348.	31494 <i>Tecticornia triandra</i> (Desert Glasswort)			
349.	31717 <i>Tecticornia undulata</i>			
<b>Cladoniaceae</b>				
350.	48176 <i>Cladia beaugholei</i>			
351.	28208 <i>Cladonia cervicornis</i> subsp. <i>verticillata</i>			

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<b>Colchicaceae</b>				
352.	1403 <i>Wurmbea tenella</i> (Eight Nancy)			
<b>Collemataceae</b>				
353.	27703 <i>Collema coccophorum</i>			
<b>Columbidae</b>				
354.	24399 <i>Columba livia</i> (Domestic Pigeon)	Y		
355.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
356.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
357.	25590 <i>Streptopelia senegalensis</i> (Laughing Turtle-Dove)	Y		
<b>Convolvulaceae</b>				
358.	6612 <i>Convolvulus clementii</i>			
359.	6614 <i>Convolvulus remotus</i>			
360.	6621 <i>Ipomoea calobra</i> (Weir Vine)			
<b>Corvidae</b>				
361.	24416 <i>Corvus bennetti</i> (Little Crow)			
362.	25592 <i>Corvus coronoides</i> (Australian Raven)			
363.	25593 <i>Corvus orru</i> (Torresian Crow)			
<b>Cracticidae</b>				
364.	24420 <i>Cracticus nigrogularis</i> (Pied Butcherbird)			
365.	25595 <i>Cracticus tibicen</i> (Australian Magpie)			
366.	25596 <i>Cracticus torquatus</i> (Grey Butcherbird)			
367.	25597 <i>Strepera versicolor</i> (Grey Currawong)			
<b>Crassulaceae</b>				
368.	19376 <i>Bryophyllum delagoense</i>	Y		
369.	11709 <i>Crassula colorata</i> var. <i>acuminata</i>			
370.	20268 <i>Crassula tetramera</i>			
<b>Cuculidae</b>				
371.	25598 <i>Cacomantis flabelliformis</i> (Fan-tailed Cuckoo)			
372.	42307 <i>Cacomantis pallidus</i> (Pallid Cuckoo)			
373.	24431 <i>Chrysococcyx basalus</i> (Horsfield's Bronze Cuckoo)			
374.	24434 <i>Chrysococcyx osculans</i> (Black-eared Cuckoo)			
<b>Cucurbitaceae</b>				
375.	48865 <i>Cucumis myriocarpus</i> subsp. <i>myriocarpus</i>	Y		
<b>Cupressaceae</b>				
376.	8466 <i>Callitris columellaris</i> (White Cypress Pine)			
377.	96 <i>Callitris preissii</i> (Rottnest Island Pine, Maro)			
<b>Cyperaceae</b>				
378.	765 <i>Chrysitrix distigmata</i>			
379.	34969 <i>Eleocharis acutangula</i>			Y
380.	903 <i>Gahnia deusta</i>			
381.	14539 <i>Isolepis australiensis</i>		P3	
382.	31760 <i>Lepidosperma diurnum</i>			
383.	<i>Lepidosperma</i> sp.			
384.	954 <i>Mesomelaena preissii</i>			
385.	1015 <i>Schoenus subaphyllus</i>			
<b>Cyprinidae</b>				
386.	<i>Carassius auratus</i>			
<b>Cyzicidae</b>				
387.	<i>Ozestheria packardii</i>			
<b>Daphniidae</b>				
388.	<i>Daphnia carinata</i>			
<b>Dasyuridae</b>				
389.	24096 <i>Ningui yvonneae</i> (Southern Ningui)			
390.	24108 <i>Sminthopsis crassicaudata</i> (Fat-tailed Dunnart)			
391.	24109 <i>Sminthopsis dolichura</i> (Little long-tailed Dunnart)			
392.	24111 <i>Sminthopsis gilberti</i> (Gilbert's Dunnart)			
393.	<i>Sminthopsis murina</i>			
394.	24117 <i>Sminthopsis ooldea</i> (Ooldea Dunnart)			
<b>Desidae</b>				
395.	<i>Baiami tegenarioides</i>			
396.	<i>Corasoides australis</i>			
<b>Dicaeidae</b>				



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397.	25607 <i>Dicaeum hirundinaceum</i> (Mistletoebird)			
<b>Dicruridae</b>				
398.	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
399.	48096 <i>Rhipidura albiscapa</i> (Grey Fantail)			
400.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
<b>Didiereaceae</b>				
401.	20374 <i>Portulacaria afra</i>	Y		
<b>Dilleniaceae</b>				
402.	19692 <i>Hibbertia ancistrophylla</i>			
403.	19779 <i>Hibbertia glomerosa</i> var. <i>glomerosa</i>			
<b>Diplodactylidae</b>				
404.	25469 <i>Diplodactylus granariensis</i>			
405.	24929 <i>Diplodactylus granariensis</i> subsp. <i>granariensis</i>			
406.	24940 <i>Diplodactylus pulcher</i>			
407.	42408 <i>Hesperoedura reticulata</i>			
408.	30935 <i>Lucasium maini</i>			
409.	24982 <i>Rhynchoedura ornata</i> (Western Beaked Gecko)			
410.	24923 <i>Strophurus assimilis</i> (Goldfields Spiny-tailed Gecko)			
411.	24927 <i>Strophurus elderi</i>			
<b>Droseraceae</b>				
412.	49090 <i>Drosera</i> sp. <i>Branched styles</i> (S.C. Coffey 193)			
<b>Dytiscidae</b>				
413.	<i>Allodessus bistrigatus</i>			
<b>Elaeocarpaceae</b>				
414.	4530 <i>Tetratheca efoliata</i>			
<b>Elapidae</b>				
415.	25243 <i>Acanthophis pyrrhus</i> (Desert Death Adder)			
416.	42380 <i>Brachyurophis fasciolatus</i> subsp. <i>fasciolatus</i> (Narrow-banded Shovel-nosed Snake)			
417.	42381 <i>Brachyurophis semifasciatus</i> (Southern Shovel-nosed Snake)			
418.	25468 <i>Demansia psammophis</i> (Yellow-faced Whipsnake)			
419.	25247 <i>Demansia psammophis</i> subsp. <i>psammophis</i> (Yellow-faced Whipsnake)			
420.	25301 <i>Furina ornata</i> (Moon Snake)			
421.	25248 <i>Neelaps bimaculatus</i> (Black-naped Snake)			
422.	25253 <i>Parasuta gouldii</i>			
423.	25254 <i>Parasuta monachus</i>			
424.	25261 <i>Pseudechis australis</i> (Mulga Snake)			
425.	42416 <i>Pseudonaja mengdeni</i> (Western Brown Snake)			
426.	25263 <i>Pseudonaja modesta</i> (Ringed Brown Snake)			
427.	25264 <i>Pseudonaja nuchalis</i> (Gwardar, Northern Brown Snake)			
428.	25266 <i>Simoselaps bertholdi</i> (Jan's Banded Snake)			
429.	25269 <i>Suta fasciata</i> (Rosen's Snake)			
<b>Emballonuridae</b>				
430.	24176 <i>Taphozous hilli</i> (Hill's Sheathtail-bat)			
<b>Ericaceae</b>				
431.	6401 <i>Leucopogon hamulosus</i>			
432.	16049 <i>Leucopogon</i> sp. <i>Clyde Hill</i> (M.A. Burgman 1207)			
<b>Estrilidae</b>				
433.	30870 <i>Taeniopygia guttata</i> (Zebra Finch)			
<b>Euphorbiaceae</b>				
434.	4598 <i>Beyeria lechenaultii</i> (Pale Turpentine Bush)			
435.	34276 <i>Beyeria sulcata</i> var. <i>brevipes</i>			
436.	34257 <i>Beyeria sulcata</i> var. <i>sulcata</i>			
437.	4626 <i>Euphorbia drummondii</i> (Caustic Weed, Piwi)			
438.	42867 <i>Euphorbia multifaria</i>			
439.	42868 <i>Euphorbia philochalix</i>			
440.	42869 <i>Euphorbia porcata</i>			
441.	19587 <i>Monotaxis grandiflora</i> var. <i>obtusifolia</i>			
442.	4664 <i>Monotaxis luteiflora</i>			
443.	4701 <i>Ricinocarpos stylosus</i>			
444.	4704 <i>Ricinocarpos velutinus</i>			
<b>Fabaceae</b>				
445.	3200 <i>Acacia acuminata</i> (Jam, Mangard)			
446.	14584 <i>Acacia ancistrophylla</i> var. <i>ancistrophylla</i>			
447.	3216 <i>Acacia andrewsii</i>			

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448.	3217 <i>Acacia aneura</i> (Mulga, Wanari)			
449.	3236 <i>Acacia beauverdiana</i> (Pukkati)			
450.	3248 <i>Acacia burkittii</i> (Sandhill Wattle)			
451.	3249 <i>Acacia calcarata</i>			
452.	3251 <i>Acacia campoclada</i>			
453.	3256 <i>Acacia chrysella</i>			
454.	44469 <i>Acacia coatesii</i>		P1	
455.	44514 <i>Acacia collegialis</i>			
456.	3264 <i>Acacia colletioides</i> (Wait-a-while)			
457.	3269 <i>Acacia coolgardiensis</i> (Spinifex Wattle)			
458.	15281 <i>Acacia desertorum</i> var. <i>desertorum</i>			
459.	3315 <i>Acacia duriuscula</i>			
460.	32118 <i>Acacia effusifolia</i>			
461.	12257 <i>Acacia enervia</i> subsp. <i>explicata</i>			
462.	16020 <i>Acacia eremophila</i> var. <i>eremophila</i>			
463.	3324 <i>Acacia erinacea</i>			
464.	15282 <i>Acacia gibbosa</i>			
465.	3366 <i>Acacia hemiteles</i>			
466.	3378 <i>Acacia inaequiloba</i>			
467.	16164 <i>Acacia inceana</i> subsp. <i>inceana</i>			
468.	3393 <i>Acacia jennerae</i>			
469.	3394 <i>Acacia jensenii</i>			
470.	14610 <i>Acacia kalgoorliensis</i>			
471.	3408 <i>Acacia lasiocalyx</i> (Silver Wattle, Wilyurwur)			
472.	3416 <i>Acacia leptopetala</i>			
473.	3419 <i>Acacia ligulata</i> (Umbrella Bush, Watarka)			
474.	3426 <i>Acacia longispinea</i>			
475.	13503 <i>Acacia masliniana</i>			
476.	3440 <i>Acacia merrallii</i>			
477.	36416 <i>Acacia mulganeura</i>			
478.	3451 <i>Acacia multispicata</i>			
479.	3452 <i>Acacia murrayana</i> (Sandplain Wattle)			
480.	3463 <i>Acacia nyssophylla</i>			
481.	3473 <i>Acacia oswaldii</i> (Miljee, Nelia)			
482.	3478 <i>Acacia pachypoda</i>			
483.	3495 <i>Acacia prainii</i> (Prain's Wattle)			
484.	3504 <i>Acacia pycnantha</i> (Golden Wattle)	Y		
485.	3512 <i>Acacia rendlei</i>			
486.	3513 <i>Acacia resinimarginea</i>			
487.	3514 <i>Acacia resinistipulea</i>			
488.	13078 <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>			
489.	3539 <i>Acacia sericocarpa</i>			
490.	8949 <i>Acacia sibirica</i> (Bastard Mulga)			
491.	30717 <i>Acacia</i> sp. Mt Jackson (B. Ryan 176)			
492.	13070 <i>Acacia synchronicia</i>			
493.	3577 <i>Acacia tetragonophylla</i> (Kurara, Wakalpuka)			
494.	3599 <i>Acacia warramaba</i>			
495.	3600 <i>Acacia websteri</i>		P1	
496.	16157 <i>Acacia xerophila</i> var. <i>brevior</i>			
497.	15292 <i>Acacia yorkrakensis</i> subsp. <i>acrita</i>			
498.	3682 <i>Alhagi maurorum</i>	Y		Y
499.	18427 <i>Bossiaea cucullata</i>			
500.	13114 <i>Chorizema racemosum</i>			
501.	17417 <i>Cullen discolor</i>			
502.	17118 <i>Cullen leucanthum</i>			
503.	3813 <i>Daviesia grahamii</i>			
504.	3823 <i>Daviesia nematophylla</i>			
505.	3829 <i>Daviesia pachyloma</i>			
506.	19854 <i>Dillwynia</i> sp. Coolgardie (V.E. Sands 637.3.1)			
507.	48860 <i>Erythrostemon gilliesii</i>	Y		
508.	11034 <i>Gastrolobium graniticum</i>		T	
509.	3943 <i>Glycyrrhiza acanthocarpa</i> (Native Liquorice)			
510.	29285 <i>Gompholobium cinereum</i>		P3	
511.	10777 <i>Gompholobium gompholobioides</i>			
512.	3963 <i>Hovea acanthoclada</i> (Thorny Hovea)			
513.	14779 <i>Jacksonia arida</i>			
514.	4043 <i>Kennedia prorepens</i>			
515.	4056 <i>Leptosema daviesioides</i>			
516.	4061 <i>Lotus cruentus</i> (Redflower Lotus)			
517.	4074 <i>Medicago laciniata</i> (Cutleaf Medic)	Y		

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518.	4077 <i>Medicago minima</i> (Small Burr Medic)	Y		
519.	4079 <i>Medicago polymorpha</i> (Burr Medic)	Y		
520.	4089 <i>Mirbelia depressa</i>			
521.	4094 <i>Mirbelia microphylla</i>			
522.	4097 <i>Mirbelia ramulosa</i>			
523.	4099 <i>Mirbelia seorsifolia</i>			
524.	3674 <i>Petalostylis cassioides</i>			
525.	17645 <i>Senna artemisioides</i>			
526.	12276 <i>Senna artemisioides</i> subsp. <i>filifolia</i>			
527.	17558 <i>Senna artemisioides</i> subsp. <i>x artemisioides</i>			
528.	18430 <i>Senna cardiosperma</i>			
529.	16378 <i>Senna pleurocarpa</i>			
530.	12315 <i>Senna pleurocarpa</i> var. <i>angustifolia</i>			
531.	12314 <i>Senna pleurocarpa</i> var. <i>pleurocarpa</i>			
532.	18446 <i>Senna stowardii</i>			
533.	12355 <i>Swainsona affinis</i>			
534.	4217 <i>Swainsona beasleyana</i>			
535.	4220 <i>Swainsona canescens</i> (Grey Swainsona)			
536.	4221 <i>Swainsona colutooides</i> (Bladder Vetch)			
537.	4229 <i>Swainsona gracilis</i>			
538.	13590 <i>Swainsona halophila</i>			
539.	4230 <i>Swainsona incei</i>			
540.	4231 <i>Swainsona kingii</i>			
541.	4233 <i>Swainsona leeana</i>			
542.	4237 <i>Swainsona oliveri</i>			
543.	4238 <i>Swainsona oroboides</i> (Variable Swainsona)			
544.	13581 <i>Swainsona paradoxa</i>			
545.	12357 <i>Swainsona purpurea</i>			
546.	4243 <i>Swainsona rostellata</i>			
547.	35841 <i>Templetonia incrassata</i>			
548.	17261 <i>Vicia monantha</i> subsp. <i>triflora</i>	Y		
<b>Falconidae</b>				
549.	25621 <i>Falco berigora</i> (Brown Falcon)			
550.	24471 <i>Falco berigora</i> subsp. <i>berigora</i> (Brown Falcon)			
551.	25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
552.	25623 <i>Falco longipennis</i> (Australian Hobby)			
<b>Felidae</b>				
553.	24041 <i>Felis catus</i> (Cat)	Y		
<b>Fissidentaceae</b>				
554.	32367 <i>Fissidens megalotis</i>			
<b>Frankeniaceae</b>				
555.	5191 <i>Frankenia cinerea</i>			
556.	5197 <i>Frankenia desertorum</i>			
557.	5202 <i>Frankenia glomerata</i> (Cluster Head Frankenia)		P4	
558.	5204 <i>Frankenia interioris</i>			
559.	11592 <i>Frankenia interioris</i> var. <i>interioris</i>			
560.	14297 <i>Frankenia pauciflora</i> var. <i>pauciflora</i>			
561.	5212 <i>Frankenia setosa</i> (Bristly Frankenia)			
562.	5213 <i>Frankenia tetrapetala</i> (Four Petaled Frankenia)			
<b>Gekkonidae</b>				
563.	24957 <i>Gehyra purpurascens</i>			
564.	24959 <i>Gehyra variegata</i>			
565.	25232 <i>Hemidactylus frenatus</i> (Asian House Gecko)	Y		
566.	24961 <i>Heteronotia binoei</i> (Bynoe's Gecko)			
567.	24983 <i>Underwoodisaurus millii</i> (Barking Gecko)			
<b>Gentianaceae</b>				
568.	41646 <i>Schenkia clementii</i>			
<b>Geraniaceae</b>				
569.	4331 <i>Erodium aureum</i>	Y		
570.	4333 <i>Erodium cicutarium</i> (Common Storksbill)	Y		
571.	4334 <i>Erodium crinitum</i> (Corkscrew)			
572.	4335 <i>Erodium cygnorum</i> (Blue Heronsbill)			
<b>Gnaphosidae</b>				
573.	<i>Hemicloea sublimbata</i>			
<b>Goodeniaceae</b>				
574.	7413 <i>Brunonia australis</i> (Native Cornflower)			

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575.	19069 <i>Brunonia</i> sp. Goldfields (K.R. Newbey 6044)			
576.	7419 <i>Cooperookia strophiolata</i>			
577.	7438 <i>Dampiera eriocephala</i> (Woolly-headed Dampiera)			
578.	13155 <i>Dampiera latealata</i>			
579.	7451 <i>Dampiera lavandulacea</i>			
580.	7456 <i>Dampiera luteiflora</i> (Yellow Dampiera)			
581.	7463 <i>Dampiera plumosa</i>		P1	
582.	7477 <i>Dampiera stenostachya</i> (Narrow-spiked Dampiera)			
583.	7480 <i>Dampiera tenuicaulis</i> (Slender-stemmed Dampiera)			
584.	13158 <i>Dampiera tenuicaulis</i> var. <i>curvula</i>			
585.	13159 <i>Dampiera tenuicaulis</i> var. <i>tenuicaulis</i>			
586.	7499 <i>Goodenia concinna</i> (Elegant Goodenia)			
587.	7504 <i>Goodenia dyeri</i>			
588.	7506 <i>Goodenia elderi</i>			
589.	7514 <i>Goodenia havilandii</i>			
590.	7527 <i>Goodenia mimuloides</i>			
591.	7531 <i>Goodenia occidentalis</i>			
592.	7541 <i>Goodenia pusilliflora</i> (Smallflower Goodenia)			
593.	31837 <i>Goodenia salina</i>		P2	
594.	7565 <i>Goodenia xanthosperma</i> (Yellow-seeded Goodenia)			
595.	7569 <i>Lechenaultia brevifolia</i>			
596.	7644 <i>Scaevola spinescens</i> (Currant Bush, Maroon)			
597.	7656 <i>Velleia cynopotamica</i>			
598.	7664 <i>Velleia rosea</i> (Pink Velleia)			
599.	38061 <i>Verreauxia dyeri</i> (Hairy Verreauxia)			
<b>Graphidaceae</b>				
600.	32976 <i>Diploschistes elixii</i>			
601.	27720 <i>Diploschistes hensseniae</i>			
602.	27723 <i>Diploschistes scruposus</i>			
603.	27725 <i>Diploschistes thunbergianus</i>			
604.	44221 <i>Xalocoa ocellata</i>			
<b>Grimmiaceae</b>				
605.	32386 <i>Grimmia laevigata</i>			
<b>Halcyonidae</b>				
606.	42351 <i>Todiramphus pyrrhopygius</i> (Red-backed Kingfisher)			
607.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
<b>Haloragaceae</b>				
608.	6144 <i>Glischrocaryon flavescens</i>			
609.	20669 <i>Haloragis maierae</i>			
610.	6180 <i>Haloragis trigonocarpa</i>			
<b>Hersiliidae</b>				
611.	<i>Tamopsis circumvidens</i>			
<b>Hirundinidae</b>				
612.	47909 <i>Cheramoeca leucosterna</i> (White-backed Swallow)			
613.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
614.	48060 <i>Petrochelidon ariel</i> (Fairy Martin)			
615.	48061 <i>Petrochelidon nigricans</i> (Tree Martin)			
<b>Hydnaceae</b>				
616.	38794 <i>Hydnum repandum</i>			
<b>Hydrophilidae</b>				
617.	<i>Berosus nutans</i>			
618.	<i>Enochrus elongatulus</i>			
<b>Hylidae</b>				
619.	25388 <i>Litoria moorei</i> (Motorbike Frog)			
<b>Icmadophilaceae</b>				
620.	28060 <i>Siphula coriacea</i>			
<b>Idiopidae</b>				
621.	<i>Anidiops villosus</i>			
<b>Lamiaceae</b>				
622.	19437 <i>Brachysola coerulea</i>			
623.	6747 <i>Cyanostegia angustifolia</i> (Tinsel-flower)			
624.	6751 <i>Cyanostegia microphylla</i> (Tinsel Flower)			
625.	41025 <i>Dasymalla terminalis</i> (Native Foxglove)			
626.	6753 <i>Dicrastylis brunnea</i>			



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627.	6771 <i>Dicrastylis parvifolia</i>			
628.	6776 <i>Hemiphora elderi</i> (Red Velvet)			
629.	6779 <i>Lachnostachys coolgardiensis</i>			
630.	6881 <i>Marrubium vulgare</i> (Horehound)	Y		
631.	17206 <i>Physopsis viscida</i>			
632.	6812 <i>Pityrodia lepidota</i>			
633.	15822 <i>Prostanthera althoferi</i> subsp. <i>althoferi</i>			
634.	6912 <i>Prostanthera campbellii</i>			
635.	6916 <i>Prostanthera grylloana</i>			
636.	6917 <i>Prostanthera incurvata</i>			
637.	6928 <i>Salvia reflexa</i> (Mintweed)	Y		
638.	6929 <i>Salvia verbenaca</i> (Wild Sage)	Y		
639.	6937 <i>Teucrium sessiliflorum</i> (Camel Bush)			
640.	6938 <i>Westringia cephalantha</i>			
641.	9247 <i>Westringia rigida</i> (Stiff Westringia)			
<b>Lamponidae</b>				
642.	<i>Asadipus phaleratus</i>			
643.	<i>Lampona cylindrata</i>			
644.	<i>Lamponina scutata</i>			
<b>Laridae</b>				
645.	<i>Chroicocephalus novaehollandiae</i>			
<b>Lecanoraceae</b>				
646.	27813 <i>Lecanora pseudistera</i>			
<b>Lecideaceae</b>				
647.	27825 <i>Lecidea ochroleuca</i>			
<b>Leporidae</b>				
648.	24085 <i>Oryctolagus cuniculus</i> (Rabbit)	Y		
<b>Limnodynastidae</b>				
649.	25425 <i>Neobatrachus kunapalari</i> (Kunapalari Frog)			
650.	25426 <i>Neobatrachus pelobatoides</i> (Humming Frog)			
651.	25427 <i>Neobatrachus sutor</i> (Shoemaker Frog)			
652.	25428 <i>Neobatrachus wilsmorei</i> (Plonking Frog)			
<b>Loganiaceae</b>				
653.	46313 <i>Orianthera flaviflora</i>			
654.	46253 <i>Orianthera tortuosa</i>			
655.	16824 <i>Phyllangium sulcatum</i>			
<b>Loranthaceae</b>				
656.	2369 <i>Amyema benthamii</i>			
657.	11614 <i>Amyema gibberula</i> var. <i>gibberula</i>			
658.	13267 <i>Amyema linophylla</i> subsp. <i>linophylla</i>			
659.	2380 <i>Amyema miquelii</i> (Stalked Mistletoe)			
660.	2383 <i>Amyema preissii</i> (Wireleaf Mistletoe)			
661.	2396 <i>Lysiana casuarinae</i>			
<b>Lycaenidae</b>				
662.	33979 <i>Jalmenus aridus</i> (inland hairstreak, desert blue butterfly)		P1	Y
663.	<i>Jalmenus icilius</i>			Y
664.	33987 <i>Ogyris subterrestris</i> subsp. <i>petrina</i> (Arid Bronze Azure Butterfly)		T	
<b>Lycosidae</b>				
665.	<i>Hoggicosa castanea</i>			
666.	<i>Hoggicosa forresti</i>			
667.	<i>Hoggicosa storri</i>			
668.	<i>Lycosa ariadnae</i>			
669.	<i>Tasmanicosa leuckartii</i>			
<b>Lythraceae</b>				
670.	5281 <i>Lythrum hyssopifolia</i> (Lesser Loosestrife)	Y		
<b>Macropodidae</b>				
671.	24132 <i>Macropus fuliginosus</i> (Western Grey Kangaroo)			
672.	24135 <i>Macropus robustus</i> subsp. <i>erubescens</i> (Euro, Biggada)			
673.	24136 <i>Macropus rufus</i> (Red Kangaroo, Marlu)			
<b>Maluridae</b>				
674.	25652 <i>Malurus leucopterus</i> (White-winged Fairy-wren)			
675.	24551 <i>Malurus pulcherrimus</i> (Blue-breasted Fairy-wren)			
676.	25654 <i>Malurus splendens</i> (Splendid Fairy-wren)			

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<b>Malvaceae</b>				
677.	4889 <i>Abutilon cryptopetalum</i>			
678.	40903 <i>Androcalva aphrix</i>			
679.	40910 <i>Androcalva luteiflora</i> (Yellow-flowered Rulingia)			
680.	4999 <i>Brachychiton gregorii</i> (Desert Kurrajong, Ngalta)			
681.	40923 <i>Commersonia crauophylla</i> (Brittle Leaved Rulingia)			
682.	17725 <i>Hannafordia bissillii</i> subsp. <i>latifolia</i>			
683.	4941 <i>Hibiscus solanifolius</i>			
684.	4955 <i>Lawrencia glomerata</i>			
685.	4956 <i>Lawrencia helmsii</i> (Dunna Dunna)			
686.	4957 <i>Lawrencia repens</i>			
687.	4959 <i>Lawrencia squamata</i>			
688.	4961 <i>Malva parviflora</i> (Marshmallow)	Y		
689.	41544 <i>Malva weinmanniana</i>			
690.	4964 <i>Radyera farragei</i> (Knobby Hibiscus)			
691.	46824 <i>Seringia velutina</i> (Velvet firebush)			
692.	4970 <i>Sida calyxhymenia</i> (Tall Sida)			
693.	4977 <i>Sida fibulifera</i> (Silver Sida)			
694.	4981 <i>Sida intricata</i> (Tangled Sida)			
695.	16924 <i>Sida spodochroma</i>			
<b>Megalosporaceae</b>				
696.	27587 <i>Aspicilia calcarea</i>			
<b>Megapodiidae</b>				
697.	24557 <i>Leipoa ocellata</i> (Malleefowl)		T	
<b>Meliaceae</b>				
698.	4516 <i>Melia azedarach</i> (White Cedar)			
<b>Meliphagidae</b>				
699.	24559 <i>Acanthagenys rufogularis</i> (Spiny-cheeked Honeyeater)			
700.	24561 <i>Anthochaera carunculata</i> (Red Wattlebird)			
701.	24567 <i>Epthianura albifrons</i> (White-fronted Chat)			
702.	24570 <i>Epthianura tricolor</i> (Crimson Chat)			
703.	25659 <i>Lichenostomus leucotis</i> (White-eared Honeyeater)			
704.	24576 <i>Lichenostomus leucotis</i> subsp. <i>novaenorcae</i> (White-eared Honeyeater)			
705.	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			
706.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
707.	25663 <i>Melithreptus brevirostris</i> (Brown-headed Honeyeater)			
708.	42344 <i>Purnella albifrons</i> (White-fronted Honeyeater)			
<b>Meropidae</b>				
709.	24598 <i>Merops ornatus</i> (Rainbow Bee-eater)			
<b>Montiaceae</b>				
710.	2846 <i>Calandrinia calyptata</i> (Pink Purslane)			
711.	2853 <i>Calandrinia eremaea</i> (Twining Purslane)			
712.	2860 <i>Calandrinia polyandra</i> (Parakeelya)			
713.	40824 <i>Calandrinia sculpta</i>			
714.	30396 <i>Calandrinia translucens</i>			
<b>Motacillidae</b>				
715.	25670 <i>Anthus australis</i> (Australian Pipit)			
716.	24599 <i>Anthus australis</i> subsp. <i>australis</i> (Australian Pipit)			
<b>Muridae</b>				
717.	24223 <i>Mus musculus</i> (House Mouse)	Y		
718.	24232 <i>Pseudomys bolami</i> (Bolam's Mouse)			
719.	24237 <i>Pseudomys hermannsburgensis</i> (Sandy Inland Mouse)			
<b>Myobatrachidae</b>				
720.	25434 <i>Pseudophryne occidentalis</i> (Western Toadlet)			
<b>Myrmecobiidae</b>				
721.	24146 <i>Myrmecobius fasciatus</i> (Numbat, Walpurti)		T	
<b>Myrtaceae</b>				
722.	19466 <i>Aluta aspera</i> subsp. <i>aspera</i>			
723.	5344 <i>Baeckea elderiana</i>			
724.	36038 <i>Baeckea</i> sp. <i>Koonadgin</i> (B.L. Rye & M.E. Trudgen BLR 241137)			
725.	5408 <i>Calothamnus gilesii</i>			
726.	5438 <i>Calytrix amethystina</i>			
727.	5442 <i>Calytrix birdii</i>			
728.	44081 <i>Cyathostemon verrucosus</i>		P3	
729.	19846 <i>Enekbatus eremaeus</i>			

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730.	45244 <i>Ericomyrtus serpyllifolia</i>			
731.	19508 <i>Eucalyptus calycogona</i> subsp. <i>calycogona</i>			
732.	5581 <i>Eucalyptus campaspe</i> (Silver Gimlet)			
733.	5584 <i>Eucalyptus celastroides</i> (Mirret, Mired)			
734.	14300 <i>Eucalyptus celastroides</i> subsp. <i>celastroides</i> (Mirret)			
735.	48436 <i>Eucalyptus clelandiorum</i>			
736.	5595 <i>Eucalyptus comitae-vallis</i> (Comet Vale Mallee)			
737.	5596 <i>Eucalyptus concinna</i> (Victoria Desert Mallee)			
738.	5607 <i>Eucalyptus corrugata</i> (Rough-fruited Mallee)			
739.	5612 <i>Eucalyptus cylindrocarpa</i> (Woodline Mallee)			
740.	34811 <i>Eucalyptus distuberosa</i> subsp. <i>distuberosa</i>			
741.	5636 <i>Eucalyptus eremicola</i>			
742.	5637 <i>Eucalyptus eremophila</i> (Tall Sand Mallee)			
743.	15667 <i>Eucalyptus eremophila</i> subsp. <i>eremophila</i> (Sand Mallee)			
744.	12886 <i>Eucalyptus flavida</i> (Yellow-flowered Mallee)			
745.	5648 <i>Eucalyptus flocktoniae</i> (Merrit, Merid)			
746.	14277 <i>Eucalyptus fraseri</i> subsp. <i>fraseri</i>			
747.	5665 <i>Eucalyptus griffithsii</i> (Griffith's Grey Gum)			
748.	5673 <i>Eucalyptus horistes</i>			
749.	5675 <i>Eucalyptus incrassata</i> (Lerp Mallee)			
750.	31815 <i>Eucalyptus jutsonii</i> subsp. <i>jutsonii</i>		P4	
751.	15682 <i>Eucalyptus leptophylla</i> (Narrow-leaved Red Mallee)			
752.	13056 <i>Eucalyptus leptopoda</i> subsp. <i>subluta</i>			
753.	5697 <i>Eucalyptus lesouefii</i> (Goldfields Blackbutt)			
754.	5701 <i>Eucalyptus longicornis</i> (Red Morrel, Moril)			
755.	20802 <i>Eucalyptus longissima</i>			
756.	5726 <i>Eucalyptus oleosa</i> (Giant Mallee)			
757.	20091 <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>			
758.	5742 <i>Eucalyptus petraea</i> (Granite Rock Box)			
759.	5745 <i>Eucalyptus pileata</i> (Capped Mallee)			
760.	18580 <i>Eucalyptus planipes</i>			
761.	5747 <i>Eucalyptus platycorys</i> (Boorabbin Mallee)			
762.	19064 <i>Eucalyptus prolixa</i>			
763.	12380 <i>Eucalyptus ravida</i> (Silver-topped Gimlet)			
764.	5761 <i>Eucalyptus rigidula</i> (Stiff-leaved Mallee)			
765.	12693 <i>Eucalyptus salicola</i> (Salt Gum)			
766.	5766 <i>Eucalyptus salmonophloia</i> (Salmon Gum, Wurak)			
767.	5767 <i>Eucalyptus salubris</i> (Gimlet)			
768.	29701 <i>Eucalyptus</i> sp. <i>Mulga Rock</i> (K.D. Hill & L.A.S. Johnson KH 2668)			
769.	46828 <i>Eucalyptus</i> sp. <i>Southern smooth-bark</i> (D. Nicolle & M. French DN 6916)			
770.	5780 <i>Eucalyptus stricklandii</i> (Strickland's Gum)			
771.	13027 <i>Eucalyptus tenera</i>			
772.	5792 <i>Eucalyptus torquata</i> (Coral Gum)			
773.	5793 <i>Eucalyptus transcontinentalis</i> (Redwood, Pungul)			
774.	18293 <i>Eucalyptus urna</i>			
775.	5798 <i>Eucalyptus websteriana</i> (Webster's Mallee)			
776.	13054 <i>Eucalyptus websteriana</i> subsp. <i>websteriana</i>			
777.	18269 <i>Eucalyptus x brachyphylla</i>		P4	
778.	5802 <i>Eucalyptus yilgarnensis</i> (Yorrell)			
779.	16722 <i>Euryomyrtus maidenii</i>			
780.	5815 <i>Homalocalyx thryptomenoides</i>			
781.	5848 <i>Leptospermum fastigiatum</i>			
782.	12692 <i>Leptospermum subtenuae</i>			
783.	5864 <i>Malleostemon peltiger</i>			
784.	5865 <i>Malleostemon roseus</i>			
785.	5866 <i>Malleostemon tuberculatus</i>			
786.	15063 <i>Melaleuca acuminata</i> subsp. <i>acuminata</i>			
787.	19380 <i>Melaleuca calyptroides</i>			
788.	5891 <i>Melaleuca coccinea</i> (Goldfields Bottlebrush)		P3	
789.	5896 <i>Melaleuca cordata</i>			
790.	5909 <i>Melaleuca elliptica</i> (Granite Bottlebrush, Ngow)			
791.	15603 <i>Melaleuca fulgens</i> subsp. <i>fulgens</i>			
792.	5916 <i>Melaleuca halmaturorum</i>			
793.	19486 <i>Melaleuca hamata</i>			
794.	5922 <i>Melaleuca lanceolata</i> (Rottnest Teatree, Moonah)			
795.	5925 <i>Melaleuca lateriflora</i> (Gorada)			
796.	14700 <i>Melaleuca macronychia</i> subsp. <i>macronychia</i>			
797.	15663 <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>			
798.	5966 <i>Melaleuca sheathiana</i> (Boree, Buri)			
799.	9187 <i>Micromyrtus erichsenii</i>			

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800.	19787 <i>Micromyrtus monotaxis</i>			
801.	6002 <i>Micromyrtus stenocalyx</i>			
802.	6018 <i>Rinzia carosa</i> (Fleshy-leaved Rinzia)			
803.	19699 <i>Thryptomene australis</i> subsp. <i>brachyandra</i>			
804.	6058 <i>Thryptomene kochii</i>			
805.	20680 <i>Thryptomene</i> sp. <i>Coolgardie</i> (E. Kelso s.n. 1902)		P1	Y
806.	36017 <i>Thryptomene</i> sp. <i>Londonderry</i> (R.H. Kuchel 1763)		P1	
807.	6068 <i>Thryptomene urceolaris</i>			
808.	6073 <i>Verticordia chrysantha</i>			
809.	6109 <i>Verticordia picta</i> (Painted Featherflower)			
810.	6113 <i>Verticordia pritzelii</i> (Pritzel's Featherflower)			
<b>Nemesiidae</b>				
811.	<i>Aname armigera</i>			
812.	<i>Aname mainae</i>			
<b>Neosittidae</b>				
813.	25673 <i>Daphoenositta chrysoptera</i> (Varied Sittella)			
<b>Nicodamidae</b>				
814.	<i>Nicodamus mainae</i>			
<b>Nitrariaceae</b>				
815.	4366 <i>Nitraria billardierei</i> (Nitre Bush)			
<b>Nyctaginaceae</b>				
816.	2770 <i>Boerhavia coccinea</i> (Tar Vine, Wituka)			
<b>Orchidaceae</b>				
817.	15502 <i>Caladenia footeana</i>			
818.	17760 <i>Caladenia nobilis</i>			
819.	1614 <i>Caladenia roei</i> (Ant Orchid)			
820.	18657 <i>Pterostylis</i> sp. <i>inland</i> (A.C. Beaglehole 11880)			
821.	48481 <i>Pterostylis tryphera</i>			
822.	1701 <i>Thelymitra antennifera</i> (Vanilla Orchid)			
<b>Ostracoda</b>				
823.	<i>Ostracoda (unident.)</i>			
<b>Otididae</b>				
824.	24610 <i>Ardeotis australis</i> (Australian Bustard)			
<b>Oxalidaceae</b>				
825.	33256 <i>Oxalis bowiei</i> (Bowie Wood Sorrel)	Y		
826.	4356 <i>Oxalis pes-caprae</i> (Soursob)	Y		
<b>Oxyopidae</b>				
827.	<i>Oxyopes amoenus</i>			
828.	<i>Oxyopes dingo</i>			
829.	<i>Oxyopes variabilis</i>			
<b>Pachycephalidae</b>				
830.	25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
831.	24618 <i>Oreoica gutturalis</i> (Crested Bellbird)			
832.	34011 <i>Oreoica gutturalis</i> subsp. <i>gutturalis</i> (Crested Bellbird (southern))			
833.	24619 <i>Pachycephala inornata</i> (Gilbert's Whistler)			
834.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
<b>Papaveraceae</b>				
835.	17797 <i>Argemone ochroleuca</i> subsp. <i>ochroleuca</i>	Y		
836.	2964 <i>Papaver hybridum</i> (Rough Poppy)	Y		
<b>Pardalotidae</b>				
837.	25681 <i>Pardalotus punctatus</i> (Spotted Pardalote)			
838.	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			
839.	24630 <i>Pardalotus striatus</i> subsp. <i>westraliensis</i> (Striated Pardalote)			
<b>Parmeliaceae</b>				
840.	28102 <i>Xanthoparmelia alternata</i>			
841.	28103 <i>Xanthoparmelia amphixantha</i>			
842.	28104 <i>Xanthoparmelia amplexula</i>			
843.	18001 <i>Xanthoparmelia dayiana</i>		P3	
844.	28132 <i>Xanthoparmelia filarszkyana</i>			
845.	28137 <i>Xanthoparmelia glareosa</i>			
846.	29031 <i>Xanthoparmelia hueana</i>			
847.	28326 <i>Xanthoparmelia incantata</i>			
848.	28142 <i>Xanthoparmelia incerta</i>			



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849.	28144 <i>Xanthoparmelia isidiigera</i>			
850.	29021 <i>Xanthoparmelia loxodella</i>			
851.	28331 <i>Xanthoparmelia luteonotata</i>			
852.	28150 <i>Xanthoparmelia metacystoides</i>			
853.	28158 <i>Xanthoparmelia neorimalis</i>			
854.	28162 <i>Xanthoparmelia notata</i>			
855.	28166 <i>Xanthoparmelia pertinax</i>			
856.	28167 <i>Xanthoparmelia praegnans</i>			
857.	29036 <i>Xanthoparmelia pulla</i>			
858.	28172 <i>Xanthoparmelia reptans</i>			
859.	44326 <i>Xanthoparmelia rimalis</i>			
860.	28174 <i>Xanthoparmelia scabrosa</i>			
861.	28327 <i>Xanthoparmelia semiviridis</i>			
862.	28180 <i>Xanthoparmelia succedans</i>			
863.	28182 <i>Xanthoparmelia tasmanica</i>			
864.	28184 <i>Xanthoparmelia terrestris</i>			
865.	44936 <i>Xanthoparmelia torulosa</i>			
866.	28356 <i>Xanthoparmelia verrucella</i>			
867.	28186 <i>Xanthoparmelia versicolor</i>			
868.	28189 <i>Xanthoparmelia willisii</i>			
<b>Peltulaceae</b>				
869.	27940 <i>Peltula patellata</i>			
<b>Petroicidae</b>				
870.	24650 <i>Drymodes brunneopygia</i> (Southern Scrub-robin)			
871.	24651 <i>Eopsaltria australis</i> subsp. <i>griseogularis</i> (Western Yellow Robin)			
872.	25693 <i>Microeca fascinans</i> (Jacky Winter)			
873.	24654 <i>Microeca fascinans</i> subsp. <i>assimilis</i> (Jacky Winter)			
874.	24659 <i>Petroica goodenovii</i> (Red-capped Robin)			
<b>Phalacrocoracidae</b>				
875.	<i>Microcarbo melanoleucos</i>			
876.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
<b>Phasianidae</b>				
877.	24671 <i>Coturnix pectoralis</i> (Stubble Quail)			
<b>Phelloriniaceae</b>				
878.	<i>Phellorinia herculeana</i>			
<b>Pholcidae</b>				
879.	<i>Trichocyclus balladong</i>			
<b>Physciaceae</b>				
880.	41284 <i>Hyperphyscia syncolla</i>			
881.	27968 <i>Physcia albicans</i>			
882.	<i>Physcia</i> sp.			
<b>Pileolariaceae</b>				
883.	<i>Uromycladium tepperianum</i>			
<b>Pittosporaceae</b>				
884.	25798 <i>Billardiera fusiformis</i> (Australian Bluebell)			
885.	19421 <i>Marianthus bicolor</i> (Painted Marianthus)			
886.	19744 <i>Pittosporum angustifolium</i>			
<b>Plantaginaceae</b>				
887.	7299 <i>Plantago debilis</i>			
888.	7300 <i>Plantago drummondii</i> (Sago Weed)			
889.	14198 <i>Plantago</i> sp. Mt Magnet (A.S. George 6793)			
<b>Plumbaginaceae</b>				
890.	6489 <i>Limonium sinuatum</i> (Perennial Sea Lavender)	Y		
<b>Poaceae</b>				
891.	12025 <i>Amphipogon caricinus</i> var. <i>caricinus</i>			
892.	207 <i>Aristida contorta</i> (Bunched Kerosene Grass)			
893.	17232 <i>Austrostipa blackii</i>		P3	
894.	17236 <i>Austrostipa drummondii</i>			
895.	17237 <i>Austrostipa elegantissima</i>			
896.	17238 <i>Austrostipa eremophila</i>			
897.	17246 <i>Austrostipa nitida</i>			
898.	17247 <i>Austrostipa platychaeta</i>			
899.	17251 <i>Austrostipa scabra</i>			
900.	36283 <i>Austrostipa</i> sp. Carlingup Road (S. Kern & R. Jasper LCH 18459)			P1

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901.	34556 <i>Austrostipa</i> sp. Dowerin (G. Wiehl F 8004)		P2	
902.	17255 <i>Austrostipa trichophylla</i>			
903.	247 <i>Bromus arenarius</i> (Sand Brome)			
904.	248 <i>Bromus catharticus</i> (Prairie Grass)	Y		
905.	249 <i>Bromus diandrus</i> (Great Brome)	Y		
906.	258 <i>Cenchrus ciliaris</i> (Buffel Grass)	Y		
907.	41568 <i>Cenchrus setaceus</i> (Fountain Grass)	Y		
908.	271 <i>Chloris truncata</i> (Windmill Grass)			
909.	290 <i>Dactyloctenium radulans</i> (Button Grass)			
910.	11964 <i>Dichanthium sericeum</i> subsp. <i>sericeum</i>			
911.	308 <i>Digitaria ammophila</i> (Silky Umbrella Grass)			
912.	310 <i>Digitaria brownii</i> (Cotton Panic Grass)			
913.	351 <i>Ehrharta villosa</i> (Pyp Grass)	Y		
914.	356 <i>Enneapogon avenaceus</i> (Bottle Washers)			
915.	357 <i>Enneapogon caeruleus</i> (Limestone Grass)			
916.	358 <i>Enneapogon cylindricus</i> (Jointed Nineawn)			
917.	368 <i>Enteropogon ramosus</i> (Windmill Grass, Curly Windmill Grass)			
918.	376 <i>Eragrostis curvula</i> (African Lovegrass)	Y		
919.	378 <i>Eragrostis dielsii</i> (Mallee Lovegrass)			
920.	381 <i>Eragrostis falcata</i> (Sickle Lovegrass)			
921.	393 <i>Eragrostis setifolia</i> (Neverfail Grass)			
922.	399 <i>Eragrostis xerophila</i> (Knotty-butt Neverfail)			
923.	417 <i>Eriachne pulchella</i> (Pretty Wanderie)			
924.	448 <i>Hordeum glaucum</i> (Northern Barley Grass)	Y		
925.	449 <i>Hordeum leporinum</i> (Barley Grass)	Y		
926.	471 <i>Leptochloa digitata</i> (Whorled Cane Grass)			
927.	490 <i>Monachather paradoxus</i>			
928.	503 <i>Panicum decompositum</i> (Native Millet, Kaltu-kaltu)			
929.	504 <i>Panicum effusum</i> (Hairy Panic Grass)			
930.	519 <i>Paspalidium constrictum</i> (Knottybutt Grass)			
931.	524 <i>Paspalidium reflexum</i>			
932.	40424 <i>Pentameris airoides</i> subsp. <i>airoides</i>	Y		
933.	552 <i>Phalaris paradoxa</i> (Paradoxa Grass)	Y		
934.	11151 <i>Rostraria pumila</i>	Y		
935.	40425 <i>Rytidosperma caespitosum</i>			
936.	40427 <i>Rytidosperma setaceum</i>			
937.	596 <i>Schismus arabicus</i> (Araby Grass)	Y		
938.	597 <i>Schismus barbatus</i> (Kelch Grass)	Y		
939.	606 <i>Setaria dielsii</i> (Diels' Pigeon Grass)			
940.	617 <i>Sorghum halepense</i> (Johnson Grass)	Y		
941.	688 <i>Triodia irritans</i> (Porcupine Grass)			
942.	699 <i>Triodia scariosa</i>			
943.	18326 <i>Urochloa panicoides</i>	Y		
<b>Podargidae</b>				
944.	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
<b>Podicipedidae</b>				
945.	24681 <i>Poliiocephalus poliocephalus</i> (Hoary-headed Grebe)			
946.	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
<b>Polygalaceae</b>				
947.	4553 <i>Comesperma drummondii</i> (Drummond's Milkwort)			
948.	4561 <i>Comesperma scoparium</i> (Broom Milkwort)			
<b>Polygonaceae</b>				
949.	11052 <i>Persicaria prostrata</i>			
950.	2419 <i>Polygonum aviculare</i> (Wireweed)	Y		
951.	2443 <i>Rumex vesicarius</i> (Ruby Dock)	Y		
<b>Pomatostomidae</b>				
952.	24683 <i>Pomatostomus superciliosus</i> (White-browed Babbler)			
953.	34013 <i>Pomatostomus superciliosus</i> subsp. <i>ashbyi</i> (White-browed Babbler (western wheatbelt))			
<b>Portulacaceae</b>				
954.	2884 <i>Portulaca oleracea</i> (Purslane, Wakati)			
<b>Pottiaceae</b>				
955.	36436 <i>Aloina bifrons</i>			Y
956.	32319 <i>Barbula luteola</i>			
957.	32341 <i>Crossidium davidai</i>			
958.	32346 <i>Didymodon torquatus</i>			
959.	32444 <i>Tortula atrovirens</i>			

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960.	32445 <i>Tortula muralis</i>			
<b>Proteaceae</b>				
961.	1815 <i>Banksia elderiana</i> (Swordfish Banksia)			
962.	15611 <i>Conospermum stoechadis</i> subsp. <i>stoechadis</i> (Common Smokebush)			
963.	1949 <i>Grevillea acuaria</i>			
964.	1962 <i>Grevillea beardiana</i> (Red Combs)			
965.	1971 <i>Grevillea cagiana</i> (Red Toothbrushes)			
966.	13453 <i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>			
967.	8832 <i>Grevillea excelsior</i> (Flame Grevillea)			
968.	2009 <i>Grevillea georgeana</i>		P3	
969.	14413 <i>Grevillea haplantha</i> subsp. <i>haplantha</i>			
970.	19314 <i>Grevillea hookeriana</i> subsp. <i>apiculoba</i>			
971.	2018 <i>Grevillea huegelii</i>			
972.	19541 <i>Grevillea nematophylla</i> subsp. <i>nematophylla</i>			
973.	15981 <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>			
974.	15978 <i>Grevillea oligomera</i>			
975.	2056 <i>Grevillea paniculata</i>			
976.	12822 <i>Grevillea sarissa</i> subsp. <i>bicolor</i>			
977.	13458 <i>Grevillea sarissa</i> subsp. <i>sarissa</i>			
978.	2104 <i>Grevillea teretifolia</i> (Round Leaf Grevillea)			
979.	2116 <i>Grevillea uncinulata</i> (Hook-leaf Grevillea)			
980.	2163 <i>Hakea francisiana</i> (Emu Tree)			
981.	2182 <i>Hakea minyma</i>			
982.	16047 <i>Hakea rigida</i>		P2	
983.	2274 <i>Persoonia saundersiana</i>			
984.	2308 <i>Petrophile seminuda</i>			
<b>Psittacidae</b>				
985.	<i>Barnardius zonarius</i>			
986.	25715 <i>Cacatua roseicapilla</i> (Galah)			
987.	25716 <i>Cacatua sanguinea</i> (Little Corella)			
988.	24734 <i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo)		T	
989.	24736 <i>Melopsittacus undulatus</i> (Budgerigar)			
990.	24742 <i>Nymphicus hollandicus</i> (Cockatiel)			
991.	25720 <i>Platycercus icterotis</i> (Western Rosella)			
992.	24748 <i>Platycercus varius</i> (Mulga Parrot)			
993.	25721 <i>Platycercus zonarius</i> (Australian Ringneck, Ring-necked Parrot)			
994.	24751 <i>Platycercus zonarius</i> subsp. <i>zonarius</i> (Port Lincoln Parrot)			
995.	30854 <i>Polytelis anthopeplus</i> subsp. <i>westralis</i> (Regent Parrot)			
<b>Psoraceae</b>				
996.	27998 <i>Psora crenata</i>			
997.	27999 <i>Psora crystallifera</i>			
998.	28000 <i>Psora decipiens</i>			
<b>Pteridaceae</b>				
999.	12796 <i>Cheilanthes adiantoides</i>			
1000.	12818 <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>			
<b>Pygopodidae</b>				
1001.	24995 <i>Delma australis</i>			
1002.	24997 <i>Delma butleri</i>			
1003.	25005 <i>Lialis burtonis</i>			
1004.	25008 <i>Pygopus lepidopodus</i> (Common Scaly Foot)			
1005.	25009 <i>Pygopus nigriceps</i>			
<b>Rallidae</b>				
1006.	25727 <i>Fulica atra</i> (Eurasian Coot)			
1007.	24769 <i>Porzana fluminea</i> (Australian Spotted Crane)			
1008.	48141 <i>Tribonyx ventralis</i> (Black-tailed Native-hen)			
<b>Ranunculaceae</b>				
1009.	11080 <i>Myosurus australis</i>			
<b>Recurvirostridae</b>				
1010.	24774 <i>Cladorhynchus leucocephalus</i> (Banded Stilt)			
1011.	25734 <i>Himantopus himantopus</i> (Black-winged Stilt)			
1012.	24775 <i>Himantopus himantopus</i> subsp. <i>leucocephalus</i> (Black-winged Stilt)			
1013.	24776 <i>Recurvirostra novaehollandiae</i> (Red-necked Avocet)			
<b>Restionaceae</b>				
1014.	1073 <i>Lepidobolus chaetocephalus</i> (Bristle-headed Chaff Rush)			
1015.	1074 <i>Lepidobolus deserti</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
<b>Rhamnaceae</b>				
1016.	16183 <i>Cryptandra aridicola</i>			
1017.	4809 <i>Cryptandra pungens</i>			
1018.	4815 <i>Pomaderris forrestiana</i>			
1019.	16200 <i>Stenanthemum stipulosum</i>			
1020.	16986 <i>Trymalium myrtillos subsp. myrtillos</i>			
<b>Rhizocarpaceae</b>				
1021.	28042 <i>Rhizocarpon tinei</i>			
<b>Ricciaceae</b>				
1022.	<i>Riccia limbata</i>			
<b>Ruppiaceae</b>				
1023.	116 <i>Ruppia polycarpa</i>			
<b>Rutaceae</b>				
1024.	4409 <i>Boronia coerulea</i>			
1025.	11274 <i>Boronia coerulea subsp. spinescens</i>			
1026.	4445 <i>Boronia ternata</i>			
1027.	16621 <i>Phebalium appressum</i>		P1	
1028.	4497 <i>Phebalium canaliculatum</i>			
1029.	4500 <i>Phebalium filifolium (Slender Phebalium)</i>			
1030.	4504 <i>Phebalium tuberculatum</i>			
1031.	18506 <i>Philotheca tomentella</i>			
<b>Salticidae</b>				
1032.	<i>Afrallacilla stridulator</i>			
1033.	<i>Holoplatys kalgoorlie</i>			Y
1034.	<i>Holoplatys planissima</i>			
1035.	<i>Sandalodes scopifer</i>			
<b>Santalaceae</b>				
1036.	10977 <i>Exocarpos aphyllus (Leafless Ballart)</i>			
1037.	2356 <i>Santalum acuminatum (Quandong, Warnga)</i>			
1038.	2359 <i>Santalum spicatum (Sandalwood, Wilarak)</i>			
<b>Sapindaceae</b>				
1039.	11730 <i>Alectryon oleifolius subsp. canescens</i>			
1040.	4752 <i>Dodonaea adenophora</i>			
1041.	4753 <i>Dodonaea amblyophylla</i>			
1042.	4769 <i>Dodonaea lobulata (Bead Hopbush)</i>			
1043.	4770 <i>Dodonaea microzyga</i>			
1044.	12034 <i>Dodonaea microzyga var. acrolobata</i>			
1045.	4780 <i>Dodonaea stenozyga</i>			
1046.	11247 <i>Dodonaea viscosa subsp. angustissima</i>			
<b>Scincidae</b>				
1047.	30893 <i>Cryptoblepharus buchananii</i>			
1048.	25020 <i>Cryptoblepharus plagiocephalus</i>			
1049.	25026 <i>Ctenotus atlas</i>			
1050.	25052 <i>Ctenotus leonhardii</i>			
1051.	25074 <i>Ctenotus schomburgkii</i>			
1052.	25465 <i>Ctenotus uber (Spotted Ctenotus)</i>			
1053.	25080 <i>Ctenotus uber subsp. uber (Spotted Ctenotus)</i>			
1054.	25089 <i>Cyclodomorphus melanops subsp. elongatus (Slender Blue-tongue)</i>			
1055.	25092 <i>Egernia depressa (Southern Pygmy Spiny-tailed Skink)</i>			
1056.	25094 <i>Egernia formosa</i>			
1057.	25107 <i>Egernia stokesii subsp. badia (Western Spiny-tailed Skink, Gidgee Skink)</i>		T	
1058.	25109 <i>Eremiascincus richardsonii (Broad-banded Sand Swimmer)</i>			
1059.	25115 <i>Hemiergis initialis subsp. initialis</i>			
1060.	25117 <i>Hemiergis peronii subsp. peronii</i>			
1061.	<i>Lerista kingi</i>			
1062.	25155 <i>Lerista muelleri</i>			
1063.	25162 <i>Lerista picturata</i>			
1064.	25172 <i>Lerista stictopleura</i>			
1065.	42411 <i>Lerista timida</i>			
1066.	41411 <i>Liopholis inornata (Desert Skink)</i>			
1067.	25184 <i>Menetia greyii</i>			
1068.	25188 <i>Morethia adelaidensis</i>			
1069.	25190 <i>Morethia butleri</i>			
1070.	25192 <i>Morethia obscura</i>			
1071.	25203 <i>Tiliqua occipitalis (Western Bluetongue)</i>			
1072.	25519 <i>Tiliqua rugosa</i>			



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
1073.	25207 <i>Tiliqua rugosa subsp. rugosa</i>			
<b>Scolopacidae</b>				
1074.	41323 <i>Actitis hypoleucos</i> (Common Sandpiper)		IA	
1075.	24779 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
1076.	24780 <i>Calidris alba</i> (Sanderling)		IA	
1077.	24784 <i>Calidris ferruginea</i> (Curlew Sandpiper)		T	
1078.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
1079.	24803 <i>Tringa brevipes</i> (Grey-tailed Tattler)		P4	
1080.	24806 <i>Tringa glareola</i> (Wood Sandpiper)		IA	
1081.	24808 <i>Tringa nebularia</i> (Common Greenshank, greenshank)		IA	
<b>Scolopendridae</b>				
1082.	<i>Scolopendra laeta</i>			
1083.	<i>Scolopendra morsitans</i>			
<b>Scrophulariaceae</b>				
1084.	7180 <i>Eremophila alternifolia</i> (Poverty Bush)			
1085.	16377 <i>Eremophila caerulea subsp. caerulea</i>			
1086.	13641 <i>Eremophila caerulea subsp. merrallii</i>		P4	
1087.	13807 <i>Eremophila caperata</i>			
1088.	7189 <i>Eremophila clarkei</i> (Turpentine Bush)			
1089.	17156 <i>Eremophila clavata</i>			
1090.	7193 <i>Eremophila decipiens</i> (Slender Fuchsia)			
1091.	14895 <i>Eremophila decipiens subsp. decipiens</i>			
1092.	7195 <i>Eremophila dempsteri</i>			
1093.	7198 <i>Eremophila deserti</i>			
1094.	7200 <i>Eremophila drummondii</i>			
1095.	7212 <i>Eremophila gibbosa</i>			
1096.	14340 <i>Eremophila glabra subsp. glabra</i>			
1097.	7219 <i>Eremophila granitica</i> (Thin-leaved Poverty Bush)			
1098.	15112 <i>Eremophila interstans subsp. interstans</i>			
1099.	15111 <i>Eremophila interstans subsp. virgata</i>			
1100.	7226 <i>Eremophila ionantha</i> (Violet-flowered Eremophila)			
1101.	7234 <i>Eremophila longifolia</i> (Berrigan, Tulypurpa)			
1102.	16363 <i>Eremophila maculata subsp. brevifolia</i> (Native Fuchsia)			
1103.	7242 <i>Eremophila miniata</i> (Kopi Poverty Bush)			
1104.	14632 <i>Eremophila oblonga</i>			
1105.	15003 <i>Eremophila oldfieldii subsp. angustifolia</i>			
1106.	18570 <i>Eremophila oppositifolia subsp. angustifolia</i>			
1107.	7250 <i>Eremophila pantonii</i>			
1108.	14594 <i>Eremophila parvifolia subsp. auricampa</i>			
1109.	14516 <i>Eremophila praecox</i>		P1	
1110.	10780 <i>Eremophila psilocalyx</i>			
1111.	7259 <i>Eremophila pustulata</i> (Warted Eremophila)			
1112.	7264 <i>Eremophila saligna</i> (Willow Eremophila)			
1113.	7267 <i>Eremophila scoparia</i> (Broom Bush (I))			
1114.	7269 <i>Eremophila serrulata</i> (Serrate-leaved Eremophila)			
1115.	<i>Eremophila sp.</i>			
1116.	17162 <i>Eremophila subfloccosa subsp. lanata</i>			
1117.	7283 <i>Eremophila weldii</i>			
1118.	49080 <i>Eremophila xantholaema</i>		P1	Y
1119.	17158 <i>Myoporum montanum</i> (Native Myrtle)			
1120.	18259 <i>Myoporum platycarpum subsp. platycarpum</i>			
<b>Solanaceae</b>				
1121.	6952 <i>Anthroche pannosa</i> (Felted Anthroche)			
1122.	6955 <i>Crenidium spinescens</i>			
1123.	6960 <i>Datura ferox</i> (Fierce Thornapple)	Y		
1124.	10823 <i>Datura innoxia</i>	Y		
1125.	6966 <i>Duboisia hopwoodii</i> (Pituri, Kundugu)			
1126.	6967 <i>Lycium australe</i> (Australian Boxthorn)			
1127.	6968 <i>Lycium ferocissimum</i> (African Boxthorn)	Y		
1128.	6974 <i>Nicotiana glauca</i> (Tree Tobacco)	Y		
1129.	6978 <i>Nicotiana rotundifolia</i> (Round-leaved Tobacco)			
1130.	6998 <i>Solanum cleistogamum</i>			
1131.	7007 <i>Solanum esuriale</i> (Quena)			
1132.	7013 <i>Solanum hoplopetalum</i> (Thorny Solanum)			
1133.	7018 <i>Solanum lasiophyllum</i> (Flannel Bush, Mindjulu)			
1134.	7022 <i>Solanum nigrum</i> (Black Berry Nightshade)	Y		
1135.	7023 <i>Solanum nummularium</i> (Money-leaved Solanum)			
1136.	7028 <i>Solanum petrophilum</i> (Rock Nightshade)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
1137.	7030 <i>Solanum plicatile</i>			
1138.	7034 <i>Solanum simile</i> (Oondoroo)			
<b>Sparassidae</b>				
1139.	<i>Isopeda magna</i>			
1140.	<i>Isopedella saundersi</i>			
<b>Sternophoridae</b>				
1141.	<i>Afrosterophorus hirsti</i>			Y
<b>Stylidiaceae</b>				
1142.	7685 <i>Stylidium arenicola</i>			
1143.	7714 <i>Stylidium dielsianum</i> (Tangle Triggerplant)			
1144.	7740 <i>Stylidium induratum</i> (Desert Triggerplant)			
<b>Tachyglossidae</b>				
1145.	24207 <i>Tachyglossus aculeatus</i> (Short-beaked Echidna)			
<b>Teloschistaceae</b>				
1146.	48195 <i>Caloplaca scarlatina</i>			
1147.	<i>Caloplaca</i> sp.			
1148.	44983 <i>Fulgensia cranfieldii</i>			
1149.	27754 <i>Fulgensia subbracteata</i>			
1150.	45299 <i>Jackelixia elixii</i>			
<b>Thamnocephalidae</b>				
1151.	33934 <i>Branchinella denticulata</i> (fairy shrimp (Carnarvon to Kalgoorlie))		P3	
<b>Theraphosidae</b>				
1152.	<i>Selenotholus foelschei</i>			
<b>Theridiidae</b>				
1153.	<i>Latrodectus hasseltii</i>			
<b>Threskiornithidae</b>				
1154.	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
1155.	24845 <i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
<b>Thylacomyidae</b>				
1156.	24168 <i>Macrotis lagotis</i> (Bilby, Dalgyte, Ninu)		T	
<b>Thymelaeaceae</b>				
1157.	5231 <i>Pimelea angustifolia</i> (Narrow-leaved Pimelea)			
1158.	11185 <i>Pimelea microcephala</i> subsp. <i>microcephala</i>			
<b>Triopsidae</b>				
1159.	39407 <i>Triops australiensis</i> (Shield Shrimp)			
<b>Trochanteriidae</b>				
1160.	<i>Corimaethes campestris</i>			
<b>Turnicidae</b>				
1161.	24851 <i>Turnix velox</i> (Little Button-quail)			
<b>Tytonidae</b>				
1162.	24852 <i>Tyto alba</i> subsp. <i>delicatula</i> (Barn Owl)			
<b>Urodacidae</b>				
1163.	<i>Urodacus armatus</i>			
1164.	<i>Urodacus hoplurus</i>			
1165.	<i>Urodacus yaschenkoi</i>			
<b>Urticaceae</b>				
1166.	1767 <i>Urtica urens</i> (Small Nettle)	Y		
<b>Ustilaginaceae</b>				
1167.	45897 <i>Ustilago comburens</i>			
<b>Varanidae</b>				
1168.	25211 <i>Varanus caudolineatus</i>			
1169.	25218 <i>Varanus gouldii</i> (Bungarra or Sand Monitor)			
1170.	25526 <i>Varanus tristis</i> (Racehorse Monitor)			
<b>Verbenaceae</b>				
1171.	29836 <i>Glandularia aristigera</i>	Y		
1172.	13557 <i>Phyla canescens</i>	Y		
<b>Verrucariaceae</b>				
1173.	27739 <i>Endocarpon pusillum</i>			
1174.	27741 <i>Endocarpon simplicatum</i>			
1175.	<i>Placidium lacinulatum</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
1176.	27984 <i>Placidium squamulosum</i>			
<b>Vespertilionidae</b>				
1177.	24186 <i>Chalinolobus gouldii</i> (Gould's Wattled Bat)			
1178.	24187 <i>Chalinolobus morio</i> (Chocolate Wattled Bat)			
1179.	24194 <i>Nyctophilus geoffroyi</i> (Lesser Long-eared Bat)			
1180.	24199 <i>Scotorepens balstoni</i> (Inland Broad-nosed Bat)			
1181.	24202 <i>Vespadelus baverstocki</i> (Inland Forest Bat)			
1182.	24205 <i>Vespadelus finlaysoni</i> (Finlayson's Cave Bat)			
1183.	24206 <i>Vespadelus regulus</i> (Southern Forest Bat)			
<b>Violaceae</b>				
1184.	11973 <i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>			
<b>Zodariidae</b>				
1185.	<i>Storena sinuosa</i>			
<b>Zosteropidae</b>				
1186.	25765 <i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereye)			
<b>Zygophyllaceae</b>				
1187.	48885 <i>Roepera aurantiaca</i> subsp. <i>aurantiaca</i>			
1188.	48890 <i>Roepera eremaea</i>			
1189.	48892 <i>Roepera glauca</i> (Pale Twinleaf, Pale Twin-leaf)			
1190.	48903 <i>Roepera tetraptera</i>			
1191.	4383 <i>Tribulus terrestris</i> (Caltrop)	Y		

**Conservation Codes**  
T - Rare or likely to become extinct  
X - Presumed extinct  
IA - Protected under international agreement  
S - Other specially protected fauna  
1 - Priority 1  
2 - Priority 2  
3 - Priority 3  
4 - Priority 4  
5 - Priority 5

<sup>1</sup> For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

## APPENDIX H: EPBC PROTECTED MATTERS SEARCH (40KM BUFFER)





# 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.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 10/12/21 06:30:29

[Summary](#)

[Details](#)

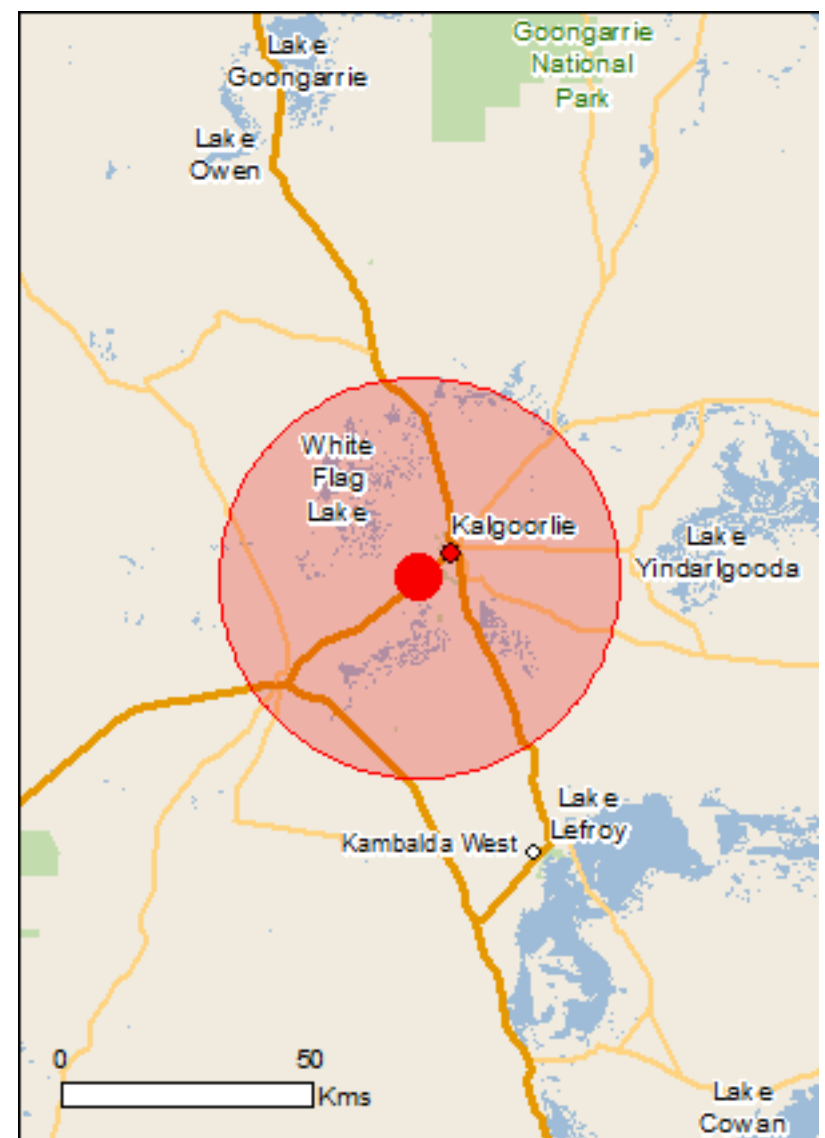
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



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[Coordinates](#)

Buffer: 40.0Km



# Summary

## Matters of National Environmental Significance

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

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	1
<a href="#">Wetlands of International Importance:</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	8
<a href="#">Listed Migratory Species:</a>	7

## 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 <http://www.environment.gov.au/heritage>

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

<a href="#">Commonwealth Land:</a>	4
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	11
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None

## Extra Information

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

<a href="#">State and Territory Reserves:</a>	5
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	16
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">Key Ecological Features (Marine)</a>	None

# Details

## Matters of National Environmental Significance

National Heritage Properties		[ Resource Information ]
Name	State	Status
<b>Historic</b>		
<a href="#">Goldfields Water Supply Scheme, Western Australia</a>	WA	Listed place

Listed Threatened Species		[ Resource Information ]
Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Falco hypoleucos</a> Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
<a href="#">Leipoa ocellata</a> Malleefowl [934]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pezoporus occidentalis</a> Night Parrot [59350]	Endangered	Species or species habitat may occur within area

<b>Insects</b>		
<a href="#">Ogyris subterrestris petrina</a> Arid Bronze Azure [77743]	Critically Endangered	Species or species habitat may occur within area

<b>Mammals</b>		
<a href="#">Dasyurus geoffroii</a> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area

<b>Plants</b>		
<a href="#">Gastrolobium graniticum</a> Granite Poison [14872]	Endangered	Species or species habitat may occur within area
<a href="#">Thelymitra stellata</a> Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area

Listed Migratory Species		[ Resource Information ]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
<b>Migratory Marine Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area

<b>Migratory Terrestrial Species</b>		
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Name	Threatened	Type of Presence
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

## Other Matters Protected by the EPBC Act

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

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.

Name
Commonwealth Land - Defence - AIRTC KALGOORLIE Defence - KALGOORLIE RIFLE RANGE Defence - KALGOORLIE TRAINING DEPOT

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

\* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
<b>Birds</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Chrysococcyx osculans</a> Black-eared Cuckoo [705]		Species or species



Name	Threatened	Type of Presence
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		habitat known to occur within area  Species or species habitat may occur within area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<a href="#">Thinornis rubricollis</a> Hooded Plover [59510]		Species or species habitat may occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

## Extra Information

State and Territory Reserves	[ Resource Information ]
Name	State
Kalgoorlie Arboretum	WA
Kurrawang	WA
Lakeside Timber Reserve	WA
Scahill Timber Reserve	WA
Yallari Timber Reserve	WA

## Invasive Species [ Resource Information ]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
<b>Birds</b>		
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
<b>Mammals</b>		
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Equus asinus Donkey, Ass [4]		Species or species habitat likely to occur

Name	Status	Type of Presence within area
Equus caballus Horse [5]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
<b>Plants</b>		
Carrichtera annua Ward's Weed [9511]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Cylindropuntia spp. Prickly Pears [85131]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
<b>Reptiles</b>		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

# Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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.

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

Where very little information is available for 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 reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

# Coordinates

-30.79001 121.4139

# 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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**BINDULI GAS PIPELINE**

Native Vegetation Clearing Permit Supporting Document



**ATTACHMENT 1 - BIN\_NVCP APPLICATION  
AREA SHAPEFILE**