

**DESKTOP FLORA AND FAUNA
ASSESSMENT
SECOND FORTUNE GOLD PROJECT**

PREPARED FOR:

EXTERRA RESOURCES LIMITED



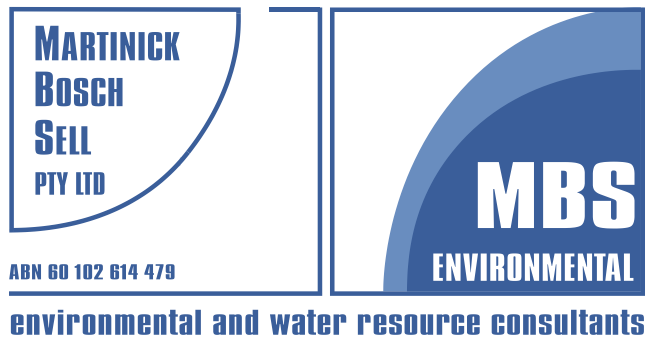
APRIL 2013

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MBS
ENVIRONMENTAL



DESKTOP FLORA AND FAUNA ASSESSMENT SECOND FORTUNE GOLD PROJECT

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TABLE OF CONTENTS

1.	OVERVIEW	1
1.1	BACKGROUND.....	1
1.2	PURPOSE.....	1
1.3	LOCATION AND REGIONAL SETTING.....	1
2.	LEGISLATIVE BACKGROUND	3
2.1	INTERNATIONAL.....	3
2.2	COMMONWEALTH	3
2.3	STATE.....	4
3.	METHODOLOGY.....	6
3.1	EPA GUIDANCE STATEMENTS	6
3.1.1	Terrestrial Flora and Fauna.....	6
3.1.2	Subterranean Fauna.....	6
3.2	DESKTOP ASSESSMENT	6
3.3	SITE ASSESSMENT	7
4.	RESULTS	8
4.1	FAUNA DESKTOP.....	8
4.2	FLORA DESKTOP	11
4.3	SUBTERRANEAN FAUNA DESKTOP	14
4.4	SITE ASSESSMENT	14
4.4.1	Terrestrial Flora and Fauna.....	14
4.4.2	Subterranean Fauna and Habitat	16
5.	CONCLUSIONS AND RECOMMENDATIONS.....	17
6.	REFERENCES.....	18

TABLES

Table 1:	Fauna Database Search Results	9
Table 2:	Flora and Community Database Search Results.....	12

FIGURES

Figure 1:	Location Plan.....	2
Figure 2:	Locations of Conservation Significant Flora and Priority Ecological Communities ..	13

PLATES

Plate 1:	Condition of Second Fortune Gold Project Area Vegetation	15
Plate 2:	Aerial View of Site	15
Plate 3:	Condition of Adjoining Vegetation Outside the Project Area	16

APPENDICES

Appendix 1:	Database Search Results
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1. OVERVIEW

1.1 BACKGROUND

MBS Environmental (MBS) was commissioned by Exterra Resources Limited (Exterra) to undertake an assessment of flora, fauna (including subterranean fauna) and ecological communities of the Second Fortune Deposit of the Linden Gold Project (“Second Fortune Project”).

The site has a long gold mining history having first been developed on a small scale between 1941 and 1953. In 1980 a small open cut pit was mined, with subsequent underground mining occurring in 1985. The site comprises a tailings storage facility (TSF), mine camp, evaporation ponds and access roads. No rehabilitation has been undertaken and as such, the site remains highly disturbed with little vegetation re-establishment on disturbed areas.

Exterra propose to recommence underground mining of the Second Fortune Deposit with ore to be toll treated at a nearby processing plant. Minor dewatering of the underground will be required to allow dry mining. It is understood that mining activities and infrastructure proposed by Exterra will utilise existing areas of disturbance with minimal vegetation clearing expected to occur.

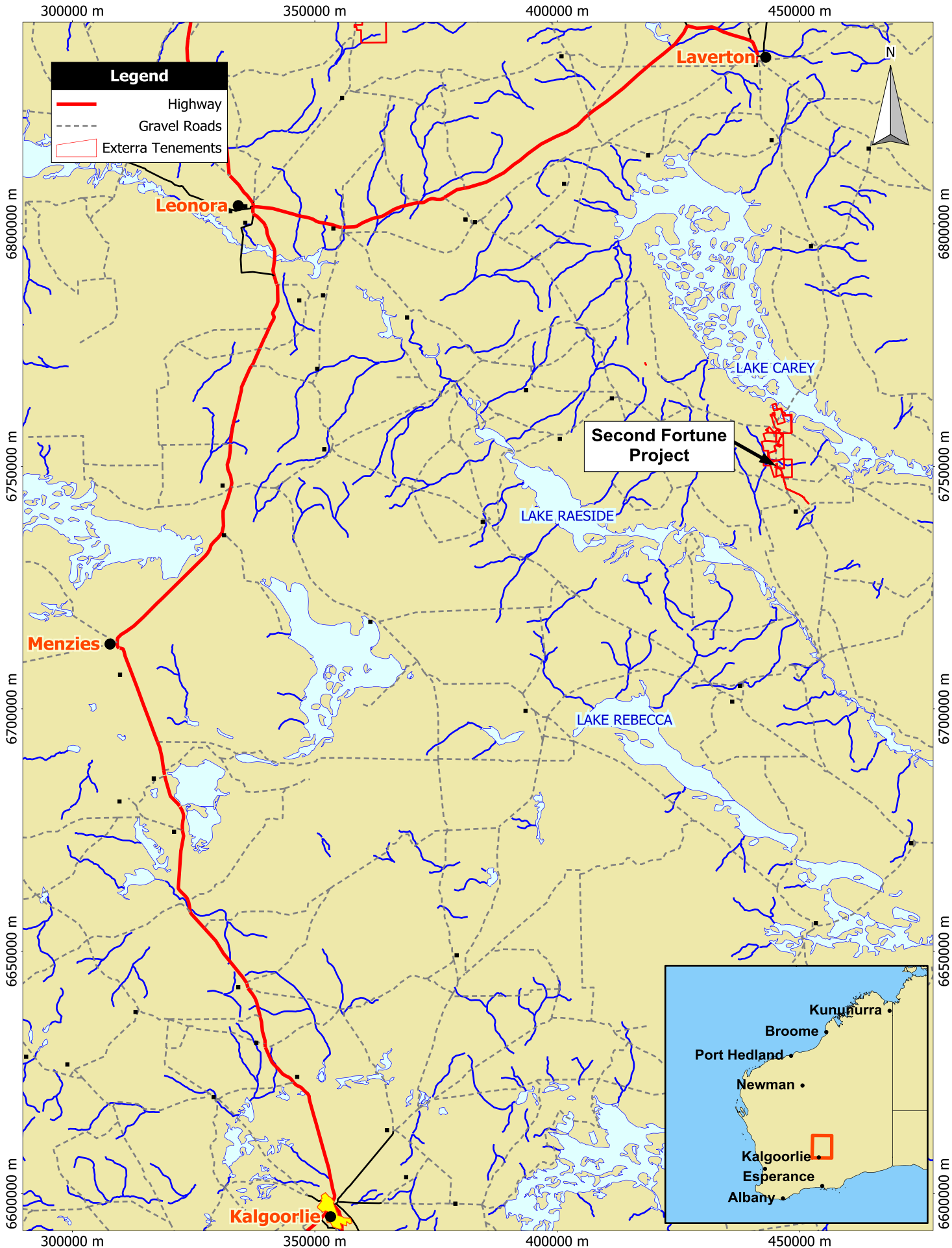
1.2 PURPOSE

The purpose of the desktop survey was to identify flora, fauna and ecological communities of conservation significance with the potential to occur in the area, and determine the likelihood of any species or communities being present in the area of disturbance. The desktop assessment also makes recommendations regarding the need for additional ecological studies to ensure adequate data is provided in approval documentation to be submitted to the Department of Mines and Petroleum (DMP) and the Department of Environment and Conservation (DEC).

1.3 LOCATION AND REGIONAL SETTING

The Second Fortune Deposit is located approximately 200 kilometres northeast of Kalgoorlie and about 10 kilometres south of the old Linden Gold Centre on mining lease M 39/255. The project location is shown on Figure 1. Access to the site is via the unsealed Yarri Road.

The Second Fortune Project is located in the East Murchison subregion of the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) Bioregion which is characterised by internal drainage lines to salt lake systems associated with the occluded Paleodrainage system. It has extensive areas of elevated red desert sandplains with few dunes, broad plains of red-brown soils and breakaway complexes. Vegetation is generally Mulga Woodlands with ephemeral species, hummock grasslands, saltbush shrublands and Halosarcia shrublands (Cowan 2001).



Legend

- Highway
- - - Gravel Roads
- Exterra Tenements



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Scale: 1:1000000
Original Size: A4
Grid: Australia MGA94 (51)

0 40 km

Exterra Resources Ltd
Second Fortune Project

Location Plan

Figure 1

2. LEGISLATIVE BACKGROUND

Flora, fauna and ecological communities are protected under a number of international agreements and through national and state legislation. An overview of the relevant legislative framework for the protection of flora, fauna and ecological communities of conservation significance is provided in the following sub-sections, including definitions of conservation categories referred to in subsequent sections.

2.1 INTERNATIONAL

Australia has entered into international agreements for the protection of migratory birds. These agreements provide protection to listed species even though they may not be considered threatened in either of the countries party to the agreement. The agreements which may be applicable to the project are:

- **JAMBA:** Japan – Australia Migratory Bird Agreement.
- **CAMBA:** China – Australia Migratory Bird Agreement.
- **ROKAMBA:** Agreement between the Government of Australia and the Government of the Republic of Korea on the Protection of Migratory Birds.
- **Bonn:** Convention on the Conservation of Migratory Species of Wild Animals.

2.2 COMMONWEALTH

The *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* classifies native species that are nationally threatened as well as species listed under international agreements (above):

- **Extinct¹:** no reasonable doubt that the last member of the species has died.
- **Extinct in the Wild:** 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.
- **Critically Endangered:** facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- **Endangered:** not critically endangered and facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- **Vulnerable:** not critically endangered or endangered and facing a high risk of extinction in the wild in the medium term future, as determined in accordance with the prescribed criteria.
- **Conservation Dependent¹:** focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered.

¹ Species listed as Conservation Dependent and Extinct are not matters of National Environmental Significance and therefore do not trigger the *EPBC Act*.

The *EPBC Act* also categorises threatened ecological communities (TECs) as, vulnerable, endangered or critically endangered.

2.3 STATE

The *Western Australian Wildlife Conservation Act 1950 (WC Act)* lists conservation significant species on the Wildlife Conservation (Specially Protected Fauna) Notice 2012(2):

- **Schedule 1:** Fauna that is rare or is likely to become extinct.
- **Schedule 2:** Fauna presumed to be extinct.
- **Schedule 3:** Birds protected under an international agreement.
- **Schedule 4:** Other specially protected fauna.

Rare Flora species are gazetted under subsection 2 of Section 23F of the *WC Act* and are defined as:

- **Threatened Flora (Declared Rare Flora – Extant) (T):** Plants that have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection and have been gazetted as such.
- **Presumed Extinct Flora – (Declared Rare Flora – Extinct) (X):** Plants that have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently and have been gazetted as such.

The DEC maintains a list of Priority species not protected under the *WC Act*:

- **Priority 1:** Taxa with few, poorly known populations on threatened lands.
- **Priority 2:** Taxa with few, poorly known populations on conservation lands.
- **Priority 3:** Taxa with several, poorly known populations, some on conservation lands.
- **Priority 4:** Taxa in need of monitoring – not currently threatened but could be if present circumstances change.
- **Priority 5:** Taxa in need of monitoring – not currently threatened but subject to a conservation program, the cessation of which could result in the species becoming threatened.

The DEC also maintains a list of TECs that have been endorsed by the Minister for the Environment. Some TECs that occur in Western Australia are also listed as nationally threatened under the *EPBC Act*. Priority Ecological Communities (PECs) are also defined by DEC and are ecological communities that are possibly threatened but that do not meet survey criteria or are not adequately defined. The categories of DEC listed PECs are:

- **Priority 1:** Poorly-known ecological communities known from very few occurrences with a very restricted distribution which are considered to be under threat.
- **Priority 2:** Poorly-known ecological communities known from few occurrences with a restricted distribution, some occurrences not under immediate threat.
- **Priority 3:** Poorly known ecological communities, known from several to many occurrences, a significant number or area are not under threat or known from a few widespread occurrences, which are large or with significant remaining areas of habitat in

which other occurrences may occur, much of it not under imminent threat/ large, and/or widespread occurrences, that may or may not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, and inappropriate fire regimes.

- **Priority 4:** Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened or that have been recently removed from the threatened list. These communities require regular monitoring.
- **Priority 5:** Conservation Dependent ecological communities.

3. METHODOLOGY

3.1 EPA GUIDANCE STATEMENTS

3.1.1 Terrestrial Flora and Fauna

The Environmental Protection Authority (EPA) provides advice on the level and standard of survey effort required to determine whether conservation significant flora, fauna and ecological communities are present within a project area in particular regions, giving consideration to the scale and nature of impacts. The following Guidance Statements were used to determine the appropriate level of survey for the Second Fortune Project:

- **Guidance Statement 51:** Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia.
- **Guidance Statement 56:** Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia.

A level 1 desktop flora and fauna survey was considered to be appropriate given the small scale of the impact and previously disturbed nature of the site. A level 1 survey requires a desktop assessment of existing information including survey reports and database searches as well as a reconnaissance visit to the site to assess communities and habitats at a high level.

3.1.2 Subterranean Fauna

The EPA requires proponents to undertake a survey for subterranean fauna when a project may potentially have a significant impact on groundwater levels, groundwater quality, or subterranean cave and void systems. EPA Guidance Statement 54 (Consideration of Subterranean Fauna in Groundwater and Caves during Environmental Impact Assessment in Western Australia) provides advice on the level and standard of survey effort required for different regions, geology and aquifer types.

A desktop assessment to determine the likely presence of significant subterranean fauna habitat within the project area was undertaken. The desktop assessment found no significant subterranean fauna habitat within the project area. The geology of the project was representative of that in the region and due to the localised scale of dewatering the likelihood of any significant impact on subterranean fauna, if present, is very small. No further investigation on subterranean fauna is recommended as a result of this review.

3.2 DESKTOP ASSESSMENT

The desktop assessment of terrestrial flora and fauna consisted of searches of the following databases using a central coordinate (122.43571 E, -29.3762 S) and buffer:

- Protected Matters Search Tool (*EPBC Act*) with a 100 kilometre buffer.
- NatureMap (*WC Act* and DEC Priority fauna list) with a 40 kilometre buffer.
- DEC Threatened Fauna Database Search with a 50 kilometre buffer.
- DEC threatened flora databases search with a 50 kilometre buffer:

- Threatened (Declared Rare) and Priority Flora Database.
- Western Australian Herbarium Specimen Database.
- Threatened and Priority Flora List.
- DEC Threatened Ecological Communities Database Search.

A subterranean fauna and habitat assessment for the site was undertaken and comprised:

- A search of the Western Australian Museum (WAM) Subterranean Fauna Database.
- Review of site hydrogeology, including water quality and hydrogeological features.
- Review of site geology.
- Review of other studies in the vicinity of the project area.

Based on the results of these searches and assessment of the Project Area, the likelihood of significant flora, fauna and subterranean fauna species occurring was determined (see Section 4).

3.3 SITE ASSESSMENT

A site assessment was conducted on 18 December 2012 by Darren Graham of MBS Environmental.

The purpose of the site assessment was to determine the potential for conservation significant flora, fauna and ecological communities to be present. The assessment comprised a comprehensive traverse of the project area on foot. The area was assessed for re-establishment of vegetation and potential for fauna habitat.

Dr David Allen of MBS Environmental undertook a site assessment of the geology above and below the water table on 24 September 2012 to determine if appropriate subterranean fauna habitat is present. Water samples were also taken to analyse metals and total dissolved solids which may influence the presence/absence of subterranean fauna.

4. RESULTS

4.1 FAUNA DESKTOP

The results of the fauna database searches are provided in Table 1 and Appendix 1. In summary, the desktop identified:

- Ten birds – seven protected under the *EPBC Act*, four under the *WC Act* and two listed as Priority 4 by the DEC.
- Two reptiles – one protected under the *EPBC Act* and the other under the *WC Act*.
- Two mammals – both protected under the *EPBC Act* and *WC Act*.
- One invertebrate – listed as Priority 1 by the DEC.

Table 1: Fauna Database Search Results

Scientific Name	Common Name	EPBC Act	WC Act	DEC Priority Listing	Likelihood of Occurrence
Birds					
<i>Acanthiza iredalei iredalei</i>	Slender-billed Thornbill (western).	Vulnerable			Unlikely, lack of suitable habitat (samphire).
<i>Leipoa ocellata</i>	Malleefowl.	Vulnerable, Migratory Terrestrial	Schedule 1 Vulnerable		Unlikely, highly disturbed environment.
<i>Polytelis alexandrae</i>	Princess Parrot.	Vulnerable		Priority 4	Unlikely, highly disturbed environment.
<i>Apus pacificus</i>	Fork-tailed Swift.	Migratory Marine			Possibly overfly area.
<i>Ardea alba</i>	Great Egret, White Egret.	Migratory Marine, Wetlands			Unlikely, lack of suitable habitat (wetlands).
<i>Merops ornatus</i>	Rainbow Bee-eater.	Migratory Terrestrial, Marine			Possible overfly, breeding, impacts minimal.
<i>Charadrius veredus</i>	Oriental Plover, Oriental Dotterel.	Migratory Wetlands, Marine	Schedule 3 Migratory		Unlikely, lack of suitable habitat (wetlands).
<i>Calidris ruficollis</i>	Red-necked Stint.		Schedule 3 Migratory		Unlikely, lack of suitable habitat (coastal).
<i>Ardeotis australis</i>	Australian Bustard.			Priority 4	Possible, mobile species impacts limited.
<i>Falco peregrinus</i> subsp. <i>macropus</i>	Australian Peregrine Falcon.		Schedule 4 Other Specially Protected Fauna		Possible, lack of breeding habitat means impacts minimal.

Scientific Name	Common Name	EPBC Act	WC Act	DEC Priority Listing	Likelihood of Occurrence
Reptiles					
<i>Liopholis kintorei</i>	Great Desert Skink.	Vulnerable			Unlikely, lack of suitable habitat.
<i>Aspidites ramsayi</i>	Woma Python.		Schedule 4 Other Specially Protected Fauna		Possible.
Mammals					
<i>Dasymercus cristicauda</i>	Mulgara.	Vulnerable	Schedule 1 Vulnerable		Unlikely, lack of suitable habitat (dunes, spinifex plains).
<i>Sminthopsis psammophila</i>	Sandhill Dunnart.	Endangered	Schedule 1 Endangered		Unlikely, lack of suitable habitat (dunes).
Invertebrates					
<i>Branchinella simplex</i>	Fairy Shrimp.			Priority 1	Unlikely, records from Lake Carey.

4.2 FLORA DESKTOP

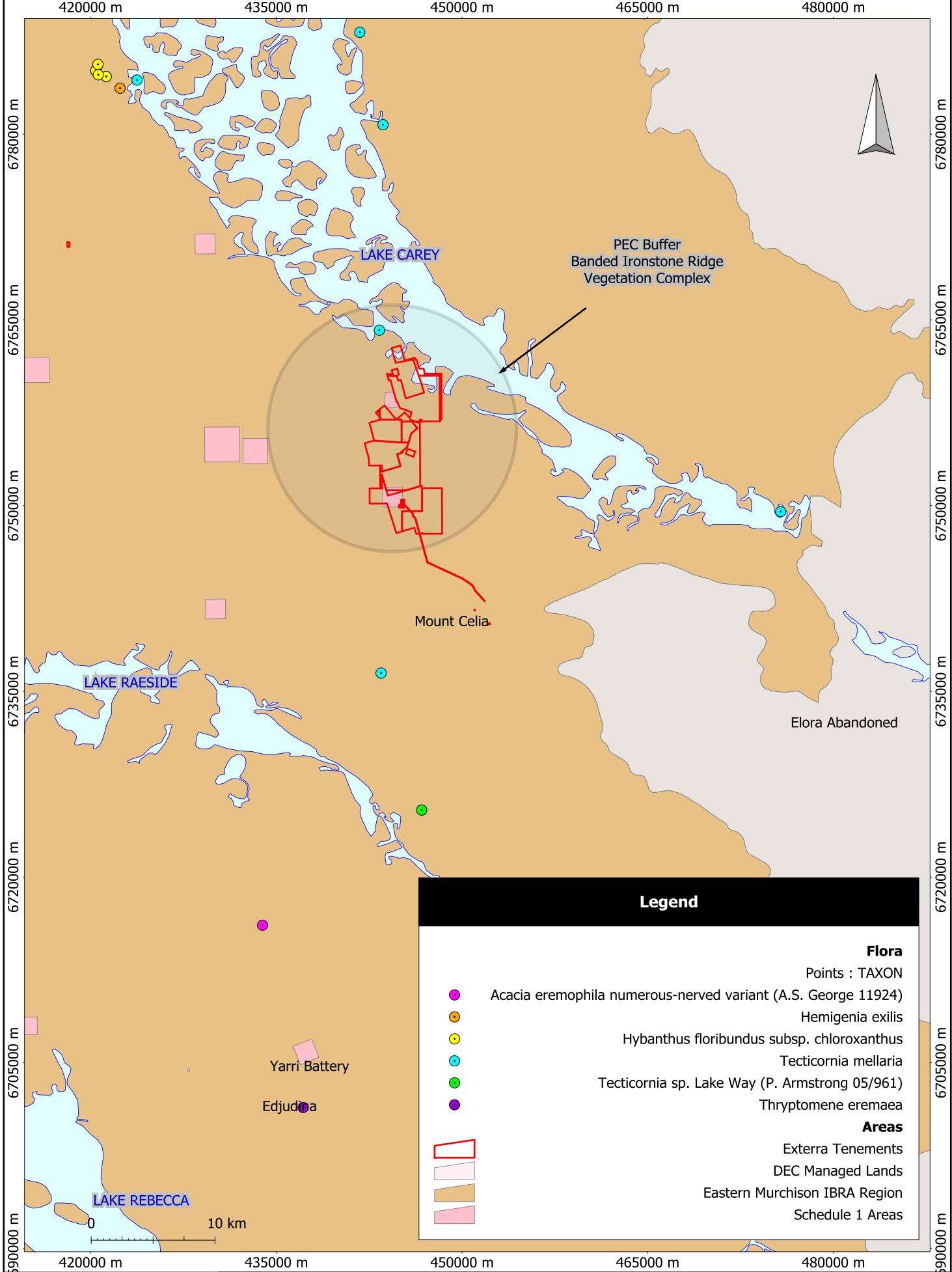
The results of the flora and ecological communities database searches in Table 2 and Appendix 1. In summary, the desktop identified:

- Ten flora species – one protected under the *EPBC Act* and nine species listed by DEC as Priority flora species.
- One community – listed as a Priority 1 Ecological Community by DEC.

Where available, the location of conservation significant flora and the Priority Ecological Community buffer is shown on Figure 2.

Table 2: Flora and Community Database Search Results

Scientific Name	Common Name	EPBC Act	WC Act	DEC Priority Listing	Likelihood of Occurrence
Flora					
<i>Gastrolobium graniticum</i>	Granite Poison.	Endangered			Unlikely, no granite outcrops.
<i>Eremophila eversa</i>				Priority 1	Unlikely, uncommon, known from one (deceased) specimen near Menzies, habitat not specified.
<i>Ptilotus tetrandrus</i>				Priority 1	Unlikely, highly disturbed. Loamy sand.
<i>Tecticornia mellaria</i>				Priority 1	Unlikely, no gypsiferous dunes, salt lakes or freshwater flow lines.
<i>Tecticornia</i> sp. Lake Way				Priority 1	Unlikely, no Halosarcia flats, salt lake beds or occasionally inundated on grey loamy clay sand within Project area.
<i>Thryptomene eremaea</i>				Priority 2	Unlikely, highly disturbed. Sandy veneer over granite, yellow sand.
<i>Acacia eremophila</i> numerous-nerved variant				Priority 3	Unlikely, highly disturbed. Sandy soils and flats.
<i>Angianthus prostrates</i>				Priority 3	Unlikely, highly disturbed. Red clay or loamy soils. Saline depressions.
<i>Hybanthus floribundus</i> subsp. <i>chloroxanthus</i>				Priority 3	Unlikely; no lateritic outcrops.
<i>Hemigenia exilis</i>				Priority 4	Unlikely; no lateritic outcrops.
Priority Ecological Communities					
	Mount Linden Range banded ironstone ridge vegetation complex			Priority 3	Unlikely, highly disturbed site, no Banded Iron Formation outcropping observed.



4.3 SUBTERRANEAN FAUNA DESKTOP

Stygofauna typically occur in porous, karstic and fractured-rock aquifers, springs and hyporheic groundwater habitats (Eberhard et al. 2005). Significant stygal communities in the Yilgarn are associated with major calcrete systems in the paleodrainages. Stygofauna are also expected in the Yilgarn region where significant fractures, vuggines and subterranean spaces occur in weathered Banded Ironstone Formation (BIF) where host rocks are predominantly basalt or ultramafic (Bennelongia 2009).

Troglofauna, or more specifically troglobites, are obligate terrestrial subterranean fauna that inhabit air chambers in underground caves or other smaller voids in sub-surface regolith above the water table and are unable to survive outside the subterranean environment (Louisa Lawrance and Associated Pty Ltd 2009). Where small subterranean voids are present, then the pattern of their occurrence will affect the density and distribution of troglofauna. Lateral connectivity of voids is important because it enables animals to move about underground, while vertical connectivity with the surface is important for supplying carbon and nutrients to maintain populations of different species. Geological features such as major faults and dykes may block off the continuity of subterranean habitat and thus act as barriers to below-ground dispersal of troglofauna, causing species to have highly restricted ranges (Bennelongia 2010).

The results of the WAM subterranean fauna database search yielded no records of subterranean fauna within a 25 kilometre buffer of the site.

The results of subterranean fauna desktop assessments and surveys conducted as part of a proposal to dewater Red October (13 kilometres north) and Deep South (19 kilometres south southeast) were reviewed (Saracen 2010; 2012). The desktop assessment for Red October included review of a stygofauna survey undertaken by WAM at Mt Weld Borefield, Granny Smith TSF and the Mt Morgans area for the Wallaby project (Saracen 2010). No stygofauna were recorded during the survey. A stygofauna survey undertaken at Deep South recorded no subterranean fauna (Saracen 2012).

4.4 SITE ASSESSMENT

4.4.1 Terrestrial Flora and Fauna

The site assessment confirmed that the majority of the site is highly disturbed from previous mining operations, surrounded by areas of relatively undisturbed Mulga woodland. As no rehabilitation activities were undertaken following mining operations, vegetation re-establishment is limited, providing little to no habitat for native fauna species.

The disturbed condition of the site, including native vegetation re-establishment and limited potential for fauna habitat is shown in the site photograph provided as Plate 1 and the aerial photograph of the site (Plate 2). The surrounding Mulga Woodland vegetation (outside the proposed Project area) is shown on Plate 3 to give an indication of the original vegetation type of the area.



Plate 1: Condition of Second Fortune Project Area Vegetation



Plate 2: Aerial View of Site



Plate 3: Condition of Adjoining Vegetation Outside the Project Area

4.4.2 Subterranean Fauna and Habitat

The geology of the project area is mainly an Archean sedimentary sequence ranging from shales to siltstones to sandstones to conglomerates. Sediments are mainly derived from weathering of mafic materials, subsequently resulting in alkaline and hard groundwater. Salinity in groundwater ranges from 6,000 to 20,000 milligrams per litre and occurs about eight to ten metres below ground level, within the oxidised zone. Soluble metal and metalloid concentrations are very low and the presence of nitrate at levels typical of the shallow groundwater in the northeastern goldfields suggests that the water is oxygenated.

Whilst groundwater quality within the project area is considered suitable for stygofauna populations, the tightness of the structural features provide for only low permeability of the hydrogeological units (Rockwater 2013). The absence of calcretes and/or significant fractures, pour spaces or voids in these units makes the likelihood of stygofauna or troglifauna occurring very low. The ubiquitous presence of a shallow ferricrete layer (“Wiluna Hardpan”) may also restrict transfer of food sources for subterranean fauna from the surface to groundwater.

5. CONCLUSIONS AND RECOMMENDATIONS

A number of conservation significant flora and fauna species and a conservation significant ecological community were identified as having the potential to occur in the project area through desktop database searches.

The long mining history of the Second Fortune Project has resulted in the area being highly disturbed. This was evident through review of aerial photography, which showed little to no native vegetative cover on previously disturbed areas. The site visit conducted in September and December 2012 confirmed this assessment, with the majority of the area represented by bare earth and little representation by native vegetation species.

The lack of reinstated native vegetation cover in the proposed project area makes it highly unlikely that any conservation significant flora or fauna species would inhabit the area, or that development of this area, if occurring on areas of existing disturbance, would threaten any of the species identified through the desktop assessment.

Low permeability hydrogeological units and lack of significant fractures or voids in the geology at the Second Fortune Project, together with the paucity of subterranean fauna records, makes it highly unlikely that any significant subterranean fauna communities would be present in the project area. As the spatial scale of dewatering for development of the project is localised any impact, should subterranean fauna be present, is likely to be very small.

On this basis, MBS do not believe further flora and vegetation or fauna and habitat assessment is required.

6. REFERENCES

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APPENDICES

**APPENDIX 1:
DATABASE SEARCH RESULTS**



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.

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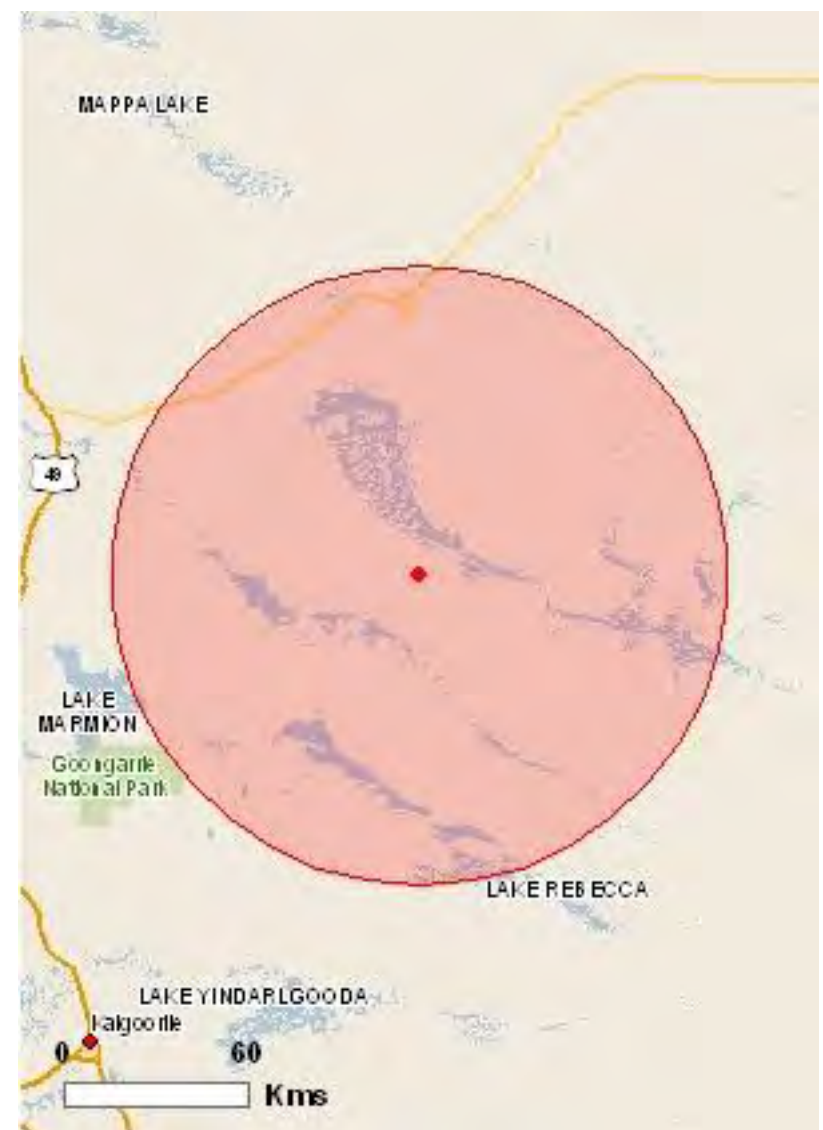
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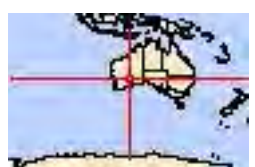
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[Buffer: 100.0Km](#)



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](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	7
Listed Migratory Species:	6

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 and the heritage values of a place on the Register of the National Estate.

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.

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

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	4
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves:	None

Extra Information

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

Place on the RNE:	3
State and Territory Reserves:	1
Regional Forest Agreements:	None
Invasive Species:	7
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Acanthiza iredalei iredalei Slender-billed Thornbill (western) [25967]	Vulnerable	Species or species habitat likely to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat may occur within area
Mammals		
Dasycercus cristicauda Mulgara [328]	Vulnerable	Species or species habitat likely to occur within area
Sminthopsis psammophila Sandhill Dunnart [291]	Endangered	Species or species habitat likely to occur within area
Plants		
Gastrolobium graniticum Granite Poison [14872]	Endangered	Species or species habitat likely to occur within area
Reptiles		
Liopholis kintorei Great Desert Skink, Tjakura, Warrarna, Mulyamiji [83160]	Vulnerable	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
Migratory Marine Birds		

Name	Threatened	Type of Presence
Apus pacificus Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Migratory Wetlands Species		
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may 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 -

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
Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area

Extra Information

Places on the RNE [\[Resource Information \]](#)

Note that not all Indigenous sites may be listed.

Name	State	Status
Natural		
Lake Marmion	WA	Indicative Place
Goongarrie Area	WA	Registered
Indigenous		
Mount Margaret Aboriginal Mission Buildings	WA	Indicative Place

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

Name	State
Goongarrie	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
Mammals		
Capra hircus Goat [2]		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
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
Plants		
Carrichtera annua Ward's Weed [9511]		Species or species habitat may occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018]		Species or species habitat likely to occur within area

Nationally Important Wetlands [\[Resource Information \]](#)

Name	State
Lake Marmion	WA

Coordinates

-29.3762 122.43571

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 Heritage and Register of National Estate properties, Wetlands of International 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.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

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.

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:

- [-Department of Environment, Climate Change and Water, New South Wales](#)
- [-Department of Sustainability and Environment, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment and Natural Resources, South Australia](#)
- [-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts](#)
- [-Environmental and Resource Management, Queensland](#)
- [-Department of Environment and Conservation, Western Australia](#)
- [-Department of the Environment, Climate Change, Energy and Water](#)
- [-Birds Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-SA 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, Atherton and Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [-State Forests of NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- 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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NatureMap Species Report

Created By Guest user on 29/08/2012

Current Names Only Yes
Core Datasets Only Yes
Method 'By Circle'
Centre 122°26' 03" E, 29°22' 36" S
Buffer 40km
Group By Conservation Status

Conservation Status	Species	Records
Rare or likely to become extinct	1	2
Protected under international agreement	2	2
Other specially protected fauna	1	2
Priority 1	3	10
Priority 3	2	3
Non-conservation taxon	212	662
TOTAL	221	681

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
Rare or likely to become extinct				
1.	24557 <i>Leipoa ocellata</i> (Malleefowl)		T	
Protected under international agreement				
2.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
3.	24598 <i>Merops ornatus</i> (Rainbow Bee-eater)		IA	
Other specially protected fauna				
4.	24475 <i>Falco peregrinus subsp. macropus</i> (Australian Peregrine Falcon)		S	
Priority 1				
5.	33935 <i>Branchinella simplex</i> (fairy shrimp)		P1	
6.	31832 <i>Tecticornia mellaria</i>		P1	
7.	34958 <i>Tecticornia</i> sp. Lake Way (P. Armstrong 05/961)		P1	
Priority 3				
8.	16014 <i>Acacia eremophila numerous-nerved variant</i> (A.S. George 11924)		P3	
9.	19157 <i>Hybanthus floribundus subsp. chloroxanthus</i>		P3	
Non-conservation taxon				
10.	3217 <i>Acacia aneura</i> (Mulga)			
11.	37260 <i>Acacia aptaneura</i>			
12.	3248 <i>Acacia burkittii</i> (Sandhill Wattle)			
13.	36417 <i>Acacia caesaneura</i>			
14.	16020 <i>Acacia eremophila</i> var. <i>eremophila</i>			
15.	36418 <i>Acacia incurvaneura</i>			
16.	36416 <i>Acacia mulganeura</i>			
17.	19499 <i>Acacia ramulosa</i> var. <i>ramulosa</i>			
18.	31926 <i>Acacia</i> sp. Wandinong (A.A. Mitchell 917)			
19.	24559 <i>Acanthagenys rufogularis</i> (Spiny-cheeked Honeyeater)			
20.	24260 <i>Acanthiza apicalis</i> (Broad-tailed Thornbill)			
21.	24261 <i>Acanthiza chrysorrhoa</i> (Yellow-rumped Thornbill)			
22.	24265 <i>Acanthiza uropygialis</i> (Chestnut-rumped Thornbill)			
23.	2372 <i>Amyema fitzgeraldii</i> (Pincushion Mistletoe)			
24.	2383 <i>Amyema preissii</i> (Wireleaf Mistletoe)			
25.	24312 <i>Anas gracilis</i> (Grey Teal)			
26.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
27.	24087 <i>Antechinomys laniger</i> (Kultarr)			
28.	25528 <i>Aphelocephala leucopsis</i> (Southern Whiteface)			
29.	207 <i>Aristida contorta</i> (Bunched Kerosene Grass)			
30.	25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)			
31.	2453 <i>Atriplex codonocarpa</i> (Flat-topped Saltbush)			
32.	2468 <i>Atriplex nana</i>			
33.	2476 <i>Atriplex semilunaris</i> (Annual Saltbush)			
34.	2481 <i>Atriplex vesicaria</i> (Bladder Saltbush)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
35.	24318 <i>Aythya australis</i> (Hardhead)			
36.	25333 <i>Brachyurophus fasciolata</i> subsp. <i>fasciolata</i>			
37.	25245 <i>Brachyurophus semifasciata</i>			
38.	24725 <i>Cacatua roseicapilla</i> subsp. <i>assimilis</i>			
39.	2794 <i>Carpobrotus aequilaterus</i> (Angular Pigface)	Y		
40.	12658 <i>Casuarina pauper</i> (Black Oak)			
41.	24186 <i>Chalinolobus gouldii</i> (Gould's Wattled Bat)			
42.	24392 <i>Cinclosoma castaneothorax</i> subsp. <i>marginatum</i>			
43.	25581 <i>Climacteris affinis</i> (White-browed Treecreeper)			
44.	25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
45.	25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
46.	24363 <i>Coracina novaehollandiae</i> subsp. <i>subpallida</i>			
47.	24416 <i>Corvus bennetti</i> (Little Crow)			
48.	24420 <i>Cracticus nigrogularis</i> (Pied Butcherbird)			
49.	25595 <i>Cracticus tibicen</i> (Australian Magpie)			
50.	25596 <i>Cracticus torquatus</i> (Grey Butcherbird)			
51.	6955 <i>Crenidium spinescens</i>			
52.	25020 <i>Cryptoblepharus plagiocephalus</i>			
53.	24873 <i>Ctenophorus fordii</i> (Mallee Sand Dragon)			
54.	24875 <i>Ctenophorus isolepis</i> subsp. <i>gularis</i> (Central Military Dragon)			
55.	24882 <i>Ctenophorus nuchalis</i> (Central Netted Dragon)			
56.	24886 <i>Ctenophorus reticulatus</i> (Western Netted Dragon)			
57.	24888 <i>Ctenophorus salinarum</i> (Salt Pan Dragon)			
58.	24889 <i>Ctenophorus scutulatus</i>			
59.	25032 <i>Ctenotus calurus</i>			
60.	25042 <i>Ctenotus greeri</i>			
61.	25045 <i>Ctenotus helenae</i>			
62.	25052 <i>Ctenotus leonhardii</i>			
63.	25064 <i>Ctenotus pantherinus</i> subsp. <i>ocellifer</i>			
64.	25066 <i>Ctenotus quattuordecimlineatus</i>			
65.	25074 <i>Ctenotus schomburgkii</i>			
66.	25075 <i>Ctenotus severus</i>			
67.	25465 <i>Ctenotus uber</i>			
68.	25080 <i>Ctenotus uber</i> subsp. <i>uber</i>			
69.	25089 <i>Cyclodomorphus melanops</i> subsp. <i>elongatus</i>			
70.	12721 <i>Dielitzia tysonii</i>			
71.	24926 <i>Diplodactylus conspicillatus</i> (Fat-tailed Gecko)			
72.	24940 <i>Diplodactylus pulcher</i>			
73.	4769 <i>Dodonaea lobulata</i> (Bead Hopbush)			
74.	24470 <i>Dromaius novaehollandiae</i> (Emu)			
75.	25092 <i>Egernia depressa</i> (Pygmy Spiny-tailed Skink)			
76.	25094 <i>Egernia formosa</i>			
77.	357 <i>Enneapogon caeruleus</i> (Limestone Grass)			
78.	358 <i>Enneapogon cylindricus</i> (Jointed Nineawn)			
79.	388 <i>Eragrostis leptocarpa</i> (Drooping Lovegrass)			
80.	25109 <i>Eremiascincus richardsonii</i> (Broad-banded Sand Swimmer)			
81.	14895 <i>Eremophila decipiens</i> subsp. <i>decipiens</i>			
82.	7205 <i>Eremophila exilifolia</i>			
83.	15052 <i>Eremophila forrestii</i> subsp. <i>forrestii</i>			
84.	14340 <i>Eremophila glabra</i> subsp. <i>glabra</i>			
85.	7225 <i>Eremophila interstans</i>			
86.	7230 <i>Eremophila latrobei</i> (Warty Fuchsia Bush)			
87.	17169 <i>Eremophila latrobei</i> subsp. <i>glabra</i>			
88.	17576 <i>Eremophila latrobei</i> subsp. <i>latrobei</i>			
89.	7240 <i>Eremophila metallicorum</i>			
90.	7242 <i>Eremophila miniata</i> (Kopi Poverty Bush)			
91.	7267 <i>Eremophila scoparia</i> (Broom Bush (I))			
92.	408 <i>Eriachne flaccida</i> (Claypan Grass)			
93.	14377 <i>Erymophyllum ramosum</i> subsp. <i>ramosum</i>			
94.	24379 <i>Erythronys cinctus</i> (Red-kneed Dotterel)			
95.	5565 <i>Eucalyptus brachycorys</i> (Cowwowing Mallee)			
96.	11978 <i>Eucalyptus celastroides</i> subsp. <i>virella</i>			
97.	5641 <i>Eucalyptus ewartiana</i> (Ewart's Mallee)			
98.	5697 <i>Eucalyptus lesouefii</i> (Goldfields Blackbutt)			
99.	5726 <i>Eucalyptus oleosa</i> (Giant Mallee)			
100.	20091 <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>			
101.	5761 <i>Eucalyptus rigidula</i> (Stiff-leaved Mallee)			
102.	5767 <i>Eucalyptus salubris</i> (Gimlet)			
103.	29733 <i>Eucalyptus trivalva</i> (Victoria Spring Mallee)			
104.	5802 <i>Eucalyptus yilgarnensis</i> (Yorrell)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
105.	25621 <i>Falco berigora</i> (Brown Falcon)			
106.	25622 <i>Falco cenchroides</i> (Australian Kestrel)			
107.	5194 <i>Frankenia cordata</i> (Heart Leaved Frankenia)			
108.	5200 <i>Frankenia fecunda</i>			
109.	5206 <i>Frankenia laxiflora</i> (Loose Flowered Frankenia)			
110.	5212 <i>Frankenia setosa</i> (Bristly Frankenia)			
111.	25727 <i>Fulica atra</i> (Eurasian Coot)			
112.	24957 <i>Gehyra purpurascens</i>			
113.	24959 <i>Gehyra variegata</i>			
114.	25530 <i>Gerygone fusca</i> (Western Gerygone)			
115.	24735 <i>Glossopsitta porphyrocephala</i> (Purple-crowned Lorikeet)			
116.	7988 <i>Gnephosis arachnoidea</i> (Cobwebby-headed Gnephosis)			
117.	8002 <i>Gnephosis tenuissima</i>			
118.	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
119.	13458 <i>Grevillea sarissa</i> subsp. <i>sarissa</i>			
120.	2807 <i>Gunniopsis quadrifida</i> (Sturts Pigface)			
121.	2808 <i>Gunniopsis rodwayi</i>			
122.	2810 <i>Gunniopsis septifraga</i>			
123.	11440 <i>Haloragis odontocarpa</i> forma <i>rugosa</i>			
124.	24961 <i>Heteronotia binoei</i> (Bynoe's Gecko)			
125.	25734 <i>Himantopus himantopus</i> (Black-winged Stilt)			
126.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
127.	4959 <i>Lawrencia squamata</i>			
128.	3039 <i>Lepidium platypetalum</i> (Slender Peppercress)			
129.	25125 <i>Lerista bipes</i>			
130.	25130 <i>Lerista desertorum</i>			
131.	25162 <i>Lerista picturata</i>			
132.	24581 <i>Lichenostomus virescens</i> (Singing Honeyeater)			
133.	6967 <i>Lycium australe</i> (Australian Boxthorn)			
134.	2533 <i>Maireana amoena</i>			
135.	2536 <i>Maireana atkinsiana</i> (Bronze Bluebush)			
136.	2544 <i>Maireana georgei</i> (Satiny Bluebush)			
137.	2545 <i>Maireana glomerifolia</i> (Ball Leaf Bluebush)			
138.	2555 <i>Maireana pentatropis</i>			
139.	2566 <i>Maireana thesioides</i> (Lax Bluebush)			
140.	11662 <i>Maireana tomentosa</i> subsp. <i>tomentosa</i>			
141.	2568 <i>Maireana trichoptera</i> (Downy Bluebush)			
142.	2569 <i>Maireana triptera</i> (Threewinged Bluebush)			
143.	24326 <i>Malacorhynchus membranaceus</i> (Pink-eared Duck)			
144.	25652 <i>Malurus leucopterus</i> (White-winged Fairy-wren)			
145.	25654 <i>Malurus splendens</i> (Splendid Fairy-wren)			
146.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
147.	25184 <i>Menetia greyii</i>			
148.	25190 <i>Morethia butleri</i>			
149.	16982 <i>Muehlenbeckia florulenta</i>			
150.	24223 <i>Mus musculus</i> (House Mouse)			
151.	25427 <i>Neobatrachus sutor</i> (Shoemaker Frog)			
152.	24737 <i>Neophema bourkii</i> (Bourke's Parrot)			
153.	30941 <i>Nephurus milii</i> (Barking Gecko)			
154.	24971 <i>Nephurus vertebralis</i>			
155.	24094 <i>Ningau ridei</i> (Wongai Ningau)			
156.	24224 <i>Notomys alexis</i> (Spinifex Hopping-mouse)			
157.	24194 <i>Nyctophilus geoffroyi</i> (Lesser Long-eared Bat)			
158.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
159.	8132 <i>Olearia decurrens</i>			
160.	30943 <i>Opisthodon spenceri</i> (Centralian Burrowing Frog)			
161.	24618 <i>Oreoica gutturalis</i> (Crested Bellbird)			
162.	24085 <i>Oryctolagus cuniculus</i> (Rabbit)			
163.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
164.	24624 <i>Pachycephala rufiventris</i> subsp. <i>rufiventris</i>			
165.	25254 <i>Parasuta monachus</i>			
166.	518 <i>Paspalidium clementii</i> (Clements Paspalidium)			
167.	24659 <i>Petroica goodenovii</i> (Red-capped Robin)			
168.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
169.	11185 <i>Pimelea microcephala</i> subsp. <i>microcephala</i>			
170.	8172 <i>Podolepis canescens</i>			
171.	8173 <i>Podolepis capillaris</i> (Wiry Podolepis)			
172.	12731 <i>Pododthea wilsonii</i>			
173.	24907 <i>Pogona minor</i> subsp. <i>minor</i>			
174.	8188 <i>Pogonolepis stricta</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
175.	24681 <i>Poliiocephalus poliocephalus</i> (Hoary-headed Grebe)			
176.	24683 <i>Pomatostomus superciliosus</i> (White-browed Babbler)			
177.	24237 <i>Pseudomys hermannsburgensis</i> (Sandy Inland Mouse)			
178.	25264 <i>Pseudonaja nuchalis</i> (Gwardar)			
179.	2747 <i>Ptilotus obovatus</i> (Cotton Bush)			
180.	2751 <i>Ptilotus polystachyus</i> (Prince of Wales Feather)			
181.	25009 <i>Pygopus nigriceps</i>			
182.	25273 <i>Ramphotyphlops bituberculatus</i>			
183.	25279 <i>Ramphotyphlops hamatus</i>			
184.	25288 <i>Ramphotyphlops waitii</i>			
185.	24982 <i>Rhynchoedura ornata</i> (Beaked Gecko)			
186.	10970 <i>Rostraria cristata</i>	Y		
187.	2817 <i>Sarcozona praecox</i> (Sarcozona)			
188.	7604 <i>Scaevola collaris</i>			
189.	2606 <i>Sclerolaena cuneata</i> (Yellow Bindii)			
190.	2607 <i>Sclerolaena densiflora</i>			
191.	2608 <i>Sclerolaena deserticola</i>			
192.	2611 <i>Sclerolaena eriacantha</i> (Tall Bindii)			
193.	2612 <i>Sclerolaena eurotioides</i> (Fluffy Bindii)			
194.	2613 <i>Sclerolaena fimbriolata</i>			
195.	24199 <i>Scotorepens balstoni</i> (Inland Broad-nosed Bat)			
196.	9366 <i>Senecio gregorii</i> (Fleshy Groundsel)			
197.	24108 <i>Sminthopsis crassicaudata</i> (Fat-tailed Dunnart)			
198.	24109 <i>Sminthopsis dolichura</i> (Little long-tailed Dunnart)			
199.	7018 <i>Solanum lasiophyllum</i> (Flannel Bush)			
200.	7023 <i>Solanum nummularium</i> (Money-leaved Solanum)			
201.	11241 <i>Solanum orbiculatum</i> subsp. <i>orbiculatum</i> (Round-leaved Solanum)			
202.	7038 <i>Solanum terraneum</i>			
203.	29813 <i>Stackhousia</i> sp. Mt Keith (G. Cockerton & G. O'Keefe 11017)			
204.	24946 <i>Strophurus strophurus</i>			
205.	24949 <i>Strophurus wellingtonae</i>			
206.	4217 <i>Swainsona beasleyana</i>			
207.	12356 <i>Swainsona formosa</i>			
208.	12357 <i>Swainsona purpurea</i>			
209.	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe)			
210.	24331 <i>Tadorna tadornoides</i> (Australian Shelduck)			
211.	30870 <i>Taeniopygia guttata</i> (Zebra Finch)			
212.	33319 <i>Tecticornia indica</i> subsp. <i>bidens</i>			
213.	31618 <i>Tecticornia pruinosa</i>			
214.	31717 <i>Tecticornia undulata</i>			
215.	672 <i>Themeda avenacea</i> (Native Oatgrass)			
216.	30814 <i>Tympanocryptis cephalus</i> (Pebble Dragon)			
217.	25211 <i>Varanus caudolineatus</i>			
218.	25223 <i>Varanus panoptes</i> subsp. <i>rubidus</i>			
219.	25227 <i>Varanus tristis</i> subsp. <i>tristis</i> (Racehorse Monitor)			
220.	13331 <i>Waitzia acuminata</i> var. <i>acuminata</i>			
221.	4388 <i>Zygophyllum compressum</i>			

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

¹ 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.

NAME	SOURCE_CODE	SOURCE_ID	NAME_ID	FAMILY	GENUS	SPECIES	INFRARANK	INFRANAME	AUTHOR	VERNACULAR	KINGDOM	CONSERVATION_CODE	CLASS	SITE_NAME	DAY	MONTH	YEAR	LOCALITY_NAME
Leipoa ocellata	TFAUNA	16727	24557	Megapodiidae	Leipoa	ocellata			Gould	Malleefowl	Animalia	T	BIRD	Edjudina Station eastern boundary.	31	03	2009	KOOKYNIIE
Leipoa ocellata	TFAUNA	18779	24557	Megapodiidae	Leipoa	ocellata			Gould	Malleefowl	Animalia	T	BIRD	Edjadina Station, Kookynie.				KOOKYNIIE
Leipoa ocellata	TFAUNA	19293	24557	Megapodiidae	Leipoa	ocellata			Gould	Malleefowl	Animalia	T	BIRD	Edjadina Station				KOOKYNIIE
Aspidites ramsayi	TFAUNA	12052	25236	Boidae	Aspidites	ramsayi			(Macleay)	Woma	Animalia	S	REPTILE	Bandya Homestead				KOOKYNIIE
Falco peregrinus subsp. macropus	TFAUNA	8424	24475	Falconidae	Falco	peregrinus	subsp.	macropus	Swainson	Australian Peregrine Falcon	Animalia	S	BIRD	Sunrise Dam (SD4) near Laverton				LAVERTON
Falco peregrinus subsp. macropus	TFAUNA	8423	24475	Falconidae	Falco	peregrinus	subsp.	macropus	Swainson	Australian Peregrine Falcon	Animalia	S	BIRD	Sunrise Dam (SD1) near Laverton				LAVERTON
Calidris ruficollis	BIRDATLAS2	5032094 162	24788	Scolopacidae	Calidris	ruficollis			(Pallas)	Red-necked Stint	Animalia	IA	BIRD	Sunrise Dam	23	04	2005	LAVERTON
Merops ornatus	BIRDATLAS2	2521 329	24598	Meropidae	Merops	ornatus			Latham	Rainbow Bee-eater	Animalia	IA	BIRD	Sunrise Dam, Goldmine camp	02	11	1998	LAVERTON
Branchinella simplex	FAUNASURVEY	431466	33935	Thamnocephalidae	Branchinella	simplex				fairy shrimp	Animalia	1	INVERT	Lake Carey	08	03	2011	LEONORA
Branchinella simplex	FAUNASURVEY	431477	33935	Thamnocephalidae	Branchinella	simplex				fairy shrimp	Animalia	1	INVERT	Lake Carey	08	03	2011	LEONORA
Branchinella simplex	FAUNASURVEY	431442	33935	Thamnocephalidae	Branchinella	simplex				fairy shrimp	Animalia	1	INVERT	Lake Carey	08	03	2011	LAVERTON
Ardeotis australis	BIRDATLAS1	16037 176	24610	Otididae	Ardeotis	australis			(J.E. Gray)	Australian Bustard	Animalia	4	BIRD		18	08	1977	KOOKYNIIE

Taxon	Status	Rank	IUCN Criteria	EPBC	DEC Region	DEC District	Distribution	Flowering Period	Recovery Plan
Angianthus prostratus	3				GOLD, WHTB	KALGOORLIE, CENTRAL WHEATBELT	Glenorn Stn, Baladjie Lake NR, Quairading, Lake Barlee, Bulga Downs Stn, Kalgoorlie	Jul-Sept	
Eremophila eversa	1				GOLD	KALGOORLIE	Yerilla	Oct	
Ptilotus tetrandrus	1				GOLD	KALGOORLIE	Glenorn Station, Little Sandy Desert	Oct	
Tecticornia mellaria	1				GOLD	KALGOORLIE	Lake Carey, Little Sandy Desert		
Thryptomene eremaea	2				GOLD	KALGOORLIE	Menzies, Queen Victoria Spring, Comet Vale, Edjudina Station, Kirgella Rocks	Jul-Sep	

OID_	SHEET_NO	TAXON	CONS_CODE	SITE	VEGETATION	LOCALITY	LAT	LONG_	COLL_DATE	N10
	PERTH 00153265	Acacia eremophila numerous-nerved variant (A.S. George)	2	11924)		Perseverance Well	-29.68333	122.316666	12 12 1975	
	PERTH 06367593	Hemigenia exilis	4		Eriostemon brucei, Hybanthus floribundus subsp. chloroxanthus, Eremophila oppositifolia, Acacia aneura woodland.	ca 5 km E of Lake Carey on Glenorn Station	-29.05953	122.182433	29 10 1997	
	PERTH 06367585	Hemigenia exilis	4	Outcropping laterite.	Very open Acacia aneura woodland. Ptilotus helipteroides, P. obovatus.	Low rise above Lake Carey	-29.07255	122.202476	29 10 1997	
	PERTH 06367437	Hemigenia exilis	4		Hakea preissii, Acacia ramulosa, Ptilotus obovatus. Very open shrubland.	Eucalyptus lease ca 2 km E of Lake Carey	-29.06395	122.191037	29 12 1997	
	PERTH 06367372	Hybanthus floribundus subsp. chloroxanthus	3	Outcropping laterite.	Eremophila oppositifolia, Acacia aneura woodland. Associated species: Eriostemon baucii, Hemigenia exilis, Eremophila oppositifolia	Eucalyptus lease Glenorn Station. E of Laverton	-29.05953	122.182433	29 10 1997	
	PERTH 06367429	Hybanthus floribundus subsp. chloroxanthus	3		Hakea preissii, Acacia ramulosa. Very open shrubland.	Eucalyptus lease, Glenorn Station	-29.06395	122.191037	29 10 1997	
	PERTH 06367577	Hybanthus floribundus subsp. chloroxanthus	3	Outcropping laterite, quartz and dolerite.	Eucalyptus clelandii, Acacia aneura, Eremophila oppositifolia woodland. Ptilotus obovatus.	Eucalyptus lease ca 5 km E of Lake Carey, Glenorn Station	-29.05504	122.184255	29 10 1997	
	PERTH 06367615	Hybanthus floribundus subsp. chloroxanthus	3	Outcropping laterite.	Dodonaea rigida, Ptilotus helichrysoides, Acacia aneura, A. tetragonophylla very open shrubland.	Eucalyptus lease Glenorn Station. E of Laverton	-29.06262	122.184504	29 10 1997	
	PERTH 05395771	Hybanthus floribundus subsp. chloroxanthus	3	Lateritic caprock underlying ultramatic bedrock.	Very Open Low Woodland of Acacia spp. Associated species: Acacia aneura, Acacia ramulosa, Eremophila oppositifolia, Ptilotus obovatus.	2 km E of Hage Bone, Yundamindra Station, E of Leonora	-29.25	122.1	01 08 1997	
	PERTH 05395798	Hybanthus floribundus subsp. chloroxanthus	3	Lateritic caprock underlying ultramatic bedrock.	Very Open Low Woodland of Acacia spp. Associated species: Acacia aneura, Acacia ramulosa, Eremophila oppositifolia, Ptilotus obovatus.	2 km E of Hage Bone, Yundamindra Station, E of Leonora,	-29.25	122.1	01 08 1997	
	PERTH 04316797	Tecticornia mellaria	1	Edge of salt lake and flow line from 'freshwater lake'.	Halosarcia undulata, Frankenia cinerea, Grevillea sarissa (dune), Halosarcia pergranulata, Frankenia cf. pauciflora.	Lake Carey, Sunrise Dam, eastern edge	-29.10027	122.420555	20 10 1994	
	PERTH 05100348	Tecticornia mellaria	1			Lake Carey, Angel Fish Island,	-29.25	122.416666	07 1998	
	PERTH 05117763	Tecticornia mellaria	1			Sunrise Well, ca 45 km S of Laverton,	-29.03277	122.401666	1994	
	PERTH 05089220	Tecticornia mellaria	1			Sunrise Dam minesite, near E bank of Lake Carey, ca 50 km S of Laverton	-29.5	122.416666	09 07 1998	
	PERTH 05588022	Tecticornia mellaria	1	Gypsiferous dunes. Growing close to salt lake.		Cleo area, Lake Carey,	-29.06666	122.216666	23 01 1996	
	PERTH 07899513	Tecticornia mellaria	1			Lake Carey	-29.38333	122.75	07 1998	
	PERTH 06044271	Tecticornia sp. Lake Way (P. Armstrong 05/961)	1			c. 12 km SW of Safari Bore, NE shore of Lake Raeside,	-29.6	122.45	09 02 2002	
	PERTH 01135791	Thryptomene eremaea	2	Sandy veneer over granite, yellow sand.		Edjudina Station	-29.81638	122.349722	07 07 1989	

OID_	POPID	NAMEID	TAXON	CONSSTATUS	WARANK	POPNUMBER	SUBPOPCODE	GDA94LAT	GDA94LONG	POPSTATUS	VESTING	PURPOSE1	PURPOSE2	COUNTDATE
	88826	6853	Hemigenia exilis	4		10		-29.065624	122.188915		NON	PAS	MIN	13/02/1996 0:00
	88827	6853	Hemigenia exilis	4		11		-29.071457	122.204749		NON	PAS	MIN	13/02/1996 0:00
	88828	6853	Hemigenia exilis	4		12		-29.062291	122.191693		NON	PAS	MIN	13/02/1996 0:00
	95987	31832	Tecticornia mellaria	1		1		-29.100277	122.420555		PLB	PAS	MIN	20/10/1994 0:00
	95988	31832	Tecticornia mellaria	1		2		-29.032777	122.401666		PLB	PAS	MIN	31/12/1994 0:00
	96643	34958	Tecticornia sp. Lake Way (P. Armstrong 05/961)	1		1		-29.6	122.616666		PLB	PAS	MIN	9/02/2002 0:00