

## Memorandum

|                 |  |                 |                             |
|-----------------|--|-----------------|-----------------------------|
| <b>Subject:</b> | <b>Desktop Flora and Fauna Assessment – Lake Throssell</b> |                 |                             |
| <b>Date:</b>    | <b>22 September 2020</b>                                   | <b>Company:</b> | <b>Trigg Mining Limited</b> |
| <b>From:</b>    | <b>Siobhan Pelliccia</b>                                   | <b>To:</b>      | <b>Jason Cherry</b>         |

### 1. Introduction

Trigg Mining Limited (Trigg) is proposing to undertake exploration drilling for Sulphate of Potash (SOP) at the Lake Throssell Project, located in the northern goldfields region of Western Australia, approximately 240km east of Laverton (Figure 1).

Exploration activities are planned for Exploration Licence E38/3065, which is located within an Environmentally Sensitive Area due to its classification as a nationally important wetland. Consequently, any clearing of native vegetation associated with exploration activities requires a Clearing Permit under the provisions of Section 52 of the *Environmental Protection Act 1986*.

To support of the Clearing Permit application, which has been prepared by Trigg Mining Limited, Blueprint Environmental Strategies Pty Ltd has completed a desktop assessment of flora and fauna, utilising publicly available data sources. This memorandum describes the findings of the desktop assessment.

### 2. Method of Assessment

A desktop study of the databases listed in Table 1 was completed. The purpose of a desktop study is to gather contextual information on the area to enable a risk assessment to be completed as part of exploration activities. The information will also be used to inform future survey work.

The desktop studies were undertaken in general accordance with the Environment Protection Authority (EPA) Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016) and Technical Guidance Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA, 2020).

All reports are provided as Attachment 1.

**Table 1: Database Searches Summary**

| Database and Custodian  | Coordinates/Area/Search   | Access Data and Site   | Description  |
|---|---|--|--|
| NatureMap - Department of Biodiversity, Conservation and Attractions (DBCA)                 | Centre point search with 40km buffer:<br>124° 10' 22" E, 27° 34' 20" S, | 16 September 2020<br><a href="https://naturemap.dbca.wa.gov.au/">https://naturemap.dbca.wa.gov.au/</a> | Database of flora and fauna records, maintained by DBCA in collaboration with the Western Australian Museum. |
| Pre-European Vegetation dataset (Department of Primary Industries and Regional Development) | Tenement extent (E38/3065) and surrounds                                | 16 September 2020<br><a href="http://www.data.wa.gov.au">www.data.wa.gov.au</a>                        | Vegetation units as mapped by J.S. Beard at 1:250,000 scale.   |

| Database and Custodian   | Coordinates/Area/Search  | Access Data and Site   | Description   |
|--|--|--|---|
| Western Australian Museum Terrestrial Zoology database   | Tenement extent (E38/3065) and surrounds   | 16 September 2020<br><a href="https://data.museum.wa.gov.au/dataset/terrestrial-zoology">https://data.museum.wa.gov.au/dataset/terrestrial-zoology</a>                 | Collections of a wide variety of terrestrial animals, including /mammals, reptiles and birds.   |
| EPBC Act Protected Matters Database (Department of Agriculture, Water and the Environment and Geoscience Australia)          | Area search with 1km buffer:<br>Latitude points: -26.85754, -26.84968, -24.63038, -28.00716, -26.85754,<br>Longitude points: 123.65779, 124.64748, 124.63038, 123.66469, 123.65779 | 16 September 2020<br><a href="https://www.environment.gov.au/epbc/protected-matters-search-tool">https://www.environment.gov.au/epbc/protected-matters-search-tool</a> | Records of matter of national environmental significance, including flora and fauna.  |
| Atlas of Living Australia  | Area search of tenements E38/3065, E38/3459, E38/3483, E38/3537, E38/3458  | 17 September 2020<br><a href="https://www.ala.org.au/">https://www.ala.org.au/</a>   | Search focused on conservation significant species.   |
| Directory of Important Wetlands in Australia<br><br>Department of Agriculture, Water and the Environment.                    | Search for Lake Throssell  | 17 September 2020<br><a href="https://www.environment.gov.au/cgi-bin/wetlands/report.pl">https://www.environment.gov.au/cgi-bin/wetlands/report.pl</a>                 | Identifies nationally important wetlands, hydrological features, the flora and fauna species that depend on them, their social and cultural values. |
| Index of Biodiversity Surveys for Assessments (IBSA). Department of Biodiversity, Parks and Conservation                     | Search of Lake Throssell area and surrounds.   | 17 September 2020<br><a href="https://www.dwer.wa.gov.au/ibsa">https://www.dwer.wa.gov.au/ibsa</a>   | Flora and Fauna surveys and data submitted under IBSA framework.  |
| Birdata database. Bird Life Australia<br><br><a href="https://birdata.birdlife.org.au/">https://birdata.birdlife.org.au/</a> | Search of Lake Throssell area and surrounds.   | 17 September 2020<br><a href="https://birdata.birdlife.org.au">https://birdata.birdlife.org.au</a>   | Bird records.   |

### 3. Results

Of the databases reviewed, two did not yield any results for the respective search areas. These were:

- IBSA Database
- Birdata Database

The results of all other databases are described in the following sub-sections.

#### 3.1 Environmental Setting

The proposed exploration area is located on Lake Throssell, which stretches approximately 50 km northeast-southwest and contains numerous microscale to macroscale islands of white gypsiferous dunes rising to 10 m. It is fed by localised drainages, the longest (less than 10 km) of which drains the Scarr Hills to the west of the lake<sup>1</sup>. Numerous isolated mesoscale to macroscale claypans occur in the area (DAWE 2020).

Lake Throssell is located in the Officer Basin, in a wide shallow Cainozoic depression over undifferentiated Permian-Mesozoic sedimentary rocks. They were formerly part of a major river system (the Throssell Palaeoriver) which flowed south-east to the sea, but are now internal draining lake systems. The prevailing westerly winds have created low dunes on the eastern margins of the lake (DAWE 2020).

## 3.2 Flora, Vegetation and Communities

### 3.2.1 Flora

According to the Directory of Important Wetlands (DAWE 2020), the floor of Lake Throssell is mostly vegetated with a variety of halophytic plants, including *Atriplex nana*, *A. vesicaria*, *Halosarcia indica*, *H. pruinosa*, *Maireana amoena*, *M. carnosa*, *M. platycarpa*, *M. pyramidalata*, *M. tomentosa*, *Sclerolaena eurotioides*, *S. patentiscuspis*.

*Eucalyptus comitae-vallis* and *E. subglucida* form stands on sand ridges near the lake. *E. comitae-vallis* also grows in palaeodrainage lines to the south. Cotton bush *Ptilotus obovatus* occurs only locally near Lake Throssell. Small stunted trees of *Casuarina pauper* (to 6 m) with a few *Eremophila miniata*, *Acacia* sp. and *Senecio lautus* are scattered over the (mostly bare) dunes in the lake. Low woodlands of *C. pauper* (to 12 m) with *A. aneura*, *Pittosporum phillyraeoides*, *E. miniata*, *Ptilotus obovatus*, grasses and forbs surround the lake (Beard 1974; Beard 1990; Burbidge & McKenzie 1979; A.A. Burbidge pers. comm. in DAWE 2020).

NatureMap results showed 121 flora species have been recorded in the search area. The dominant families were Chenopodiaceae (23 species), Fabaceae (16 species), Poaceae (14 species) and Asteraceae (12 species) and dominant genus' were *Acacia* (12 species), *Eremophila* (10 species), *Maireana* (9 species) and *Eucalyptus* (7 species).

### 3.2.2 Conservation Significant Flora

No flora of conservation significance listed under the federal *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, state *Biodiversity Conservation Act 2016 (BC Act)* or listed as Priority flora by DBCA were recorded from any database searches.

### 3.2.3 Vegetation

The application area falls within the Great Victoria Desert Central Bioregion (GVD 02) Subregion of the Great Victoria Desert Region of the Interim Biogeographic Regionalisation of Australia (IBRA).

The vegetation of the application area has been broadly mapped as Beard vegetation associations, the three dominant communities present were:

- 24 – Low woodland; *Allocasuarina cristata*.
- 125 – Bare areas; salt lakes.
- 676 - Succulent steppe; samphire: *Halosarcia* mixed open samphire shrubland.

The type and extent of the Beard vegetation associations are listed in Table 2 and shown on Figure 2.

**Table 2: Pre-European and Current Extent of Vegetation Associations**

| Number              | Vegetation Description                      | Pre-European Extent (ha) | Current Extent (ha) | % Remaining | IUCN Class I-IV Reserves % |
|---------------------|---|--------------------------|---------------------|-------------|----------------------------|
| N/A                 | Great Victoria Desert Region (WA)           | 21,829,016               | 21,829,016          | 100         | N/A                        |
| 24                  | Low woodland; <i>Allocasuarina cristata</i> | 298,364                  | 297,860             | 99.8        | 0.3                        |
| 125                 | Bare areas; salt lakes                      | 3,940,746                | 3,536,992           | 89.8        | 5.8                        |
| 676                 | Succulent steppe; samphire                  | 2,110,508                | 2,087,974           | 98.9        | 6.5                        |
| Average % Remaining |   |                          |                     | 96.2        | -                          |

According to Shepherd (2002) approximately 96.2 % of these Beard vegetation associations remain at both a state and bioregional level.

### 3.2.4 Threatened and Priority Ecological Communities

No Threatened Ecological Communities protected under the federal *EPBC Act 1999* or state *BC Act 2016* were identified in any database searches (DAWE 2020; DBCA 2020a). No Priority Ecological Communities listed by the state government (DBCA) were identified (DBCA 2020b).

### 3.2.5 Weeds

No weed species were identified in the area by database searches (DBCA 2020, DAWE 2020) and weeds are not listed as a threatening process in the GVD02 (Cowan *et al.* 2001).

## 3.3 Fauna

NatureMap identified a total of 87 fauna species which have been recorded in the area made up of 62 bird species, 23 reptile species and 2 mammal species. The most common families were Scincidae (8 species), Acanthizidae (7 species), Agamidae (6 species) and Meliphagidae (6 species).

### 3.3.1 Conservation Significant Fauna

Database searches identified a number of conservation significant fauna with the potential to occur in the exploration area. These are summarised in Table 3.

**Table 3: Conservation Significant Fauna Identified in Database Searches<sup>1</sup>**

| Species   | Conservation Status | Habitat   | Likelihood of Occurrence   |
|---|---------------------|---|--|
| <b>Birds</b>  |                     |   |  |
| <i>Falco hypoleucos</i><br>Grey Falcon  | Vulnerable          | Woodland and scrub types in arid lands.                                       | Possible, although no habitat on salt lake.                        |
| <i>Leipoa ocellata</i><br>Malleefowl  | Vulnerable          | Dry inland scrub and mallee.  | Possible, has been recorded in a 40km radius as shown by NatureMap |
| <i>Pezoporus occidentalis</i><br>Night Parrot                                   | Endangered          | Inland plains, breakaways, samphire about salt lakes.                         | Possible on margins of salt lake.                                  |
| <i>Polytelis alexandrae</i><br>Princess Parrot                                  | Vulnerable          | Arid shrubland; mulga, Desert oak, spinifex and trees along watercourses.     | Possible, although no watercourses present.                        |
| <i>Amytornis striatus</i> subsp. <i>striatus</i><br>Striated Grasswren (inland) | P4                  | Triodia and mallee.   | Possible, has been recorded in a 40km radius as shown by NatureMap |
| <i>Apus pacificus</i><br>Fork-tailed Swift                                      | Migratory           | Varied habitats, largely aerial proceeds storm fronts.                        | Possible, may overfly area.  |
| <i>Motacilla cinerea</i><br>Grey Wagtail  | Migratory           | High altitudes near fast running water, annual visitor to northern Australia. | Unlikely based on distribution map.                                |
| <i>Motacilla flava</i><br>Yellow Wagtail  | Migratory           | Salt works, paddocks, marshes, grassy wetlands.                               | Unlikely based on distribution map.                                |
| <i>Actitis hypoleucos</i><br>Common Sandpiper                                   | Migratory Wetlands  | Banks, rocks, sandy beaches.  | Possible.  |

<sup>1</sup> Marine species have been excluded.

| Species  | Conservation Status | Habitat   | Likelihood of Occurrence   |
|--|---------------------|---|--|
| <b>Birds</b>   |                     |   |  |
| <i>Calidris acuminata</i><br>Sharp-tailed Sandpiper                    | Migratory Wetlands  | Widespread, coastal and interior wetlands.                        | Possible.  |
| <i>Calidris melanotos</i><br>Pectoral Sandpiper                        | Migratory Wetlands  | Grassy or lightly vegetated coastal and inland swamps.            | Possible.  |
| <i>Charadrius veredus</i><br>Oriental Plover                           | Migratory Wetlands  | Dry plains, coastal.  | Possible.  |
| <b>Mammals</b>   |                     |   |  |
| <i>Sminthopsis psammophila</i><br>Sandhill Dunnart                     | Endangered          | Sandy habitats, usually with dunes and <i>Triodia</i> spp.        | Unlikely due to lack of habitat.                                   |
| <b>Reptiles</b>  |                     |   |  |
| <i>Liopholis kintorei</i><br>Great Desert Skink                        | Vulnerable          | Arid sand flats, clay based loamy soils, vegetated with spinifex. | Possible.  |
| <i>Anilius margaretae</i><br>Buff-snouted Blind Snake (Lake Throssell) | P2                  | Known only from Lake Throssell in arid interior of WA.            | Possible, has been recorded in a 40km radius as shown by NatureMap |

### 3.3.2 Pest Species

A number of introduced fauna species were identified as being likely to occur within the area, these were the Camel (*Camelus dromedaries*), Domestic Dog (*Canis lupus familiaris*), Goat (*Capra hircus*), Cat (*Felis catus*), House Mouse (*Mus musculus*), Rabbit (*Oryctolagus cuniculus*) and Fox (*Vulpes vulpes*).

## 4. References

Barton, B., & Cowan, M. (2001) Great Victoria Desert 2 (GVD2 – Great Victoria Desert Central subregion). In A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002.

DAWE (2020). Directory of Important Wetlands in Australia. Available: <https://www.environment.gov.au/water/wetlands/australian-wetlands-database/directory-important-wetlands>. Accessed 17 September 2020.

DBCA (2020a). NatureMap. Available: <https://naturemap.dbca.wa.gov.au/>. Accessed 17 September 2020.

DBCA (2020b). Priority Ecological Communities List. Available: <https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/Priority%20Ecological%20Communities%20list.pdf>. Accessed 18 September 2020.

DPIRD (2019) Pre-European Vegetation (DPIRD-006) (Geographic Information Services). Available: [https://services.slip.wa.gov.au/public/rest/services/SLIP\\_Public\\_Services/Environment/MapServer/17](https://services.slip.wa.gov.au/public/rest/services/SLIP_Public_Services/Environment/MapServer/17) (Also published as Beard, J. S., Beeston, G.R., Harvey, J.M., Hopkins, A. J. M. and Shepherd, D. P. 2013. The vegetation of Western Australia at the 1:3,000,000 scale. Explanatory memoir. Second edition. Conservation Science Western Australia 9: 1-152.)

Environmental Protection Authority (2016). Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment.

Environmental Protection Authority (2020). Technical Guidance Terrestrial vertebrate fauna surveys for environmental impact assessment.

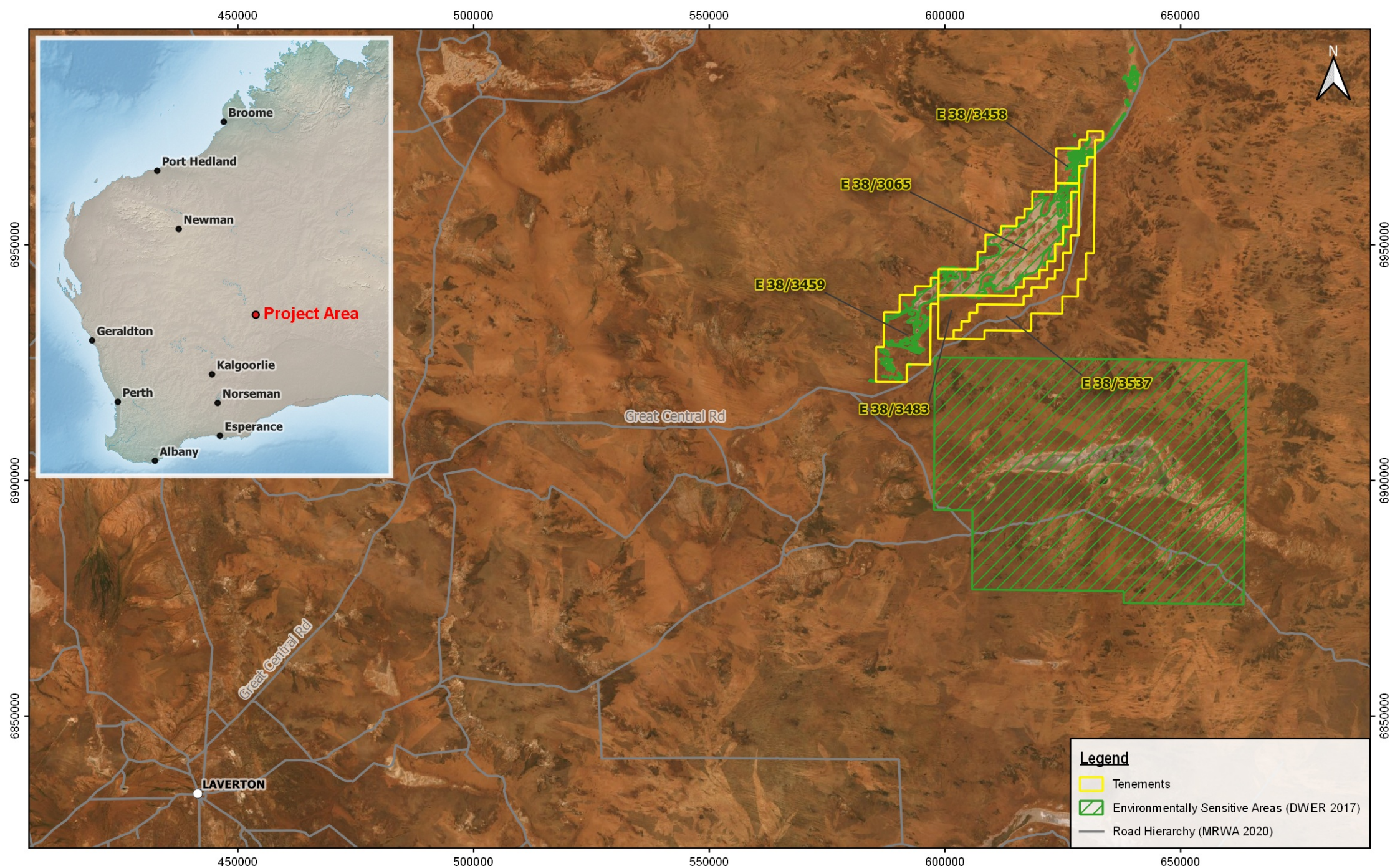
Shepherd, D P, Beeston, G R, and Hopkins, A J. (2002), Native vegetation in Western Australia : extent, type and status. Department of Agriculture and Food, Western Australia, Perth. Report 249.

Simpson, K. & Day, N (2004). Field Guide to Australian Birds. Penguin: Australia.

Van Dyck, S. & Strahan, R. (2008). The Mammals of Australia 3<sup>rd</sup> Edition. New Holland: Sydney.

Wilson, S. & Swan, G. (2008). A Complete Guide to Reptiles of Australia. New Holland: Sydney.

# Figures



Original Size: A4  
 Scale: 1:1000000  
 Projection: GDA94 / MGA zone 51

**Trigg Mining  
 Lake Throssell  
 E 38/3065 Clearing Permit**

**Figure 1**  
 Location Plan





**Legend**

□ Tenements

**Pre-European Vegetation (DPIRD 2019)**

- Eucalypt shrubland *Eucalyptus eremophila*, *E. redunca*, *E. spp.*
- Hummock grassland with scattered eucalypts over wattle scrub or mallee *Triodia spp.* *Acacia spp.* *Corymbia dichromophloia*, *Eucalyptus leucophloia*, *E. youngiana*
- Hummock grassland with scattered shrubs or mallee *Triodia spp.* *Acacia spp.*, *Grevillea spp.* *Eucalyptus spp.*
- Mulga *Acacia aneura* and associated species.
- Other acacia, banksia, peppermint, cypress pine, casuarina, York gum *Acacia spp.*, *Banksia spp.*, *Agonis flexuosa*, *Callitris spp.*, *Allocasuarina spp.*, *Eucalyptus loxophleba*.
- *Tecticornia spp.* communities in saline areas
- Wattle, teatree & other species *Acacia spp.* *Melaleuca spp.*
- Salt lake, lagoon, clay pan



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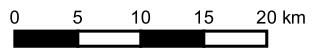
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**Trigg Mining  
 Lake Throssell  
 E 38/3065 Clearing Permit**

**Figure 2**

**Pre-European Vegetation**



# Attachment 1: Database Search Results

# NatureMap Species Report

Created By Guest user on 16/09/2020

**Current Names Only** Yes  
**Core Datasets Only** Yes  
**Method** 'By Circle'  
**Centre** 124° 10' 22" E, 27° 34' 20" S  
**Buffer** 40km  
**Group By** Conservation Status

| Conservation Status              | Species    | Records    |
|----------------------------------|------------|------------|
| Non-conservation taxon           | 205        | 496        |
| Priority 2                       | 1          | 1          |
| Priority 4                       | 1          | 2          |
| Rare or likely to become extinct | 1          | 1          |
| <b>TOTAL</b>                     | <b>208</b> | <b>500</b> |

| Name ID                                 | Species Name  | Naturalised | Conservation Code | <sup>1</sup> Endemic To Query Area |
|---|---|-------------|-------------------|------------------------------------|
| <b>Rare or likely to become extinct</b> |   |             |                   |                                    |
| 1.                                      | 24557 <i>Leipoa ocellata</i> (Malleefowl)   |             | T                 |                                    |
| <b>Priority 2</b>                       |   |             |                   |                                    |
| 2.                                      | 44643 <i>Anilius margaretae</i> (buff snouted blind snake (Lake Throssell)), <i>blind snake</i> (Lake Throssell)) |             | P2                | Y                                  |
| <b>Priority 4</b>                       |   |             |                   |                                    |
| 3.                                      | 24539 <i>Amytornis striatus</i> subsp. <i>striatus</i> (Striated Grasswren (inland))                              |             | P4                |                                    |
| <b>Non-conservation taxon</b>           |   |             |                   |                                    |
| 4.                                      | 4896 <i>Abutilon leucopetalum</i> (Desert Chinese Lantern)  |             |                   |                                    |
| 5.                                      | 4901 <i>Abutilon otocarpum</i> (Desert Chinese Lantern)   |             |                   |                                    |
| 6.                                      | 3194 <i>Acacia abrupta</i>  |             |                   |                                    |
| 7.                                      | 3217 <i>Acacia aneura</i> (Mulga, Wanari)   |             |                   |                                    |
| 8.                                      | 37260 <i>Acacia aptaneura</i>   |             |                   |                                    |
| 9.                                      | 3248 <i>Acacia burkittii</i> (Sandhill Wattle)  |             |                   |                                    |
| 10.                                     | 3264 <i>Acacia colletioides</i> (Wait-a-while)  |             |                   |                                    |
| 11.                                     | 3393 <i>Acacia jennerae</i>   |             |                   |                                    |
| 12.                                     | 3419 <i>Acacia ligulata</i> (Umbrella Bush, Watarka)  |             |                   |                                    |
| 13.                                     | 3452 <i>Acacia murrayana</i> (Sandplain Wattle)   |             |                   |                                    |
| 14.                                     | 3463 <i>Acacia nyssophylla</i>  |             |                   |                                    |
| 15.                                     | 36800 <i>Acacia pteraneura</i>  |             |                   |                                    |
| 16.                                     | 19483 <i>Acacia ramulosa</i> var. <i>linophylla</i>   |             |                   |                                    |
| 17.                                     | 3519 <i>Acacia rhodophloia</i>  |             |                   |                                    |
| 18.                                     | 24559 <i>Acanthagenys rufogularis</i> (Spiny-cheeked Honeyeater)  |             |                   |                                    |
| 19.                                     | 24260 <i>Acanthiza apicalis</i> (Broad-tailed Thornbill, Inland Thornbill)  |             |                   |                                    |
| 20.                                     | 24264 <i>Acanthiza robustirostris</i> (Slaty-backed Thornbill)  |             |                   |                                    |
| 21.                                     | 24265 <i>Acanthiza uropygialis</i> (Chestnut-rumped Thornbill)  |             |                   |                                    |
| 22.                                     | 25536 <i>Accipiter fasciatus</i> (Brown Goshawk)  |             |                   |                                    |
| 23.                                     | 25544 <i>Aegotheles cristatus</i> (Australian Owlet-nightjar)   |             |                   |                                    |
| 24.                                     | 4907 <i>Alyogyne pinoniana</i> (Sand Hibiscus)  |             |                   |                                    |
| 25.                                     | 2383 <i>Amyema preissii</i> (Wireleaf Mistletoe)  |             |                   |                                    |
| 26.                                     | 2333 <i>Anthobolus leptomerioides</i>   |             |                   |                                    |
| 27.                                     | 24561 <i>Anthochaera carunculata</i> (Red Wattlebird)   |             |                   |                                    |
| 28.                                     | 25528 <i>Aphelocephala leucopsis</i> (Southern Whiteface)   |             |                   |                                    |
| 29.                                     | 24267 <i>Aphelocephala leucopsis</i> subsp. <i>leucopsis</i> (Southern Whiteface)                                 |             |                   |                                    |
| 30.                                     | 24285 <i>Aquila audax</i> (Wedge-tailed Eagle)  |             |                   |                                    |
| 31.                                     | 25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)   |             |                   |                                    |
| 32.                                     | 24355 <i>Artamus minor</i> (Little Woodswallow)   |             |                   |                                    |
| 33.                                     | 2468 <i>Atriplex nana</i>   |             |                   |                                    |
| 34.                                     | 2481 <i>Atriplex vesicaria</i> (Bladder Saltbush)   |             |                   |                                    |
| 35.                                     | <i>Barnardius zonarius</i>  |             |                   |                                    |
| 36.                                     | 2770 <i>Boerhavia coccinea</i> (Tar Vine, Wituka)   |             |                   |                                    |
| 37.                                     | 11167 <i>Bonamia erecta</i>   |             |                   |                                    |

| Name ID | Species Name  | Naturalised | Conservation Code | <sup>1</sup> Endemic To Query Area |
|---------|---|-------------|-------------------|------------------------------------|
| 38.     | 7871 <i>Brachyscome ciliaris</i>  |             |                   |                                    |
| 39.     | 7413 <i>Brunonia australis</i> (Native Cornflower)                                  |             |                   |                                    |
| 40.     | 750 <i>Bulbostylis barbata</i>  |             |                   |                                    |
| 41.     | 42307 <i>Cacomantis pallidus</i> (Pallid Cuckoo)                                    |             |                   |                                    |
| 42.     | 14090 <i>Calocephalus beardii</i>   |             |                   |                                    |
| 43.     | 7905 <i>Calotis multicaulis</i> (Many-stemmed Burr-daisy)                           |             |                   |                                    |
| 44.     | 1742 <i>Casuarina obesa</i> (Swamp Sheoak, Kuli)                                    |             |                   |                                    |
| 45.     | 12658 <i>Casuarina pauper</i> (Black Oak)   |             |                   |                                    |
| 46.     | 12818 <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>                              |             |                   |                                    |
| 47.     | 47909 <i>Cheramoeca leucosterna</i> (White-backed Swallow)                          |             |                   |                                    |
| 48.     | 25580 <i>Cinlosoma castaneothorax</i> (Chestnut-breasted Quail-thrush)              |             |                   |                                    |
| 49.     | 42311 <i>Cinlosoma marginatum</i> (Western Quail-thrush)                            |             |                   |                                    |
| 50.     | 25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)                           |             |                   |                                    |
| 51.     | 24613 <i>Colluricincla harmonica</i> subsp. <i>rufiventris</i> (Grey Shrike-thrush) |             |                   |                                    |
| 52.     | 24361 <i>Coracina maxima</i> (Ground Cuckoo-shrike)                                 |             |                   |                                    |
| 53.     | 25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)                   |             |                   |                                    |
| 54.     | 24416 <i>Corvus bennetti</i> (Little Crow)  |             |                   |                                    |
| 55.     | 25593 <i>Corvus orru</i> (Torresian Crow)   |             |                   |                                    |
| 56.     | 24420 <i>Cracticus nigrogularis</i> (Pied Butcherbird)                              |             |                   |                                    |
| 57.     | 25595 <i>Cracticus tibicen</i> (Australian Magpie)                                  |             |                   |                                    |
| 58.     | 25596 <i>Cracticus torquatus</i> (Grey Butcherbird)                                 |             |                   |                                    |
| 59.     | 30893 <i>Cryptoblepharus buchananii</i>   |             |                   |                                    |
| 60.     | 24882 <i>Ctenophorus nuchalis</i> (Central Netted Dragon)                           |             |                   |                                    |
| 61.     | 24886 <i>Ctenophorus reticulatus</i> (Western Netted Dragon)                        |             |                   |                                    |
| 62.     | 24888 <i>Ctenophorus salinarum</i> (Salt Pan Dragon)                                |             |                   |                                    |
| 63.     | 24889 <i>Ctenophorus scutulatus</i> (Lozenge-marked Dragon)                         |             |                   |                                    |
| 64.     | 7466 <i>Dampiera ramosa</i>   |             |                   |                                    |
| 65.     | 6758 <i>Dicrastylis exsuccosa</i>   |             |                   |                                    |
| 66.     | 24470 <i>Dromaius novaehollandiae</i> (Emu)   |             |                   |                                    |
| 67.     | 6966 <i>Duboisia hopwoodii</i> (Pituri, Kundugu)                                    |             |                   |                                    |
| 68.     | 2502 <i>Dysphania kalpari</i> (Rat's Tail, Kalpari)                                 |             |                   |                                    |
| 69.     | 2504 <i>Dysphania plantaginella</i>   |             |                   |                                    |
| 70.     | 33483 <i>Dysphania saxatilis</i>  |             |                   |                                    |
| 71.     | 25094 <i>Egernia formosa</i>  |             |                   |                                    |
| 72.     | <i>Elanus axillaris</i>   |             |                   |                                    |
| 73.     | 357 <i>Enneapogon caeruleus</i> (Limestone Grass)                                   |             |                   |                                    |
| 74.     | 365 <i>Enneapogon polyphyllus</i> (Leafy Nineawn)                                   |             |                   |                                    |
| 75.     | <i>Eolophus roseicapillus</i>   |             |                   |                                    |
| 76.     | 24570 <i>Epthianura tricolor</i> (Crimson Chat)                                     |             |                   |                                    |
| 77.     | 378 <i>Eragrostis dielsii</i> (Mallee Lovegrass)                                    |             |                   |                                    |
| 78.     | 381 <i>Eragrostis falcata</i> (Sickle Lovegrass)                                    |             |                   |                                    |
| 79.     | 386 <i>Eragrostis laniflora</i> (Hairy-flowered Woollybutt)                         |             |                   |                                    |
| 80.     | 388 <i>Eragrostis leptocarpa</i> (Drooping Lovegrass)                               |             |                   |                                    |
| 81.     | 392 <i>Eragrostis pergracilis</i>   |             |                   |                                    |
| 82.     | 7204 <i>Eremophila ericalyx</i> (Desert Pride)                                      |             |                   |                                    |
| 83.     | 15052 <i>Eremophila forrestii</i> subsp. <i>forrestii</i>                           |             |                   |                                    |
| 84.     | 7215 <i>Eremophila glabra</i> (Tar Bush)  |             |                   |                                    |
| 85.     | 14340 <i>Eremophila glabra</i> subsp. <i>glabra</i>                                 |             |                   |                                    |
| 86.     | 14191 <i>Eremophila glabra</i> subsp. <i>tomentosa</i>                              |             |                   |                                    |
| 87.     | 17169 <i>Eremophila latrobei</i> subsp. <i>glabra</i>                               |             |                   |                                    |
| 88.     | 7234 <i>Eremophila longifolia</i> (Berrigan, Tulypurpa)                             |             |                   |                                    |
| 89.     | 7242 <i>Eremophila miniata</i> (Kopi Poverty Bush)                                  |             |                   |                                    |
| 90.     | 15054 <i>Eremophila platythamnus</i> subsp. <i>exotrachys</i>                       |             |                   |                                    |
| 91.     | 7269 <i>Eremophila serrulata</i> (Serrate-leaved Eremophila)                        |             |                   |                                    |
| 92.     | 16486 <i>Eriachne pulchella</i> subsp. <i>pulchella</i>                             |             |                   |                                    |
| 93.     | 5596 <i>Eucalyptus concinna</i> (Victoria Desert Mallee)                            |             |                   |                                    |
| 94.     | 5636 <i>Eucalyptus eremicola</i>  |             |                   |                                    |
| 95.     | 20300 <i>Eucalyptus eremicola</i> subsp. <i>peeneri</i>                             |             |                   |                                    |
| 96.     | 13533 <i>Eucalyptus glomerosa</i> (Jinjulu)   |             |                   |                                    |
| 97.     | 5703 <i>Eucalyptus lucasii</i> (Barlee Box)   |             |                   |                                    |
| 98.     | 5761 <i>Eucalyptus rigidula</i> (Stiff-leaved Mallee)                               |             |                   |                                    |
| 99.     | 29733 <i>Eucalyptus trivalva</i> (Victoria Spring Mallee)                           |             |                   |                                    |
| 100.    | 25621 <i>Falco berigora</i> (Brown Falcon)  |             |                   |                                    |
| 101.    | 25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)                |             |                   |                                    |
| 102.    | 851 <i>Fimbristylis dichotoma</i> (Eight Day Grass)                                 |             |                   |                                    |
| 103.    | 5191 <i>Frankenia cinerea</i>   |             |                   |                                    |
| 104.    | 5194 <i>Frankenia cordata</i> (Heart Leaved Frankenia)                              |             |                   |                                    |
| 105.    | 5212 <i>Frankenia setosa</i> (Bristly Frankenia)                                    |             |                   |                                    |
| 106.    | 42314 <i>Gavicalis virescens</i> (Singing Honeyeater)                               |             |                   |                                    |
| 107.    | 24957 <i>Gehyra purpurascens</i>  |             |                   |                                    |

| Name ID | Species Name   | Naturalised | Conservation Code | <sup>1</sup> Endemic To Query Area |
|---------|--|-------------|-------------------|------------------------------------|
| 108.    | 24959 <i>Gehyra variegata</i>  |             |                   |                                    |
| 109.    | 10995 <i>Gompholobium polyzygum</i>  |             |                   |                                    |
| 110.    | 20523 <i>Goodenia azurea</i> subsp. <i>hesperia</i>  |             |                   |                                    |
| 111.    | 7498 <i>Goodenia centralis</i>   |             |                   |                                    |
| 112.    | 19776 <i>Goodenia gypsicola</i>  |             |                   |                                    |
| 113.    | 24443 <i>Grallina cyanoleuca</i> ( <i>Magpie-lark</i> )                                    |             |                   |                                    |
| 114.    | 2077 <i>Grevillea pterosperma</i>  |             |                   |                                    |
| 115.    | 2784 <i>Gyrostemon ramulosus</i> ( <i>Corkybark</i> )                                      |             |                   |                                    |
| 116.    | 19137 <i>Hakea lorea</i> subsp. <i>lorea</i>   |             |                   |                                    |
| 117.    | 29840 <i>Halgania cyanea</i> var. <i>Allambi</i> Stn ( <i>B.W. Strong 676</i> )            |             |                   |                                    |
| 118.    | 6180 <i>Haloragis trigonocarpa</i>   |             |                   |                                    |
| 119.    | 24297 <i>Hamirostra melanosternon</i> ( <i>Black-breasted Buzzard</i> )                    |             |                   |                                    |
| 120.    | 24961 <i>Heteronotia binoei</i> ( <i>Bynoe's Gecko</i> )                                   |             |                   |                                    |
| 121.    | 48203 <i>Hypertelis cerviana</i>   |             |                   |                                    |
| 122.    | 3974 <i>Indigofera georgei</i> ( <i>Bovine Indigo</i> )                                    |             |                   |                                    |
| 123.    | 459 <i>Iseilema eremaeum</i>   |             |                   |                                    |
| 124.    | 13289 <i>Lawrencella davenportii</i>   |             |                   |                                    |
| 125.    | 7587 <i>Lechenaultia striata</i>   |             |                   |                                    |
| 126.    | 25125 <i>Lerista bipes</i>   |             |                   |                                    |
| 127.    | 25130 <i>Lerista desertorum</i>  |             |                   |                                    |
| 128.    | 42411 <i>Lerista timida</i>  |             |                   |                                    |
| 129.    | 13258 <i>Leucochrysum stipitatum</i>   |             |                   |                                    |
| 130.    | 25005 <i>Lialis burtonis</i>   |             |                   |                                    |
| 131.    | 41411 <i>Liopholis inornata</i> ( <i>Desert Skink</i> )                                    |             |                   |                                    |
| 132.    | 41417 <i>Liopholis striata</i> ( <i>Night Skink</i> )                                      |             |                   |                                    |
| 133.    | 12051 <i>Lysiana exocarpi</i> subsp. <i>exocarpi</i> ( <i>Harlequin Mistletoe</i> )        |             |                   |                                    |
| 134.    | 24135 <i>Macropus robustus</i> subsp. <i>erubescens</i> ( <i>Euro, Biggada</i> )           |             |                   |                                    |
| 135.    | 24136 <i>Macropus rufus</i> ( <i>Red Kangaroo, Marlu</i> )                                 |             |                   |                                    |
| 136.    | 2533 <i>Maireana amoena</i>  |             |                   |                                    |
| 137.    | 2538 <i>Maireana carnososa</i> ( <i>Cottony Bluebush</i> )                                 |             |                   |                                    |
| 138.    | 2555 <i>Maireana pentatropis</i>   |             |                   |                                    |
| 139.    | 2557 <i>Maireana platycarpa</i> ( <i>Shy Bluebush</i> )                                    |             |                   |                                    |
| 140.    | 2560 <i>Maireana pyramidata</i> ( <i>Sago Bush</i> )                                       |             |                   |                                    |
| 141.    | 2567 <i>Maireana tomentosa</i> ( <i>Felty Bluebush</i> )                                   |             |                   |                                    |
| 142.    | 11662 <i>Maireana tomentosa</i> subsp. <i>tomentosa</i>                                    |             |                   |                                    |
| 143.    | 2569 <i>Maireana triptera</i> ( <i>Threewinged Bluebush</i> )                              |             |                   |                                    |
| 144.    | 2571 <i>Maireana villosa</i>   |             |                   |                                    |
| 145.    | 25652 <i>Malurus leucopterus</i> ( <i>White-winged Fairy-wren</i> )                        |             |                   |                                    |
| 146.    | 25654 <i>Malurus splendens</i> ( <i>Splendid Fairy-wren</i> )                              |             |                   |                                    |
| 147.    | 24583 <i>Manorina flavigula</i> ( <i>Yellow-throated Miner</i> )                           |             |                   |                                    |
| 148.    | 5908 <i>Melaleuca eleuterostachya</i>  |             |                   |                                    |
| 149.    | 47997 <i>Melanodryas cucullata</i> ( <i>Hooded Robin</i> )                                 |             |                   |                                    |
| 150.    | 24736 <i>Melopsittacus undulatus</i> ( <i>Budgerigar</i> )                                 |             |                   |                                    |
| 151.    | 25184 <i>Menetia greyii</i>  |             |                   |                                    |
| 152.    | 24904 <i>Moloch horridus</i> ( <i>Thorny Devil</i> )                                       |             |                   |                                    |
| 153.    | 24737 <i>Neophema bourkii</i> ( <i>Bourke's Parrot</i> )                                   |             |                   |                                    |
| 154.    | <i>Neopsephotus bourkii</i>  |             |                   |                                    |
| 155.    | 24742 <i>Nymphicus hollandicus</i> ( <i>Cockatiel</i> )                                    |             |                   |                                    |
| 156.    | 24407 <i>Ocyphaps lophotes</i> ( <i>Crested Pigeon</i> )                                   |             |                   |                                    |
| 157.    | 12634 <i>Olearia eremaea</i>   |             |                   |                                    |
| 158.    | 19023 <i>Olearia incana</i>  |             |                   |                                    |
| 159.    | 24618 <i>Oreoica gutturalis</i> ( <i>Crested Bellbird</i> )                                |             |                   |                                    |
| 160.    | 25680 <i>Pachycephala rufiventris</i> ( <i>Rufous Whistler</i> )                           |             |                   |                                    |
| 161.    | 24627 <i>Pardalotus rubricatus</i> ( <i>Red-browed Pardalote</i> )                         |             |                   |                                    |
| 162.    | 25682 <i>Pardalotus striatus</i> ( <i>Striated Pardalote</i> )                             |             |                   |                                    |
| 163.    | 24630 <i>Pardalotus striatus</i> subsp. <i>westraliensis</i> ( <i>Striated Pardalote</i> ) |             |                   |                                    |
| 164.    | 10975 <i>Paspalidium basicladum</i>  |             |                   |                                    |
| 165.    | 518 <i>Paspalidium clementii</i> ( <i>Clements Paspalidium</i> )                           |             |                   |                                    |
| 166.    | 48061 <i>Petrochelidon nigricans</i> ( <i>Tree Martin</i> )                                |             |                   |                                    |
| 167.    | 24659 <i>Petroica goodenovii</i> ( <i>Red-capped Robin</i> )                               |             |                   |                                    |
| 168.    | 24409 <i>Phaps chalcoptera</i> ( <i>Common Bronzewing</i> )                                |             |                   |                                    |
| 169.    | 19744 <i>Pittosporum angustifolium</i>   |             |                   |                                    |
| 170.    | 8173 <i>Podolepis capillaris</i> ( <i>Wiry Podolepis</i> )                                 |             |                   |                                    |
| 171.    | 24907 <i>Pogona minor</i> subsp. <i>minor</i> ( <i>Dwarf Bearded Dragon</i> )              |             |                   |                                    |
| 172.    | 24683 <i>Pomatostomus superciliosus</i> ( <i>White-browed Babbler</i> )                    |             |                   |                                    |
| 173.    | <i>Ptilonorhynchus guttatus</i>  |             |                   |                                    |
| 174.    | 2690 <i>Ptilotus aervoides</i>   |             |                   |                                    |
| 175.    | 2708 <i>Ptilotus chamaecladus</i>  |             |                   |                                    |
| 176.    | 2731 <i>Ptilotus helipteroides</i> ( <i>Hairy Mulla Mulla</i> )                            |             |                   |                                    |
| 177.    | 2751 <i>Ptilotus polystachyus</i> ( <i>Prince of Wales Feather</i> )                       |             |                   |                                    |

| Name ID | Species Name   | Naturalised | Conservation Code | <sup>1</sup> Endemic To Query Area |
|---------|--|-------------|-------------------|------------------------------------|
| 178.    | 42344 <i>Purnella albifrons</i> (White-fronted Honeyeater)   |             |                   |                                    |
| 179.    | 24278 <i>Pyrrholaemus brunneus</i> (Redthroat)               |             |                   |                                    |
| 180.    | 48096 <i>Rhipidura albiscapa</i> (Grey Fantail)              |             |                   |                                    |
| 181.    | 25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)           |             |                   |                                    |
| 182.    | 13308 <i>Rhodanthe charsleyae</i>                            |             |                   |                                    |
| 183.    | 13300 <i>Rhodanthe citrina</i>                               |             |                   |                                    |
| 184.    | 24982 <i>Rhynchoedura ornata</i> (Western Beaked Gecko)      |             |                   |                                    |
| 185.    | 48888 <i>Roepera compressa</i>                               |             |                   |                                    |
| 186.    | 8198 <i>Rutidosis helichrysoides</i> (Grey Wrinklewort)      |             |                   |                                    |
| 187.    | 30434 <i>Salsola australis</i>                               |             |                   |                                    |
| 188.    | 2602 <i>Sclerolaena convexula</i>                            |             |                   |                                    |
| 189.    | 2611 <i>Sclerolaena eriacantha</i> (Tall Bindii)             |             |                   |                                    |
| 190.    | 2612 <i>Sclerolaena eurotioides</i> (Fluffy Bindii)          |             |                   |                                    |
| 191.    | 2613 <i>Sclerolaena fimbriolata</i>                          |             |                   |                                    |
| 192.    | 2627 <i>Sclerolaena patenticuspis</i> (Spear-fruit Saltbush) |             |                   |                                    |
| 193.    | 29941 <i>Sclerolaena x georgei</i>                           |             |                   | Y                                  |
| 194.    | 25881 <i>Senecio lacustrinus</i>                             |             |                   |                                    |
| 195.    | 12279 <i>Senna artemisioides</i> subsp. <i>helmsii</i>       |             |                   |                                    |
| 196.    | 4977 <i>Sida fibulifera</i> (Silver Sida)                    |             |                   |                                    |
| 197.    | 30948 <i>Smicromis brevirostris</i> (Weebill)                |             |                   |                                    |
| 198.    | 24924 <i>Strophurus ciliaris</i> subsp. <i>aberrans</i>      |             |                   |                                    |
| 199.    | 13585 <i>Swainsona tenuis</i>                                |             |                   |                                    |
| 200.    | 30870 <i>Taeniopygia guttata</i> (Zebra Finch)               |             |                   |                                    |
| 201.    | 33319 <i>Tecticornia indica</i> subsp. <i>bidens</i>         |             |                   |                                    |
| 202.    | 31618 <i>Tecticornia pruinosa</i>                            |             |                   |                                    |
| 203.    | 678 <i>Tragus australianus</i> (Small Burrgrass)             |             |                   |                                    |
| 204.    | 17873 <i>Triodia schinzii</i>                                |             |                   |                                    |
| 205.    | 48319 <i>Tripogonella loliiformis</i>                        |             |                   |                                    |
| 206.    | 24983 <i>Underwoodisaurus milii</i> (Barking Gecko)          |             |                   |                                    |
| 207.    | 25218 <i>Varanus gouldii</i> (Bungarra or Sand Monitor)      |             |                   |                                    |
| 208.    | 48986 <i>Vincetoxicum lineare</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

<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.



# 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: 16/09/20 16:23:58

[Summary](#)

[Details](#)

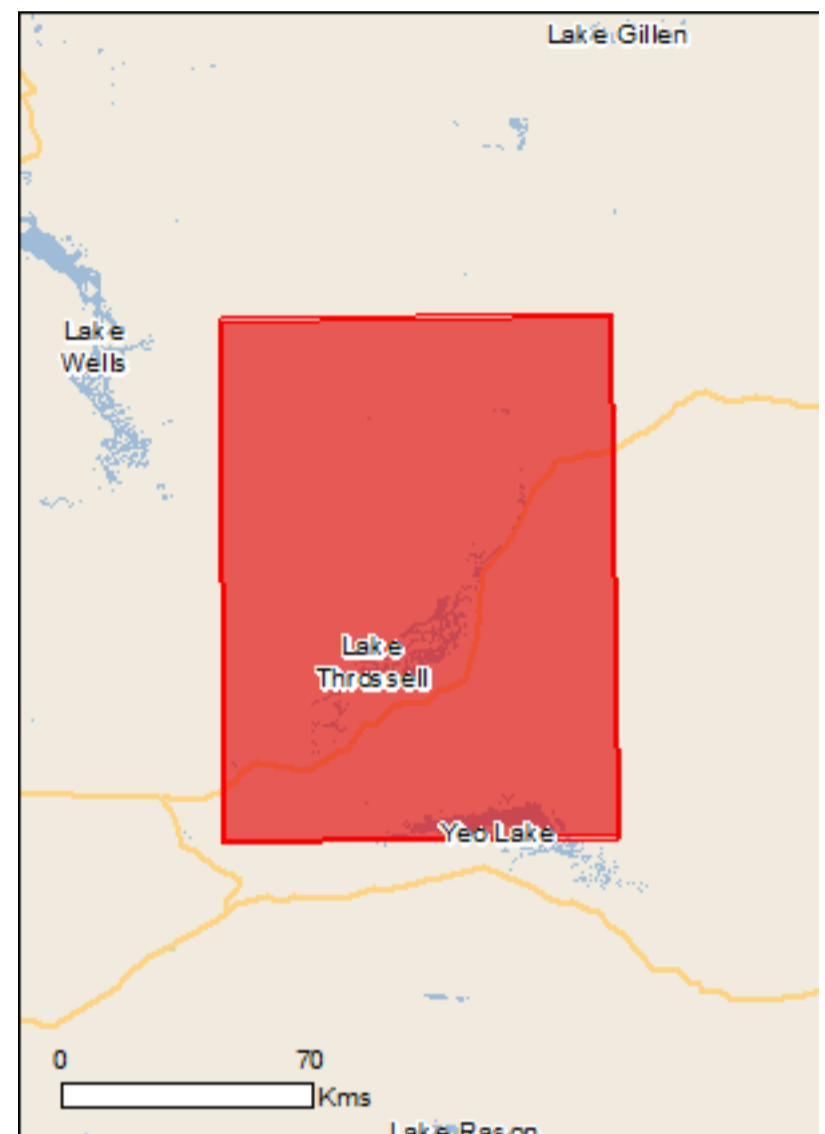
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



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[Coordinates](#)

[Buffer: 1.0Km](#)



# 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>                 | None |
| <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>                | 6    |
| <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>                 | None |
| <a href="#">Commonwealth Heritage Places:</a>      | None |
| <a href="#">Listed Marine Species:</a>             | 10   |
| <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>    | 1    |
| <a href="#">Regional Forest Agreements:</a>      | None |
| <a href="#">Invasive Species:</a>                | 7    |
| <a href="#">Nationally Important Wetlands:</a>   | 1    |
| <a href="#">Key Ecological Features (Marine)</a> | None |



# Details

## Matters of National Environmental Significance

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

| Name | Status | Type of Presence |
|------|--------|------------------|
|------|--------|------------------|

#### Birds

|   |            |  |
|---|------------|--|
| <a href="#">Falco hypoleucos</a><br>Grey Falcon [929] | Vulnerable | Species or species habitat may occur within area |
|---|------------|--|

|   |            |  |
|---|------------|--|
| <a href="#">Leipoa ocellata</a><br>Malleefowl [934] | Vulnerable | Species or species habitat likely to occur within area |
|---|------------|--|

|  |            |  |
|--|------------|--|
| <a href="#">Pezoporus occidentalis</a><br>Night Parrot [59350] | Endangered | Species or species habitat may occur within area |
|--|------------|--|

|   |            |  |
|---|------------|--|
| <a href="#">Polytelis alexandrae</a><br>Princess Parrot, Alexandra's Parrot [758] | Vulnerable | Species or species habitat may occur within area |
|---|------------|--|

#### Mammals

|   |            |  |
|---|------------|--|
| <a href="#">Sminthopsis psammophila</a><br>Sandhill Dunnart [291] | Endangered | Species or species habitat may occur within area |
|---|------------|--|

#### Reptiles

|  |            |  |
|--|------------|--|
| <a href="#">Liopholis kintorei</a><br>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

|   |  |  |
|---|--|--|
| <a href="#">Apus pacificus</a><br>Fork-tailed Swift [678] |  | Species or species habitat likely to occur within area |
|---|--|--|

#### Migratory Terrestrial Species

|   |  |  |
|---|--|--|
| <a href="#">Motacilla cinerea</a><br>Grey Wagtail [642] |  | Species or species habitat may occur within area |
|---|--|--|

|   |  |  |
|---|--|--|
| <a href="#">Motacilla flava</a><br>Yellow Wagtail [644] |  | Species or species habitat may occur within area |
|---|--|--|

#### Migratory Wetlands Species

|  |  |  |
|--|--|--|
| <a href="#">Actitis hypoleucos</a><br>Common Sandpiper [59309] |  | Species or species habitat may occur within area |
|--|--|--|

| Name   | Threatened | Type of Presence                                 |
|--|------------|--|
| <a href="#">Calidris acuminata</a><br>Sharp-tailed Sandpiper [874]             |            | Species or species habitat may occur within area |
| <a href="#">Calidris melanotos</a><br>Pectoral Sandpiper [858]                 |            | Species or species habitat may occur within area |
| <a href="#">Charadrius veredus</a><br>Oriental Plover, Oriental Dotterel [882] |            | Species or species habitat may occur within area |

## Other Matters Protected by the EPBC Act

### 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><br>Common Sandpiper [59309]                 |            | Species or species habitat may occur within area       |
| <a href="#">Apus pacificus</a><br>Fork-tailed Swift [678]                      |            | Species or species habitat likely to occur within area |
| <a href="#">Ardea alba</a><br>Great Egret, White Egret [59541]                 |            | Species or species habitat likely to occur within area |
| <a href="#">Calidris acuminata</a><br>Sharp-tailed Sandpiper [874]             |            | Species or species habitat may occur within area       |
| <a href="#">Calidris melanotos</a><br>Pectoral Sandpiper [858]                 |            | Species or species habitat may occur within area       |
| <a href="#">Charadrius veredus</a><br>Oriental Plover, Oriental Dotterel [882] |            | Species or species habitat may occur within area       |
| <a href="#">Chrysococcyx osculans</a><br>Black-eared Cuckoo [705]              |            | Species or species habitat known to occur within area  |
| <a href="#">Merops ornatus</a><br>Rainbow Bee-eater [670]                      |            | Species or species habitat may occur within area       |
| <a href="#">Motacilla cinerea</a><br>Grey Wagtail [642]                        |            | Species or species habitat may occur within area       |
| <a href="#">Motacilla flava</a><br>Yellow Wagtail [644]                        |            | Species or species habitat may occur within area       |

## Extra Information

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

| Name     | State |
|----------|-------|
| Yeo Lake | 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

|   |  |  |
|---|--|--|
| Camelus dromedarius<br>Dromedary, Camel [7] |  | Species or species habitat likely to occur within area |
|---|--|--|

|  |  |  |
|--|--|--|
| Canis lupus familiaris<br>Domestic Dog [82654] |  | Species or species habitat likely to occur within area |
|--|--|--|

|                          |  |  |
|--------------------------|--|--|
| Capra hircus<br>Goat [2] |  | Species or species habitat likely to occur within area |
|--------------------------|--|--|

|  |  |  |
|--|--|--|
| Felis catus<br>Cat, House Cat, Domestic Cat [19] |  | Species or species habitat likely to occur within area |
|--|--|--|

|                                   |  |  |
|-----------------------------------|--|--|
| Mus musculus<br>House Mouse [120] |  | Species or species habitat likely to occur within area |
|-----------------------------------|--|--|

|  |  |  |
|--|--|--|
| Oryctolagus cuniculus<br>Rabbit, European Rabbit [128] |  | Species or species habitat likely to occur within area |
|--|--|--|

|                                    |  |  |
|------------------------------------|--|--|
| Vulpes vulpes<br>Red Fox, Fox [18] |  | Species or species habitat likely to occur within area |
|------------------------------------|--|--|

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

| Name                                    | State |
|---|-------|
| <a href="#">Yeo Lake/Lake Throssell</a> | WA    |

# 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

-26.85754 123.65779,-26.84968 124.63038,-28.00716 124.64748,-28.01543 123.66469,-26.85754 123.65779

# 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.