

# Native Vegetation Clearing Referral

Pink Lake Road Widening – ESHS to Eleven Mile Road

## **Site Inspection Report**

Prepared by:

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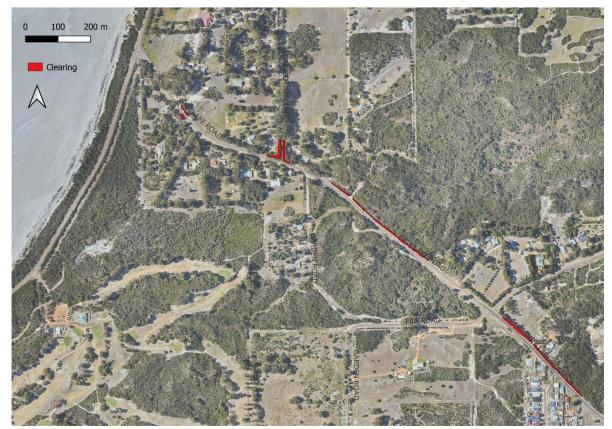


November 2024

#### Introduction

The Shire of Esperance (SOE) has proposed to clear 0.42 ha of native vegetation located within the Pink Lake Road and Longbottom Lane road reserves between SLK 2.62 and 4.20 Pink Lake Road (Main Roads, 2024) for the purposes of widening road shoulders and improved sight distances as part of upgrades funded through the State Government's Black Spot Funding. Refer to Figure 1 for a map of the proposed area.

#### Map



**Figure 1.** Location and vegetation to be cleared of proposed Pink Lake Road Widening – ESHS to Eleven Mile Road site. (A point within the site is 394114m E, 6253927m N, GDA94, Zone 51)

#### **Desktop Summary**

Prior to the site inspection, the Shire of Esperance's Desktop Environmental Impacts Spatial Interrogation Program (DEISIP) was utilised to conduct a comprehensive desktop search for an area encompassing a 20 km radius of the proposed Pink Lake Road Widening – ESHS to Eleven Mile Road site. This program consults numerous Local, State and Federal government spatial data sets to provide valuable environmental, heritage and other relevant information required in the assessment of the project against the ten clearing principles for native vegetation, regulated under Schedule 5 of the *Environmental Protection Act* 1986 (EP Act 1986).

Pink Lake Road Widening – ESHS to Eleven Mile Road site is mapped as forming a component of three Beard Vegetation Associations, namely Fanny Cove 7048, 125 and 42. These are lightly cleared and Fanny Cove 7048 and 42 are well represented within conservation estate, Fanny Cove 125 is poorly

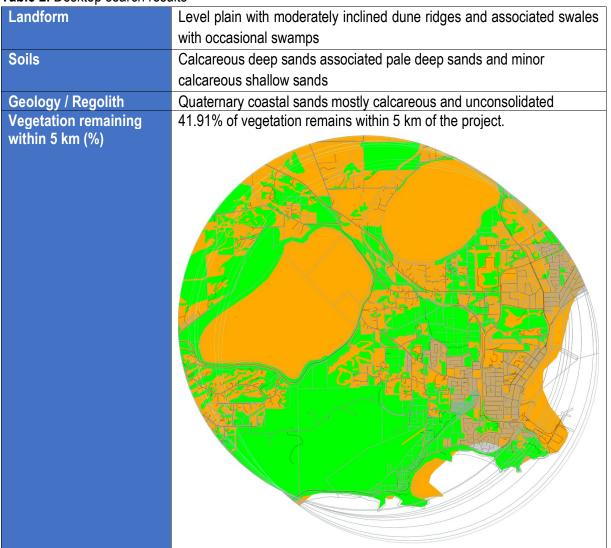
represented within conservation estate with only 7.02% of its pre-European extent within conservation estate.

 Table 1. Vegetation associations within Pink Lake Road Widening – ESHS to Eleven Mile Road site by

percentage of pre-European extent remaining.

| Vegetation Association                 | Fanny Cove_7048  | Fanny Cove_125   | Fanny Cove_42   |
|--|------------------|------------------|-----------------|
| Description                            | Shrublands;      | Bare areas; salt | Shrublands;     |
|  | banksia scrub-   | lakes            | mallee & acacia |
|  | heath on coastal |                  | scrub on south  |
|  | plain in the     |                  | coastal dunes   |
|  | Esperance Plains |                  |                 |
|  | Region           |                  |                 |
| Pre-European extent remaining within   | 78.94 %          | 95.46 %          | 94.87 %         |
| the Shire of Esperance                 |                  |                  |                 |
| Pre-European extent remaining within   | 78.94 %          | 77.25 %          | 95.56 %         |
| Recherche IBRA Sub-region              |                  |                  |                 |
| Pre- European extent in land protected | 66.24 %          | 7.02 %           | 44.8 %          |
| for conservation                       |                  |                  |                 |

**Table 2.** Desktop search results



| Threatened and Priority Flora (Appendix 3) | 45 PF and no TF were recorded within 20 km of the Pink Lake Road Widening – ESHS to Eleven Mile Road project.  |
|--|--|
| Threatened Ecological Communities          | The EPBC listed "Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia" TEC was mapped as occurring 612 m from the project area. |
|  | The EPBC listed "Subtropical and Temperate Coastal Saltmarsh" TEC was listed as occurring 7.09 km from the project area.   |
| Threatened and Priority Fauna (Appendix 4) | 54 conservation listed species were recorded within 20 km of the Pink Lake Road Widening – ESHS to Eleven Mile Road site.  |
| Closest Conservation Reserve               | 1.6 km from Reserve 32257, Lake Warden Nature Reserve.   |
| Aboriginal Heritage                        | No heritage sites were within the project area. The closest registered Aboriginal heritage site was 428 m from the project area.   |

#### **Site Inspection**

A site inspection was conducted by Julie Waters (Environmental Coordinator), Katherine Walkerden (Environmental Officer) of the Shire of Esperance on the 4th of November, 2024.

Approximately 0.42 ha of native vegetation was present within the project site. All vegetation within the site would have originally matched a single Beard Vegetation Association (BVA) identified in the desktop survey Fanny Cove\_42 "Shrublands; mallee & acacia scrub on south coastal dunes". Both of the other BVA's identified in the desktop survey were not present at the site (BVA7048 or BVA125).

There was some difference in the mapped vegetation units at the site due to the presence or absence of planted Tuarts (*Eucalyptus gomphocephala*) as overstory and level of domination of weeds including grasses and Victorian Tea tree (*Gaudium laevigatum*) that had altered vegetation composition and structure. Vegetation types were mapped at the site

- i Acacia cyclops, Leucopogon parviflorus and Templetonia retusa shrubland over Cenchrus clandestinus (With or without an overstory of planted Eucalyptus gomphocephala).
- ii Eucalyptus utilis and E. conferruminata over mixed Melaleuca pentagona dominated shrubland
- iii Dense Gaudium laevigatum with scattered native vegetation and mixed Poaceae weeds.
- iv Eucalyptus utilis and E. conferruminata over mixed Acacia shrubland

Vegetation condition varied between a Very Good and Degraded condition (Keighery 1994), with the majority (0.2 ha) in good condition. Primary causes of degradation observed to be afflicting the site were weed invasion, historical clearing, and planting of non-native trees.

The desktop survey mapped the EPBC Act listed TEC, 'Proteaceae dominated Kwongkan shrublands of the southeast coastal floristic province of Western Australia (Kwongkan)' as occurring 612 m from the project area. Throughout the entire project area only a single proteaceous species was present (*Adenanthos cuneatus*) and this was at low densities, therefore none of the vegetation within the project area could be considered as the Kwongkan TEC as per the approved conservation advice for this ecological community.

The desktop survey also identified the EPBC listed "Subtropical and Temperate Coastal Saltmarsh" TEC was listed as occurring 7.09 km from the project area. There were no saltmarsh or wetland areas within the project area.

No other Threatened Ecological Communities or Priority Ecological Communities were relevant to this site

A total of 27 native flora species were identified during the field survey, an additional 36 exotic species were recorded within the project area. Problematic environmental weeds observed within the proposed Pink Lake Road Widening – ESHS to Eleven Mile Road site area included *Gaudium laevigatum* (Victorian Tea Tree) and *Chasmanthe floribunda* (African Flag). A full species list is presented in Appendix 3. No TF or PF identified in the desktop assessment were detected, and a post-survey likelihood of occurrence assessment indicated no species were likely to occur due to no suitable habitat.

**Table 1.** Incidental list of flora species present within proposed Pink Lake Road Widening – ESHS to Eleven Mile Road site.

| Family            | Species                | Invasive |
|-------------------|------------------------|----------|
| Apiaceae          | Foeniculum vulgare     | Х        |
| Asparagaceae      | Asparagus asparagoides | Χ        |
| Asphodelaceae     | Asphodelus fistulosus  | Χ        |
| Asteraceae        | Erigeron bonariensis   | Χ        |
| Asteraceae        | Gazania linearis       | Χ        |
| Asteraceae        | Hypochaeris radicata   | X        |
| Asteraceae        | Sonchus oleraceus      | Х        |
| Campanulaceae     | Wahlenbergia preissii  | Х        |
| Chenopodiaceae    | Rhagodia baccata       |          |
| Cupressaceae      | Callitris drummondii   |          |
| Cupressaceae      | Callitris preissii     |          |
| Cyperaceae        | Lepidosperma gladiatum |          |
| Cyperaceae        | Lepidosperma sp.       |          |
| Ericaceae         | Acrotriche cordata     |          |
| Ericaceae         | Leucopogon obovatus    |          |
| Ericaceae         | Leucopogon parviflorus |          |
| Euphorbiaceae     | Euphorbia terracina    | Χ        |
| Fabaceae          | Acacia cochlearis      |          |
| Fabaceae          | Acacia cupularis       |          |
| Fabaceae          | Acacia cyclops         |          |
| Fabaceae          | Acacia saligna         |          |
| Fabaceae          | Medicago polymorpha    | Χ        |
| Fabaceae          | Melilotus indicus      | Χ        |
| Fabaceae          | Templetonia retusa     |          |
| Fabaceae          | Trifolium campestre    | Χ        |
| Geraniaceae       | Pelargonium capitatum  | Х        |
| Hemerocallidaceae | Dianella brevicaulis   |          |
| Hemerocallidaceae | Tricoryne elatior      |          |
| Iridaceae         | Chasmanthe floribunda  | Х        |
| Iridaceae         | Freesia sp.            | Х        |
| Loranthaceae      | Nuytsia floribunda     |          |

| Myrtaceae        | Agonis flexuosa           | Х |
|------------------|---------------------------|---|
| Myrtaceae        | Eucalyptus utilis         |   |
| Myrtaceae        | Eucalyptus conferruminata |   |
| Myrtaceae        | Eucalyptus gomphocephala  | Х |
| Myrtaceae        | Eucalyptus uncinata       |   |
| Myrtaceae        | Gaudium laevigatum        | Х |
| Myrtaceae        | Melaleuca pentagona       |   |
| Olacaceae        | Olax benthamiana          |   |
| Orobanchaceae    | Orobanche minor           | Х |
| Oxalidaceae      | Oxalis pes-caprae         | Х |
| Pittosporaceae   | Billardiera fusiformis    |   |
| Plantaginaceae   | Plantago lanceolata       | Х |
| Poaceae          | Avena barbata             | Х |
| Poaceae          | Briza maxima              | Х |
| Poaceae          | Briza minor               | Х |
| Poaceae          | Bromus diandrus           | Х |
| Poaceae          | Stenotaphrum secundatum   | Х |
| Poaceae          | Cenchrus clandestinus     | Х |
| Poaceae          | Dactylis glomerata        | Х |
| Poaceae          | Ehrharta longiflora       | Х |
| Poaceae          | Eragrostis curvula        | Х |
| Poaceae          | Lagurus ovatus            | Х |
| Poaceae          | Lolium sp.                | Х |
| Poaceae          | Ehrharta villosa          | Х |
| Poaceae          | Vulpia myuros             | Х |
| Polygalaceae     | Comesperma volubile       |   |
| Polygalaceae     | Polygala myrtifolia       | Х |
| Proteaceae       | Adenanthos cuneatus       |   |
| Restionaceae     | Desmocladus flexuosus     |   |
| Rhamnaceae       | Spyridium globulosum      |   |
| Scrophulariaceae | Bellardia trixago         | Х |
| Scrophulariaceae | Myoporum insulare         |   |

Given the proximity to Pink Lake a known important bird area, the desktop survey identified a large number of water birds. There is no suitable habitat for these species within the project area.

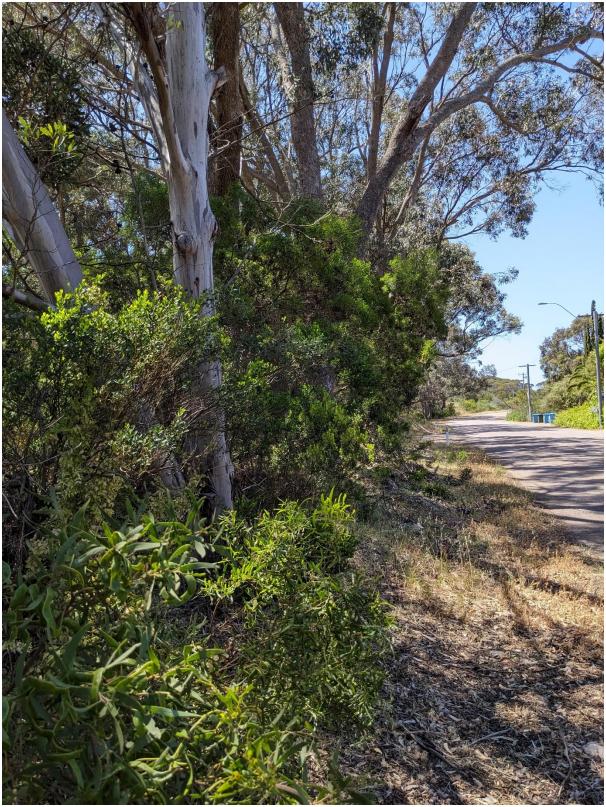
The desktop survey also identified Carnaby's cockatoo. Local observations at the site over a long period of time are that the Carnaby's cockatoo use the pine trees at Esperance Senior High School as a night roost. Carnaby's have not been observed using the larger *Eucalyptus gomphocephala* and *Eucalyptus conferruminata* within the site as roosts, or feeding in the vegetation along Pink Lake road, so there is unlikely to be any impacts to Carnaby's as a result of this project.

There may be some suitable habitat for Quenda at the site with some small areas that have dense enough cover of *Lepidosperma* spp. However as the majority of the site lacks suitable groundcover in the sedge layer and is dominated by exotic grasses this is unlikely to be significant.

#### **Photos**



**Figure 4.** Taken at the western end of the site facing west towards Pink Lake (in the background). Taken by Julie Waters on 4/11/2024.



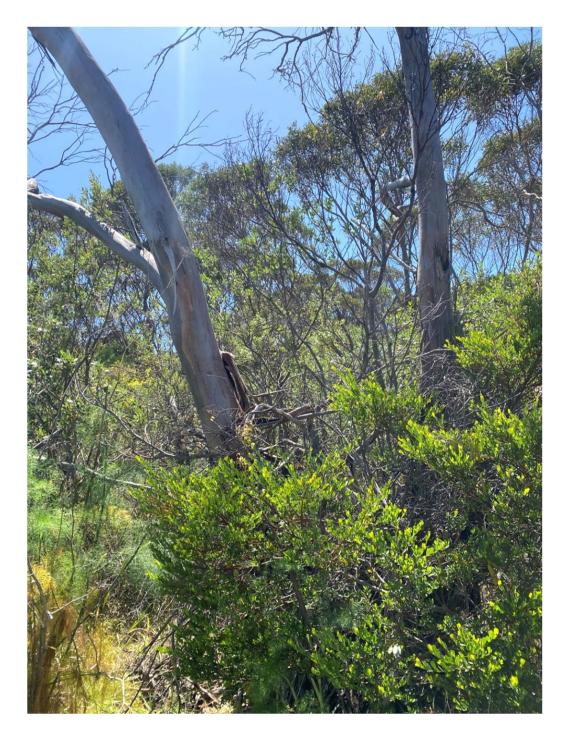
**Figure 2.** Vegetation type (i) *Acacia cyclops*, *Leucopogon parviflorus* and *Templetonia retusa* shrubland over *Cenchrus clandestinus* (With an overstory of planted *Eucalyptus gomphocephala*). Taken by Katherine Walkerden on 4/11/2024 near the intersection of Pink lake Road and Longbottom lane facing east.



**Figure 3.** Taken near the intersection of Pink Lake Road and Fill Road facing east. Taken by Katherine Walkerden on 4/11/2024.



**Figure 5.** Vegetation type iii) Dense *Gaudium laevigatum* with scattered native vegetation and mixed Poaceae weeds by Julie Waters on 4/11/2024.



**Figure 5.** Vegetation type iv) *Eucalyptus utilis and E. conferruminata* over mixed *Melaleuca pentagona* dominated shrubland. Taken by Julie Waters on 4/11/2024.

#### References

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#### Appendix 1: Threatened and Priority flora species identified within 20 km

Data provided by Department of Biodiversity, Conservation and Attractions (DBCA) and Western Australian Herbarium in June 2024 was used to assess threatened flora (TF), priority flora (PF), and threatened (TEC) and priority (PEC) ecological communities within 20 km radius of the site. Specifically, spatial data included;

- WAHerb extract (DBCA 2024).
- o Threatened and Priority Reporting (TPFL; DBCA 2024).
- Esperance District Threatened Flora (DBCA 2024).

| Species  | Status | Distance |
|--|--------|----------|
| Cyathostemon sp. Esperance (A. Fairall 2431)               | P1     | 2.60     |
| Hibbertia carinata   | P1     | 3.87     |
| Myriophyllum muelleri                                      | P1     | 3.59     |
| Schoenus sp. Grey Rhizome (K.L. Wilson 2922)               | P1     | 13.97    |
| Carpobrotus sp. Lateral Flowers (N. Gibson & M. Lyons 973) | P2     | 5.85     |
| Comesperma griffinii                                       | P2     | 13.32    |
| Dampiera decurrens   | P2     | 18.30    |
| Fabronia hampeana  | P2     | 19.04    |
| Goodenia exigua  | P2     | 15.11    |
| Goodenia quadrilocularis                                   | P2     | 18.22    |
| Hibbertia turleyana  | P2     | 13.47    |
| Leucopogon corymbiformis                                   | P2     | 2.06     |
| Paracaleana parvula  | P2     | 13.29    |
| Tecticornia indefessa                                      | P2     | 10.74    |
| Velleia exigua   | P2     | 14.88    |
| Adelphacme minima  | P3     | 6.54     |
| Astartea reticulata  | P3     | 13.34    |
| Austrobaeckea uncinella                                    | P3     | 10.15    |
| Austrostipa mundula  | P3     | 8.61     |
| Brachyloma mogin   | P3     | 17.21    |
| Comesperma calcicola                                       | P3     | 11.74    |
| Dampiera sericantha  | P3     | 8.95     |
| Dampiera triloba   | P3     | 14.73    |
| Daviesia pauciflora  | P3     | 6.62     |
| Eucalyptus famelica  | P3     | 13.72    |
| Eucalyptus foliosa   | P3     | 12.06    |
| Eucalyptus semiglobosa                                     | P3     | 10.43    |
| Galium leptogonium   | P3     | 9.51     |
| Gonocarpus pycnostachyus                                   | P3     | 15.10    |
| Hopkinsia adscendens                                       | P3     | 2.60     |
| Kunzea salina  | P3     | 14.04    |
| Lepidium fasciculatum                                      | P3     | 2.60     |
| Leucopogon apiculatus                                      | P3     | 18.17    |

| Persoonia scabra                      | P3 | 13.34 |
|---------------------------------------|----|-------|
| Pityrodia chrysocalyx                 | P3 | 3.81  |
| Pterostylis faceta                    | P3 | 18.28 |
| Styphelia rotundifolia                | P3 | 0.75  |
| Banksia prolata subsp. calcicola      | P4 | 2.60  |
| Corysanthes limpida                   | P4 | 3.94  |
| Eucalyptus insularis subsp. insularis | P4 | 18.49 |
| Eucalyptus missilis x                 | P4 | 3.37  |
| Eucalyptus preissiana subsp. lobata   | P4 | 18.12 |
| Grevillea baxteri                     | P4 | 3.04  |
| Kennedia beckxiana                    | P4 | 8.65  |
| Myosotis australis subsp. australis   | P4 | 18.49 |
| Eucalyptus missilis x                 | P4 | 3.37  |
| Eucalyptus preissiana subsp. lobata   | P4 | 18.12 |
| Grevillea baxteri                     | P4 | 3.04  |
| Kennedia beckxiana                    | P4 | 8.65  |
| Myosotis australis subsp. australis   | P4 | 18.49 |

#### Appendix 2: Threatened fauna species identified within 20 km

Assessment of Threatened and Priority fauna potentially occurring within 20 km of the site was conducted utilising the following sources:

- o DBCA Threatened Fauna database (DBCA 2024);
- o EPBC Act 1986 PMST (DCCEEW, 2024).

| Taxon                                 | Common name                      | Conservation<br>Code<br>(BC Act) | Conservation<br>Code<br>(EPBC Act) | Distance (km) |
|---------------------------------------|----------------------------------|----------------------------------|------------------------------------|---------------|
| Zanda latirostris                     | Carnaby's cockatoo               | EN                               | EN                                 | 0.209448      |
| Thinornis cucullatus                  | Hooded plover, hooded dotterel   | P4                               |                                    | 0.784654      |
| Cereopsis novaehollandiae<br>grisea   | Recherche Cape<br>Barren goose   | VU                               | VU                                 | 1.735466      |
| Eubalaena australis                   | Southern right whale             | VU                               | EN & MI                            | 1.754133      |
| Calidris ruficollis                   | Red-necked stint                 | MI                               | MI                                 | 1.988779      |
| Pluvialis squatarola                  | Grey plover                      | MI                               | MI                                 | 2.013376      |
| Calidris ferruginea                   | Curlew sandpiper                 | CR                               | CR & MI                            | 2.013376      |
| Calidris canutus rogersi              | Red knot (subsp. rogersi)        | EN                               | EN & MI                            | 2.013376      |
| Calidris acuminata                    | Sharp-tailed sandpiper           | MI                               | MI                                 | 2.058454      |
| Westralunio carteri                   | Carter's freshwater mussel       | VU                               | VU                                 | 2.058454      |
| Ardenna carneipes                     | Flesh-footed shearwater          | VU                               | MI                                 | 2.058454      |
| Stercorarius antarcticus<br>Ionnbergi | Brown skua,<br>Subantarctic skua | P4                               |                                    | 2.058454      |
| Neophoca cinerea                      | Australian sea lion              | EN                               | EN                                 | 2.058454      |
| Arenaria interpres                    | Ruddy turnstone                  | MI                               | MI                                 | 2.144314      |
| Calidris tenuirostris                 | Great knot                       | CR                               | CR & MI                            | 2.144314      |
| Acanthophis antarcticus               | Southern death adder             | P3                               |                                    | 2.437538      |
| Arctocephalus forsteri                | New Zealand fur-seal             | OS                               |                                    | 2.437538      |
| Hydroprogne caspia                    | Caspian tern                     | MI                               | MI                                 | 2.813195      |
| Calidris alba                         | Sanderling                       | MI                               | MI                                 | 2.864909      |
| Thalasseus bergii                     | Crested tern                     | MI                               | MI                                 | 2.869234      |
| Notamacropus irma                     | Western brush wallaby            | P4                               |                                    | 2.998076      |
| Tringa nebularia                      | Common greenshank                | MI                               | MI                                 | 3.163996      |
| Limosa lapponica                      | Bar-tailed godwit                | MI                               | MI                                 | 3.163996      |
| Calidris canutus                      | Red knot                         | EN                               | EN & MI                            | 3.163996      |
| Tringa stagnatilis                    | Marsh sandpiper                  | MI                               | MI                                 | 3.163996      |
| Tringa brevipes                       | Grey-tailed tattler              | MI & P4                          | MI                                 | 3.163996      |
| Actitis hypoleucos                    | Common sandpiper                 | MI                               | MI                                 | 3.163996      |
| Thalassarche chlororhynchos           | Atlantic yellow-nosed albatross  | VU                               | MI                                 | 3.428607      |
| Diomedea exulans                      | Wandering albatross              | VU                               | VU & MI                            | 3.811557      |

| Apus pacificus           | Fork-tailed swift                      | MI | MI      | 4.279094 |
|--------------------------|--|----|---------|----------|
| Isoodon fusciventer      | Quenda                                 | P4 |         | 4.55694  |
| Tringa glareola          | Wood sandpiper                         | MI | MI      | 4.77653  |
| Oxyura australis         | Blue-billed duck                       | P4 |         | 5.237239 |
| Calidris melanotos       | Pectoral sandpiper                     | MI | MI      | 5.412195 |
| Plegadis falcinellus     | Glossy ibis                            | MI | MI      | 5.468566 |
| Dermochelys coriacea     | Leatherback turtle                     | VU | EN & MI | 5.774889 |
| Leipoa ocellata          | Malleefowl                             | VU | VU      | 6.573572 |
| Puffinus huttoni         | Hutton's shearwater                    | EN |         | 6.648734 |
| Charadrius leschenaultii | Greater sand plover, large sand plover | VU | VU & MI | 6.656387 |
| Falco peregrinus         | Peregrine falcon                       | OS |         | 7.839214 |
| Ardenna tenuirostris     | Short-tailed shearwater                | MI | MI      | 8.571439 |
| Thalassarche cauta cauta | Shy albatross                          | VU | EN & MI | 8.571439 |
| Numenius phaeopus        | Whimbrel                               | MI | MI      | 8.571439 |
| Oceanites oceanicus      | Wilson's storm-petrel                  | MI | MI      | 8.571439 |
| Elanus scriptus          | Letter-winged kite                     | P4 |         | 12.53469 |
| Atelomastix dendritica   | Recherche atelomastix millipede        | VU |         | 15.4832  |
| Carcharias taurus        | Grey nurse shark                       | VU | VU      | 18.31533 |
| Pandion haliaetus        | Osprey                                 | MI | MI      | 18.84744 |
| Pluvialis fulva          | Pacific golden plover                  | MI | MI      | 18.8725  |
| Limicola falcinellus     | Broad-billed sandpiper                 | MI | MI      | 18.8725  |
| Charadrius bicinctus     | Double-banded plover                   | MI | MI      | 18.99198 |
| Caretta caretta          | Loggerhead turtle                      | EN | EN & MI | 19.12362 |
| Parantechinus apicalis   | Dibbler                                | EN | EN      | 19.2537  |
| Charadrius mongolus      | Lesser sand plover                     | EN | EN & MI | 19.2736  |

### **Appendix 3: Infrastructure Plans**

