

# Gracetown Development

## A Fauna Assessment

Ms J.A. Wilcox and Dr R.A. Davis



*Vegetation in the study area.*

Prepared for: Strategen  
Suite 7/643 Newcastle St  
Leederville WA 6007

Prepared by: Western Wildlife  
8 Ridgeway Place  
Mahogany Creek WA 6072



17<sup>th</sup> September 2007

## **Introduction**

Western Wildlife was asked by Strategen to assess the fauna values of two areas at Gracetown. The aim of the site visit and this report are to provide a list of fauna that have the potential to occur in the area, discuss the importance of the area to fauna of conservation significance, and make recommendations of ways to minimise the impact of the proposed works on fauna.

The two areas are Area K (14.42ha) and Area B (5.89ha). Both areas are adjacent to the current townsite. The larger area is vegetated except for two tracks, and the smaller area is partly degraded.

## **Methods**

This report is classified as a Level 1 survey (a background research or 'desk-top' study with a site visit) according to the EPA Position Statement No.3 (Environmental Protection Authority 2002) and Guidance Statement 56 (Environmental Protection Authority 2004). This was the level of assessment commissioned by the client.

The study area was visited on the 30<sup>th</sup> and 31<sup>st</sup> of August 2007, and the area was traversed on foot. All vertebrate fauna encountered (mainly birds) were recorded and notes were made on the fauna habitats present on the site. In addition, spot-lighting with hand-held spot-lights was carried out on the night of the 30<sup>th</sup> of August.

## **Personnel**

Ms Jenny Wilcox (*BSc.Biol./Env.Sci., Hons.Biol.*) and Mr Richard King (*BSc.Env. Biol.*) of Western Wildlife carried out the site inspection, and Ms Jenny Wilcox prepared this report. The report was reviewed by Dr Robert Davis (*BSc.Biol./Env.Sci., Hons.Biol., PhD. Zool.*) of Western Wildlife.

## **Sources of Information**

The fauna expected to occur in the study area were identified using information from a number of sources. These included publications that provide information on general patterns of distribution of frogs (Tyler *et al.* 2000), reptiles (Storr *et al.* 1983, 1990, 1999 and 2002), birds (Barrett *et al.* 2003; Johnstone and Storr 1998; Johnstone and Storr 2004), and mammals (Menkhorst and Knight 2001; Strahan 1995). In addition, the databases listed below in Table 1 were searched for observational and specimen records.

As far as possible, the species included in Tables 2 - 5 are those that are likely to utilise the project area, or be affected by changes to the study area. The lists exclude species that have been recorded in the general region only as vagrants, or for which suitable habitat is absent.

**Table 1.** Databases used in the preparation of this report.

Database	Type of records held on database	Area searched
Faunabase (WA Museum)	Records of specimens held in the WA Museum. Includes historical data.	33°49' to 33°55'S and 114°58' to 115°03'E
Birds Australia Atlas Database	Records of bird observations in Australia, 1998-current.	33°49' to 33°55'S and 114°58' to 115°03'E
DEC's Threatened and Priority Fauna Database	Information and records on Threatened and Priority species in Western Australia	33°49' to 33°55'S and 114°58' to 115°03'E (plus 7km buffer)
EPBC Protected Matters Search Tool	Records on matters protected under the EPBC Act, including threatened species.	33°49' to 33°55'S and 114°58' to 115°03'E

Taxonomy and nomenclature for fauna species used in this report generally follow the WA Museum (2001) with alternative bird taxonomy from Christidis and Boles (1994) given in parentheses.

### Assessment of conservation significance

Three levels of conservation significance are recognised in this report:

<p><b>Conservation Significance 1:</b></p> <ul style="list-style-type: none"> <li>Species listed under State or Commonwealth Acts.</li> </ul> <p><b>Conservation Significance 2:</b></p> <ul style="list-style-type: none"> <li>Species not listed under State or Commonwealth Acts, but listed in publications on threatened fauna or as Priority species by DEC.</li> </ul> <p><b>Conservation Significance 3:</b></p> <ul style="list-style-type: none"> <li>Species not listed under State or Commonwealth Acts or in publications on threatened fauna or as Priority species by DEC, but considered of local significance because of their pattern of distribution.</li> </ul>
---

At the highest level of conservation significance (Conservation Significance 1) are those species that are protected under State or Commonwealth legislation.

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Commonwealth Government's primary piece of environmental legislation. Listed under Part 3 of the EPBC Act are 'matters of National Environmental Significance' that include threatened species and ecological communities and migratory species, among others. IUCN categories are used to categorise threatened species as 'extinct', 'extinct in the wild', 'critically endangered', 'endangered', 'vulnerable' and 'conservation dependent', with all categories except 'extinct' and 'conservation dependent' listed as matters of National Environmental Significance. A list of migratory species is also maintained, containing mostly bird and marine species. The migratory species listed are those recognised under China-Australia Migratory Bird Agreement (CAMBA), the Japan-Australia Migratory Bird Agreement (JAMBA) or species listed under the Bonn Convention for which Australia is a range state. Species listed in JAMBA are also protected under Schedule 3 of the *Western Australian Wildlife Conservation Act 1950*.

The *Western Australian Wildlife Conservation Act 1950* (WA Wildlife Conservation Act) is State legislation for fauna protection administered by the Department of Environment and Conservation (DEC). The WA Wildlife Conservation Act lists species under a set of Schedules, where threatened species are listed as Schedule 1. Schedule 1 species are further categorised by DEC into the IUCN categories 'extinct', 'extinct in the wild', 'critically endangered', 'endangered', 'vulnerable' and 'conservation dependent' species. The schedules and categories are further described in Appendix 1.

At the second-highest level of conservation significance (Conservation Significance 2) are species that are listed under publications on threatened species, or are listed as Priority species by DEC.

Reports on the conservation status of most vertebrate fauna species have been produced by the Department of the Environment and Heritage (DEH) in the form of Action Plans. An Action Plan is a review of the conservation status of a taxonomic group against IUCN categories. Action Plans have been prepared for amphibians (Tyler 1998), reptiles (Cogger *et al.* 1993), birds (Garnett and Crowley 2000), monotremes and marsupials (Maxwell *et al.* 1996), rodents (Lee 1995) and bats (Duncan *et al.* 1999). These publications also use categories similar to those used by the EPBC Act. The information presented in some of the earlier Action Plans may be out of date due to changes since publication.

In Western Australia, DEC has also produced a list of Priority Fauna made up of species that are not considered Threatened under the *WA Wildlife Conservation Act*, but for which DEC feels there is cause for concern. Levels of Priority are described in Appendix 1.

At the third-highest level of conservation significance (Conservation Significance 3) are species that are not recognised under Federal or State legislation, listed in publications by DEH or listed as Priority species by DEC. These are species considered to be of local significance in the study area because they are at the limit of their distribution in the area, they have a very restricted range or they occur in breeding colonies (e.g. some waterbirds). This level of significance has no legislative or published recognition and is based on interpretation of information on the species patterns of distribution. The WA Department of Environmental Protection (2000) used this sort of interpretation to identify significant bird species in the Perth metropolitan area as part of Bush Forever. Recognition of such species is consistent with the aim of preserving regional biodiversity.

### Site description

Two sites were assessed, Area B, a 5.89ha area to the west of Gracetown and Area K, a 14.42ha area to the south of Gracetown. Both sites are adjacent to the existing residential development in the town. Three vegetation communities have been previously identified from the sites, as described below.

1. Shrubland to thicket of *Agonis flexuosa* (Peppermint) with *Dryandra sessilis* (Parrotbush), *Acacia rostellifera*, *Spyridium globulosum* and *Xanthorrhoea preissii* over *Melaleuca systema* and *Pimelea rosea* on sand over limestone.
2. Shrubland to thicket of *Acacia rostellifera* with *Spyridium globulosum*, *Templetonia retusa*, *Melaleuca systema*, *Scaevola crassifolia* and *Pimelea ferruginea* over *Acanthocarpus preissii* on sand over limestone.
3. Shrubland of *Melaleuca huegelii* and *Melaleuca lanceolata* over *Acacia rostellifera*, *Olearia axillaris* and *Rhagodia baccata* over *Lepidospermum gladiatum* on sand dunes.

The smaller 5.89ha site had all three vegetation communities present. The vegetation on the smaller area is present around the outside of the site. Most of the centre of the site is already developed with community services such as the fire and ambulance services, tennis club and cricket pitch. In addition, some of the native vegetation on this area had been recently burnt at the time of survey.

The larger 14.42ha site had two vegetation communities present. The southern part of the site was *Agonis flexuosa* thicket to shrubland (see [1.] above), and the southern part of the site was *Acacia rostellifera* thicket to shrubland (see [2.] above). This area of native vegetation was intact except for two tracks.

### Results and discussion

The amphibians, reptiles, birds and mammals that have the potential to occur in the study area are listed in Tables 2 – 5. Species of conservation significance that have the potential to occur on the sites are listed and discussed below. The results of the EPBC Protected Matters Search Tool and DEC Threatened and Priority Species Database search are given in Appendices 2 and 3 respectively.

## Amphibians

There are eight species of frog that have the potential to occur on the site (Table 2). As the site does not contain wetland habitats, the study area is unlikely to be important as a frog breeding area. However, there are some species of frog, such as the Moaning Frog (*Heleioporus eyrei*) and Pobblebonk (*Limnodynastes dorsalis*) that use terrestrial habitats away from wetlands for foraging. These species can be found at considerable distances from wetlands in the non-breeding season.

Although *Crinia georgiana*, *Crinia glauerti*, *Crinia pseudinsignifera*, *Geocrinia leai* and *Geocrinia rosea* have been included on the list in Table 2, these species are unlikely to be common on the site. These five species all tend to occur in moist situations close to wetlands. However, these species may occur in the nearby creek, to the north of Gracetown.

There are no frog species of conservation significance likely to occur in the study area.

## Reptiles

There are 28 reptile species that have the potential to occur on the site (Table 3). Three reptiles were observed during the site visit, as indicated in Table 3. Many of the reptile species that are likely to occur on the site rely on leaf litter and woody debris for shelter. Some species of reptile may persist in the study area after development, as they can survive in suburban gardens. However, the majority of species are unlikely to persist within the developed area in the long term.

There is one reptile species of conservation significance that may occur on the site, as described below.

### Conservation Significance 1

- **South-west Carpet Python** *Morelia spilota imbricata*

This python is listed under Schedule 4 (other specially protected fauna) under the WA Wildlife Conservation Act and as Priority 4 by DEC.

The South-west Carpet Python has been recorded from Gracetown in 2000, 2004 and 2005 (DEC's Threatened and Priority Fauna Database). It could be present in almost any habitat but requires dense vegetation and tree hollows for shelter. As the Carpet Python has been recorded in the town, it is very likely to occur in the study area. Development of the sites is likely to result in some loss of habitat for this species. In addition, as a large snake this species is vulnerable to being killed while basking on or crossing roads.

## Birds

There are 89 species of bird have the potential to occur in the study area, and 26 species were observed during the site visit (Table 4). As birds are highly mobile, almost any species in the region could occasionally occur on the site, but the list in Table 4 is generally restricted to those species that may be regular seasonal visitors to the site (such as cuckoos and bee-eaters) or resident on the site.

In general, waterbirds and shorebirds have been omitted from the list in Table 4, as the study area does not contain habitats to support these species. As the study area is close to the beach, shorebirds and seabirds are likely to occur nearby. Increased residential development may lead to increased disturbance of birds that roost on beaches in the area.

As the site is densely vegetated, it provides habitat to support a range of small insectivorous species such as the White-browed Scrubwren. In addition, the *Dryandra sessilis* provides a seasonal nectar resource for honeyeaters. As the site lacks significant eucalypt forest or woodland, it does not have trees with hollows suitable for nesting parrots, owls or cockatoos.

There are 20 birds of conservation significance that may occur in the study area, as listed and described below.

#### Conservation Significance 1

- **Carnaby's (Short-billed) Black-Cockatoo**      *Calyptorhynchus latirostris*  
This cockatoo is listed under Schedule 1 (Endangered) of the WA Wildlife Conservation Act and as Endangered under the EPBC Act.
- **Baudin's (Long-billed) Black-Cockatoo**      *Calyptorhynchus baudinii*  
This cockatoo is listed under Schedule 1 (Endangered) of the WA Wildlife Conservation Act and as Endangered under the EPBC Act.
- **Forest Red-tailed Black-Cockatoo**      *Calyptorhynchus banksii naso*  
This cockatoo is listed under Schedule 1 (Vulnerable) of the WA Wildlife Conservation Act.
- **Peregrine Falcon**      *Falco peregrinus*  
This falcon is listed under Schedule 4 (other specially protected fauna) of the WA Wildlife Conservation Act.
- **Rainbow Bee-eater**      *Merops ornatus*  
This species is listed as migratory under the EPBC Act.
- **White-bellied Sea-Eagle**      *Haliaeetus leucogaster*  
This species is listed as migratory under the EPBC Act.
- **Fork-tailed Swift**      *Apus pacificus*  
This species is listed under Schedule 3 of the WA Wildlife Conservation Act and as migratory under the EPBC Act.

Carnaby's Black-Cockatoo and Baudin's Black-Cockatoo were both recorded in the study area during the site visit, in a mixed flock of about 45 birds. Carnaby's Black-Cockatoo feeds in eucalypt forests and on proteaceous species such as *Dryandra*, *Hakea* and *Banksia* (Johnstone and Storr 1998). During the site visit, Carnaby's Black-Cockatoo were observed feeding in the *Dryandra sessilis* in Area K. Baudin's Black-Cockatoo generally feeds in eucalypt forest (Johnstone and Storr 1998), and evidence of this species feeding on Marri (*Corymbia calophylla*) nuts in Area K was observed during the site visit. Marri is present on the larger site as small clumps of stunted trees. The Red-tailed Black-Cockatoo may also occur in the study area, but are more likely to favour eucalypt forests to the east, outside the study area. As the study area does not have large hollow-bearing eucalypts, no cockatoo species will nest in the area. However, development of the larger site will result in some loss of feeding habitat for Carnaby's and Baudin's Black-Cockatoo.

The Peregrine Falcon is a wide-ranging bird of prey that may forage in the area. This species nests on cliffs and sometimes in large trees (Johnstone and Storr 1998), which are not available in the study area. Development of the sites is unlikely to have a significant impact on this species.

Although the Rainbow Bee-eater is listed under the EPBC Act, it is a common and widespread species. The Rainbow Bee-eater may be a breeding summer visitor to the study area, as there are areas of sloping semi-exposed sand in which to burrow, particularly in Area B. Development of the study area may result in some loss of foraging and breeding habitat for the Rainbow Bee-eater.

The White-bellied Sea-Eagle is a large bird of prey that usually nests on the coast or on islands. While this species may overfly the study area, it will not forage or breed on the sites. The proposed development is unlikely to significantly impact on this species.

The Fork-tailed Swift is largely aerial and the ecology of this species in Western Australia is poorly understood. The proposed development is unlikely to impact on this species.

Conservation Significance 2

• **Masked Owl** *Tyto novaehollandiae*

This owl is listed as Priority 3 by DEC.

• **Hooded Plover** *Charadrius rubricollis*

This shorebird is listed as Priority 4 by DEC.

The Masked Owl has been recorded in the area by Birds Australia (Table 4). This species will not nest in the study area due to the lack of hollow-bearing eucalypts, but it may forage in the area. The proposed development is unlikely to significantly impact on this species.

The Hooded Plover has been recorded from Gracetown in 2006 (DEC's Threatened and Priority Fauna Database) and is known to breed on the Leeuwin-Naturaliste coast (Raines 2002). Birds are unlikely to be in large aggregations, but may breed on beaches close to the study area. As this species breeds on the ground, the eggs and young are at risk of trampling and disturbance from walkers, dogs and vehicles on the beach. Increased development in Gracetown is likely to increase the level of disturbance on nearby beaches.

There are eleven species of conservation significance 3 listed below. These are species listed as those that have possibly declined by 20% in the Warren bioregion by Barrett *et al.* (2003). Of these, only the Richard's Pipit was recorded during the site visit, and this is a species that often uses human-modified landscapes such as lawns, playing fields and paddocks. The Weebill is a eucalypt specialist so is unlikely to be common in the area, and the birds of prey listed may forage over the study area, but are unlikely to nest there.

Conservation Significance 3

• <b>Wedge-tailed Eagle</b>	<i>Aquila audax</i>
• <b>Whistling Kite</b>	<i>Haliastur sphenurus</i>
• <b>Brown Falcon</b>	<i>Falco berigora</i>
• <b>Sacred Kingfisher</b>	<i>Todiramphus sanctus</i>
• <b>Weebill</b>	<i>Smicromis brevirostris</i>
• <b>Little Wattlebird</b>	<i>Acanthocaera lunulata</i>
• <b>Singing Honeyeater</b>	<i>Lichenostomus virescens</i>
• <b>Scarlet Robin</b>	<i>Petroica multicolour</i>
• <b>White-winged Triller</b>	<i>Lalage sueurii</i>
• <b>Dusky Woodswallow</b>	<i>Artamus cyanopterus</i>
• <b>Richard's Pipit</b>	<i>Anthus novaeseelandiae</i>

## Mammals

The site has the potential to support 27 species of mammal, of which five are introduced species (Table 5). Two introduced species, the cat and the rabbit, were recorded during the site visit. Two native species were also recorded; the Quenda and the Western Grey Kangaroo. There are six mammals of conservation significance that may occur in the study area, as listed and discussed below.

Conservation Significance 1

• <b>Chuditch</b>	<i>Dasyurus geoffroii</i>
The Chuditch is listed under Schedule 1 (Vulnerable) of the WA Wildlife Conservation Act and as Vulnerable under the EPBC Act.	
• <b>Brush-tailed Phascogale</b>	<i>Phascogale tapoatafa</i>
The Brush-tailed Phascogale is listed under Schedule I (Vulnerable) of the WA Wildlife Conservation Act.	
• <b>Western Ringtail Possum</b>	<i>Pseudocheirus occidentalis</i>
This possum is listed under Schedule 1 (Vulnerable) of the WA Wildlife Conservation Act and as Vulnerable under the EPBC Act.	

The Chuditch was recorded from Gracetown in 1985, Yelverton in 1986 and Bramley in 1993 (DEC's Threatened and Priority Fauna Database). Chuditch have been found to hold territories of about 55 to 120ha (females), or 400ha or more (males) and these territories may overlap (Strahan 1995). The site is not big enough to support a Chuditch population, but it may be a part of one or more individuals' larger home-range. Development of the sites may result in the loss of some habitat for this species.

The Brush-tailed Phascogale was recorded from Margaret River in 2004 and Gracetown in 2006 (DEC's Threatened and Priority Fauna Database). The Brush-tailed Phascogale may occasionally occur in the study area, but requires areas of eucalypt forest or woodland with suitable tree hollows for nesting and breeding. Development of the site is unlikely to have a significant impact on this species.

The Western Ringtail Possum used to occur throughout the wetter areas of the south-west, but now is generally restricted to coastal or near-coastal areas, favouring forests that contain Peppermint (*Agonis flexuosa*) (Strahan 1995). The Western Ringtail has been recorded from Gracetown in 2003, 2004 and 2005 (DEC's Threatened and Priority Fauna Database) and according to a local resident, there is a population of this species in Gracetown from which possums are regularly seen. Given that the study area is adjacent to the existing town, it is likely that the Western Ringtail Possum is present. No possums were seen in the area during spot-lighting on the night of the 30<sup>th</sup> August, and no possum scats or dreys were observed during the day. However, the habitat is dense and difficult to search thoroughly, particularly at night. The Western Ringtail Possum may be present in the study area and development of the sites may result in some loss of habitat for this species.

#### Conservation Significance 2

• <b>Quenda (Southern Brown Bandicoot)</b> The Quenda is listed as Priority 5 by DEC.	<i>Isoodon obesulus</i>
• <b>Brush Wallaby</b> This wallaby is listed as Priority 4 by DEC.	<i>Macropus irma</i>
• <b>Western False Pipistrelle</b> This bat is listed as Priority 4 by DEC.	<i>Falsistrellus mackenziei</i>

The Quenda favours areas of dense vegetation, particularly around wetlands. The Quenda has been recorded from Gracetown in 1982 and 2002 (DEC's Threatened and Priority Fauna Database). Many of the characteristic conical diggings of the Quenda were observed in the southern part of the larger site during the site visit. This species is likely to be common throughout the larger site, and may also occur in the smaller site. Although the Quenda is known to use suburban gardens for foraging, development of the area will result in some loss of habitat for this species. In addition, juvenile Quenda are vulnerable to predation by domestic pets, particularly cats.

The Brush Wallaby also favours dense vegetation. Although not observed during the site visit, this species may potentially occur in the study area.

The Western False Pipistrelle may use the site for foraging, but the study area generally lacks roost sites such as tree hollows, exfoliating loose bark or crevices in large trees. The other bat species listed in Table 5 may also use the area for foraging.

### **Threatened invertebrates**

This report is primarily concerned with vertebrate fauna only. However, there are four invertebrates of conservation significance listed on DEC's Threatened and Priority Fauna Database for the area. Each species is listed and discussed below.

#### Conservation Significance 1

- **Cape Leeuwin Freshwater Snail** *Austroassiminia lethra*  
This snail is listed under Schedule 1 (Vulnerable) of the WA Wildlife Conservation Act.
- **Margaret River Marron** *Cherax tenuimanus*  
This marron is listed under Schedule 1 (Critically Endangered) of the WA Wildlife Conservation Act.
- **Dunsborough Burrowing Crayfish** *Engaewa reducta*  
This crayfish is listed under Schedule 1 (Endangered) of the WA Wildlife Conservation Act.
- **Tingle Moggridgea Spider** *Moggridgea tingle*  
This spider is listed under Schedule 1 (Endangered) of the WA Wildlife Conservation Act.

The Cape Leeuwin Freshwater Snail is a small species with a shell of about 4.5mm. This snail is known from very few localities from Ellen Brook north of Augusta, north to Turner Brook in the Leeuwin-Naturaliste National Park. This snail lives in damp conditions alongside small freshwater streams that drain from limestone near the coast. Although this species may occur nearby, there is no suitable habitat for it within the study area.

The Margaret River Marron is restricted to the Margaret River (DEC's Threatened and Priority Fauna Database), which is about 10km to the south of the study area. This marron is not likely to occur on the study area due to the lack of suitable habitat.

The Dunsborough Burrowing Crayfish is known from the Yelverton area (DEC's Threatened and Priority Fauna Database). This crayfish is not likely to occur on the study area due to the lack of suitable habitat.

The Tingle Moggridgea Spider is a small trapdoor spider that is known from very few locations in the Tingle (*Eucalyptus jacksonii*) forest of the Walpole-Nornalup National Park (Burbidge 2004). As there is no Tingle forest in the study area, this spider is not likely to occur.

### **Summary and recommendations**

The study area is likely to support a range of vertebrate fauna species. There are eight amphibian, 27 reptile, 89 bird and 27 mammal species that have the potential to occur on the sites. Included among these species are one reptile, six birds and three mammals of conservation significance 1, the Carpet Python, Carnaby's Black-Cockatoo, Baudin's Black-Cockatoo, Red-tailed Black-Cockatoo, Peregrine Falcon, Rainbow Bee-eater, Fork-tailed Swift, Chuditch, Brush-tailed Phascogale and Western Ringtail Possum. In addition, two birds and three mammals of conservation significance 2 may also be present in the study area; the Masked Owl, Hooded Plover, Quenda, Western Brush Wallaby and Western False Pipistrelle. There are also eleven birds of conservation significance 3 that may occur in the study area, but many of these may be locally common.

Four invertebrates of conservation significance may also be present in the general area, but are unlikely to occur in the study area due to lack of suitable habitat.

The habitats present in Area B and Area K are common in the local area, including in Leeuwin-Naturaliste National Park. However, the clearing of the sites for development will result in some loss of habitat for fauna. This potentially includes the loss of habitat for fauna of conservation significance. The sites (particularly Area K) contain feeding habitat for Carnaby's and Baudin's Black-Cockatoo. Area K is also known to support Quenda, and the Carpet Python is likely to be present in both sites. The Western Ringtail Possum may also be present where there is Peppermint, but may favour the larger Peppermints along the creek north of the town (outside the study area).

Clearing of the sites is not likely to completely isolate other areas of native vegetation. However, it will start to increase the isolation of the coastal strip of vegetation to the west of the study area that is part of the Leeuwin-Naturaliste National Park. This may become more of a concern if residential development continues further south of the town in the future. Provision should be made to protect this vegetation from the formation of new trails made in order to reach the beach.

In order to preserve the fauna values of the study area, the following recommendations should be considered:

- Minimise the amount of vegetation cleared as much as possible, and minimise disturbance to surrounding vegetation.
- Any street plantings should be of local native plant species, such as Peppermint (*Agonis flexuosa*) and Parrotbush (*Dryandra sessilis*).
- Prohibit domestic cats from the development, or provide rules on maintaining cats indoors. Domestic cats that are allowed freely outdoors are likely to kill fauna including reptiles, birds and small mammals. As cats can range a considerable distance from their homes, they may also kill fauna in the nearby Leeuwin-Naturaliste National Park.

**Table 2.** Amphibians that have the potential to occur on the site.

WAM = species recorded in the area by the WA Museum (see Table 1).

Species	Status	Recorded
<b>Myobatrachidae</b> (ground frogs)		
Quacking Froglet <i>Crinia georgiana</i>		WAM
Glauert's Froglet <i>Crinia glauerti</i>		WAM
Granite Froglet <i>Crinia pseudinsignifera</i>		WAM
Green-bellied Froglet <i>Geocrinia leai</i>		WAM
Roseate Frog <i>Geocrinia rosea</i>		
Moaning Frog <i>Heleioporus eyrei</i>		WAM
Pobblebonk <i>Limnodynastes dorsalis</i>		WAM
Guenther's Toadlet <i>Pseudophryne guentheri</i>		
<b>Number of frogs expected (recorded):</b>		<b>8 (0)</b>

**Table 3.** Reptiles that have the potential to occur on the site.

+ = species recorded on the site during the 2007 site visit.

WAM = species recorded in the area by the WA Museum (see Table 1).

Species	Status	Recorded
<b>Agamidae</b> (dragon lizards)		
Bearded Dragon <i>Pogona minor</i>		WAM
<b>Gekkonidae</b> (geckoes)		
Marbled Gecko <i>Christinus marmoratus</i>		
<b>Pygopodidae</b> (legless lizards)		
Granite Worm Lizard <i>Aprasia pulchella</i>		WAM
Common Scaly-foot <i>Pygopus lepidopodus</i>		
<b>Scincidae</b> (skink lizards)		
Cool Skink <i>Acritoscincus trilineatum</i>		WAM
<i>Ctenotus catenifer</i>		
<i>Ctenotus impar</i>		WAM
Red-legged Skink <i>Ctenotus labillardieri</i>		WAM
King's Skink <i>Egernia kingii</i>		
Crevice Egernia <i>Egernia napoleonis</i>		
<i>Egernia pulchra</i>		
<i>Hemiergis peronii</i>		+ WAM
<i>Lerista elegans</i>		WAM
<i>Lerista microtis</i>		
Dwarf Skink <i>Menetia greyii</i>		
<i>Morethia lineocellata</i>		+ WAM
Bobtail <i>Tiliqua rugosa</i>		+
<b>Varanidae</b> (goanna or monitor lizards)		
Rosenberg's Goanna <i>Varanus rosenbergi</i>		WAM
<b>Typhlopidae</b> (blind snakes)		
Southern Blind Snake <i>Ramphotyphlops australis</i>		WAM
<b>Boidae</b> (pythons)		
Carpet Python <i>Morelia spilota</i>	CS1	WAM
<b>Elapidae</b> (front-fanged snakes)		
Crowned Snake <i>Elapognathus coronatus</i>		
Short-nosed Snake <i>Elapognathus minor</i>		
Bardick <i>Echiopsis curta</i>		WAM
Tiger Snake <i>Notechis scutatus</i>		
Gould's Hooded Snake <i>Parasuta gouldii</i>		
Black-backed Snake <i>Parasuta nigriceps</i>		
Dugite <i>Pseudonaja affinis</i>		
Square-nosed Snake <i>Rhinoplocephalus bicolor</i>		
<b>Number of reptile species expected (recorded):</b>		<b>28 (3)</b>

**Table 4.** Birds that have the potential to occur on the site.

+ = species recorded on the site during the 2007 site visit.

BA = species recorded in the area by Birds Australia (see Table 1).

Int = introduced species.

Species	Status	Recorded
<b>Casuariidae</b> (emus and cassowaries)		
Emu <i>Dromaius novaehollandiae</i>		
<b>Phasianidae</b> (pheasants and quails)		
Brown Quail <i>Coturnix ypsilophora</i>		
Stubble Quail <i>Coturnix pectoralis</i>		
<b>Accipitridae</b> (kites, hawks and eagles)		
Black-shouldered Kite <i>Elanus axillaris (notatus)</i>		BA
Square-tailed Kite <i>Lophoictinia isura</i>		+ WAM
Whistling Kite <i>Haliastur sphenurus</i>	CS3	BA
Brown Goshawk <i>Accipiter fasciatus</i>		
Collared Sparrowhawk <i>Accipiter cirrhocephalus</i>		
Wedge-tailed Eagle <i>Aquila audax</i>	CS3	
Little Eagle <i>Hieraetus morphnoides</i>		BA
White-bellied Sea-Eagle <i>Haliaeetus leucogaster</i>	CS1	
Osprey <i>Pandion haliaetus</i>		BA
<b>Falconidae</b> (falcons)		
Peregrine Falcon <i>Falco peregrinus</i>		
Australian Hobby <i>Falco longipennis</i>		
Brown Falcon <i>Falco berigora</i>	CS3	
Nankeen Kestrel <i>Falco cenchroides</i>		+ BA
<b>Turnicidae</b> (button-quails)		
Painted Button-quail <i>Turnix varia</i>		+ WAM
<b>Charadriidae</b> (plovers and dotterels)		
Banded Lapwing <i>Vanellus tricolor</i>		
Hooded Plover <i>Charadrius rubricollis</i>	CS2	BA
<b>Columbidae</b> (pigeons and doves)		
Common Bronzewing <i>Phaps chalcoptera</i>		
Brush Bronzewing <i>Phaps elegans</i>		WAM
Crested Pigeon <i>Ocyphaps lophotes</i>		
<b>Cacatuidae</b> (cockatoos)		
Forest Red-tailed Black-Cockatoo <i>Calyptorhynchus banksii</i>	CS1	
Carnaby's Black-Cockatoo <i>Calyptorhynchus latirostris</i>	CS1	+ WAM BA
Baudin's Black-Cockatoo <i>Calyptorhynchus baudinii</i>	CS1	+ WAM BA
Galah <i>Cacatua roseicapilla</i>		
<b>Psittacidae</b> (lorikeets and parrots)		
Red-capped Parrot <i>Purpureicephalus spurius</i>		+ WAM
Western Rosella <i>Platycercus icterotis</i>		+ WAM BA
Australian Ringneck <i>Barnardius zonarius</i>		+ BA
Elegant Parrot <i>Neophema elegans</i>		+
Rock Parrot <i>Neophema petrophila</i>		

**Table 4.** (cont.)

Species	Status	Recorded
<b>Cuculidae</b> (cuckoos)		
Pallid Cuckoo <i>Cuculus pallidus</i>		BA
Fan-tailed Cuckoo <i>Cuculus pyrrhophanus</i>		+ WAM BA
Horsfield's Bronze-Cuckoo <i>Chrysococcyx basalis</i>		BA
Shining Bronze-Cuckoo <i>Chrysococcyx lucidus</i>		+ WAM BA
<b>Strigidae</b> (hawk-owls)		
Southern Boobook Owl <i>Ninox novaeseelandiae</i>		
<b>Tytonidae</b> (barn owls)		
Masked Owl <i>Tyto novaehollandiae</i>	CS2	BA
Barn Owl <i>Tyto alba</i>		BA
<b>Podargidae</b> (frogmouths)		
Tawny Frogmouth <i>Podargus strigoides</i>		
<b>Aegothelidae</b> (owlet-nightjars)		
Australian Owlet-nightjar <i>Aegotheles cristatus</i>		
<b>Apodidae</b> (swifts)		
Fork-tailed Swift <i>Apus pacificus</i>	CS1	
<b>Halcyonidae</b> (forest kingfishers)		
Laughing Kookaburra <i>Dacelo novaeguineae</i>	Int.	+ BA
Sacred Kingfisher <i>Todiramphus sanctus</i>	CS3	
<b>Meropidae</b> (bee-eaters)		
Rainbow Bee-eater <i>Merops ornatus</i>	CS1	
<b>Maluridae</b> (fairy-wrens)		
Southern Emu-wren <i>Stipiturus malachurus</i>		+ WAM BA
Red-winged Fairy-wren <i>Malurus elegans</i>		WAM BA
Splendid Fairy-wren <i>Malurus splendens</i>		+ WAM BA
<b>Pardalotidae</b> (pardalotes and thornbills)		
Striated Pardalote <i>Pardalotus striatus</i>		WAM BA
White-browed Scrubwren <i>Sericornis frontalis</i>		+ WAM BA
Weebill <i>Smicrornis brevirostris</i>	CS3	BA
Western Gerygone <i>Gerygone fusca</i>		BA
Inland Thornbill <i>Acanthiza apicalis</i>		WAM BA
Western Thornbill <i>Acanthiza inornata</i>		BA
Yellow-rumped Thornbill <i>Acanthiza chrysorrhoa</i>		BA
<b>Meliphagidae</b> (honeyeaters)		
Red Wattlebird <i>Anthochaera carunculata</i>		+ WAM BA
White-naped Honeyeater <i>Melithreptus chloropsis</i>		WAM BA
Western Wattlebird <i>Anthochaera lunulata</i>	CS3	BA
Singing Honeyeater <i>Lichenostomus virescens</i>	CS3	
Brown Honeyeater <i>Lichmera indistincta</i>		WAM BA
New Holland Honeyeater <i>Phylidonyris novaehollandiae</i>		+ WAM BA
White-cheeked Honeyeater <i>Phylidonyris nigra</i>		WAM BA
Tawny-crowned Honeyeater <i>Phylidonyris melanops</i>		
Western Spinebill <i>Acanthorhynchus superciliosus</i>		WAM BA
White-fronted Chat <i>Epthianura albifrons</i>		WAM

**Table 4.** (cont.)

Species		Status	Recorded	
<b>Petroicidae</b> (Australian robins)				
Scarlet Robin	<i>Petroica multicolor</i>	CS3		BA
White-breasted Robin	<i>Eopsaltria georgiana</i>		+ WAM	BA
Western Yellow Robin	<i>Eopsaltria griseogularis</i>		WAM	BA
<b>Pachycephalidae</b> (whistlers)				
Golden Whistler	<i>Pachycephala pectoralis</i>		+	BA
Rufous Whistler	<i>Pachycephala rufiventris</i>		+	BA
Grey Shrike-thrush	<i>Colluricincla harmonica</i>			BA
<b>Dicruridae</b> (flycatchers)				
Magpie-lark	<i>Grallina cyanoleuca</i>			BA
Restless Flycatcher	<i>Myiagra inquieta</i>		WAM	
Grey Fantail	<i>Rhipidura fuliginosa</i>		WAM	BA
Willie Wagtail	<i>Rhipidura leucophrys</i>			BA
<b>Campephagidae</b> (cuckoo-shrikes)				
Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>		+	BA
White-winged Triller	<i>Lalage sueurii</i>	CS3		
<b>Artamidae</b> (woodswallows)				
Black-faced Woodswallow	<i>Artamus cinereus</i>			
Dusky Woodswallow	<i>Artamus cyanopterus</i>	CS3		
Grey Butcherbird	<i>Cracticus torquatus</i>			BA
Australian Magpie	<i>Gymnorhina tibicen</i>		+	BA
<b>Corvidae</b> (ravens and crows)				
Grey Currawong	<i>Strepera versicolor</i>			
Australian Raven	<i>Corvus coronoides</i>		+	BA
<b>Motacillidae</b> (pipits and true wagtails)				
Richard's Pipit	<i>Anthus novaeseelandiae</i>	CS3	+ WAM	BA
<b>Passeridae</b> (grassfinches)				
Red-eared Firetail	<i>Stagonopleura oculata</i>		WAM	BA
<b>Hirundinidae</b> (swallows)				
White-backed Swallow	<i>Cheramoeca leucosternus</i>			
Welcome Swallow	<i>Hirundo neoxena</i>		+ WAM	BA
Tree Martin	<i>Hirundo nigricans</i>			BA
<b>Sylviidae</b> (old world warblers)				
Rufous Songlark	<i>Cinclorhamphus mathewsi</i>			
<b>Zosteropidae</b> (white-eyes)				
Silvereye	<i>Zosterops lateralis</i>		+	BA
<b>Number of bird species expected (recorded):</b>			<b>89 (26)</b>	

**Table 5.** Mammals that have the potential to occur on the site.

+ = species recorded on the site during the 2007 site visit.

WAM = species recorded in the area by the WA Museum (see Table 1).

Int = introduced species.

Species	Status	Recorded
<b>Tachyglossidae</b> (echidnas) Echidna <i>Tachyglossus aculeatus</i>		
<b>Dasyuridae</b> Mardo (Yellow-footed Antechinus) <i>Antechinus flavipes</i> Chuditch <i>Dasyurus geoffroyi</i> Brush-tailed Phascogale <i>Phascogale tapoatafa</i> Grey-bellied Dunnart <i>Sminthopsis griseoventer</i>	CS1 CS1	WAM
<b>Peramelidae</b> (bandicoots) Quenda (Southern Brown Bandicoot) <i>Isoodon obesulus</i>	CS2	+
<b>Tarsipedidae</b> (honey possum) Honey Possum <i>Tarsipes rostratus</i>		
<b>Phalangeridae</b> (brushtail possums) Brush-tailed Possum <i>Trichosurus vulpecula</i>		
<b>Pseudocheiridae</b> (ringtail possums) Western Ringtail Possum <i>Pseudocheirus occidentalis</i>	CS1	
<b>Burramyidae</b> (pygmy possums) Western Pygmy Possum <i>Cercartetus concinnus</i>		
<b>Macropodidae</b> (kangaroos and wallabies) Western Grey Kangaroo <i>Macropus fuliginosus</i> Brush or Black-gloved Wallaby <i>Macropus irma</i>	CS2	+
<b>Mollosidae</b> (mastiff bats) White-striped Bat <i>Tadarida australis</i> Western Freetail Bat <i>Mormopterus planiceps</i>		
<b>Vespertilionidae</b> (vesper bats) Gould's Wattled Bat <i>Chalinolobus gouldii</i> Chocolate Wattled Bat <i>Chalinolobus morio</i> Western False Pipistrelle <i>Falsistrellus mackenziei</i> Southern Forest Bat <i>Vespadelus regulus</i> Lesser Long-eared Bat <i>Nyctophilus geoffroyi</i> Gould's Long-eared Bat <i>Nyctophilus gouldii</i> Greater Long-eared Bat <i>Nyctophilus timoriensis</i>	CS2	
<b>Muridae</b> (rats and mice) Moodit (Southern Bush Rat) <i>Rattus fuscipes</i> House Mouse <i>Mus musculus</i> Black Rat <i>Rattus rattus</i>	Int. Int.	
<b>Leporidae</b> (rabbits and hares) Rabbit <i>Oryctolagus cuniculus</i>	Int.	+
<b>Canidae</b> (foxes and dogs) European Red Fox <i>Vulpes vulpes</i>	Int.	
<b>Felidae</b> (cats) Feral Cat <i>Felis catus</i>	Int.	+
<b>Number of mammal species expected (recorded):</b>		<b>27 (4)</b>

## References

- Barrett, G., Silcocks, A., Barry, S., Cunningham, R. and Poulter, R. (2003). *The New Atlas of Australian Birds*. Royal Australasian Ornithologists Union, Victoria.
- Christidis, L. and Boles, W.E. (1994). *The Taxonomy and Species of Birds of Australia and its Territories*. Royal Australasian Ornithologists Union, Monograph 2.
- Cogger, H.G., Cameron, E.E., Sadler, R.A. and Egger, P. (1993). *The Action Plan for Australian Reptiles*. Endangered Species Programme Project Number 124, Australian Nature Conservation Agency, Canberra.
- Duncan, A., Baker, G.B. and Montgomery, N. (1999). *The Action Plan for Australian Bats*. Environment Australia, Canberra.
- Environmental Protection Authority (2002). *Terrestrial Biological Surveys as an Element of Biodiversity Protection*. Position Statement No. 3. March 2002, Perth Western Australia.
- Environmental Protection Authority (2004). *Guidance for the assessment of environmental factors*. Guidance Statement No. 56. June 2004, Perth Western Australia.
- Garnett, S. and Crowley, G. (2000). *The Action Plan for Australian Birds*. Environment Australia and the Royal Australasian Ornithologists Union.
- Government of Western Australia (2000). *Bush Forever Volume 2*. Department of Environmental Protection, Perth.
- Lee, A.K. (1995). *The Action Plan for Australian Rodents*. Environment Australia, Canberra.
- Johnstone, R.E. & Storr, G.M. (1998). *Handbook of Western Australian Birds. Volume 1: Non-passerines (Emu to Dollarbird)*. Western Australian Museum, Perth.
- Johnstone, R.E. & Storr, G.M. (2004). *Handbook of Western Australian Birds. Volume 2: Passerines (Blue-winged Pitta to Goldfinch)*. Western Australian Museum, Perth.
- Maxwell, S., Burbidge, A.A. and Morris, K. (1996). *Action Plan for Australian Marsupials and Monotremes*. Environment Australia, Canberra.
- Menkhorst, P. and Knight, F. (2001). *A field guide to the mammals of Australia*. Oxford University Press, South Melbourne.
- Raines, J. (2002). *Hooded Plover Management Plan (2002-2012) Western Australia*. Birds Australia Western Australia Inc.

- Storr, G.M., Smith, L.A. and Johnstone, R.E. (1983). *Lizards of Western Australia. II. Dragons and Monitors*. W.A. Museum, Perth.
- Storr, G.M., Smith, L.A. and Johnstone, R.E. (2002). *Snakes of Western Australia*. W.A. Museum, Perth.
- Storr, G.M., Smith, L.A. and Johnstone, R.E. (1990). *Lizards of Western Australia. III. Geckoes and Pygopods*. W.A. Museum, Perth.
- Storr, G.M., Smith, L.A. and Johnstone, R.E. (1999). *Lizards of Western Australia. I. Skinks*. 2nd edition. W.A. Museum, Perth.
- Strahan, R. (Ed.) (1995). *The Mammals of Australia*. Australian Museum/Reed Books, Sydney.
- Tyler, M.J. (1998). *The Action Plan for Australian Frogs*. Environment Australia, Canberra.
- Tyler, M.J., Smith, L.A. and Johnstone, R.E. (2000). *Frogs of Western Australia*. W.A. Museum, Perth.
- WA Museum. (2001). Checklists of the Vertebrates of Western Australia. *Records of the WA Museum Supplement No. 63*.

**Appendix 1.** Categories used in the assessment of conservation status.  
**Environmental Protection and Biodiversity Conservation (EPBC) Act and the  
 WA Wildlife Conservation Act**

Extinct	Taxa not definitely located in the wild during the past 50 years.
Extinct in the wild	Taxa known to survive only in captivity.
Critically Endangered	Taxa facing an extremely high risk of extinction in the wild in the immediate future.
Endangered	Taxa facing a very high risk of extinction in the wild in the near future.
Vulnerable	Taxa facing a very high risk of extinction in the wild in the medium-term future.
Near Threatened	Taxa that risk becoming Vulnerable in the wild.
Conservation Dependent	Taxa whose survival depends upon ongoing conservation measures. Without these measures, a conservation dependent taxon would be classed as Vulnerable or more severely threatened.
Data Deficient	Taxa suspected of being Rare, Vulnerable or Endangered, but whose true status cannot be determined without more information.
Least Concern	Taxa that are not Threatened.

**WA Department of Environment and Conservation Priority species** (species not listed under the Conservation Act, but for which there is some concern).

Priority 1.	<b>Taxa with few, poorly known populations on threatened lands.</b> Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
Priority 2.	<b>Taxa with few, poorly known populations on conservation lands.</b> Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
Priority 3.	<b>Taxa with several, poorly known populations, some on conservation lands.</b> Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
Priority 4.	<b>Taxa in need of monitoring.</b> Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
Priority 5.	<b>Taxa in need of monitoring.</b> Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

**Appendix 2.** Species listed for the area 33°49' to 33°55'S and 114°58' to 115°03'E on the EPBC Protected Matters Search Tool, excluding seabirds and other marine species.

<b>Species</b>	<b>Status</b>	<b>Author's Comments</b>
Baudin's Black-Cockatoo <i>Calyptorhynchus baudinii</i>	Vulnerable	Recorded in study area during site visit.
Chuditch <i>Dasyurus geoffroii</i>	Vulnerable	May possibly occur.
Western Ringtail Possum <i>Pseudocheirus occidentalis</i>	Vulnerable	Likely to occur in study area.
White-bellied Sea-Eagle <i>Haliaeetus leucogaster</i>	Migratory	May overfly site, not likely to forage or breed in study area.
Rainbow Bee-eater <i>Merops ornatus</i>	Migratory	Likely to occur in study area.

**Appendix 3.** Species listed for the area 33.743° to 33.9766°S and 114.9796° to 115.1320°E (plus 7km buffer) on the DEC Threatened and Priority Fauna Database.

Species	Status	Author's Comments
Chuditch <i>Dasyurus geoffroii</i>	Schedule 1: Vulnerable	DEC records from Margaret River in 1985, Yelverton in 1986 and Bramley in 1993. This species may possibly occur in the study area.
Bilby <i>Macrotis lagotis</i>	Schedule 1: Vulnerable	DEC record is from 1963. This species is now extinct in the area.
Brush-tailed Phascogale <i>Phascogale tapoatafa</i>	Schedule 1: Vulnerable	DEC records from Burnside in 1999, Margaret River in 2004 and Gracetown in 2006. This species may possibly occur in the study area.
Western Ringtail Possum <i>Pseudocheirus occidentalis</i>	Schedule 1: Vulnerable	DEC records from Margaret River in 1906 and Gracetown in 2003, 2004 and 2005. This species is likely to occur in the study area.
Quokka <i>Setonix brachyurus</i>	Schedule 1: Vulnerable	DEC records of this species from 1907 and 1933. This species is now extinct in the area.
Western Whipbird <i>Psophodes nigrogularis nigrogularis</i>	Schedule 1: Endangered	DEC records of this species from 1901. This species is now extinct in the area.
Loggerhead Turtle <i>Caretta caretta</i>	Schedule 1: Endangered	DEC records from Leeuwin-Naturaliste National Park in 1996 and Cowaramup in 1999. No suitable habitat for this species in the study area, although it may occur nearby.
Cape Leeuwin Freshwater Snail <i>Austroassiminia lethae</i>	Schedule 1: Vulnerable	DEC records from Leeuwin-Naturaliste National Park in 1980. No suitable habitat for this species in the study area, although it may occur nearby.
Margaret River Marron <i>Cherax tenuimanus</i>	Schedule 1: Critically Endangered	DEC records from Margaret River (date not given). No suitable habitat for this species in the study area.
Dunsborough Burrowing Crayfish <i>Engaewa reducta</i>	Schedule 1: Endangered	DEC records from Margaret River (date not given) and Yelverton in 1976 and 1982. No suitable habitat for this species in the study area.
Tingle Moggridgea Spider <i>Moggridgea tingle</i>	Schedule 1: Endangered	DEC records from Gracetown in 2004 and 2005. No suitable habitat for this species in the study area.
Broad-faced Potoroo <i>Potorous platyops</i>	Schedule 2: Extinct	DEC records of this species from 1906. This species is now extinct in the area.
Carpet Python <i>Morelia spilota imbricata</i>	Schedule 4 & Priority 4	DEC records from Gracetown in 2000, 2004 and 2005. This species is likely to occur in the study area.
Pouched Lamprey <i>Geotria australis</i>	Priority 1	DEC records from Margaret River in 1996 and Bramley in 1996. No suitable habitat for this species in the study area.
Black Bittern <i>Ixobrychus flavicollis</i>	Priority 2	DEC record from Margaret River in 2001. No suitable habitat for this species in the study area.
Water Rat (Rakali) <i>Hydromys chrysogaster</i>	Priority 4	DEC records from Margaret River in 1915 and 2003, Metricup in 1991 and Gracetown in 2006. No suitable habitat for this species in the study area, although it may occur nearby.

**Appendix 3.** (cont.)

Species	Status	Author's Comments
Hooded Plover <i>Charadrius rubricollis</i>	Priority 4	DEC records from Gracetown in 1988 and 2006, Prevelly in 1989, Leeuwin-Naturaliste National Park in 1998. No suitable habitat for this species in the study area, although it is likely to occur on nearby beaches.
Quenda (Southern Brown Bandicoot) <i>Isodon obesulus</i>	Priority 5	DEC records from Gracetown in 1982 and 2002, Riverslea in 2004 and Margaret River in 2005. Evidence of this species present in the study area.

Gracetown is a small town in Western Australia. It is located 269 kilometres (167 mi) south of the Perth central business district, and 21.5 kilometres (13.4 mi) north-west of the township of Margaret River in the Augusta-Margaret River Shire Council area on the coast at Cowaramup Bay. The area was initially used as a holiday area and later in 1957 it was proposed that the area should be developed as a camping and caravan park. Gracetown Suburb Profile. Gracetown real estate agencies. Gracetown real estate agents. Home Price Guide. Privacy policy. Development Site. House and Land package in Gracetown. New & Off the plan apartments in Gracetown. Gracetown, Cowaramup, Western Australia. 1,132 likes · 51 talking about this. This page has been created by the Gracetown Progress Association for the... Huge thanks to Cowaramup Primary and the Friends for their work in the bay today.