

# Targeted Fauna Assessment

## Lot 75 Haag Road Yelverton

AUGUST 2019

*Version 1*

*On behalf of:*

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## TABLE OF CONTENTS

1.	INTRODUCTION .....	1
2.	SCOPE OF WORKS.....	1
3.	METHODS.....	1
3.1	SITE SURVEYS.....	1
3.1.1	Habitat Assessment.....	1
3.1.2	Western Ringtail Possum Assessment.....	2
3.1.3	Black Cockatoo Habitat Assessment.....	2
4.	SURVEY CONSTRAINTS .....	3
5.	RESULTS .....	3
5.1	SITE SURVEYS.....	3
5.1.1	Habitat Assessment.....	3
5.1.2	Western Ringtail Possum Assessment.....	4
5.1.3	Black Cockatoo Habitat Assessment.....	4
6.	CONCLUSION.....	5

## FIGURES

- FIGURE 1: Study Area & Surrounds
- FIGURE 2: Study Area - Air Photo
- FIGURE 3: Habitat Trees

## **PLATES**

- PLATE 1: Open Forest of Jarrah, Sheoak, Banksia and Peppermint – north west section of proposal area.
- PLATE 2: Open Forest of Banksia, Sheoak, Jarrah and Peppermint over an Open Shrubland/Scattered shrubs over a Herbland – central eastern side of proposal area.
- PLATE 3: Open Forest of Sheoak, Banksia and Peppermint over an Open Herbland and Open Grassland – central western side of proposal area.

## **APPENDICES**

- APPENDIX A: Habitat Tree Details

# 1. INTRODUCTION

This report details the results of targeted fauna survey/habitat assessment (western ringtail possums (WRP) and black cockatoos) of Lot 75 Haag Road, Yelverton (the study site). The site is located about 13 km south of the Dunsborough in south west Western Australia and is centred at approximately 33.727385°S and 115.138296°E (Figure 1).

It is understood that about 11.5 hectares of Lot 75 is being targeted for sand extraction and that the clearing of some of the native vegetation, which covers part of this total area, will be required if the project is proceed in its current form.

An application to clear the vegetation is currently being prepared for submission to the Department of Water and Environment Regulation (DWER). The information presented here will be submitted to DWER for their consideration during the application assessment process.

# 2. SCOPE OF WORKS

The scope of works was:

- Undertake a targeted survey of the site for western ringtail possums and black cockatoos and their habitat; and
- Report summarising methods and results.

Note: For the purposes of this report the term black cockatoo is in reference to Baudin's black cockatoo

*Calyptorhynchus baudinii*, Carnaby's black cockatoo *Calyptorhynchus latirostris* and the forest red-tailed black cockatoo *Calyptorhynchus banksii naso*.

# 3. METHODS

## 3.1 SITE SURVEYS

Daytime field survey work at the proposed clearing area was carried out by Greg Harewood on the 5 August 2019. The nocturnal WRP survey was carried out on the 6 August 2019.

### 3.1.1 Habitat Assessment

The vegetation units present have been used to define broad fauna habitat types across the study site.

### 3.1.2 Western Ringtail Possum Assessment

To determine if western ringtail possums were utilising the study area the following was carried out:

- Daytime survey of the study site searching for dreys, obvious tree hollows (and other potential daytime refuge habitat), scats and individual WRPs;
- One night time survey to locate and record the distribution and abundance of WRPs; and
- Determination of the amount and quality of WRP habitat within the study area.

### 3.1.3 Black Cockatoo Habitat Assessment

The black cockatoo habitat assessment has included a:

- Habitat tree survey: This involved the identification of all suitable trees species within the study site that have a diameter at breast height (DBH) of over 50cm (irrespective of the presence/absence of suitable hollows – DotEE/DBCA criteria). The location of each tree identified was recorded with a GPS and details on tree species, number and size of hollows (if any) noted.

Target tree species included tuart, marri and jarrah or any other suitable *Corymbia/Eucalyptus* species of a suitable size that may be present. Peppermints, *Banksia*, Sheoak and *Melaleuca* tree species (for example) were not assessed as they typically do not develop hollows that are used by black cockatoos.

For the purposes of this study a potential cockatoo nest hollow was defined as:

*Generally, any tree which is alive or dead that contains one or more visible or possible hollows (cavities within the trunk or branches) suitable for occupation by any of the three black cockatoo species for the purpose of nesting/breeding. Hollows that had an entrance greater than about 10cm in diameter and would allow the entry of a cockatoo (white tailed or red-tailed) into a suitably orientated and sized branch/trunk, were recorded as a “potential nest hollow”.*

Identified hollows (if any) were examined using binoculars for evidence of actual use by black cockatoos (e.g. chewing around hollow entrance, scarring and scratch marks on trunks and branches). Trees with possible nest hollows were also scratched and raked with a large stick/pole to flush any sitting birds from hollows and calls of chicks were also listened for.

- Black cockatoo foraging assessment: The location and nature of black cockatoo foraging evidence observed (e.g. chewed fruits around base of trees) during the field survey was recorded.
- Roosting habitat survey: Direct and indirect evidence of black cockatoos roosting within trees on site was noted if observed (e.g. branch clippings, droppings or moulted feathers).

## 4. SURVEY CONSTRAINTS

No seasonal sampling has been carried out as part of this fauna assessment. The conclusions presented are based upon field data and the environmental monitoring and/or testing carried out over a limited period of time and are therefore merely indicative of the environmental condition of the site at the time of the field assessments. It should also be recognised that site conditions can change with time.

During the western ringtail possum assessment and the black cockatoo habitat survey, trees with hollows were recorded. It should be noted that identifying hollows suitable for fauna species from ground level has limitations. Generally the full characteristics of any hollow seen are not fully evident (e.g. internal dimensions). It is also difficult to locate all hollows within all trees as some are not observable from ground level.

The location of habitat trees was recorded using a handheld GPS. The accuracy of the GPS cannot be guaranteed above a level of about 5 to 10 metres, though it should be noted that in some circumstance the accuracy can be worse or better than this.

## 5. RESULTS

### 5.1 SITE SURVEYS

#### 5.1.1 Habitat Assessment

The vegetation present within the proposed clearing area consists of various densities of predominately sheoak (*Allocasuarina fraseriana*), candlestick banksia (*Banksia attenuata*), holly-leaved banksia (*B. ilicifolia*), peppermint (*Agonis flexuosa*), WA christmas tree (*Nuytsia floribunda*) and woody pear (*Xylomelon occidentale*) forming a low open forest or woodland with scattered emergent jarrah (*Eucalyptus marginata*) over a generally sparse low open shrubland. Plates 1 to 3 illustrate the nature of some of the vegetation units/habitats present within the study area.

### **5.1.2 Western Ringtail Possum Assessment**

No evidence of western ringtail possums utilising vegetation with the study site was observed during the day or night surveys. The results suggest that WRPs are either completely absent from the study site or present in such low numbers that they avoided detection.

Superficially, almost all of the native vegetation present with the subject site appears to be suitable for western ringtail possum habitat though its relative quality would vary depending on plant species composition and overall density at any one point.

From a foraging perspective WRPs are known to utilise peppermint, sheoak, jarrah, and the WA christmas tree as a food source. All these species are present throughout the subject site.

Canopy connectivity varies within the areas of remnant vegetation with some areas having significant gaps between trees. This is particularly evident in the central west section of the subject site (see Figure 2).

### **5.1.3 Black Cockatoo Habitat Assessment**

The habitat tree assessment identified a total of 12 trees with a DBH of >50cms within the study site (Figure 3).

Of the 12 trees recorded, six appeared to contain hollows or possible hollows with entrances of various sizes. None of these trees were assessed by the Author at the time of the survey as currently being suitable for black cockatoos to use for nesting purposes. This assessment was primarily based on the fact that the hollows appeared to be two shallow or small.

Additional details on each habitat tree observed can be found in Appendix A.

Almost all of the remnant vegetation within Lot 75 represents a foraging resource for one or more of the three black cockatoo species known to frequent the area give the presence of banksia, sheoak, marri and jarrah. Evidence of actual foraging was found during the day time survey in the form of chewed banksia cones (attributed to Carnaby's or Baudin's) and chewed sheoak fruits (attributed to Carnaby's or the FRTBC).

No existing roosting trees (trees used at night by black cockatoos to rest) were identified during the survey period.

## 6. CONCLUSION

The targeted survey was carried out primarily to determine if western ringtail possums were utilising the proposed clearing area and to determine the extent of black cockatoo habitat present.

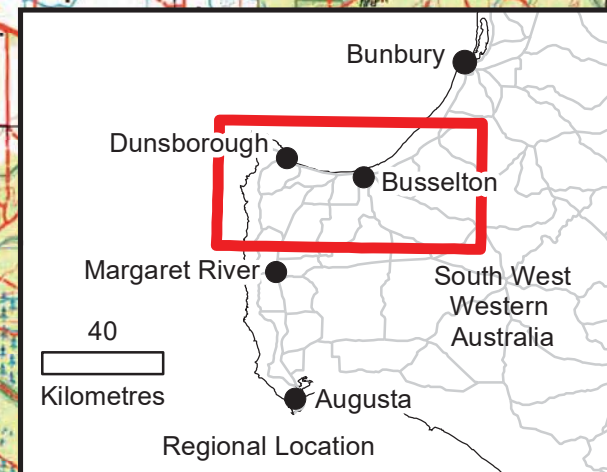
No evidence of the presence of western ringtail possums was observed despite the presence of apparently suitable habitat in some areas.

The larger (DBH >50cm) trees present, while limited in number are represent potential breeding habitat for black cockatoos though none appeared to currently contains hollows suitable for this purpose. Most of the remnant vegetation within the proposed works footprint represents potential foraging habitat for black cockatoos given the presence of banksia, sheoak and jarrah. Evidence of foraging on sheoak and banksia by black cockatoos was observed. It is considered unlikely that black cockatoos roost within the area surveyed and no evidence of this activity was seen.

This report should be provided to DWER for their consideration.



# FIGURES



## Legend

Lot 75 Haag Road Yelverton



0 5 10 15 20  
Kilometres



Drawn: G Harewood

Date: Aug 2019

Scale: 1:275,000

Projection/Coordinate System: UTM/MGA Zone 50

Lot 75 Haag Road  
Yelverton



**Study Area  
and Surrounds**

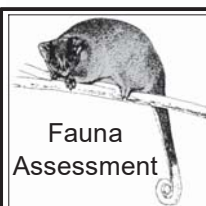
Figure: 1





## Legend

-  Lot 75 Boundary
-  Approximate Clearing Boundary



Fauna  
Assessment

Drawn: G Harewood

Date: Aug 2019

Scale: 1:2,500

Projection/Coordinate System: UTM/MGA Zone 50

Lot 75 Haag Road  
Yelverton

Study Area  
Air Photo

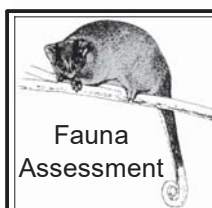
Figure: 2





## Legend

- Lot 75 Boundary
- Approximate Clearing Boundary
- Habitat Tree - No hollows observed
- Habitat Tree - Hollows observed - None appear suitable for black cockatoos



Fauna  
Assessment

Drawn: G Harewood

Date: Aug 2019

Scale: 1:2,500

Projection/Coordinate System: UTM/MGA Zone 50

Lot 75 Haag Road  
Yelverton

Habitat Trees  
(DBH >50cm)

Figure: 3



# PLATES



Plate 1: Open Forest of Jarrah, Sheoak, Banksia and Peppermint over an Open Herbland – north east section of proposal area.



Plate 2: Open Forest of Banksia, Sheoak, Jarrah and Peppermint over an Open Shrubland/Scattered shrubs over a Herbland – central eastern side of proposal area.





Plate 3: Open Forest of Sheoak, Banksia and Peppermint over an Open Herbland and Open Grassland – central western side of proposal area.

# **APPENDIX A**

## **HABITAT TREE DETAILS**



## **DISCLAIMER**

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The conclusions are based upon field data and the environmental monitoring and/or testing carried out over a limited period of time and are therefore merely indicative of the environmental condition of the site at the time of preparing the report. Also it should be recognised that site conditions, can change with time.

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