Western Ringtail Possum Survey

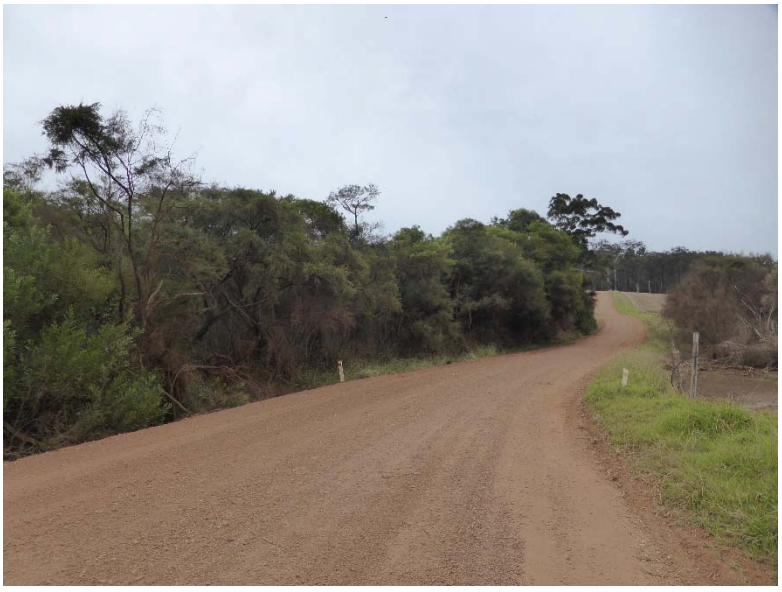
&

Habitat Tree Assessment

of

Proposed Clearing Areas

(CPS 8580/1)



Grays Road

(SLK 2.62 to 2.84)

Shire of Manjimup

May 2020

Version 1

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SHIRE OF MANJIMUP
Manjimup • Northcliffe • Pemberton • Walpole

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SUMMARY

This report details the results of a western ringtail possum (Pseudocheirus occidentalis) and habitat tree assessment carried out over several sections of Grays Road between SLK 2.62 to SLK 2.84, in the Shire of Manjimup (the Shire).

The Shire are seeking permission to clear up to 0.448 hectares of native vegetation and one native tree along the road reserve from the Department of Water and Environmental Regulation (DWER) (ref: CPS 8580/1).

An initial inspection of the area by DWER identified the presence of potential western ringtail possum and black cockatoo breeding habitat and as a consequence they have requested targeted surveys be undertaken (DWER 2020). The results of these surveys are presented here.

A daytime survey of the Permit area was carried out by Greg Harewood (Zoologist - 17 years' experience) on the 5 April 2020. The nocturnal WRP survey was carried out on the 12 May 2020.

No evidence of western ringtail possums utilising the Permit area was found and this coupled with the marginal quality of the habitat present suggests the species do not occur.

The single karri present within the Permit area does not contain hollows suitable for black cockatoos

Based on the results of the assessment in is concluded that clearing can be carried out without directly impacting on western ringtail possums or existing black cockatoo breeding habitat.

This report should be forwarded to DWER for their consideration.

1. INTRODUCTION

This report details the results of a western ringtail possum (*Pseudocheirus occidentalis*) and black cockatoo habitat tree assessment carried out over several sections of Grays Road between SLK 2.62 to SLK 2.84, in the Shire of Manjimup (the Shire).

The Shire are seeking permission to clear up to 0.448 hectares of native vegetation and one native tree along the road reserve from the Department of Water and Environmental Regulation (DWER) (ref: CPS 8580/1) (Figure 1).

A preliminary assessment of the application and a site inspection by DWER has identified that suitable habitat for western ringtail possums (WRP) and black cockatoos are likely to occur within the application area. DWER have subsequently requested that additional information relating to the presence and extent of fauna habitat within the Permit area be obtained and forwarded for assessment. The WRP and black cockatoo habitat tree survey detailed in this report seeks to satisfy this requirement.

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*.

2. SCOPE OF WORKS

The scope of works is based on specifications provided in DWER's request for additional information (DWER 2020) as they relate to WRPs and black cockatoos which states:

Information Requirements

- A western ringtail possum survey (including night surveys) is required for the area proposed to be cleared.
- A black cockatoo habitat tree assessment / survey is required for the area proposed to be cleared.

Specifications

Western Ringtail Possum Survey

- Survey methodology must be consistent with the Environmental Protection Authority's (EPA) Technical Guidance: Terrestrial Fauna Surveys (December 2016).

Black Cockatoo Habitat Tree Assessment

- The assessment/survey is to be carried out by a *fauna specialist* and the survey is required to identify all trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater that contain a hollow(s) that may be suitable for breeding Carnaby's cockatoo, Baudin's cockatoo, and forest red-tailed black cockatoo.

- The survey must document:
    - the date(s) of the survey;
    - the GPS locations (i.e. eastings and northings or decimal degrees) of all trees identified as containing hollows which may be suitable for black cockatoos;
    - the methodology for determining the evidence of use of each hollow and a description/photo of the evidence; and
    - a description/photo of the evidence of use.
- All surveys must be submitted in accordance with the EPA's Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessments (IBSA) and be accompanied by a completed Metadata and Licensing Statement.

NOTE: DWER considers "*fauna specialist*" to mean a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of two years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016 (WA)*.

3. METHODS

A daytime survey of the Permit area was carried out by Greg Harewood (Zoologist - 17 years' experience) on the 5 April 2020. The nocturnal WRP survey was carried out on the 12 May 2020.

3.1 WESTERN RINGTAIL POSSUM SURVEY

A detailed western ringtail possum survey was be carried out over the Permit area. The survey included:

- Diurnal Survey
  A daytime survey was carried out to locate and record dreys, obvious tree hollows, scats and individual WRPs along with habitat characteristics. This was carried out concurrent with the black cockatoo habitat survey.
- Nocturnal Survey
  A nocturnal survey for WRPs was carried out. The nocturnal survey involved the systematic searching of potential WRP habitats the Permit area on foot using a head torch with the aim of detecting WRPs by eye shine.

3.2 BLACK COCKATOO HABITAT TREE ASSESSMENT

The assessment has involved the identification of all suitable trees species within the Permit area that have a diameter at breast height (DBH) of equal to or over 50cm with special attention paid to those containing hollows or apparent hollows. The DBH of each tree was estimated using a pre-made 50 cm "caliper".

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

The location of each tree identified fitting the required criteria (i.e. DBH ≥50cm) were recorded with a GPS and details on tree species, number and size of hollows (if any) noted.

Possible hollows were placed into one of four categories, based on the size of the apparent hollow entrance, these being:

- Small = ~<5cm diametre (i.e. entrance appears too small for a black cockatoo);
- Medium = ~5cm-10cm diametre (i.e. entrance appears too small for a black cockatoo);
- Large = ~>10cm diametre (entrance appears large enough for a black cockatoo, but possible hollow appears to be unsuitable for nesting i.e. wrong orientation, too small, too low or too shallow); or
- Large (cockatoo) = ~>10cm diametre (entrance appears big enough to provide access to a possible hollow that maybe suitable for a black cockatoo to use for nesting).

Based on this assessment trees present within the Permit area have been placed into one of four categories:

- Tree < 50cm DBH or an unsuitable species (not assessed/recorded);
- Tree >50cm DBH, no hollows seen;
- Tree >50cm DBH, one or more potential hollows seen, none of which were considered suitable for black cockatoos to use for nesting; or
- Tree >50cm DBH, one or more potential hollows seen, with at least one considered possibly suitable for black cockatoos to use for nesting.

For the purposes of this assessment a tree containing a potential cockatoo nest hollow has been defined as:

Generally, any tree which is alive or dead that contains one or more visible hollows (cavities within the trunk or branches) or possible hollows considered potentially suitable for occupation by a black cockatoo for the purpose of nesting/breeding. Hollows that had an entrance greater than about 10cm in diameter and would allow the entry of a black cockatoo

into a suitably orientated and sized branch/trunk were recorded as a "potential black cockatoo nest hollow".

Identified hollows 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).

Where the ground based assessment of possible large hollows was inconclusive a drone was available for use (if considered warranted and feasible) to examine and photograph potential hollows in more detail.

3.3 CAMERA TRAPS

A single motion sensing, infrared "camera trap" (Acorn model LTl 5210A) was placed within the Permit area on the 5 April 2020. This was retrieved on 12 May 2020 (37 days of deployment). The camera trap was set to take three consecutive pictures when triggered, with a five second time lapse before any subsequent trigger event.

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 black cockatoo habitat survey trees with hollows were searched for. 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, though to a certain extent some of these limitations can be overcome by using a drone or pole camera to examine possible hollows in more detail (where considered warranted and feasible).

5. RESULTS

5.1 WESTERN RINGTAIL POSSUM SURVEY

No evidence of western ringtail possums utilising the Permit area was found during the day or night surveys. Habitat for the species within the Permit area is at best marginal in quality given the small size of the main vegetation remnant and the apparent lack of WRPs favoured foraging plant species (e.g. peppermint, sheoak, snottygobble, *Nuytsia*, jarrah and marri).

The survey results support the conclusion that the WRPS do not occur within the Permit area.

5.2 BLACK COCKATOO HABITAT TREE ASSESSMENT

The site inspection by DWER officers identified that the vegetation within the application area as being comprise of one karri tree (*Eucalyptus diversicolor*), and *Melaleauca* spp., *Acacia* spp, *Lepidosperma* spp. *Baumea* spp. and other native sedges (DWER 2020).

The single karri tree represents the only habitat tree with the Permit area (Figure 1). This tree does not harbour any hollows suitable for, or in use by black cockatoos.

5.3 CAMERA TRAPS

The only fauna captured on the camera trap were feral species, these being

- Red Fox (*Vulpes vulpes*);
- Black Rat (*Rattus rattus*);
- Rabbit (*Oryctolagus cuniculus*); and
- Cat (*Felis cattus*).

6. CONCLUSION

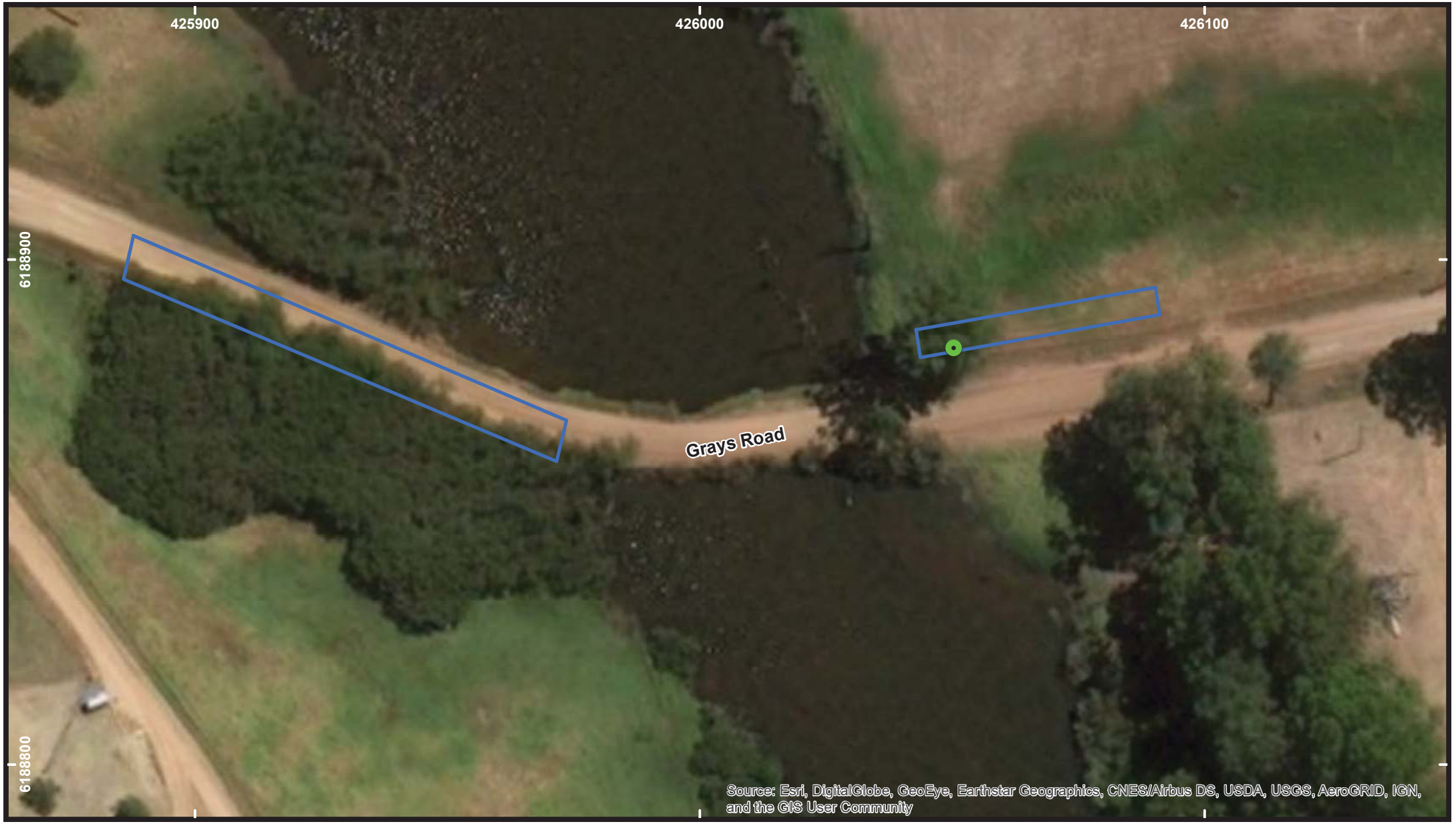
The assessment reported on here was primarily undertaken to determine if western ringtail possums were present and to identify trees within the Permit area that contain hollows suitable for use by black cockatoos for nesting purposes.

No evidence of western ringtail possums utilising the Permit area was found and this coupled with the marginal quality of the habitat present suggests the species do not occur.

The single karri present within the Permit area does not contain hollows suitable for black cockatoos

Based on the results of the assessment in is concluded that clearing can be carried out without impacting on western ringtail possums or existing black cockatoo breeding habitat.

This report should be forwarded to DWER for their review and comment prior to clearing commencing.



Legend

- Permit Area (CPS 8580/1)
- Habitat Tree - no hollows observed

N

0 10 20 30 40 50

Metres

Fauna Survey

CPS 8580/1
Grays Road
Shire of Manjimup

Habitat Trees (DBH >50cm)

Drawn: G. Harewood
Date: May 2020
Scale: 1:1,000
Projection/Coordinate System: UTM/MGA Zone 50

Figure: 1

7. REFERENCES

Department of Water and Environmental Regulation (DWER 2020). Application to Clear Native Vegetation under the Environmental Protection Act 1986 – Request for information (CPS 8502/1, CPS 8578/1, CPS 8579/1, CPS 8580/1 and CPS 8586/1). 3 February 2020.

Environmental Protection Authority (EPA) and Department of Environment and Conservation (DEC) (2016). Technical Guide – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessments (eds B.M. Hyder, J. Dell and M.A. Cowan), Perth Western Australia.

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