Black Cockatoo
Habitat Tree Survey
of
Kondinin-Narembeen Road
(SLK 18.11 to SLK 18.19)

Shire of Narembeen

September 2024

Version 1

On behalf of:
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SUMMARY

This report details the results of a black cockatoo habitat tree assessment carried out along a section of the Kondinin-Narembeen Road in the Shire of Narembeen (the Shire) about 19 kilometre south of Narembeen (the Project Area).

It is understood that the Shire require the assessment to support a clearing permit application that will allow for road works at the intersection to proceed. An initial black cockatoo habitat assessment carried out by SLR Consulting in July 2023 (SLR 2023) identified six potential nesting trees within the Project Area.

Two of the trees were found to contain multiple hollows assessed by SLR Consulting at the time as being "potentially suitable for black cockatoo nesting" though this initial assessment was limited to ground based observations of the hollows in question.

To provide additional information on the current status of the six habitat trees the Shire has requested a more detailed assessment be carried out to support the clearing permit application.

The inspection of the trees in question was carried out by Greg Harewood (Zoologist - 21 years' experience) on the 11 September 2024.

Key Findings

Four of the six trees (one salmon gum, two wandoo and a merit) were confirmed as having no visible hollows (Figure 1, Appendix A).

The remaining two large salmon gums were found to contain hollows of various sizes (Figure 1, Appendix A).

One of the salmon gums trees (ID 3) contained over five possible hollows. This tree has numerous small to medium sized hollows unsuitable for black cockatoos given their entrance size and/or size of the accommodating branch. Two hollows with larger entrances were examined as close as possible with a drone and also appear to be too small internally to accommodate a nesting black cockatoo and were therefore classified by the Authors as unsuitable for black cockatoos to use for nesting purposes.

The second hollow bearing tree (ID 4) contained three possible hollows, however an inspection and photographs taken with a drone suggest that all three were too small internally to accommodate a nesting black cockatoo and therefore the hollows have also been classified as unsuitable based on the observations made.

None of the hollows observed showed any signs of current use by any fauna. Some of the hollows may however be suitable for a range of smaller bird species such as galahs or Australian ringnecks. Australian ringnecks, regent parrots, galahs, purple crowned lorikeets and pardalotes.

If practical it is recommended that the hollow bearing trees be re-examine immediately prior to clearing by a suitably qualified and experienced fauna specialist and the appropriate action taken, should they be found to be occupied by fauna of some type.

This report should be submitted to DWER for their consideration.

1. INTRODUCTION

This report details the results of a black cockatoo habitat tree assessment carried out along a section of the Kondinin-Narembeen Road in the Shire of Narembeen (the Shire). The area is located at the intersection of the Kondinin-Narembeen Road, Cheetham's Road and the South Kumminin East Road, about 19 kilometres south of Narembeen (the Project Area) (Figure 1).

It is understood that the Shire require the assessment to support a clearing permit application that will allow for road works at the intersection to proceed. An initial black cockatoo habitat assessment carried out by SLR Consulting in July 2023 (SLR 2023) identified six potential nesting trees within the Project Area comprising:

- Three Salmon Gums (*Eucalyptus salmonophloia*)
- Two Wandoo (*Eucalyptus wandoo* subsp. *wandoo*)
- One Merrit (*Eucalyptus urna*).

Two of the trees were found to contain multiple hollows assessed by SLR Consulting at the time as being "potentially suitable for black cockatoo nesting" though this initial assessment was limited to ground based observation of the hollows in question. The location of these six trees within the Project Area are shown in Figure 1.

To provide additional information on the current status of the six habitat trees the Shire has requested a more detailed assessment be carried out to support the clearing permit application.

This report details the results of this assessment.

2. SCOPE OF WORKS

The Shire have defined the scope of works as

- Carry out a black cockatoo habitat tree assessment of a number of trees previously identified along a section of the Kondinin-Narembeen Road to support a clearing permit application.

3. METHODS

The habitat tree assessment was carried out by Greg Harewood (Zoologist - 21 years' experience) on the 11 September 2024.

The assessment involved the inspection of all six trees previously identified by SLR Consulting in 2023 with a focus on the two trees containing hollows (SLR 2023). Details on each tree were recorded and in most cases a reference photograph taken. The location of each tree examined was recorded with a GPS and details on tree species, Diameter at Breast Height (DBH), number and size of hollow entrances (if any) noted.

Hollows or possible hollows observed were placed into one of four categories, based on the size of the apparent hollow entrance, these being:

- Small = ~<5cm diameter (i.e. entrance appears too small for a black cockatoo but possibly suitable for other fauna);
- Medium = ~5cm-10cm diameter (i.e. entrance appears too small for a black cockatoo but possibly suitable for other fauna);
- Large = ~>10cm diameter (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 but possibly suitable for other fauna); or
- Large (cockatoo) = ~>10cm diameter (entrance appears big enough to provide access to a possible hollow that maybe suitable for a black cockatoo to use for nesting and possible suitable other fauna).

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

- Tree <30cm DBH - No hollows;
- Tree ≥30 DBH - No hollows;
- Tree ≥30cm DBH - Unsuitable hollows - one or more potential hollows seen, none of which were considered suitable for black cockatoos to use for nesting but possibly suitable for other fauna; or
- Tree ≥30cm DBH – Potential hollow - one or more potential hollows seen, with at least one considered possibly suitable for black cockatoos to use for nesting (but with no sign of current or past use), also possibly suitable for other fauna.
- Tree >30cm DBH – Known nesting tree - one or more hollows seen, where black cockatoo breeding has been recorded or which demonstrates evidence of breeding (i.e.

showing evidence of use through scratches, chew marks or feathers), also possibly suitable for other fauna.

For the purposes of this assessment, a tree containing a potential black cockatoo nest hollow was 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 potentially suitable for occupation by black cockatoo for the purpose of nesting/breeding. Hollows or possible 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 nest hollow".

Identified hollows, if observed, 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). A drone (DJI Mavic Air) was used to examine and photograph some hollows in more detail. This was to some extent limited by weather conditions at the time (high winds) and foliage.

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 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/possible 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. It is also generally impossible to determine if hollows high in trees (for example) are in current use by fauna as it is not possible to examine them internally.

5. RESULTS

Four of the six trees (one salmon gum, two wandoo and a merit) were confirmed as having no visible hollows (Figure 1, Appendix A).

The remaining two large salmon gums were found to contain hollows of various sizes (Figure 1, Appendix A).

One of the salmon gums trees (ID 3) contained over five possible hollows. This tree has numerous small to medium sized hollows unsuitable for black cockatoos given their entrance size and/or size of the accommodating branch. Two hollows with larger entrances were examined as close as possible with a drone and also appear to be too small internally to accommodate a nesting black cockatoo and were therefore classified by the Authors as unsuitable for black cockatoos to use for nesting purposes.

The second hollow bearing tree (ID 4) contained three possible hollows, however an inspection and photographs taken with a drone suggest that all three were too small internally to accommodate a nesting black cockatoo and therefore the hollows have also been classified as unsuitable based on the observations made.

None of the hollows observed showed any signs of current use by any fauna. Some of the hollows may however be suitable for a range of smaller bird species such as galahs or Australian ringnecks. Australian ringnecks, regent parrots, galahs, purple crowned lorikeets and pardalotes.

6. CONCLUSION

The assessment reported on here was primarily undertaken to identify if any trees that will require trimming or clearing had hollows suitable for or were in current use by Carnaby's cockatoos.

No current or past black cockatoo breeding trees were positively identified. Subject to the granting of a clearing permit from DWER proposed works can therefore be undertaken with minimal risk of impacting on black cockatoos.

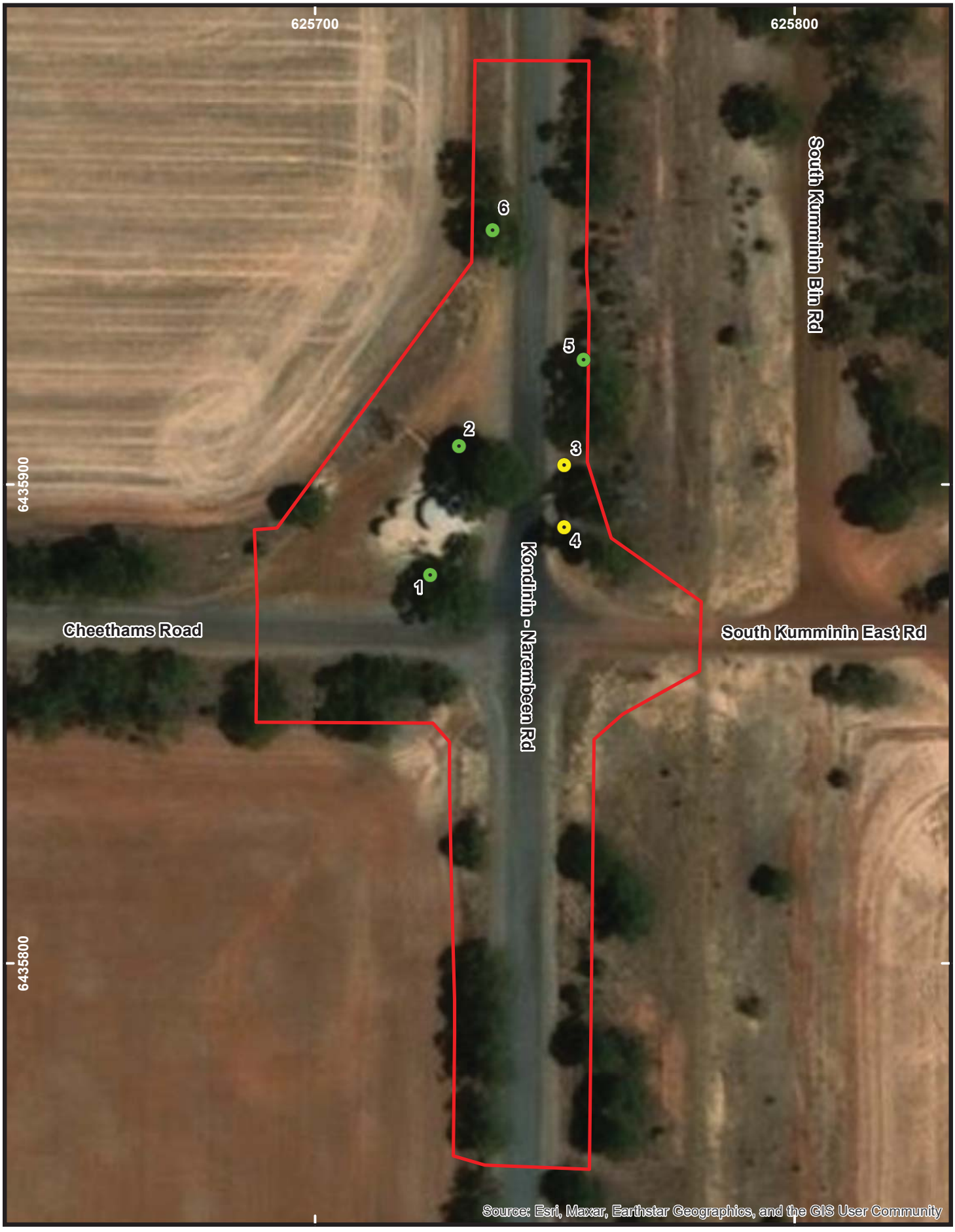
If practical it is recommended that the hollow bearing trees be re-examine immediately prior to clearing by a suitably qualified and experienced fauna specialist and the appropriate action taken, should they be found to be occupied by fauna of some type.

This report should be submitted to DWER for their consideration.

7. REFERENCES

SLR Consulting Australia Pty Ltd (SLR) (2023). Biological Surveys for Shire of Narembeen NVCP Application Flora, Vegetation, Basic Fauna, and Black Cockatoo Habitat Surveys Biological Report. Unpublished report for the Shire of Narembeen. November 2023.

FIGURES



Legend

- Project Area
- Tree - No Hollows Observed
- Tree - One or more possible hollows None suitable for black cockatoos

0 25 50
Metres

Fauna Survey

Drawn: G Harewood
Date: Sept 2024
Scale: 1: 50,000
Projection/Coordinate System: UTM/MGA Zone 50

Kondinin-Narembeen Road
Shire of Narembeen

Project Area Trees Inspected

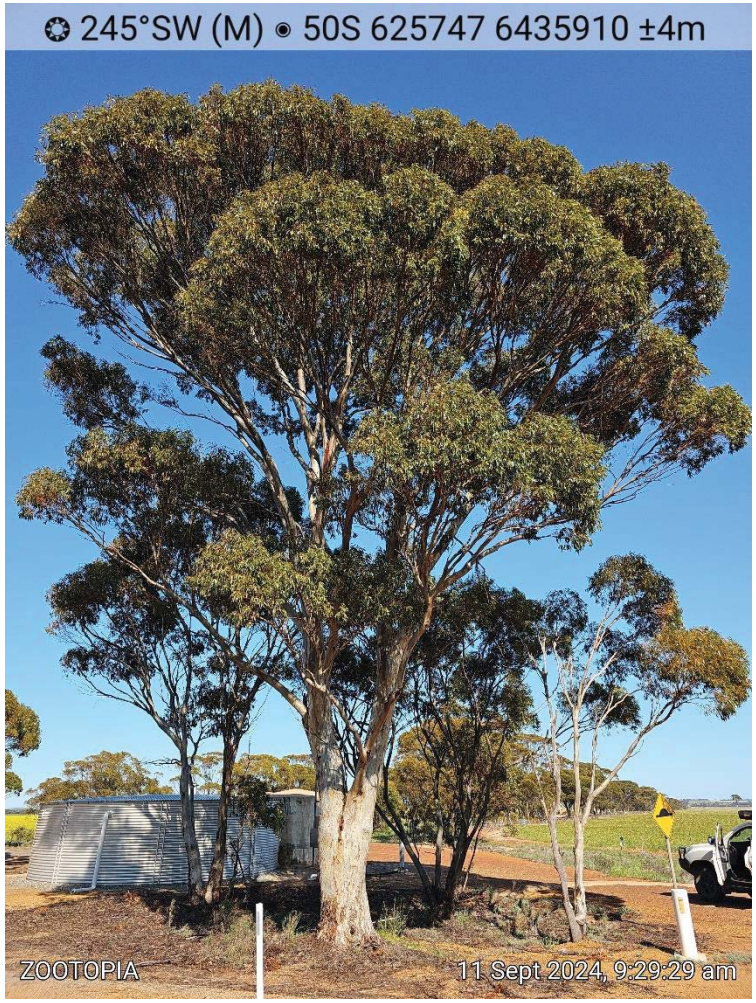
Figure: 1

APPENDIX A

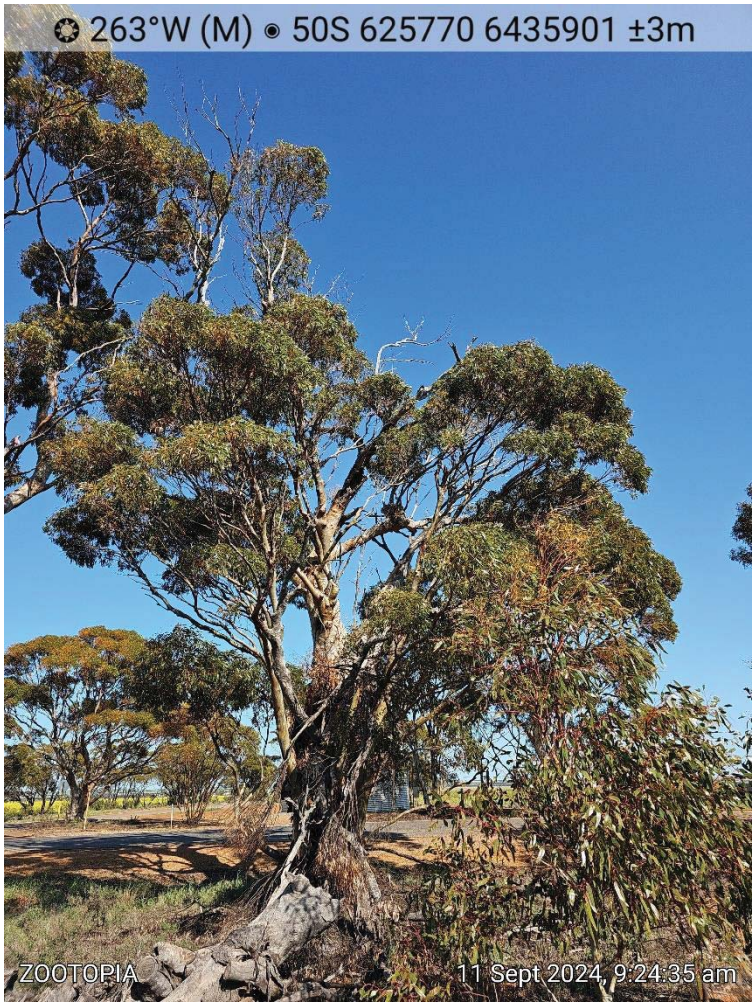
HABITAT TREE DETAILS

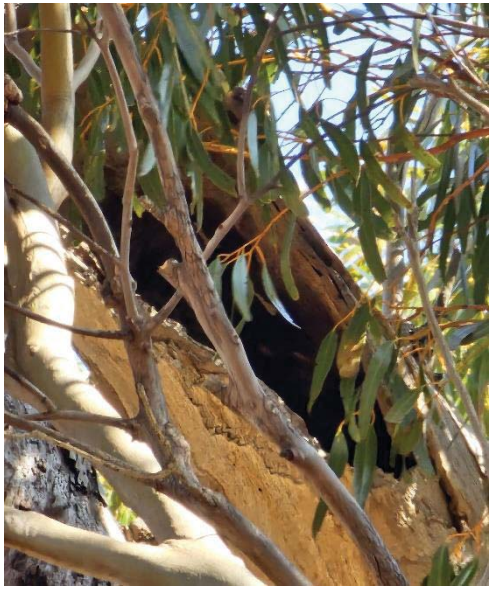
ID	Coordinates (MGA 94/Z50)	625724 mE	6435881 mN	Tree Species	Salmon Gum	Survey Date	11/09/2024
1	Comments	SLK 18.11 – West side of road . Small sized salmon gum with a thick base (DBH >50cm). No hollows observed.				Black Cockatoo Classification	No Hollows.

WPT	Coordinates (MGA 94/Z50)	625730 mE	6435908 mN	Tree Species	Merrit	Survey Date	11/09/2024
2	Comments	SLK 8.14 - West side of road. Medium sized (DBH >50cm) merrot. No hollows observed. West side of road.				Black Cockatoo Classification	No Hollows.



WPT	Coordinates (MGA 94/Z50)	625752 mE	6435904 mN	Tree Species	Wandoo	Survey Date	11/09/2024
3	Comments	SLK 8.14.39 – East side of road. Large sized (DBH >50cm) salmon gum. This tree has numerous small to medium sized hollows unsuitable for black cockatoos (bottom three pictures). Two hollows with larger entrances appear to be too small internally for black cockatoos to use for nesting purposes (top two pictures). Hollows show no signs of current use by any fauna but potentially suitable for a range of smaller bird species such as galahs or Australian ringnecks.				Black Cockatoo Classification	Unsuitable Hollows.





WPT	Coordinates (MGA 94/Z50)	625752 mE	6435891 mN	Tree Species	Wandoo	Survey Date	11/09/2024
4	**Comments**	SLK 8.12 – East side of road. Large sized (DBH >50cm) salmon gum. Contains three small to medium sized hollows, all of which were examined using a drone. All hollows have been assessed as being too small for black cockatoos to use for nesting purposes. No signs of use by any fauna but potentially suitable for a range of smaller bird species such as galahs or Australian ringnecks.				**Black Cockatoo Classification**	Unsuitable Hollows.

WPT	Coordinates (MGA 94/Z50)	625756 mE	6435926 mN	Tree Species	Wandoo	Survey Date	11/09/2024
5	Comments	SLK 8.16 – East side of road. Small sized (DBH >30-50cm) salmon gum. No hollows observed.				Black Cockatoo Classification	No Hollows.

WPT	Coordinates (MGA 94/Z50)	625737 mE	6435953 mN	Tree Species	Wandoo	Survey Date	11/09/2024
6	Comments	SLK 8.19 – West side of road. Small sized (DBH >30-50cm) wandoo. No hollows observed.				Black Cockatoo Classification	No Hollows.

No Picture

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