Natural Area
CONSULTING MANAGEMENT SERVICES

Beijaflore

Wellington National Park Tree Village Additional Trees Black Cockatoo Habitat Assessment

Supplementary Report

2025

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D1	Aug 2025	New Document	BD	JW	Draft for Client Comment
V1	Aug 2025	Finalised Document		BD	Released

Executive Summary

Natural Area Consulting Management Services (Natural Area) was commissioned by Beijaflore to undertake a black cockatoo habitat assessment on trees proposed to be used for the Wellington National Park Tree Village project. The survey has been undertaken as a supplementary survey to the flora, fauna and black cockatoo habitat surveys undertaken by Natural Area in spring 202, following the revision of the proposed construction footprint to the areas known as the Suspended Tree Walk and Camping and Facilities areas. The results of the surveys have been outlined below:

- Of the 36 trees with a diameter at breast height (DBH) of ≥500 mm, none had suitable hollows for black cockatoo breeding purposes.
- One false hollow was recorded (ID 650).
- No evidence of black cockatoo roosting (scats or feathers) was found during the survey.
- No dusk surveys were undertaken therefore, no determination of night roosting status of any trees can be made.
- Foraging evidence of Forest Red- tailed Black Cockatoos (FRTBC) (*Calyptorhynchus banksii naso*) on *Corymbia calophylla* (Marri) nuts was found under one tree during the survey.
- FRTBC were seen roosting in a *Corymbia calophylla* tree at the time of the survey and were likely sourcing food due to the timing of the survey (daytime survey).

Contents

1.0 Introduction

Natural Area Consulting Management Services (Natural Area) was commissioned by Beijaflore to conduct a black cockatoo habitat assessment on trees in an area of Wellington National Park prior to the construction of the Wellington National Park Tree Village project. The survey was conducted as a supplementary survey to the surveys undertaken by Natural Area in spring 2024 following a revision of the proposed construction footprint for the suspended tree walk and facilities areas.

1.1 Location

The site is located approximately 14.5 km south west of the town of Collie within the Wellington National Park (Figure 1). The survey area is located along Wellington Dam Road within the Shire of Collie and is approximately 1.18 ha. The site forms part of the Suspended Walk and Tree Camping and Facilities areas previously surveyed by Natural Area in 2024.

1.2 Scope

The scope of the survey was to assess trees not previously assessed during the spring 2024 survey undertaken by Natural Area for the Tree Village project following a revision of the construction footprint. The survey included the following:

- Assessing each tree proposed to be used for the tree village ≥500 mm diameter at breast height (DBH) for presence of suitable black cockatoo breeding hollows.
- Assessing the area for foraging evidence by black cockatoos.
- Recording any evidence of breeding or foraging by black cockatoos within the survey area.

1.3 Legislative Context

State and Federal environment-related laws impact how environmental values are governed in Western Australia. The following legislation and policies are relevant to this report.

***Biodiversity Conservation Act 2016* (WA)**

The *Biodiversity Conservation Act 2016* (WA) (BC Act) aims to protect and conserve biodiversity as well as to promote the ecologically sustainable use of biodiversity components in the State. The BC Act provides the statute relating to conservation and legal protection of flora, fauna, and ecological communities. The BC Act follows the principles of ecologically sustainable development, detailing that decision-making processes should effectively integrate long-term and short-term economic, environmental, social, and equity considerations.

***Environmental Protection Act 1986* (WA)**

The *Environmental Protection Act 1986* (WA) (EP Act) provides for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement, and management of the environment connected with the foregoing. The Environmental Protection Authority (EPA) is established under this act and provides a structured policy framework that is consistent with the EP A*ct*. The EPA produces the guidelines and procedures associated with conducting environmental assessments in line with the EP Act.

***Environment Protection and Biodiversity Conservation Act 1999* (Cth)**

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) serves to protect and manage nationally and internationally important flora, fauna, ecological communities, and heritage places. The primary objective of the EPBC Act is to promote the conservation of biodiversity and the sustainable use of natural resources while allowing for ecologically sustainable development. The EPBC Act allows for the creation of conservation agreements between the Australian government and individuals, communities, or organisations to support the conservation of biodiversity.

Figure 1:
Site Location

Wellington National Park

Legend

Site Boundary

Client:	Beijaflore
Date:	30/07/2025
Created by:	B. Daniels
Image Source:	Nearmap, 2025
Datum:	GDA 2020 / MGA Zone 50
Scale:	1: 660

0 10 20 m

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2.0 Methodology

2.1 Black Cockatoo Habitat Assessment

A black cockatoo habitat assessment was conducted in accordance with the *Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Black-cockatoo* (Department of Agriculture and Water (DAWE), 2022).

Natural Area environmental scientists undertook the survey on January 22, 2025, with key data recorded using QField software on a handheld tablet. Survey activities included:

- Recording the location and evidence of breeding, roosting and foraging activities (e.g. chew marks, feathers, scats, chewed nuts).
- Marking the GPS locations of each habitat tree with a diameter at breast height (DBH) ≥ 500 mm.
- Recording the height, DBH, health, and species of each habitat tree.
- Recording evidence of hollows, including size, type, and location within the tree.

2.2 Limitations

The limitations associated with the black cockatoo habitat assessment undertaken in Wellington National Park are outlined in Table 1 below.

Table 1: Black cockatoo habitat assessment limitations

Potential Limitation	Degree of Limitation	Comments
Availability of contextual information	None	Local contextual information on the site was readily available. The survey area had been previously surveyed by Natural Area in spring 2024, including a desktop assessment and an assessment of vegetation type, condition and black cockatoo foraging habitat.
Competency/ experience of team	None	Survey activities were undertaken by experienced environmental scientists who have extensive experience undertaking black cockatoo habitat assessments within the Jarrah Forest bioregion.
Survey effort and extent	Minor	A targeted black cockatoo habitat assessment was undertaken on all trees proposed to be used for the Wellington NP Tree Village project. All trees required were assessed for presence of black cockatoo breeding potential. The entire area was traversed to record any evidence of black cockatoo foraging. The survey was undertaken over one day and included a diurnal survey only. Therefore, no night roosting survey was undertaken.
Access restrictions	None	Natural Area was able to access the entire site with no restrictions.

Potential Limitation	Degree of Limitation	Comments
Survey timing	Minor	The survey was undertaken in January 2025. This is in season for breeding and foraging for Baudin's Cockatoo and Forest Red- tailed Black Cockatoo in the Jarrah Forest region. While the survey was undertaken out of season for Carnaby's Cockatoo, a positive identification was expected to be made through distinctive chew marks on Marri nuts and around hollow entrances if the survey area had been previously utilised by this species.
Disturbances	None	No recent disturbances which may have had an impact on survey results (e.g. fire, recent clearing or floods) were identified during the survey.

3.0 Black Cockatoo Habitat Assessment Results

3.1 Potential Breeding Habitat

A total of 36 potential habitat trees were assessed, consisting of 10 *Corymbia calophylla* (Marri) trees and 26 *Eucalyptus marginata* (Jarrah) trees. Of the 36 habitat trees that were recorded, none were observed to contain true hollows. One tree (ID 650) appeared to have a suitably sized side- oriented hollow however, upon investigation this was a false hollow (Figure 2). There was no evidence of chew marks surrounding the false hollow. The locations of all trees assessed have been provided in Figure 3. Hollow presence and suitability have been illustrated in Figure 4.

Figure 2: False hollow found in one tree during the survey (ID 650).

3.2 Roosting Habitat

No evidence of roosting in the form of scats or feathers was observed within the survey area at the time of the survey, however dusk surveys would be required to confirm whether any roost sites are present within proximity to the survey area.

3.3 Foraging Habitat

Foraging habitat for black cockatoos was identified within the entire site. Both *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri) are high priority species for black cockatoo foraging (DAWE, 2022; Department of Environment and Conservation (DEC), 2011)), particularly for Carnaby's Cockatoo (*Zanda latirostris*) and Forest Red- tailed Black Cockatoo (FRTBC) (*Calyptorhynchus banksii naso*). Evidence of foraging by FRTBC (chewed Marri nuts) was recorded within the survey area, and two FRTBC individuals were seen roosting in trees during the survey. Additionally, the entire survey area has been previously recorded as high quality foraging habitat for all three black cockatoo species (Carnaby's Cockatoo (*Zanda latirostris*), Baudin's Cockatoo (*Zanda baudinii*) and Forest Red- tailed Black Cockatoo (*Calyptorhynchus banksii naso*)) using the DAWE (2022) Foraging Quality Scoring Tool (Natural Area, 2024).

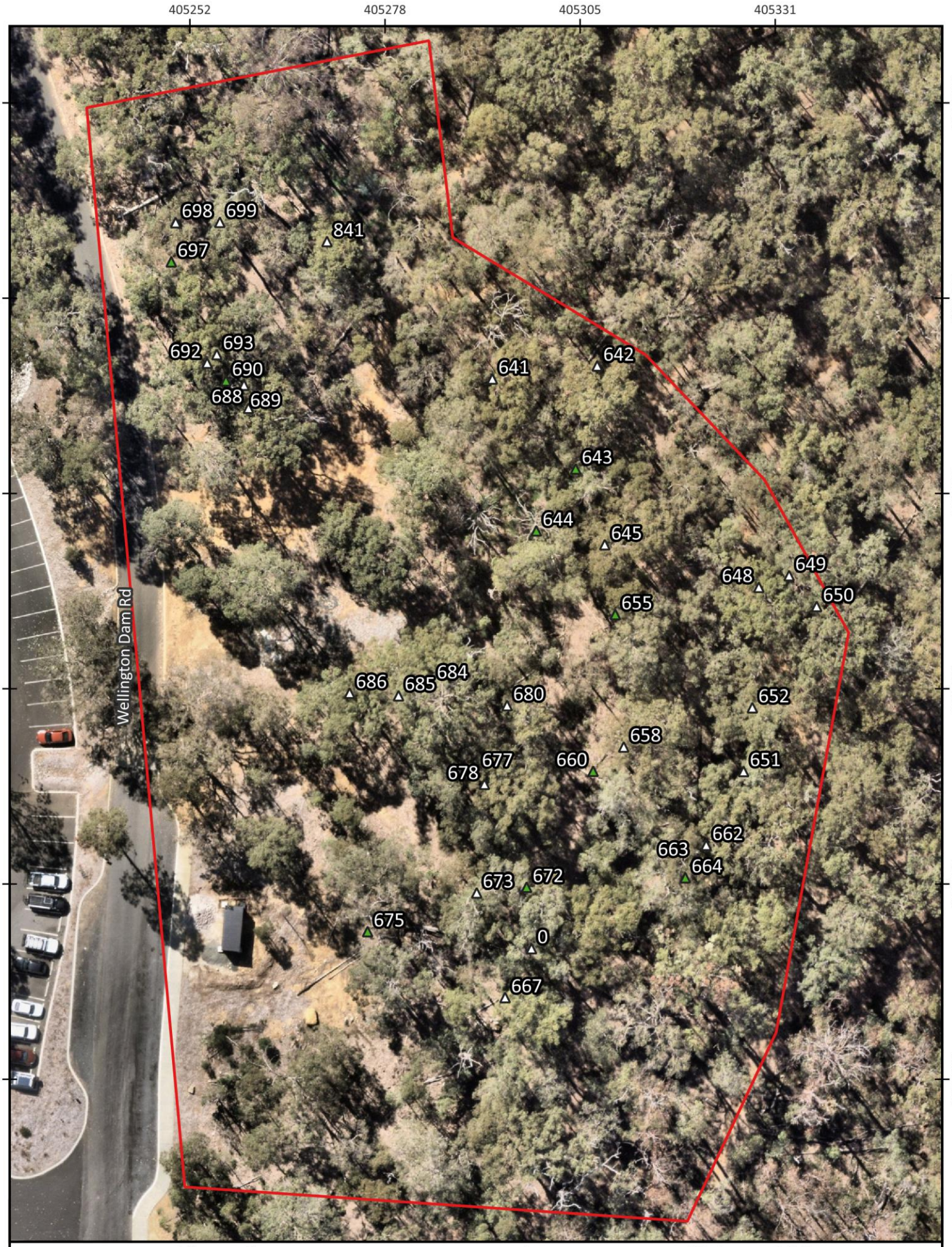

Figure 3:
Location of Trees Assessed

Wellington National Park

Legend

Tree Species
- Eucalyptus marginata
- Corymbia calophylla
- Site Boundary

Client:	Beijaflore
Date:	30/07/2025
Created by:	B. Daniels
Image Source:	Nearmap, 2025
Datum:	GDA 2020 / MGA Zone 50
Scale:	1: 660

0 10 20 m

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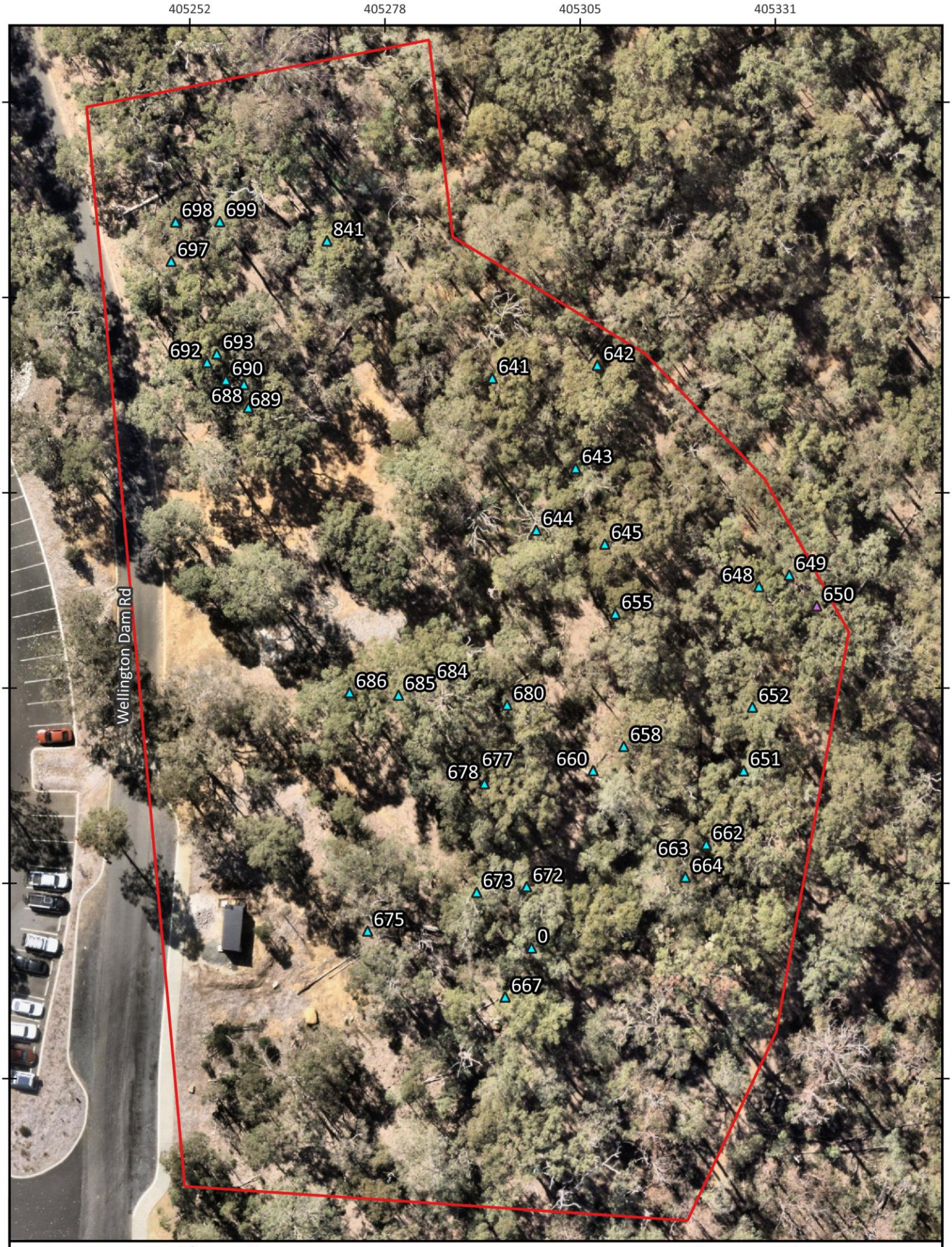

Figure 4:
Hollow Presence

Wellington National Park

Legend

Hollow Presence
- No
- No (false hollow)
- Site Boundary

Client:	Beijaflore
Date:	30/07/2025
Created by:	B. Daniels
Image Source:	Nearmap, 2025
Datum:	GDA 2020 / MGA Zone 50
Scale:	1: 660

0 10 20 m

N

4.0 Discussion

4.1 Potential Breeding Habitat

A total of 36 potential breeding trees (DBH ≥500 mm) were assessed during the survey. Of these, no trees with suitable breeding hollows were recorded at the time of the survey. One tree (ID 650) had a false hollow which was deemed unsuitable for black cockatoo habitation as there was very little space available within the hollow, despite the entrance being of adequate size (10 cm x 10 cm) (Groom, 2010). Additionally, the false hollow was side-oriented, which is not the preferred orientation by black cockatoos (Groom, 2010) and may not be preferred by black cockatoos in the future should the false hollow develop into a true hollow.

4.2 Roosting Habitat

No evidence of black cockatoo roosting was found on site (scats and feathers). The site has previously been recorded as a potential roosting site due to the canopy species present (*Eucalyptus marginata* and *Corymbia calophylla*) and proximity to water sources (Natural Area, 2024) however no dusk surveys have been undertaken, therefore no determination on the roosting status of any trees can be made.

4.3 Foraging Habitat

Foraging evidence by FRTBC on a *Corymbia calophylla* tree was recorded during the survey. Chewed nuts were observed at the base of a *Corymbia calophylla* tree within the survey area. Additionally, FRTBC were seen in the survey area roosting in a *Corymbia calophylla* tree. Due to the presence of suitable species (*Corymbia calophylla* and *Eucalyptus marginata*), the survey area has been previously recorded as high-quality foraging habitat (score of 8 using the DAWE (2022) Foraging Quality Scoring Tool) for all three black cockatoo species (Carnaby's Cockatoo, Baudin's Cockatoo and FRTBC) (Natural Area, 2024).

5.0 References

Arbor Logic. (2024). *Assessment of Trees; Proposed Recreation Facility; Potters Gorge: December 2024*. Unpublished report prepared for Beijaflore.

Department of Agriculture, Water, and the Environment (DAWE). (2022). *Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Black-cockatoo*. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/referral-guideline-3-wa-threatened-black-cockatoo-species-2022.pdf.

Department of Environment and Conservation. (2011). *Plants Used by Carnaby's Black Cockatoo*. Retrieved from https://www.dpaw.wa.gov.au/apps/plantsforcarnabys/index.html.

Groom, C. (2010). *Artificial hollows for Carnaby's Black Cockatoo: An investigation of the placement, use, monitoring and maintenance requirements of artificial hollows for Carnaby's Black Cockatoo.* Department of Environment and Conservation. https://library.dbca.wa.gov.au/static/FullTextFiles/922812.pdf

Natural Area Consulting Management Services (Natural Area). (2024). *Wellington National Park Tree Village Flora, Fauna and Black Cockatoo Habitat Surveys.* Unpublished report prepared for Beijaflore.

Appendix 1: Black Cockatoo Habitat Assessment Data

Black cockatoo habitat assessment data is outlined below. Green highlight denotes the tree is suitable for black cockatoo breeding habitat.

Tree ID	Species	DBH (mm)	No. of Hollows	Hollow Size (cm)	Tree Condition	Comments
641	*Eucalyptus marginata*	500	0	-	Healthy	
642	*Eucalyptus marginata*	600	0	-	Healthy	
643	*Corymbia calophylla*	510	0	-	Poor	
644	*Corymbia calophylla*	530	0	-	Healthy	
645	*Eucalyptus marginata*	690	0	-	Healthy	
648	*Eucalyptus marginata*	670	0	-	Healthy	
649	*Eucalyptus marginata*	830	0	-	Healthy	
650	*Eucalyptus marginata*	910	0	-	Healthy	False hollow: side orientation, 10 x 10 cm.
651	*Eucalyptus marginata*	500	0	-	Poor	
652	*Eucalyptus marginata*	710	0	-	Healthy	
655	*Corymbia calophylla*	500	0	-	Healthy	
658	*Eucalyptus marginata*	640	0	-	Good	
660	*Corymbia calophylla*	640	0	-	Poor	
662	*Eucalyptus marginata*	580	0	-	Poor	
663	*Eucalyptus marginata*	620	0	-	Poor	
664	*Corymbia calophylla*	630	0	-	Good	

Tree ID	Species	DBH (mm)	No. of Hollows	Hollow Size (cm)	Tree Condition	Comments
667	*Eucalyptus marginata*	640	0	-	Good	
672	*Corymbia calophylla*	590	0	-	Good	
673	*Eucalyptus marginata*	620	0	-	Poor	
675	*Corymbia calophylla*	650	0	-	Poor	
677	*Eucalyptus marginata*	640	0	-	Good	
678	*Eucalyptus marginata*	640	0	-	Good	
680	*Eucalyptus marginata*	570	0	-	Poor to good	
684	*Corymbia calophylla*	930	0	-	Good	
685	*Eucalyptus marginata*	680	0	-	Good	
686	*Eucalyptus marginata*	580	0	-	Poor to good	
688	*Eucalyptus marginata*	590	0	-	Healthy	
689	*Eucalyptus marginata*	540	0	-	Healthy	
690	*Corymbia calophylla*	660	0	-	Healthy	
692	*Eucalyptus marginata*	600	0	-	Healthy	
693	*Eucalyptus marginata*	520	0	-	Healthy	
697	*Corymbia calophylla*	690	0	-	Healthy	
698	*Eucalyptus marginata*	590	0	-	Good	
699	*Eucalyptus marginata*	520	0	-	Average	
841	*Eucalyptus marginata*	500	0	-	Good	

Tree ID	Species	DBH (mm)	No. of Hollows	Hollow Size (cm)	Tree Condition	Comments
Untagged (assigned 0)	*Eucalyptus marginata*	700	0	-	Good	Untagged but noted in Arbor Logic (2024) as potentially needing load reduction due to proximity of tree 666 (not assessed within the current report).