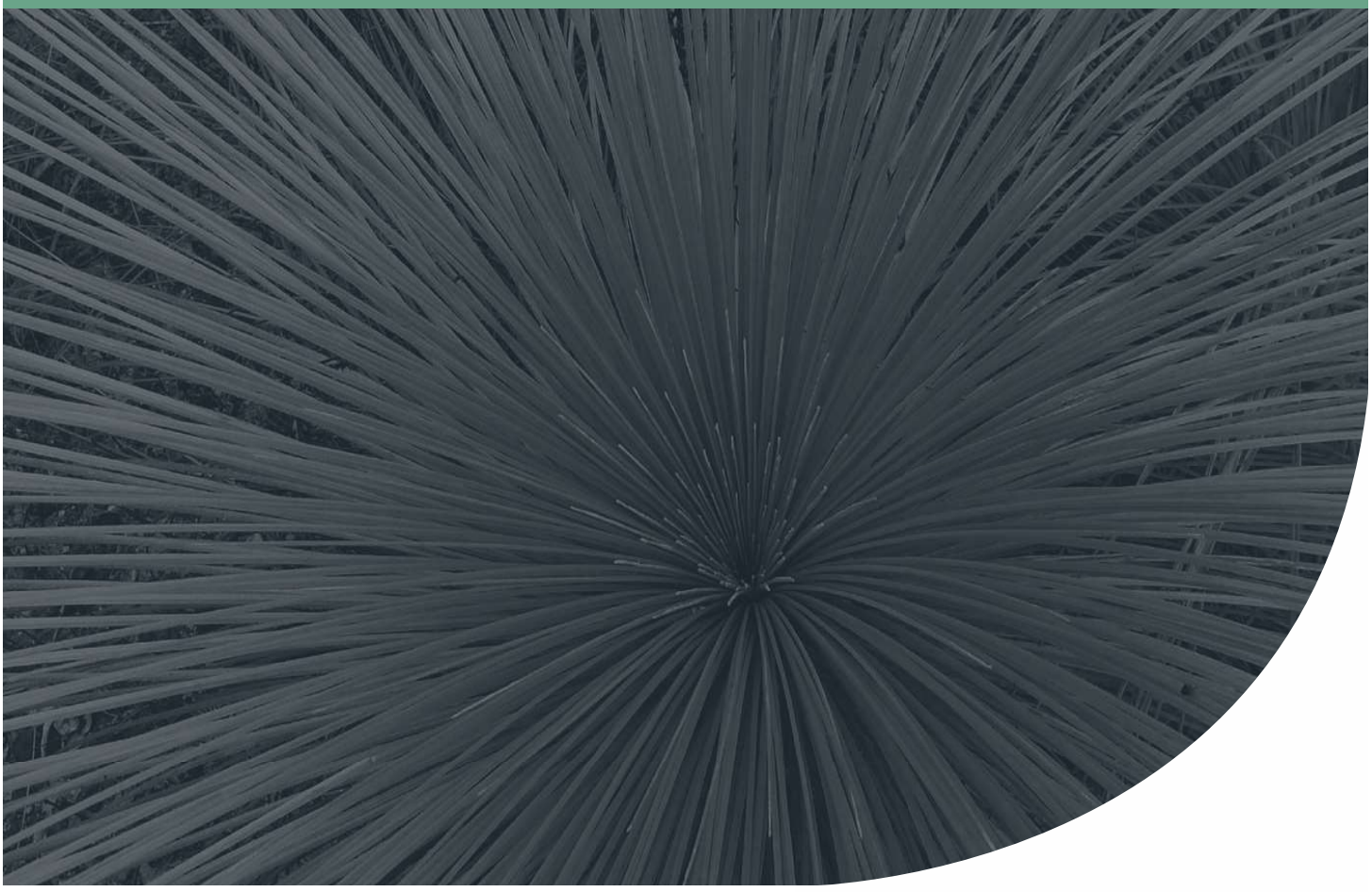
Targeted Black Cockatoo Assessment

Lot 4359 Keirnan Street, Mundijong

Project No: EP21-057(03)

Prepared for Shire of Serpentine Jarrahdale
December 2021



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Executive Summary

The Shire of Serpentine Jarrahdale engaged Emerge Associates (Emerge) to conduct a targeted black cockatoo assessment within Lot 4395 Keirnan Street in Mundijong (referred to herein as the 'site'). the purpose of the assessment was to determine the presence of habitat for threatened black cockatoo species.

As part of the assessment a desktop review of relevant background information was completed, and a field survey was undertaken on 20 September, 25 October, 11 November and 12 November 2021.

Outcomes of the targeted black cockatoo assessment include the following:

- The site occurs within the modelled distribution of all three black cockatoo species and within the breeding range of Carnaby's cockatoo and forest red-tailed black cockatoo.
- Forest red-tailed black cockatoo was recorded in the site during the field survey and foraging evidence of Carnaby's cockatoo and Baudin's cockatoo was also recorded.
- The site contains 384 habitat trees, with one of those categorised as having a hollow potentially suitable for black cockatoos. Therefore, the site provides breeding habitat for black cockatoos, but no evidence of recent breeding was observed.
- A total of 10.57 ha of foraging habitat for Carnaby's cockatoo was mapped within the site of which 10.47 ha (99 %) provides a high value resource, 0.07 ha (<1%) provides a moderate value resource and 0.03 ha (<1%) provides a low value resource.
- A total of 10.6 ha of foraging habitat for Baudin's black cockatoo was mapped in the site of which 10.33 ha (97%) provides a high value resource, 0.15 ha (~1%) provides a moderate value resource and 0.12 ha (~1%) provides a low value resource.
- A total of 10.55 ha of foraging habitat for forest red-tailed black cockatoo was mapped in the site of which 10.47 ha (99%) provides a high value resource, 0.05 ha (<1%) provides a moderate value resource and 0.03 ha (<1%) provides a low value resource.
- Additional areas of foraging habitat of similar or higher value occur adjacent to the site and in the wider local area.

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Abbreviation Tables

Table A1: Abbreviations – Organisations

Organisations	
EPA	Environmental Protection Authority
DBCA	Department of Biodiversity, Conservation and Attractions
DAWE	Department of Agriculture, Water and the Environment
WA Museum	Western Australian Museum

Table A2: Abbreviations – General terms

General terms	
EN	Endangered
VU	Vulnerable

Table A3: Abbreviations –Legislation

General terms	
EBPC Act	*Environment Protection and Biodiversity Conservation Act 1999*
BC Act	*Biodiversity Conservation Act 2016*

Table A4: Abbreviations – units of measurement

Units of measurement	
DBH	Diameter at breast height
cm	Centimetre
ha	Hectare
km	Kilometre
m	Metre

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1 Introduction

1.1 Project background

Emerge Associates (Emerge) were engaged by the Shire of Serpentine Jarrahdale to characterise the black cockatoo values within Lot 4395 Keirnan Street in Mundijong (referred to herein as the 'site'). The site is located approximately 40 kilometres (km) south-east of the Perth Central Business District within the Shire of Serpentine Jarrahdale.

The site is approximately 62.98 hectares (ha) in size and is bounded by South Western Highway to the east, Keirnan Street to the north, agricultural land to the west and Watkins Road Nature Reserve to the south. The location and extent of the site is shown in **Figure 1**.

1.2 Purpose and scope of work

The scope of work was specifically to undertake a 'targeted' black cockatoo assessment with reference to the *Environmental Protection Authority's* (EPA's) technical guidance (EPA 2020) and the *Environment Protection and Biodiversity Conservation Act* black cockatoo referral guidelines (DSEWPaC 2012).

As part of this scope of work, the following tasks were undertaken:

- Desktop assessment of relevant background information pertaining to the site and surrounds, including database and literature searches for black cockatoo habitat.
- A field survey to identify potential habitat for black cockatoos.
- An assessment of the quality of black cockatoo habitat within the site.
- Mapping of fauna and black cockatoo habitat.
- Documentation of the desktop assessment, survey methodology and results into a report.

2 Environmental Context

Vegetation types and resulting fauna habitats strongly influence the diversity and composition of fauna taxa present within an area. Native vegetation is described and mapped at different scales in order to illustrate patterns in its distribution. At a continental scale the Interim Biogeographic Regionalisation of Australia (IBRA) divides the Swan Coastal Plain into two floristic subregions (Environment Australia 2000). The site is contained within the 'SWA02' or Perth subregion, which is characterised as mainly containing Banksia low woodland on leached sands with Melaleuca swamps where ill-drained; and woodland of *Eucalyptus gomphocephala* (tuart), *E. marginata* (jarrah) and *Corymbia calophylla* (marri) on less leached soils (Beard 1990).

Variations in native vegetation within the site can be further classified based on regional vegetation associations. Heddle *et al.* (1980) mapping shows the site as comprising the 'Forrestfield complex', which is described as ranging from open forest of *C. calophylla, E. wandoo* and *E. marginata* to open forest of *E. marginata, C. calophylla, Allocasuarina fraseriana* and *Banksia*. Fringing woodlands of *E. rudis* in the gullies dissect this landform.

2.1 Threatened fauna species

Certain fauna taxa that are considered to be rare or under threat warrant special protection under Commonwealth and/or State legislation. At a Commonwealth level, fauna taxa may be listed as 'threatened' under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Any action likely to have a significant impact on a taxon listed under the EPBC Act requires Ministerial approval.

In Western Australia fauna species may also be classed as 'threatened' under the *Biodiversity Conservation Act 2016* (BC Act). It is an offence to 'take' or 'disturb' threatened fauna without Ministerial approval.

Threatened fauna species listed under the EPBC Act and/or BC Act are assigned a conservation status according to attributes such as population size and geographic distribution. Further information on threatened species and their categories is provided in **Appendix A**.

2.2 Black cockatoos

Three threatened species of black cockatoo occur in the south-west of WA (referred to herein collectively as 'black cockatoos'):

- *Calyptorhynchus latirostris* (Carnaby's cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Calyptorhynchus baudinii* (Baudin's cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) which is listed as 'vulnerable' under the EPBC Act and the BC Act.

Black cockatoo habitat is conventionally separated into breeding, roosting and foraging categories:

- Black cockatoos nest in hollows that form in trees which are usually more than ~200 years old. 'Breeding habitat' comprises 'habitat trees' which are trees of a species known to support black cockatoo breeding and which either have a suitably large enough nest hollow or have a large enough diameter at breast height (DBH) to indicate that a suitable nest hollow could develop in time (DSEWPaC 2012). A minimum DBH for a habitat tree is defined as ≥50 centimetres (cm) for most tree species used by black cockatoos and ≥30 cm for *Eucalyptus wandoo* (wandoo) and *Eucalyptus salmonophloia* (salmon gum) (DSEWPaC 2012). Breeding habitat is also generally expected to be located within 6 km of food and water resources (DPaW 2013).
- Roosting refers to black cockatoos congregating in a tree or group of trees to rest overnight. 'Roosting habitat' consists of groups or individual tall trees used for roosting. Roosts generally comprise the tallest trees in an area and can include native and non-native trees (DSEWPaC 2012). They are often located within 6 km of water and food resources, with additional foraging ranges within 12 km (Shah 2006; DSEWPaC 2012; Le Roux 2017). The use of a particular roost may vary depending on availability of food and water resources.
- Black cockatoos feed on the fruit and seeds of a range of native and non-native plant species. 'Foraging habitat' is vegetation that contains plant species known to be foraged on by black cockatoos.

Each black cockatoo species has a defined breeding season, with Baudin's cockatoo breeding from August/September to February/March and Carnaby's cockatoo breeding from July/August to January/February (DSEWPaC 2012). Forest red-tailed black cockatoo breeds in October/November but may breed in March/April if there is good autumn rainfall (DSEWPaC 2012). There is also evidence that forest red-tail black cockatoos breed throughout the year, with peaks in April – June and August – October (Johnstone *et al.* 2013).

2.3 Previous surveys

No previous fauna surveys are known to have been undertaken over the site.

3 Methods

3.1 Desktop assessment

A search was conducted for records of black cockatoos and potential black cockatoo habitat mapping occurring within 10 km of the site using a range of publicly available regional studies and datasets. Detailed information on each dataset considered as part of the desktop review is provided in **Appendix A**.

3.2 Field survey

One zoologist and three ecologists from Emerge visited the site on the 20 September, 25 October, 11 November and 12 November 2021 during the day to conduct the targeted black cockatoo field survey. The survey was conducted from approximately 9:00 am until 5:00 pm on all days except one, during which the survey was conducted until 7:00 pm.

Transects were traversed across the site and the presence of potential black cockatoo breeding, night roosting and foraging habitat was recorded. If observed, the presence of black cockatoos within or near the site was noted. Active searches for evidence of breeding, roosting and foraging activity such as chew marks, branch clippings, droppings, moulted feathers and chewed marri or banksia fruit were conducted.

3.2.1 Breeding habitat

A 'habitat tree' was defined as a native eucalypt that is typically known to support black cockatoo breeding such as marri, jarrah, blackbutt, tuart, wandoo, salmon gum or to a lesser extent flooded gum, with a DBH ≥50 cm or DBH ≥30 cm for wandoo or salmon gum. As any tree that has a suitable hollow may provide breeding habitat for black cockatoos, other tree species were also considered to be habitat trees if they contained a suitable hollow.

To be suitable for use as breeding habitat by black cockatoos it was considered a hollow must:

- have an entrance opening of at least 10 cm but preferably 20-30 cm (Saunders *et al.* 1982; Groom 2010; Johnstone *et al.* 2013)
- be located at least 3 m from the ground (Saunders 1979b; Johnstone and Storr 1998; Groom 2010; Saunders 2014)
- be located in a trunk or branch that is generally large enough to contain a hollow that has a floor diameter of at least 40 cm and depth of 50-200 cm such that it could house an adult black cockatoo and nestlings (Saunders 1979a; Johnstone and Storr 1998; Saunders 2014; DPaW 2015)
- have vertical or near vertical orientation (Johnstone and Kirkby 2008; Johnstone *et al.* 2013).

Occasionally, native eucalypts were encountered that met DBH requirements but did not contain a trunk/branch of a sufficient size to support a hollow suitable for use by black cockatoos. For example, the tree may have been less than 3 m tall or had a trunk that forked between 1.3 m and 3 m in height

and after the fork no limbs had a diameter of ≥50 cm or ≥30 cm for wandoo or salmon gum. These trees were not recorded as habitat trees as the likelihood they would form a suitable hollow was low.

Habitat trees were individually identified and the attributes outlined in **Table 1** were recorded for each tree.

Table 1: Attributes recorded for each habitat tree in the site

Attribute	Description
Tag number	Unique identifier on a metal tag was nailed to the tree
Image	Trees were individually photographed
GPS location	The location was recorded using a handheld GPS unit
Tree species	Species and common name were identified
Diameter at breast height (DBH) (cm)	DBH was measured at breast height (1.3 m) using a diameter tape
Hollows potentially suitable for breeding by a black cockatoo	Number of hollows potentially suitable for breeding by a black cockatoo recorded (assessed from ground level only)

Hollows that appeared potentially suitable for use by a black cockatoo from the ground were further inspected a pole-mounted camera. During the hollow inspection the internal dimensions of the hollow were confirmed if possible and an assessment was made for signs of use such as chew marks around the hollow entrance, nesting material, eggs, feathers or the presence of birds within the hollow.

Each habitat tree was assigned to a category listed in **Table 2**.

Table 2: Habitat tree categories

Category	Specifications
Nest	The tree contains a hollow used by black cockatoos for breeding as confirmed by records of black cockatoos, their eggs or fledglings or other evidence of recent nesting activity by black cockatoos.
Suitable hollow(s) with signs of use	The tree contains one or more hollows that are suitable for use by black cockatoos as breeding habitat as confirmed by internal hollow inspection^ and potential evidence of use by black cockatoos such as feathers, chew marks or nest material has been recorded within a hollow.
Suitable hollow(s)	The tree contains one or more hollows that are suitable for use by black cockatoos as breeding habitat as confirmed by internal hollow inspection^.
Potentially suitable hollow(s)	The tree contains or is suspected to contain one or more hollows that have the potential to be suitable for use by black cockatoos when either viewed from the ground or following an internal hollow inspection that was inconclusive^.
No suitable hollow(s)	The tree does not contain hollow(s) that have the potential to be suitable for use by black cockatoos when viewed from the ground or contains hollows that were determined to be unsuitable for use by black cockatoos by internal inspection^.

^Hollow determined to be suitable for use as breeding habitat by black cockatoos as listed above in **Section 3.2.1**

3.2.2 Roosting habitat

The presence of active or historical roosts was determined through secondary evidence of roosting activity, such as branch clippings, droppings or moulted feathers.

Groups of tall native and non-native trees if present were assumed to provide roosting habitat.

3.2.3 Foraging habitat

Foraging habitat was identified by assessing vegetation in the site for plant species known to provide food for black cockatoos (Davies 1966; Saunders 1980; Johnstone and Storr 1998; Johnstone and Kirkby 1999; Groom 2011; Johnstone *et al.* 2011; DSEWPaC 2012).

The value of foraging habitat was then further classified as 'high', 'moderate' or 'low' value based on the proportion of 'primary' or 'secondary' food plants it contained as outlined in **Table 3**.

Table 3: Foraging value categories

Value	Definition
High	Greater than 50% primary food plants
Moderate	Greater than 10% to 50% primary food plants
Low	10% or less primary foodplants
Nil	No primary or secondary food plants

Primary food plants were defined as those with historical and contemporary records of regular consumption by a black cockatoo species. Secondary food plants were defined as plants that black cockatoo species have been recorded consuming occasionally or that, based on their limited extent or agricultural origin, should not be considered a sustaining resource. A list of plant species classified as primary or secondary food plants is provided as **Appendix B**.

Each patch of foraging habitat was assigned a foraging value for each species of black cockatoo likely to occur within the site. As it is not always possible to separate out food plants from non-food plants, mapped foraging habitat may also include vegetation comprising non-food plants. The proportion of non-food plants in mapped foraging habitat was minimised as far as practicable.

Evidence of black cockatoo foraging, such as chewed fruits, was searched for within the site and allocated to a species where possible.

3.3 Data analysis

3.3.1 Habitat trees

Habitat trees were classified according to the scheme outlined in **Table 2** and mapped on aerial imagery. A complete summary of the recorded attributes of habitat trees was compiled in a tabular format.

3.3.2 Foraging habitat value

Foraging habitat was described according to the dominant flora species or vegetation type present and mapped using boundaries interpreted from aerial photography and notes taken in the field. The foraging value of each patch of foraging habitat was attributed separately for each species of black cockatoo likely to occur in the site. Foraging value was assigned as outlined in **Table 3**. The

proportions of high, moderate and low value foraging habitat mapped within the site were calculated for each species of black cockatoo.

3.4 Nomenclature and sources of information

Taxonomy and nomenclature of scientific and common names for fauna species follow *the Western Australian Museum* (WAM) *Checklist of the Terrestrial Vertebrate Fauna of Western Australia* (WAM 2020). Where common names were not provided by the *Western Australian Museum*, these have been derived from other sources as noted.

3.5 Survey limitations

It is important to note the specific constraints imposed on surveys and the degree to which these may have limited survey outcomes. An evaluation of the survey methodology against standard constraints outlined in the EPA's document *Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment* (EPA 2020) is provided in **Table 4**.

Table 4: Evaluation of survey methodology against standard constraints outlined in the EPA's Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA 2020)

Constraint	Degree of limitation	Details
Level of survey	No limitation	A targeted black cockatoo survey was undertaken. The level of survey and survey effort are considered adequate to assess the black cockatoo habitat values within the site.
Scope	No limitation	The survey focused on black cockatoo and black cockatoo habitat.
Sources of information e.g. previously available information (whether historic or recent) as distinct from new data.	No limitation	Adequate information was available from database searches, previous surveys and literature references.
The proportion of the task achieved and further work which might be needed.	No limitation	The task was achieved in its entirety.
Experience level of personnel	No limitation	This fauna and black cockatoo assessment was undertaken by a qualified zoologist with over three years of zoological experience in Western Australia and three environmental consultants with 11, three and three years of environmental experience. Technical review was undertaken by a senior environmental consultant with over 11 years' experience in environmental science in Western Australia.
Suitability of timing, weather and season	No limitation	The survey was undertaken during breeding season.
Completeness	No limitation	The desktop assessment, field survey and targeted black cockatoo components of the survey were completed comprehensively.
Spatial coverage and access	No limitation	Site coverage was comprehensive (track logged).
	No limitation	All parts of the site could be accessed as required.

Table 5: Evaluation of survey methodology against standard constraints outlined in the EPA's Technical Guidance – Terrestrial vertebrate fauna surveys for environmental impact assessment (EPA 2020) (continued)

Constraint	Degree of limitation	Details
Survey intensity	No limitation	The intensity of the survey was adequate given the size of the site.
Influence of disturbance	No limitation	Large portions of the site are highly modified due to historical disturbance. However, no recent disturbance was noted that may have affected outcomes of the survey.
Adequacy of resources	No limitation	All resources required to perform the survey were available. The guidance currently available from Commonwealth and State agencies on the assessment of black cockatoo habitat is limited and relies heavily on technical experts preparing their own methodology. This assessment applies an internally developed methodology that is considered to provide a systematic and balanced characterisation of black cockatoo habitat.

4 Results

4.1 Desktop assessment

The black cockatoo desktop assessment indicated that the site is located within the distribution range of all three species of black cockatoo (DoEE 2016c, b, a).

The site is located within Carnaby's cockatoos modelled breeding range (DoEE 2016b) but outside of the known and predicted breeding range of Baudin's Cockatoo (DoEE 2016a). No confirmed white tail black cockatoo breeding records are known to occur within the vicinity of the site.

No breeding range information for forest red-tailed black cockatoo is provided in DoEE (2016c). However, on the Swan Coastal Plain the species is known to breed near Baldivis, Mundijong, Stake Hill, Karnup, Murdoch and possibly Perry Lakes (Johnstone *et al.* 2017). No confirmed forest red-tailed black cockatoo breeding records are known to occur within the vicinity of the site.

Roosts associated with all three species of black cockatoo occur in close proximity to the site.

The results of the black cockatoo desktop assessment are summarised in **Table 5** and shown in **Figure 2**.

Table 5: Summary of black cockatoo background review

Category	Site context	Source
Species distribution	• Site is located within the modelled distribution range of Baudin's cockatoo but not within its breeding range. • Site is located within the modelled distribution range of Carnaby's cockatoo. • Site is located within the modelled distribution range of forest red-tailed black cockatoo.	(DoEE 2016a, b, c)
Carnaby's cockatoo breeding areas (12 km radius surrounding breeding sites)	• No confirmed breeding areas intersect the site. • One possible breeding area intersects the site.	(Glossop *et al.* 2011)
Important bird areas for Carnaby's cockatoo	• Site is not located within important bird area.	(DPaW 2013)
Roost site	• None within the site • 14 roost sites within 12 km of the site: ◦ 6 associated with forest red-tailed black cockatoos only ◦ 4 associated with white-tailed^ black cockatoos only ◦ 4 associated with white^ and red-tailed black cockatoos	(Peck *et al.* 2019)

Table 5: Summary of black cockatoo background review (continued)

Category		Site context	Source
Foraging habitat	White-tailed black cockatoo^	• Potential native foraging habitat mapped within the north-western portion of the site. • Additional areas of potential native foraging habitat mapped within the wider local area of the site, including a large area associated with Watkins Road Nature Reserve to the south.	(Emerge Associates 2020a)
		• Pine plantation within 5 km from south-east corner of site boundary.	(Forest Products Commission 2020)
	Forest red-tailed black cockatoo^	• Potential native foraging habitat mapped within the north-western portion of the site. • Additional areas of potential native foraging habitat mapped within the wider local area of the site, including a large area associated with Watkins Road Nature Reserve to the south.	(Emerge Associates 2020b)

^Carnaby's and/or Baudin's cockatoo

4.2 Field Survey

4.2.1 Breeding

A total of 384 black cockatoo habitat trees were recorded within the site as shown in **Figure 3**.

The habitat trees comprised 355 marri, 25 jarrah and four stags (dead trees).

Internal hollow inspections were undertaken on 16 trees that contained potentially suitable hollows for breeding by black cockatoos. Of the 16 trees inspected, no trees contained confirmed suitable hollows however one hollow was categorised as potentially suitable (tree ID 854).

Tree ID 854 had one potentially suitable hollow that was deemed as such because the base of the hollow was not visible during the internal inspection and so the size of the hollow cavity could not be confirmed.

The remaining trees did not contain hollows suitable for black cockatoos.

A summary of the habitat trees recorded within the site is provided in **Table 6** and an inventory in **Appendix C**.

Table 6: Habitat trees recorded within the site

Category	No. trees	No. hollows
Confirmed nest	0	0
Potential nest	0	0
Suitable hollow(s)	0	0
Potentially suitable hollow(s)	1	1
No suitable hollow(s)	383	0

4.2.2 Roosting

Appoximately 50 forest red-tailed black cockatoos were recorded roosting in a group of trees towards the centre of the site, as shown in **Figure 3**. Indirect evidence of roosting in the form of scats, tree clippings and feathers was found within trees in the north-eastern portion of the site.

The remaining native and non-native trees within the site have the potential to provide roosting habitat for black cockatoos.

4.2.3 Foraging

A total of 10.57 ha of foraging habitat for Carnaby's cockatoo, 10.60 ha for Baudin's cockatoo and 10.55 ha for forest red-tailed black cockatoo were recorded in the site as shown in **Figure 4**, **Figure 5** and **Figure 6**.

The primary black cockatoo foraging habitat within the site consists mostly of marri trees. Marri is classified as primary foraging habitat for all three species of black cockatoo. Jarrah also occurs in the site and is classified as primary foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo.

A summary of the dominant primary foraging plant species that occur in the site is provided in **Table 7**. The extent of foraging habitat by value category is detailed in

Table 8.

Table 7: Dominant primary black cockatoo foraging plants recorded within the site

Common name	Black cockatoo species and foraging habitat category		
	Carnaby's	Baudin's	Forest red-tailed
Marri	Primary	Primary	Primary
Jarrah	Primary	Secondary	Primary

Table 8: Proportion of primary, secondary and non-foraging plants within patches of foraging habitat

	Black cockatoo species and area of foraging habitat (ha)		
	Carnaby's	Baudin's	Forest red-tailed
High	10.47	10.33	10.47
Moderate	0.07	0.15	0.05
Low	0.03	0.12	0.03
Total	**10.57**	**10.60**	**10.55**

5 Discussion

Forest red-tailed black cockatoos were recorded roosting within the site and secondary evidence of foraging attributed to this species was also recorded within the site. Records for this species were not unexpected as the site is located within its modelled distribution range and suitable habitat occurs within the site and the local area.

Foraging evidence that was attributed to Carnaby's cockatoo and Baudin's cockatoo were recorded within the site but no individuals of either species were observed.

5.1 Breeding

Of the 384 habitat trees, 16 were initially considered to potentially support suitable hollows. The internal hollow inspection determined that 15 trees either did not have true hollows or have hollows that are unsuitable for use by black cockatoos for nesting. The reasons a hollow may have been considered unsuitable include that it had a shallow depth, an uneven base or, most commonly, an internal cavity size that would be too small for a black cockatoo to nest within.

The remaining tree could not be confirmed as having a suitable hollow given the hollow appeared to satisfy only part of the minimum requirements for suitability. The hollow entrance and trunk are both large enough for use by black cockatoos but the entire hollow cavity could not be fully accessed, which meant that it was categorised as potentially suitable. No evidence of breeding by black cockatoos was observed within the hollow.

All the habitat trees within the site have the potential to form hollows in the future but it will likely take many years for hollows to form that are suitable for use by black cockatoos.

5.2 Roosting

A record of a small (<150 individuals) Carnaby's cockatoo roost exists approximately 180 m north of the site. According to Peck *et al.* (2019) and Glossop *et al.* (2011) all large trees (>8 m height) within 1000 m of a large roost and within 500 m of a small roost are considered to be 'roost trees' or 'potential roost trees'. As such, the large trees in the site may be considered roost trees or potential roost trees.

While no official dusk survey was undertaken, roosting of forest red-tailed black cockatoos was observed opportunistically one evening in the site, and secondary evidence of roosting was also observed. Therefore, there is reason to suspect that roosting by black cockatoos occurs in multiple trees within the site.

5.3 Foraging

The site contains high, moderate and low value foraging habitat for all three species of black cockatoo and evidence of foraging for all species was found within the site.

The highest value foraging resource in the site for all three species of black cockatoo is associated with a stand of marri trees in the north-eastern portion of the site and a smaller stand towards the centre. Several jarrah trees are also present in the remainder of the site providing another primary foraging resource for Carnaby's cockatoo and forest red tailed black cockatoo.

The moderate and low value foraging habitat for all three species of black cockatoo is predominantly associated with scattered trees including non-native *Eucalyptus camaldulensis* (river gum), *Acacia baileyana* (Cootamundra wattle), *Melia azedarach* (Cape lilac) with scattered native grass trees in the understory. While there are records of black cockatoos consuming the fruit of these plants (Groom 2011; DoEE 2017), they are secondary options and not as important food sources compared to marri or jarrah.

6 Conclusions

The site occurs within the modelled distribution of all three black cockatoo species. Forest red-tailed black cockatoo was recorded in the site during the field survey and foraging evidence of Carnaby's cockatoo and Baudin's cockatoo was also recorded.

The site contains 384 habitat trees, with one of those categorised as having a hollow potentially suitable for black cockatoos. Therefore, the site provides breeding habitat for black cockatoos but no evidence of recent breeding was observed.

A white-tailed black cockatoo (most likely Carnaby's cockatoo) roost occurs adjacent to the north of the site (Peck *et al.* 2019). Roosting by forest red-tailed black cockatoos was recorded within the site during the field survey and secondary evidence of roosting was also observed.

A total of 10.57 ha of foraging habitat for Carnaby's cockatoo was mapped within the site of which 10.47 ha (99%) provides a high value resource, 0.07 ha (<1%) provides a moderate value resource and 0.03 ha (<1%) provides a low value resource.

A total of 10.6 ha of foraging habitat for Baudin's cockatoo was mapped in the site of which 10.33 ha (97%) provides a high value resource, 0.15 ha (~1%) provides a moderate value resource and 0.12 ha (~1%) provides a low value resource.

A total of 10.55 ha of foraging habitat for forest red-tailed black cockatoo was mapped in the site of which 10.47 ha (99%) provides a high value resource, 0.05 ha (<1%) provides a moderate value resource and 0.03 ha (<1%) provides a low value resource.

Additional areas of foraging habitat of similar or higher value occur adjacent to the site and in the wider local area.

7 References

7.1 General references

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Department of Environment and Energy (DoEE) 2016c, Modelled distribution for Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksii naso), Canberra.

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Figures

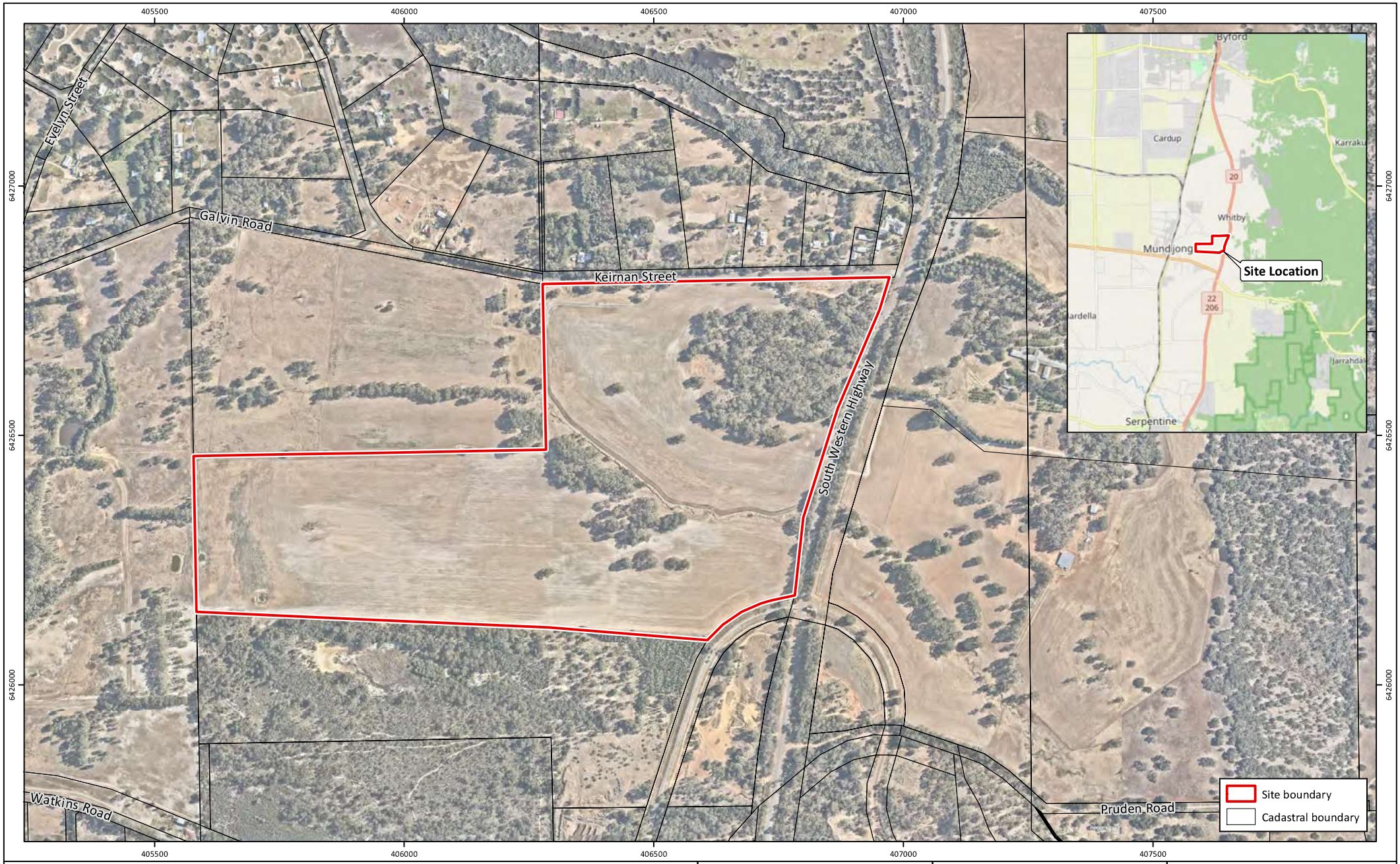

Figure 1: Site Location

Project:	Targeted Black Cockatoo Assessment Lot 4395 Keirnan Street, Mundijong
Client:	Shire of Serpentine Jarrahdale

Plan Number:
EP21-057(03)--F06

Drawn:	GAR
Date:	02/12/2021
Checked:	NAW
Approved:	RAW
Date:	08/12/2021

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Scale: 1:10,000@A4

GDA 1994 MGA Zone 50

emerge ASSOCIATES

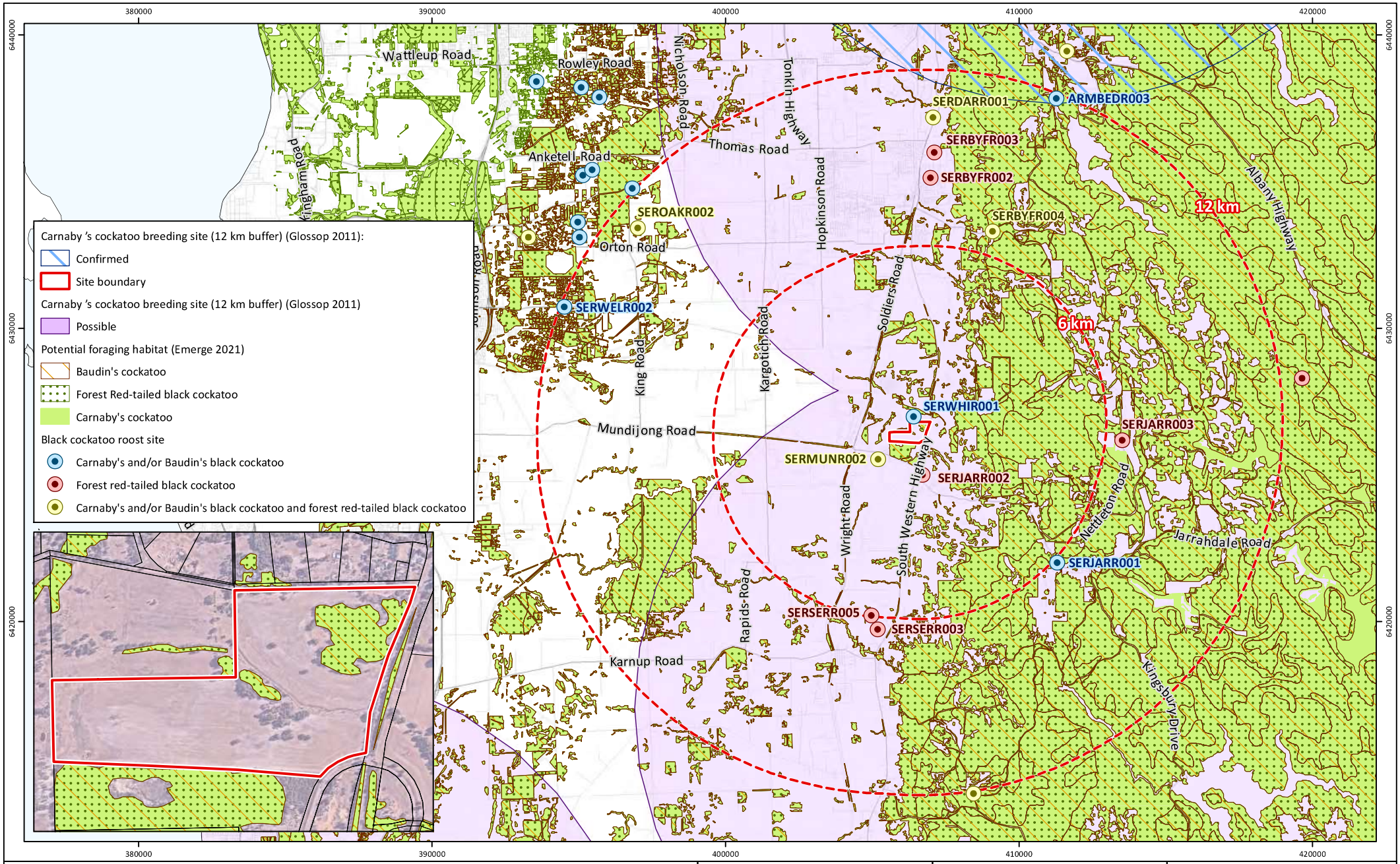

Figure 2: Black Cockatoo Habitat Context

Project:	Targeted Black Cockatoo Assessment Lot 4395 Keirnan Street, Mundijong
Client:	Shire of Serpentine Jarrahdale

Plan Number:
EP21-057(03)--F07

Drawn:	GAR
Date:	02/12/2021
Checked:	NAW
Approved:	RAW
Date:	08/12/2021

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Kilometers

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GDA 1994 MGA Zone 50

emerge ASSOCIATES

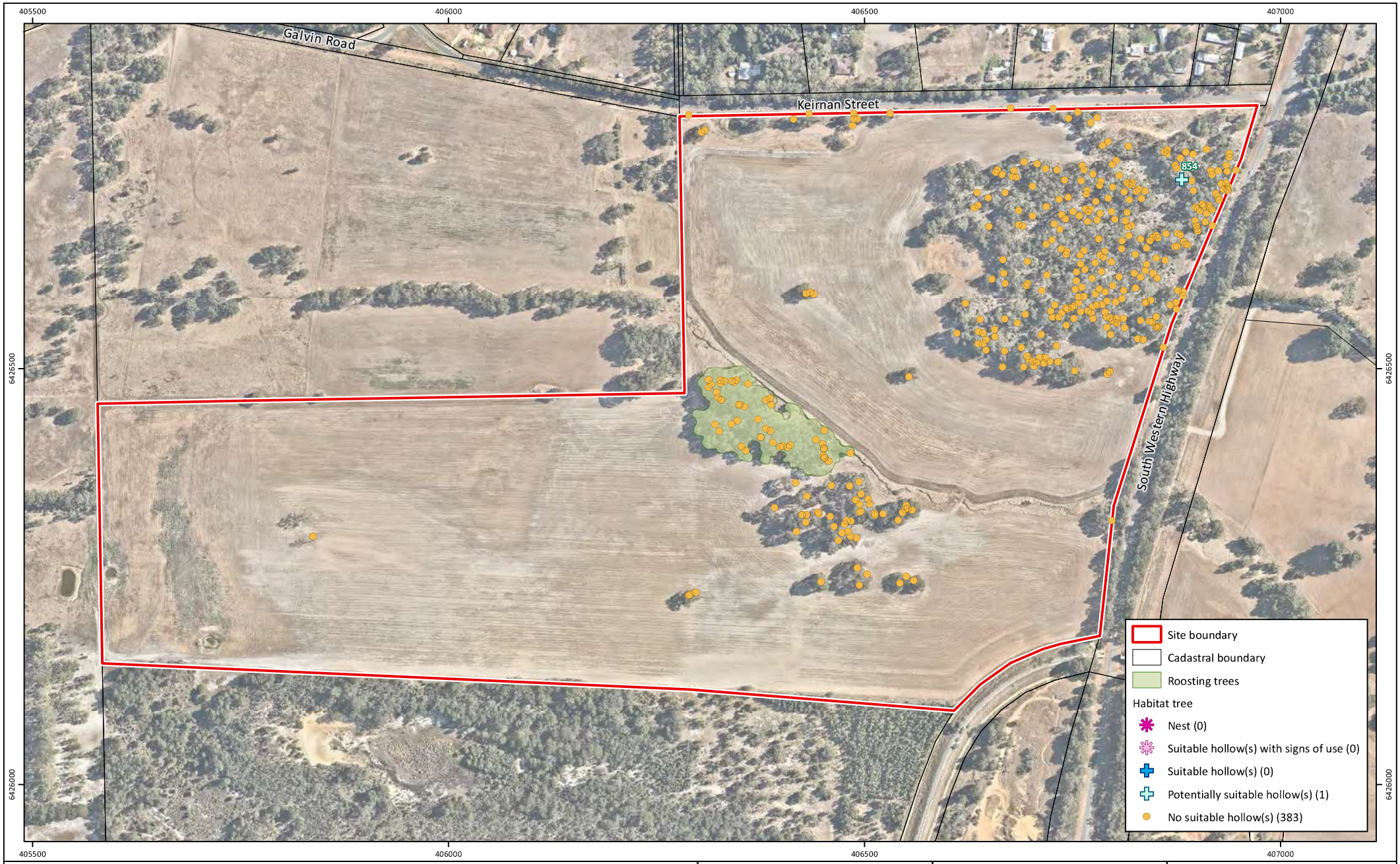

Figure 3: Black Cockatoo Habitat Trees

Project: Targeted Black Cockatoo Assessment
Lot 4395 Keirnan Street, Mundijong
Client: Shire of Serpentine Jarrahdale

Plan Number:
EP21-057(03)--F08
Drawn: GAR
Date: 02/12/2021
Checked: NAW
Approved: RAW
Date: 08/12/2021

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Scale: 1:6,000@A4
GDA 1994 MGA Zone 50

emerge ASSOCIATES

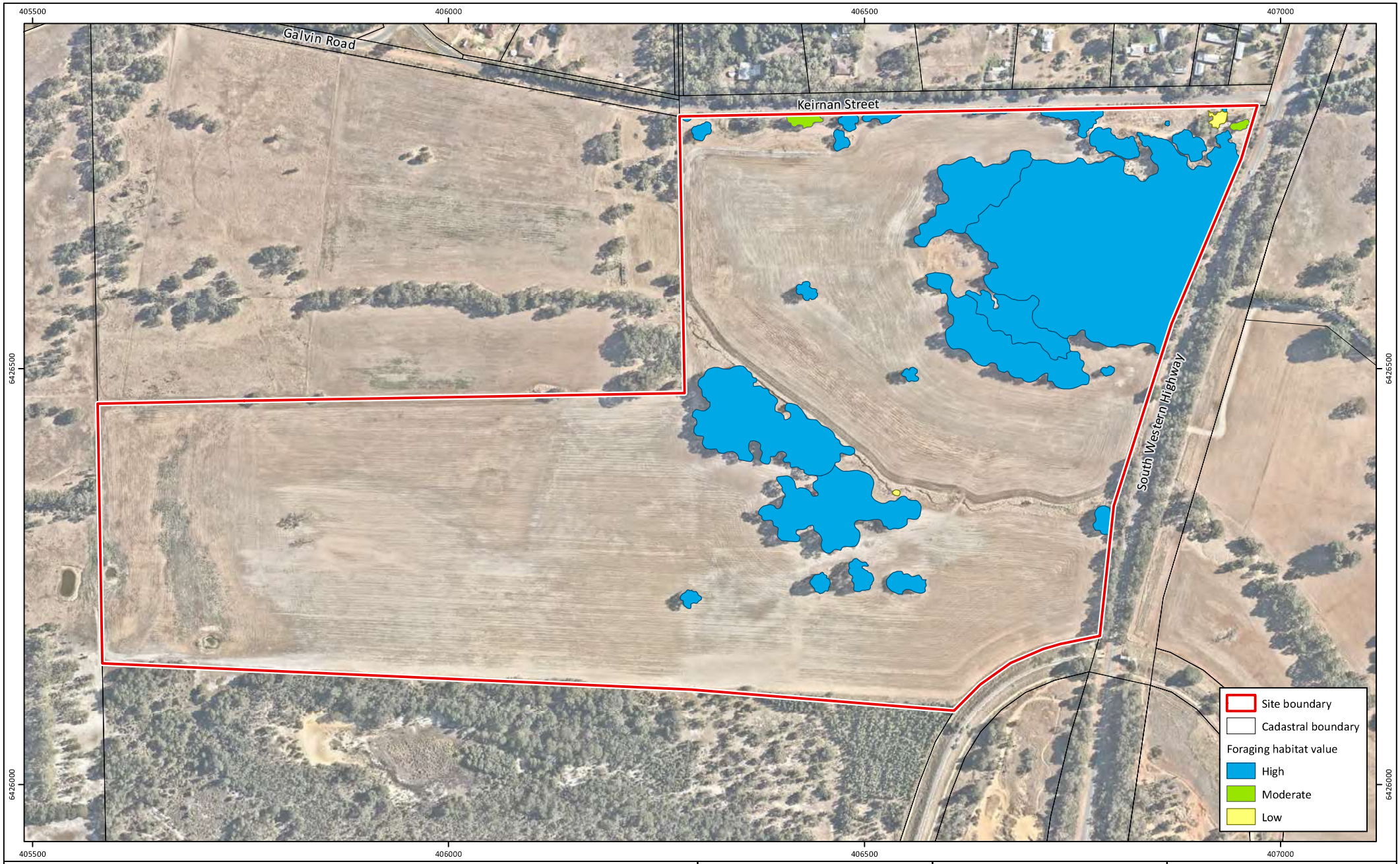

Figure 4: Carnaby's Cockatoo Foraging Habitat

Project:	Targeted Black Cockatoo Assessment Lot 4395 Keirnan Street, Mundijong
Client:	Shire of Serpentine Jarrahdale

Plan Number:
EP21-057(03)--F09

Drawn:	GAR
Date:	02/12/2021
Checked:	NAW
Approved:	RAW
Date:	08/12/2021

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emerge ASSOCIATES

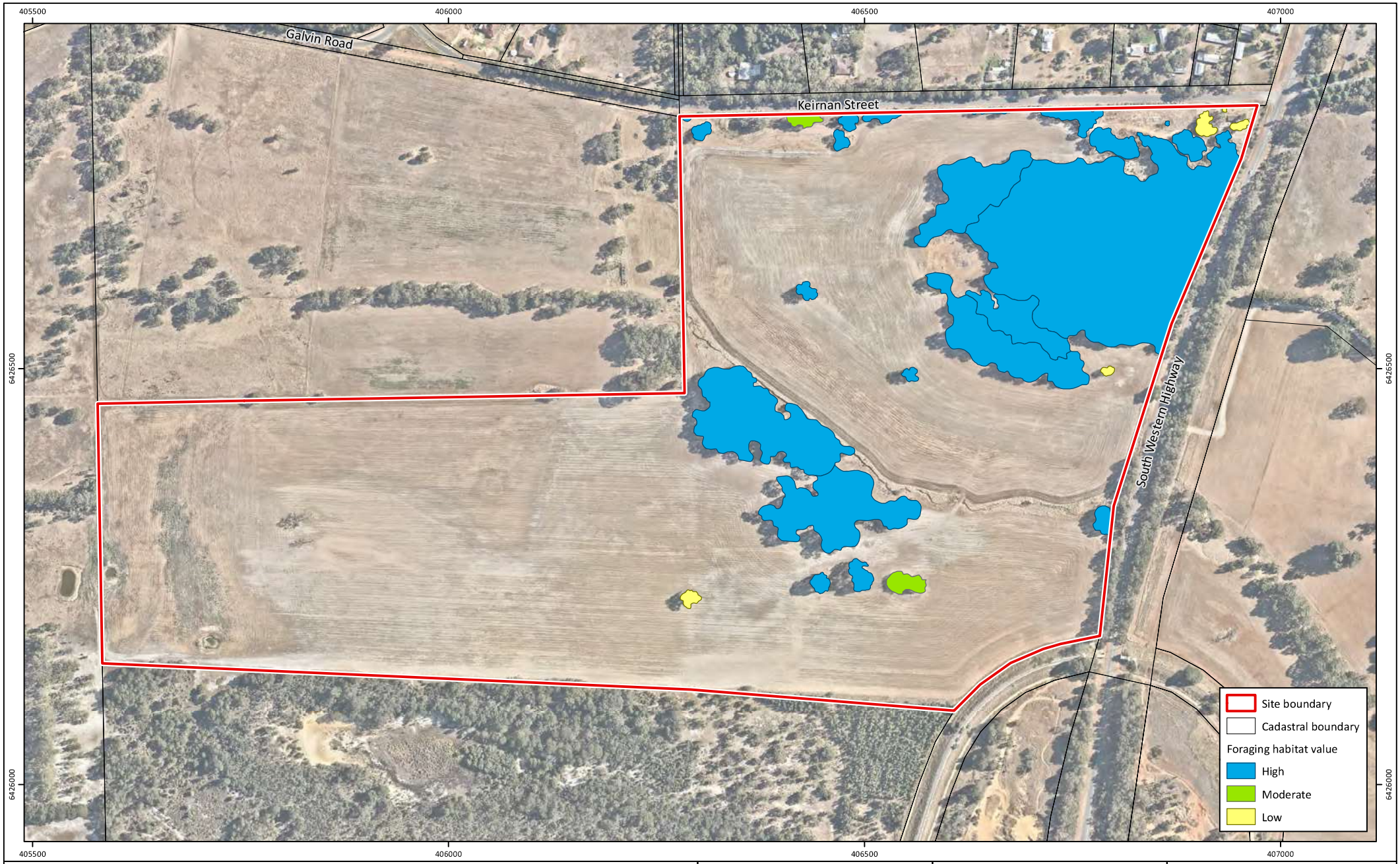

Figure 5: Baudin's Cockatoo Foraging Habitat

Project: Targeted Black Cockatoo Assessment
Lot 4395 Keirnan Street, Mundijong
Client: Shire of Serpentine Jarrahdale

Plan Number:
EP21-057(03)--F10
Drawn: GAR
Date: 02/12/2021
Checked: NAW
Approved: RAW
Date: 08/12/2021

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Metres
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emerge ASSOCIATES

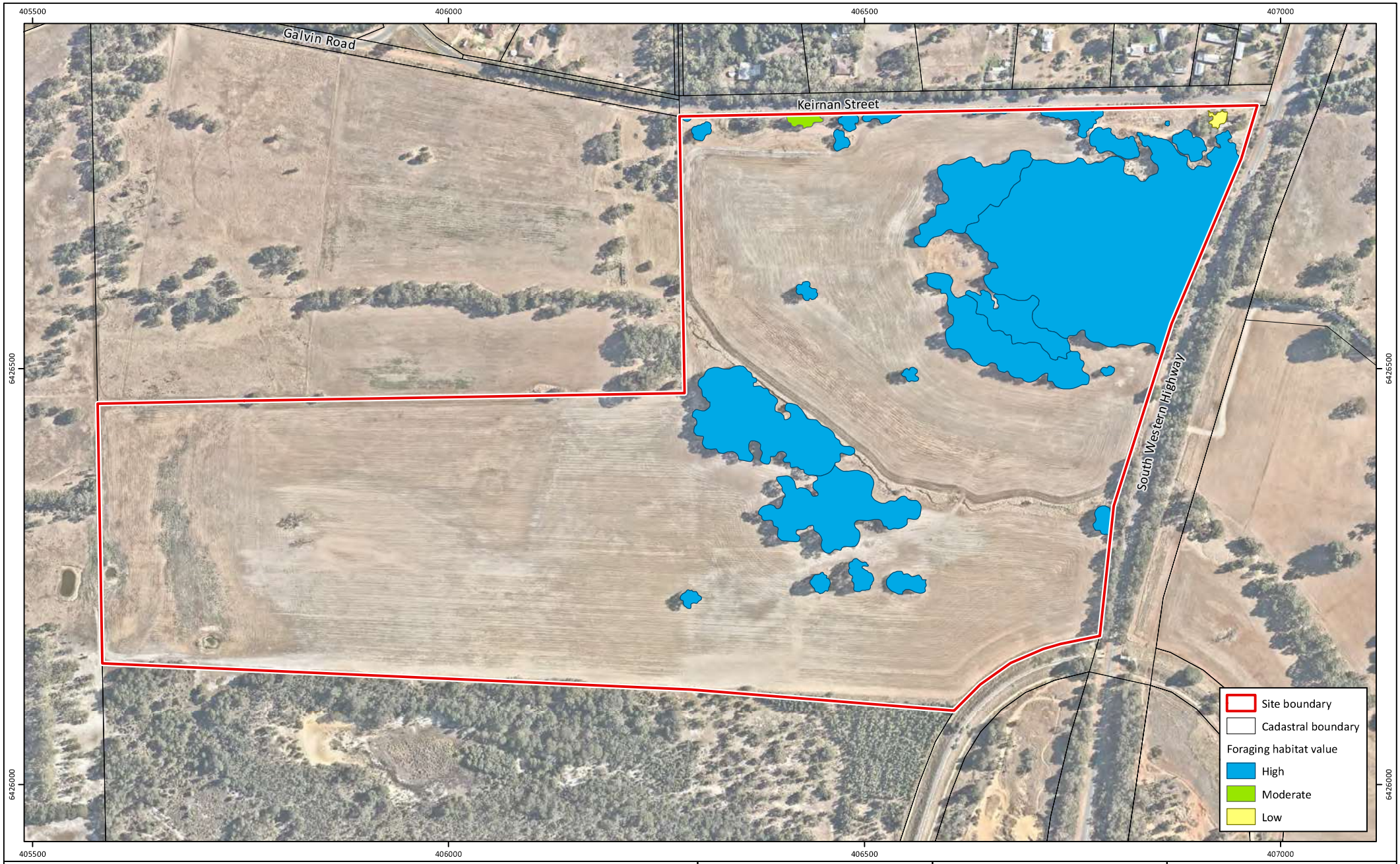

Figure 6: Forest Red-tailed Black Cockatoo Foraging Habitat

Project:	Targeted Black Cockatoo Assessment Lot 4395 Keirnan Street, Mundijong
Client:	Shire of Serpentine Jarrahdale

Plan Number:
EP21-057(03)--F11

Drawn:	GAR
Date:	02/12/2021
Checked:	NAW
Approved:	RAW
Date:	08/12/2021

N

0 100 200
Metres

Scale: 1:6,000@A4

GDA 1994 MGA Zone 50

emerge ASSOCIATES

Appendix A

Additional Information

Conservation Significant Fauna

Threatened and priority fauna

Fauna species considered rare or under threat warrant special protection under Commonwealth and/or State legislation. At the Commonwealth level, fauna species can be listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as 'threatened', 'migratory' or 'marine' as described in **Table 1**.

Migratory species comprise birds recognised under international treaties including:

- *Japan Australia Migratory Bird Agreement 1981* (JAMBA)
- *China Australia Migratory Bird Agreement 1998* (CAMBA)
- *Republic of Korea-Australia Migratory Bird Agreement 2007* (ROKAMBA)
- *Bonn Convention 1979* (The Convention on the Conservation of Migratory Species of Wild Animals).

Fauna species listed as threatened and migratory are protected in Australia as 'matters of national environmental significance' (MNES) under the EPBC Act.

Table 1: Definitions of conservation significant fauna species pursuant to the EPBC Act

Conservation Code	Category
X	Threatened Fauna –Extinct There is no reasonable doubt that the last member of the species has died.
EW#	Threatened Fauna –Extinct in the Wild Taxa which are known only to survive in cultivation, captivity or as a naturalised population outside its past range, or taxa which have not been recorded in its known and/or expected habitat despite appropriate exhaustive surveys.
CR#	Threatened Fauna – Critically Endangered Taxa which are considered to be facing an extremely high risk of extinction in the wild.
EN#	Threatened Fauna – Endangered Taxa which are considered to be facing a very high risk of extinction in the wild.
VU#	Threatened Fauna – Vulnerable Taxa which are considered to be facing a high risk of extinction in the wild.
Migratory#	Migratory Fauna All migratory species that are: (i) native species; and (ii) from time to time included in the appendices to the Bonn Convention; and (b) all migratory species from time to time included in annexes established under JAMBA, CAMBA and ROKAMBA; and All native species from time to time identified in a list established under, or an instrument made under, an international agreement approved by the Minister.
Ma	Marine Fauna Species in the list established under s248 of the EPBC Act

#matters of national environmental significance (MNES) under the EPBC Act

In Western Australia, fauna taxa may be classed as 'threatened', 'extinct', or 'specially protected' under the *Biodiversity Conservation Act 2016* (BC Act), which is enforced by Department of Biodiversity Conservation and Attractions (DBCA) (DBCA 2019a). The definitions of these categories are provided in **Table 2**.

Table 2: Definitions of specially protected fauna schedules under the BC Act (DBCA 2019a)

Category	Conservation Code	Definition
Threatened	CR	Critically endangered Threatened species considered to be facing an extremely high risk of extinction in the wild in the immediate future.
	EN	Endangered Threatened species considered to be facing a very high risk of extinction in the wild in the near future.
	VU	Vulnerable Threatened species considered to be facing a high risk of extinction in the wild in the medium-term future.
Extinct	EX	Extinct Species where there is no reasonable doubt that the last member of the species has died.
	EW	Extinct in the wild Species that is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form. Note that no species are currently listed as EW.
Specially protected	MI	Migratory species Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth Includes birds that subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds.
	CD	Species of special conservation interest (conservation dependent fauna) Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened.
	OS	Other specially protected species Fauna otherwise in need of special protection to ensure their conservation.

Fauna species that may be threatened or near threatened but lack sufficient information to be legislatively listed may be added to the DBCA's *Priority Fauna List* (DBCA 2018). Species listed under priorities 1-3 comprise possible threatened species that do not meet survey criteria or are otherwise data deficient. Species listed under priority 4 are those that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons (DBCA 2019a).

Priority fauna species are considered during State approval processes. Priority fauna categories and definitions are listed in **Table 3** (DBCA 2019a).

Table 3: Definitions of priority fauna categories on DBCA's Priority Fauna List (DBCA 2019a)

Conservation Code	Category
P1	Priority 1 – Poorly known Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
P2	Priority 2 – Poorly known Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
P3	Priority 3 – Poorly known Species that are known from several locations and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
P4	(a) Priority 4 – Rare species Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands. (b) Priority 4 – Near Threatened Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. (c) Priority 4 – Other Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Black cockatoos

Three threatened species of black cockatoo occur on the Swan Coastal Plain (referred to herein collectively as 'black cockatoos'):

- *Calyptorhynchus latirostris* (Carnaby's cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Calyptorhynchus baudinii* (Baudin's cockatoo) which is listed as 'endangered' under the EPBC Act and the BC Act.
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) which is listed as 'vulnerable' under the EPBC Act and the BC Act.

There are a range of regional studies and spatial datasets available which provide information on black cockatoo records and potential habitat mapping. These are detailed below.

Species distribution and breeding range

Broad-scale maps are available for the modelled distribution of Baudin's cockatoo, Carnaby's cockatoo and forest red-tailed black cockatoo (DSEWPaC 2011; DoEE 2016a, b).

The modelled distribution maps also include 'known breeding areas' and 'predicted breeding range' for Baudin's cockatoo and 'breeding range' and 'non-breeding range' for Carnaby's cockatoo.

No breeding range modelling is available for forest red-tailed black cockatoo but the species is known to breed mainly in the jarrah forest region (DBCA 2017) and in small populations on the Swan Coastal Plain within the Baldivis, Stake Hill, Lake McLarty and Capel area and increasingly in the Perth metropolitan area (DAWE 2020).

Breeding habitat

Department of Environment and Conservation (DEC, now Department of Biodiversity, Conservation and Attractions (DBCA)) and fauna experts, have identified and mapped Carnaby's cockatoo habitat on the Swan Coastal Plain and Jarrah Forest regions (Glossop *et al.* 2011). This dataset includes mapping of Carnaby's cockatoo breeding sites based on point records of breeding from a range of sources. Breeding sites were classified as 'confirmed' where eggs or chicks were recorded and 'possible' where observations relating to Carnaby's cockatoo breeding that did not include actual records of eggs or chicks (e.g. chewed hollows or records of breeding or nesting behaviour by an expert observer).

A 12 km buffer applies to each site to 'reflect the flexible use of these areas by cockatoos and to indicate the important zone for access to potential feeding habitat' (Glossop *et al.* 2011). Glossop *et al.* (2011) state that the areas mapped in the dataset are not a comprehensive record of Carnaby's cockatoo breeding and that many nesting sites are not known.

While this dataset only applies to Carnaby's cockatoo, the information it contains is also applicable for Baudin's cockatoo and forest red-tailed black cockatoo as they have similar breeding habitat requirements. That is, breeding sites that are suitable for Carnaby's cockatoo may also be suitable for

Baudin's cockatoo and forest red-tailed black cockatoo, if located within their distribution/breeding ranges.

BirdLife Australia also maintain a database of confirmed black cockatoo breeding sites which is accessible via a paid search system. BirdLife Australia have advised that their database is comprised of data collected during surveys by staff and volunteers of which most (>99%) surveys are of Carnaby's cockatoo. They have also advised that the dataset is not comprehensive and that an absence of known nests does not necessarily indicate a lack of breeding activity.

The Carnaby's cockatoo recovery plan also identifies 13 'important bird areas' for Carnaby's cockatoo, which are identified as 'sites of global bird conservation importance' (DPaW 2013). These 'important bird areas' comprise sites supporting at least 20 breeding pairs or 1% of the population regularly utilising an area in the non-breeding part of the range.

Confirmed roost sites

BirdLife Australia undertakes annual monitoring of black cockatoo overnight roost sites as part of the annual 'Great Cocky Count' community-based survey. Information gathered from these monitoring events provides roost locations and recorded black cockatoo numbers (Peck *et al.* 2019).

Native foraging habitat

Glossop et al. (2011) also mapped 'areas requiring investigation as Carnaby's cockatoo feeding habitat' for the Swan Coastal Plain and Jarrah Forest regions, based on regional vegetation mapping that may contain plant species known to be foraged upon by Carnaby's cockatoo. Note that this dataset does not include observations or point records of Carnaby's cockatoo feeding. This dataset represents areas of vegetation that may potentially provide foraging habitat for Carnaby's cockatoo.

In order to account for clearing of native vegetation that has occurred since the Glossop et al. (2011) dataset was created and to incorporate updated vegetation mapping and information on foraging behaviour of Carnaby's cockatoo, Emerge have revised this dataset to represent the most up to date information available. Furthermore, Emerge have used a similar methodology to Glossop et al. (2011) to define potential foraging habitat for Baudin's cockatoo and forest-red tailed cockatoos.

Specifically, DBCA (2021), DBCA (2019b) and DPIRD (2018) regional vegetation complex mapping was used to determine which areas of remnant vegetation support plant species known to be foraged upon by Carnaby's cockatoo, Baudin's cockatoo or forest red-tailed cockatoos. Where these vegetation complexes intersect remnant vegetation mapped by DPIRD (2020) they were considered to represent potential foraging habitat for Carnaby's cockatoo, Baudin's cockatoo and/or forest red-tailed cockatoo.

Pine plantations also provide an important food source for Carnaby's cockatoo, but were not included in the original Glossop et al. (2011) dataset. Mapping of pine plantations is available from the Forest Products Commission (Forest Products Commission 2020) and was considered in the assessment of Carnaby's cockatoo foraging habitat.

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Appendix B

Black Cockatoo Foraging Plants

		Foraging category as assigned by Emerge			
Species name	**Common name**	**CBC**	**BBC**	**FRTBC**	**Literature references**
Acacia baileyana	Cootamundra wattle	Secondary	-	-	Groom 2011
Acacia pentadenia	Karri wattle	Secondary	-	-	Groom 2011
Acacia saligna	Orange wattle	Secondary	-	-	Groom 2011
Agonis flexuosa	Peppermint tree	Secondary	-	-	Groom 2011
Allocasuarina fraseriana	Sheoak	-	Secondary	Secondary	Johnstone & Storr 1998; Johnstone et al. 2010; Johnstone 2017; DoEE 2017
Allocasuarina spp.		Secondary	-	Secondary	Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Anigozanthos flavidus	Tall kangaroo paw	-	Secondary	-	Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017
Araucaria heterophylla	Norfolk island pine	Secondary	-	-	Groom 2011; DoEE 2017
Banksia ashbyi	Ashby's banksia	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Banksia attenuata	Slender banksia	Primary	Secondary	-	Saunders 1980; Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia baxteri	Baxter's banksia	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia carlinoides	Pink dryandra	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia coccinea	Scarlet banksia	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia dallanneyi	Couch honeypot dryandra	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia ericifolia	Heath-leaved banksia	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia fraseri		Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia gardneri	Prostrate banksia	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia grandis	Bull banksia	Primary	Secondary	-	Saunders 1980; Johnstone & Storr 1998; Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia hookeriana	Hooker's banksia	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia ilicifolia	Holly banksia	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; Johnstone & Storr 1998; DoEE 2017
Banksia kippistiana		Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia leptophylla		Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia lindleyana	Porcupine banksia	Primary	Secondary	-	Johnstone et al. 2010; DoEE 2017

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Banksia littoralis	Swamp banksia	Primary	Secondary	-	Saunders 1980; Groom 2011Johnstone & Storr 1998; Johnstone et al. 2010; DoEE 2017
Banksia menziesii	Firewood banksia	Primary	Secondary	-	Saunders 1980; Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia mucronulata	Swordfish dryandra	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia nivea	Honeypot dryandra	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Banksia nobilis	Golden dryandra	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Banksia praemorsa	Cut-leaf banksia	Primary	Secondary	-	Saunders 1980; Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia prionotes	Acorn banksia	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia prolata		Primary	Secondary	-	Johnstone et al. 2010; DoEE 2017
Banksia quercifolia	Oak-leaved banksia	Primary	Secondary	-	Johnstone & Storr 1998; Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia sessilis	Parrot bush	Primary	Secondary	-	Saunders 1980; Johnstone & Storr 1998; Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia speciosa	Showy banksia	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia spp.		Primary	Secondary	-	Saunders 1979; DSEWPaC 2012; DoEE 2017
Banksia squarrosa	Pingle	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; DoEE 2017
Banksia tricuspis	Pine banksia	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia undata	Urchin dryandra	Primary	Secondary	-	Groom 2011; DoEE 2017
Banksia verticillata	Granite banksia	Primary	Secondary	-	Saunders 1980; Groom 2011; DoEE 2017
Brassica campestris	Canola	Secondary	-	-	Groom 2011; DoEE 2017
Callistemon spp.		Secondary	Secondary	-	Johnstone et al. 2010; DoEE 2017
Callistemon viminalis	Captain cook bottlebrush	Secondary	-	-	Groom 2011
Callitris sp.		Secondary	-	-	Johnstone et al. 2010; Groom 2011
Carya illnoinensis	Pecan	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011; Groom 2014; DoEE 2017
Casuarina cunninghamiana	River sheoak	Secondary	-	-	Groom 2011
Citrullus lanatus	Pie or afghan melon	Secondary	-	-	Johnstone et al. 2010; Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Corymbia calophylla	Marri	Primary	Primary	Primary	Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017; Johnstone 2017; Saunders 1979; Johnstone & Kirkby 2008
Corymbia citriodora	Lemon scented gum	Secondary	Secondary	Secondary	Johnstone et al. 2010; DSEWPaC 2012; Groom 2011; Johnstone 2017
Corymbia ficifolia	Red flowering gum	Secondary	-	-	Groom 2011
Corymbia haematoxylon	Mountain marri	Secondary	-	Secondary	Groom 2011; DoEE 2012; DoEE 2017
Corymbia maculata	Spotted gum	-	-	-	-
Darwinia citriodora	Lemon-scented darwinia	Secondary	Secondary	-	Groom 2011; Johnstone et al. 2010
Diospryros sp.	Sweet persimmon	Secondary	Secondary	-	Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Eremophila glabra	Tarbush	Secondary	-	-	Groom 2011
Erodium aureum		Secondary	-	-	Groom 2011
Erodium botrys	Long storksbill	Secondary	Secondary	-	Groom 2011; Johnstone & Storr 1998; Johnstone et al. 2010
Erodium spp.		Secondary	Secondary	-	Johnstone et al. 2010; DoEE 2017
Eucalyptus caesia	Silver princess	Secondary	-	Secondary	Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DoEE 2017; Johnstone 2017
Eucalyptus camaldulensis	River red gum	-	-	Secondary	DoEE 2012; DoEE 2017
Eucalyptus decipiens	Red heart/moit	-	-	Secondary	Johnstone 2017
Eucalyptus diversicolor	Karri	-	-	Primary	Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017; Johnstone & Storr 1998
Eucalyptus erythrocorys	Illyarrie	Secondary	-	Secondary	DSEWPaC 2012; DoEE 2017; Johnstone 2017, Johnstone et al. 2010
Eucalyptus gomphocephala	Tuart	Secondary	-	Secondary	Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Eucalyptus grandis	Flooded gum, rose gum	-	-	Secondary	DoEE 2012; DoEE 2017
Eucalyptus lehmannii	Bushy yate	-	-	Secondary	Johnstone 2017
Eucalyptus leucoxylon	Yellow gum	Secondary	-	-	Groom 2014

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Eucalyptus loxophleba	York gum	Secondary	-	-	Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Eucalyptus marginata	Jarrah	Primary	Secondary	Primary	Saunders 1980; Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DoEE 2017; Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone 2017
Eucalyptus patens	Blackbutt	Primary	-	Primary	Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017; Johnstone 2017; Groom 2011
Eucalyptus pleurocarpa	Tallerack	Secondary	-	-	Groom 2011
Eucalyptus preissiana	Bell-fruited mallee	Secondary	-	-	Groom 2011
Eucalyptus robusta	Swamp mahogany	Secondary	-	-	Johnstone et al. 2010; Groom 2011
Eucalyptus salmonophloia	Salmon gum	Primary	-	-	Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DSEWPaC 2012; DoEE 2017
Eucalyptus staeri	Albany blackbutt	-	-	Secondary	Johnstone & Storr 1998
Eucalyptus todtiana	Coastal blackbutt	Secondary	-	-	Saunders 1980; Johnstone et al. 2010; Groom 2011; Johnstone & Kirkby 2008
Eucalyptus wandoo	Wandoo	Primary	Secondary	Primary	Saunders 1980; Johnstone et al. 2010; Groom 2011; DSEWPaC 2012; DoEE 2017
Ficus sp.	Fig	Secondary	-	-	Groom 2011
Grevillea armigera	Prickly toothbrushes	Primary	-	-	Groom 2011
Grevillea bipinnatifida	Fuschia grevillea	Primary	-	-	Groom 2011
Grevillea hookeriana	Red toothbrushes	Primary	-	-	Groom 2011
Grevillea hookeriana subsp. api	Black toothbrushes	Primary	-	-	Groom 2011
Grevillea paniculata	Kerosene bush	Primary	-	-	Groom 2011
Grevillea paradoxa	Bottlebrush grevillea	Primary	-	-	Groom 2011
Grevillea petrophiloides	Pink poker	Primary	-	-	Groom 2011
Grevillea robusta	Silky oak	Primary	-	-	Johnstone et al. 2010; Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Grevillea spp.		Primary	-	-	Saunders 1979; Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017
Grevillea wilsonii	Native fuchsia	-	Secondary	-	Johnstone et al. 2010
Hakea auriculata		Primary	-	-	Saunders 1980; Groom 2011
Hakea candolleana		Primary	-	-	Groom 2011
Hakea circumalata	Coastal hakea	Primary	-	-	Groom 2011
Hakea commutata		Primary	-	-	Groom 2011
Hakea conchifolia	Shell-leaved hakea	Primary	-	-	Groom 2011
Hakea costata	Ribbed hakea	Primary	-	-	Groom 2011
Hakea cristata	Snail hakea	Primary	Secondary	-	Groom 2011; Johnstone et al. 2010
Hakea cucullata	Snail hakea	Primary	-	-	Groom 2011
Hakea cyclocarpa	Ramshorn	Primary	-	-	Saunders 1980; Groom 2011
Hakea eneabba		Primary	-	-	Groom 2011
Hakea erinacea	Hedgehog hakea	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011
Hakea falcata	Sickle hakea	Primary	-	-	Groom 2011
Hakea flabellifolia	Fan-leaved hakea	Primary	-	-	Groom 2011
Hakea gilbertii		Primary	-	-	Saunders 1980; Groom 2011
Hakea incrassata	Golfball or marble hakea	Primary	-	-	Johnstone et al. 2010; Groom 2011
Hakea lasiantha	Woolly flowered hakea	Primary	-	-	Johnstone et al. 2010; Groom 2011
Hakea lasianthoides		Primary	Secondary	-	Johnstone et al. 2010; Groom 2011
Hakea laurina	Pin-cushion hakea	Primary	-	-	Johnstone et al. 2010; Groom 2011
Hakea lissocarpha	Honeybush	Primary	Secondary	-	Saunders 1980; Johnstone et al. 2010; Groom 2011
Hakea marginata		-	Secondary	-	Johnstone et al. 2010
Hakea megalosperma	Lesueur hakea	Primary	-	-	Groom 2011
Hakea multilineata	Grass leaf hakea	Primary	-	-	Groom 2011
Hakea neospathulata		Primary	-	-	Groom 2011
Hakea obliqua	Needles and corks	Primary	-	-	Saunders 1980; Groom 2011
Hakea oleifolia	Dungyn	Primary	-	-	Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Hakea pandanicarpa subsp. crassifolia	Thick-leaved hakea	Primary	-	-	Groom 2011
Hakea petiolaris	Sea urchin hakea	Primary	-	-	Groom 2011
Hakea polyanthema		Primary	-	-	Groom 2011
Hakea preissii	Needle tree	Primary	-	-	Groom 2011
Hakea prostrata	Harsh hakea	Primary	Secondary	-	Saunders 1980; Johnstone et al. 2010; Groom 2011
Hakea psilorrhyncha		Primary	-	-	Groom 2011
Hakea ruscifolia	Candle hakea	Primary	Secondary	-	Saunders 1980; Groom 2011; Johnstone et al. 2010
Hakea scoparia	Kangaroo bush	Primary	-	-	Groom 2011
Hakea smilacifolia		Primary	-	-	Groom 2011
Hakea spp.		Primary	Secondary	-	Saunders 1979; DSEWPaC 2012; DoEE 2017
Hakea stenocarpa	Narrow-fruited hakea	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011
Hakea sulcata	Furrowed hakea	Primary	-	-	Groom 2011
Hakea trifurcata	Two-leaved hakea	Primary	Secondary	-	Saunders 1980; Johnstone et al. 2010; Groom 2011
Hakea undulata	Wavy-leaved hakea	Primary	Secondary	-	Saunders 1980; Johnstone et al. 2010; Groom 2011
Hakea varia	Variable-leaved hakea	Primary	Secondary	-	Saunders 1980; Groom 2011
Harpephyllum caffrum	Kaffir plum	-	-	Secondary	Johnstone 2017
Helianthus annuus	Sunflower	Secondary	-	-	Johnstone et al. 2010; Groom 2011
Hibiscus sp.	Hibiscus	Secondary	-	-	Groom 2011
Isopogon scabriusculus		Secondary	-	-	Groom 2011
Jacaranda mimosifolia	Jacaranda	Secondary	Secondary	-	Johnstone et al. 2010; Groom 2011
Jacksonia furcellata	Grey stinkwood	Secondary	-	-	Groom 2011
Kingia australis	Kingia	-	Secondary	-	Johnstone et al. 2010
Lambertia inermis	Chittick	Secondary	-	-	Johnstone & Storr 1998; Groom 2011
Lambertia multiflora	Many-flowered honeysuckle	Secondary	-	-	Saunders 1980; Groom 2011

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Liquidamber styraciflua	Liquid amber	Primary	-	Secondary	Johnstone et al. 2010; Groom 2011; Groom 2014; Personal observation
Lupinus sp.	Lupin	Secondary	-	-	Saunders 1980; Groom 2011
Macadamia integrifolia	Macadamia	Primary	Secondary	-	Johnstone et al. 2010; Grooms 2011; Groom 2014
Malus domestica	Apple	Secondary	Secondary	-	Johnstone et al. 2010; Johnstone & Storr 1998; DSEWPaC 2012; DoEE 2017; Groom 2011
Melaleuca leuropoma		Secondary	-	-	Saunders 1980; Groom 2011
Melia azedarach	Cape lilac or white cedar	Secondary	-	Primary	Johnstone et al. 2010; Groom 2011
Mesomeleana spp.		Secondary	-	-	Johnstone et al. 2010; Groom 2011
Olea europea	Olive	-	-	Secondary	Johnstone 2017
Persoonia longifolia	Snottygobble	-	-	Secondary	Johnstone & Storr 1998; Johnstone & Kirkby 1999; Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017
Pinus canariensis	Canary island pine	Primary	-	-	Johnstone et al. 2010; Groom 2011
Pinus caribea	Caribbean pine	Primary	-	-	Johnstone et al. 2010; Groom 2011
Pinus pinaster	Pinaster or maritime pine	Primary	-	-	Groom 2011
Pinus radiata	Radiata pine	Primary	Secondary	-	Johnstone et al. 2010; Groom 2011
Pinus spp.		Primary	Secondary	-	Johnstone & Storr 1998; Saunders 1979; Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017
Protea 'Pink Ice'		Secondary	-	-	Groom 2011
Protea repens		Secondary	-	-	Groom 2011
Protea spp.		Secondary	-	-	Johnstone et al. 2010
Prunus amygdalus	Almond tree	Secondary	-	-	Johnstone & Storr 1998; Johnstone et al. 2010; Groom 2011; DoEE 2017
Pyrus communis	European pear	-	Secondary	-	Johnstone & Storr 1998; Johnstone et al. 2010; DSEWPaC 2012; DoEE 2017
Quercus spp.	Oak	-	Secondary	-	Johnstone et al. 2010

Species name	Common name	Foraging category as assigned by Emerge			Literature references
		CBC	BBC	FRTBC	
Raphanus raphanistrum	Wild radish	Secondary	-	-	Groom 2011; DoEE 2017
Reedia spathacea		-	Secondary	-	Johnstone et al. 2010
Rumex hypogaeus	Doublegee	Secondary	-	-	Saunders 1980
Stenocarpus sinuatus		Secondary	-	-	Johnstone et al. 2010
Syzygium smithii	Lilly pilly	Secondary	-	-	Groom 2014
Tipuana tipu	Tipu or rosewood tree	Primary	-	-	Groom 2011, Groom 2014
Xanthorrhoea preissii	Grass tree	Secondary	Secondary	-	Groom 2011; Johnstone et al. 2010
Xylomelum occidentale	Woody pear	Secondary	-	-	Groom 2014

CBC=Carnaby's cockatoo, BBC=Baudin's cockatoo and FRTBC=Forest red-tailed black cockatoo

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Appendix C

Black Cockatoo Habitat Tree Data

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
766	854	406881.37	6426728.06	125	*Eucalyptus marginata*	Potentially suitable hollow/s	
1040	985	406463.40	6426310.53	130	*Corymbia calophylla*	Potentially suitable hollow/s	
765	855	406893.54	6426726.51	120	*Eucalyptus marginata*	No suitable hollow/s	
774	830	406886.44	6426761.04	100	*Eucalyptus marginata*	No suitable hollow/s	
808	852	406809.54	6426644.36	92	*Eucalyptus marginata*	No suitable hollow/s	
1042	831	406778.50	6426701.51	108	*Eucalyptus marginata*	No suitable hollow/s	
971	856	406556.89	6426494.48	81	*Corymbia calophylla*	No suitable hollow/s	
1023	981	406447.92	6426243.84	143	*Corymbia calophylla*	No suitable hollow/s	
989	980	406772.29	6426796.17	119	*Corymbia calophylla*	No suitable hollow/s	
984	979	406531.04	6426807.42	71	*Corymbia calophylla*	No suitable hollow/s	
1038	984	406444.02	6426327.70	62	*Corymbia calophylla*	No suitable hollow/s	
1065	987	406496.25	6426349.67	109	*Corymbia calophylla*	No suitable hollow/s	
1036	983	406460.52	6426359.58	119	*Corymbia calophylla*	No suitable hollow/s	
979	978	406433.54	6426807.02	80	*Corymbia calophylla*	No suitable hollow/s	
1060	986	406549.27	6426331.12	87	*Corymbia calophylla*	No suitable hollow/s	
1034	982	406431.11	6426346.96	123	*Corymbia calophylla*	No suitable hollow/s	
721		406852.03	6426550.52	86	*Corymbia calophylla*	No suitable hollow/s	
722		406850.62	6426550.73	97	*Corymbia calophylla*	No suitable hollow/s	
723		406852.88	6426549.98	92	*Corymbia calophylla*	No suitable hollow/s	
724		406854.47	6426551.54	92	*Corymbia calophylla*	No suitable hollow/s	
725		406842.65	6426557.09	64	*Corymbia calophylla*	No suitable hollow/s	
726		406845.76	6426556.67	69	*Corymbia calophylla*	No suitable hollow/s	
727		406851.16	6426562.93	73	*Corymbia calophylla*	No suitable hollow/s	
728		406867.89	6426576.94	82	*Corymbia calophylla*	No suitable hollow/s	
729		406876.68	6426594.10	52	*Corymbia calophylla*	No suitable hollow/s	
730		406844.67	6426582.61	62	*Corymbia calophylla*	No suitable hollow/s	
731		406838.10	6426580.44	61	*Corymbia calophylla*	No suitable hollow/s	
732		406826.27	6426597.29	53	*Corymbia calophylla*	No suitable hollow/s	
733		406838.01	6426579.77	66	*Corymbia calophylla*	No suitable hollow/s	
734		406832.08	6426610.54	68	*Corymbia calophylla*	No suitable hollow/s	
735		406824.79	6426614.90	50	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
736		406839.09	6426626.01	78	*Corymbia calophylla*	No suitable hollow/s	
737		406846.91	6426615.00	53	*Corymbia calophylla*	No suitable hollow/s	
738		406851.86	6426609.50	73	*Corymbia calophylla*	No suitable hollow/s	
739		406851.17	6426633.33	80	*Corymbia calophylla*	No suitable hollow/s	
740		406837.94	6426618.57	60	*Corymbia calophylla*	No suitable hollow/s	
741		406861.55	6426631.10	95	*Corymbia calophylla*	No suitable hollow/s	
742		406875.90	6426647.75	78	*Corymbia calophylla*	No suitable hollow/s	
743		406873.17	6426647.06	69	*Corymbia calophylla*	No suitable hollow/s	
744		406879.92	6426661.42	50	*Corymbia calophylla*	No suitable hollow/s	
745		406862.58	6426662.70	115	*Corymbia calophylla*	No suitable hollow/s	
746		406876.98	6426662.84	155	*Corymbia calophylla*	No suitable hollow/s	
747		406883.95	6426653.14	64	*Corymbia calophylla*	No suitable hollow/s	
748		406888.78	6426649.64	60	*Corymbia calophylla*	No suitable hollow/s	
749		406886.14	6426650.39	110	*Corymbia calophylla*	No suitable hollow/s	
750		406900.68	6426666.05	119	*Stag*	No suitable hollow/s	
751		406900.29	6426668.37	57	*Corymbia calophylla*	No suitable hollow/s	
752		406897.74	6426678.66	58	*Corymbia calophylla*	No suitable hollow/s	
753		406899.31	6426672.13	61	*Corymbia calophylla*	No suitable hollow/s	
754		406909.72	6426677.22	54	*Corymbia calophylla*	No suitable hollow/s	
755		406911.32	6426687.32	52	*Corymbia calophylla*	No suitable hollow/s	
756		406901.01	6426692.55	96	*Corymbia calophylla*	No suitable hollow/s	
757		406898.35	6426694.30	91	*Corymbia calophylla*	No suitable hollow/s	
758		406903.38	6426690.13	54	*Corymbia calophylla*	No suitable hollow/s	
759		406906.13	6426698.36	52	*Corymbia calophylla*	No suitable hollow/s	
760		406917.87	6426691.82	53	*Corymbia calophylla*	No suitable hollow/s	
761		406915.68	6426693.90	51	*Corymbia calophylla*	No suitable hollow/s	
763		406907.85	6426695.83	55	*Corymbia calophylla*	No suitable hollow/s	
764		406895.90	6426714.78	53	*Corymbia calophylla*	No suitable hollow/s	
767		406914.34	6426696.22	69	*Corymbia calophylla*	No suitable hollow/s	
768		406922.59	6426710.93	50	*Corymbia calophylla*	No suitable hollow/s	
769		406918.23	6426733.95	70	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
770		406916.50	6426738.59	76	*Corymbia calophylla*	No suitable hollow/s	
771		406925.82	6426738.34	54	*Corymbia calophylla*	No suitable hollow/s	
772		406911.45	6426764.48	121	*Corymbia calophylla*	No suitable hollow/s	
773		406895.03	6426758.46	119	*Stag*	No suitable hollow/s	
775		406879.82	6426753.66	71	*Corymbia calophylla*	No suitable hollow/s	
776		406875.50	6426741.65	77	*Corymbia calophylla*	No suitable hollow/s	
777		406873.87	6426744.96	78	*Corymbia calophylla*	No suitable hollow/s	
778		406863.95	6426758.95	67	*Corymbia calophylla*	No suitable hollow/s	
779		406864.37	6426763.94	74	*Corymbia calophylla*	No suitable hollow/s	
780		406860.91	6426761.36	93	*Corymbia calophylla*	No suitable hollow/s	
781		406802.91	6426750.84	58	*Corymbia calophylla*	No suitable hollow/s	
782		406798.15	6426746.14	54	*Corymbia calophylla*	No suitable hollow/s	
783		406806.09	6426732.80	71	*Corymbia calophylla*	No suitable hollow/s	
784		406816.15	6426723.69	60	*Corymbia calophylla*	No suitable hollow/s	
785		406822.29	6426721.75	63	*Corymbia calophylla*	No suitable hollow/s	
786		406822.65	6426724.09	64	*Corymbia calophylla*	No suitable hollow/s	
787		406818.43	6426721.83	56	*Corymbia calophylla*	No suitable hollow/s	
788		406812.39	6426713.35	103	*Corymbia calophylla*	No suitable hollow/s	
789		406827.17	6426713.71	50	*Corymbia calophylla*	No suitable hollow/s	
790		406830.44	6426716.29	84	*Corymbia calophylla*	No suitable hollow/s	
791		406837.53	6426713.91	88	*Corymbia calophylla*	No suitable hollow/s	
792		406833.28	6426705.23	100	*Corymbia calophylla*	No suitable hollow/s	
793		406816.11	6426688.22	126	*Corymbia calophylla*	No suitable hollow/s	
794		406818.32	6426703.65	50	*Corymbia calophylla*	No suitable hollow/s	
795		406797.17	6426689.48	73	*Corymbia calophylla*	No suitable hollow/s	
796		406801.11	6426680.32	83	*Corymbia calophylla*	No suitable hollow/s	
797		406820.86	6426672.74	75	*Corymbia calophylla*	No suitable hollow/s	
798		406813.94	6426677.89	52	*Corymbia calophylla*	No suitable hollow/s	
799		406817.11	6426670.93	53	*Corymbia calophylla*	No suitable hollow/s	
800		406817.77	6426660.41	66	*Corymbia calophylla*	No suitable hollow/s	
801		406832.31	6426656.33	81	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
802		406847.17	6426658.35	64	*Corymbia calophylla*	No suitable hollow/s	
803		406851.11	6426660.82	51	*Corymbia calophylla*	No suitable hollow/s	
804		406852.92	6426657.74	52	*Corymbia calophylla*	No suitable hollow/s	
805		406843.16	6426654.32	50	*Corymbia calophylla*	No suitable hollow/s	
806		406839.38	6426645.75	54	*Corymbia calophylla*	No suitable hollow/s	
809		406825.71	6426637.75	86	*Corymbia calophylla*	No suitable hollow/s	
810		406797.35	6426628.73	144	*Corymbia calophylla*	No suitable hollow/s	
811		406806.08	6426610.85	62	*Corymbia calophylla*	No suitable hollow/s	
812		406798.93	6426600.48	75	*Corymbia calophylla*	No suitable hollow/s	
813		406812.17	6426594.17	54	*Corymbia calophylla*	No suitable hollow/s	
814		406809.81	6426584.61	94	*Corymbia calophylla*	No suitable hollow/s	
815		406802.31	6426580.55	79	*Corymbia calophylla*	No suitable hollow/s	
816		406789.43	6426568.46	108	*Corymbia calophylla*	No suitable hollow/s	
817		406794.95	6426561.86	74	*Corymbia calophylla*	No suitable hollow/s	
818		406811.16	6426560.90	86	*Corymbia calophylla*	No suitable hollow/s	
819		406832.00	6426557.99	69	*Corymbia calophylla*	No suitable hollow/s	
820		406835.03	6426535.29	54	*Corymbia calophylla*	No suitable hollow/s	
821		406828.52	6426536.34	51	*Corymbia calophylla*	No suitable hollow/s	
822		406812.77	6426549.49	88	*Corymbia calophylla*	No suitable hollow/s	
823		406800.57	6426555.59	58	*Corymbia calophylla*	No suitable hollow/s	
824		406803.58	6426555.40	84	*Corymbia calophylla*	No suitable hollow/s	
825		406803.53	6426560.72	65	*Corymbia calophylla*	No suitable hollow/s	
826		406798.38	6426558.34	61	*Corymbia calophylla*	No suitable hollow/s	
827		406791.67	6426549.97	112	*Corymbia calophylla*	No suitable hollow/s	
829		406796.18	6426541.47	101	*Corymbia calophylla*	No suitable hollow/s	
830		406791.18	6426562.71	71	*Corymbia calophylla*	No suitable hollow/s	
831		406775.00	6426561.01	72	*Corymbia calophylla*	No suitable hollow/s	
832		406772.77	6426567.86	77	*Corymbia calophylla*	No suitable hollow/s	
833		406768.98	6426570.15	52	*Corymbia calophylla*	No suitable hollow/s	
834		406760.33	6426568.86	58	*Corymbia calophylla*	No suitable hollow/s	
835		406757.69	6426579.47	73	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
836		406764.21	6426587.07	58	*Corymbia calophylla*	No suitable hollow/s	
837		406774.30	6426575.08	51	*Corymbia calophylla*	No suitable hollow/s	
838		406786.24	6426577.74	59	*Corymbia calophylla*	No suitable hollow/s	
839		406791.76	6426581.45	51	*Corymbia calophylla*	No suitable hollow/s	
840		406779.28	6426577.12	51	*Corymbia calophylla*	No suitable hollow/s	
841		406777.65	6426590.41	53	*Corymbia calophylla*	No suitable hollow/s	
842		406789.58	6426592.96	62	*Corymbia calophylla*	No suitable hollow/s	
843		406782.68	6426596.22	59	*Corymbia calophylla*	No suitable hollow/s	
844		406773.80	6426609.11	59	*Corymbia calophylla*	No suitable hollow/s	
1406		406751.93	6426560.91	90	*Corymbia calophylla*	No suitable hollow/s	
1407		406749.45	6426573.97	66	*Corymbia calophylla*	No suitable hollow/s	
1408		406752.36	6426575.88	60	*Corymbia calophylla*	No suitable hollow/s	
1409		406757.53	6426586.79	60	*Corymbia calophylla*	No suitable hollow/s	
1410		406753.49	6426595.84	61	Corymbia calophylla	No suitable hollow/s	
1411		406761.56	6426598.47	68	*Corymbia calophylla*	No suitable hollow/s	
1412		406785.22	6426617.09	67	*Eucalyptus marginata*	No suitable hollow/s	
1413		406777.21	6426627.99	82	*Corymbia calophylla*	No suitable hollow/s	
1414		406783.71	6426637.14	60	*Corymbia calophylla*	No suitable hollow/s	
1415		406787.60	6426634.18	67	*Corymbia calophylla*	No suitable hollow/s	
1416		406789.13	6426641.74	57	*Corymbia calophylla*	No suitable hollow/s	
1417		406810.02	6426654.13	63	*Corymbia calophylla*	No suitable hollow/s	
1418		406783.53	6426687.25	62	*Corymbia calophylla*	No suitable hollow/s	
1419		406793.35	6426705.52	54	*Corymbia calophylla*	No suitable hollow/s	
1420		406798.78	6426718.77	73	*Corymbia calophylla*	No suitable hollow/s	
1421		406784.31	6426725.84	70	Corymbia calophylla	No suitable hollow/s	
1422		406782.75	6426720.95	61	*Corymbia calophylla*	No suitable hollow/s	
1423		406774.91	6426734.29	57	*Corymbia calophylla*	No suitable hollow/s	
1424		406764.22	6426739.40	77	*Corymbia calophylla*	No suitable hollow/s	
1425		406762.10	6426744.48	50	*Eucalyptus marginata*	No suitable hollow/s	
1426		406731.63	6426739.76	58	*Corymbia calophylla*	No suitable hollow/s	
1427		406717.87	6426740.97	66	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
1428		406707.65	6426746.53	76	*Corymbia calophylla*	No suitable hollow/s	
1429		406691.99	6426749.04	119	*Corymbia calophylla*	No suitable hollow/s	
1430		406679.94	6426738.51	55	Corymbia calophylla	No suitable hollow/s	
1431		406682.37	6426730.77	55	Corymbia calophylla	No suitable hollow/s	
1432		406678.32	6426731.40	69	*Corymbia calophylla*	No suitable hollow/s	
1433		406665.58	6426733.94	62	*Corymbia calophylla*	No suitable hollow/s	
1434		406659.88	6426739.32	60	*Corymbia calophylla*	No suitable hollow/s	
1435		406658.30	6426736.65	68	*Corymbia calophylla*	No suitable hollow/s	
1436		406669.36	6426712.25	63	*Corymbia calophylla*	No suitable hollow/s	
1437		406685.53	6426673.71	56	*Corymbia calophylla*	No suitable hollow/s	
1438		406690.45	6426671.76	80	*Corymbia calophylla*	No suitable hollow/s	
1439		406696.11	6426629.46	71	*Corymbia calophylla*	No suitable hollow/s	
1440		406696.07	6426603.07	97	*Corymbia calophylla*	No suitable hollow/s	
1441		406694.50	6426600.40	71	*Corymbia calophylla*	No suitable hollow/s	
1442		406693.78	6426566.02	77	*Corymbia calophylla*	No suitable hollow/s	
1443		406683.99	6426555.18	93	*Corymbia calophylla*	No suitable hollow/s	
1444		406312.85	6426477.80	81	*Corymbia calophylla*	No suitable hollow/s	
1445		406312.57	6426487.11	57	*Corymbia calophylla*	No suitable hollow/s	
1446		406316.01	6426481.70	59	*Corymbia calophylla*	No suitable hollow/s	
1447		406326.74	6426482.47	57	*Corymbia calophylla*	No suitable hollow/s	
1448		406326.89	6426486.57	74	*Corymbia calophylla*	No suitable hollow/s	
1449		406322.51	6426471.68	84	*Corymbia calophylla*	No suitable hollow/s	
1450		406324.07	6426465.93	75	Corymbia calophylla	No suitable hollow/s	
1451		406327.39	6426463.07	61	*Corymbia calophylla*	No suitable hollow/s	
1452		406328.62	6426462.75	58	*Corymbia calophylla*	No suitable hollow/s	
300		406743.06	6426552.51	137	Corymbia calophylla	No suitable hollow/s	
301		406733.83	6426562.51	75	*Corymbia calophylla*	No suitable hollow/s	
302		406737.27	6426567.31	53	Corymbia calophylla	No suitable hollow/s	
303		406742.39	6426573.68	57	Corymbia calophylla	No suitable hollow/s	
304		406744.01	6426571.81	59	Corymbia calophylla	No suitable hollow/s	
305		406754.99	6426606.17	60	Corymbia calophylla	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
306		406755.18	6426616.70	57	*Corymbia calophylla*	No suitable hollow/s	
307		406759.80	6426636.81	62	*Corymbia calophylla*	No suitable hollow/s	
308		406768.27	6426677.69	54	*Corymbia calophylla*	No suitable hollow/s	
309		406758.70	6426684.03	51	*Corymbia calophylla*	No suitable hollow/s	
310		406769.39	6426689.34	53	*Corymbia calophylla*	No suitable hollow/s	
311		406765.88	6426692.19	54	*Corymbia calophylla*	No suitable hollow/s	
312		406766.84	6426710.71	64	*Corymbia calophylla*	No suitable hollow/s	
313		406760.76	6426726.06	54	*Corymbia calophylla*	No suitable hollow/s	
314		406740.69	6426727.10	52	*Corymbia calophylla*	No suitable hollow/s	
315		406744.65	6426706.74	64	*Corymbia calophylla*	No suitable hollow/s	
316		406734.32	6426703.87	54	*Corymbia calophylla*	No suitable hollow/s	
317		406737.12	6426685.60	65	*Corymbia calophylla*	No suitable hollow/s	
318		406751.12	6426689.28	54	*Corymbia calophylla*	No suitable hollow/s	
319		406741.60	6426680.43	56	*Corymbia calophylla*	No suitable hollow/s	
320		406727.90	6426674.43	68	*Corymbia calophylla*	No suitable hollow/s	
321		406735.31	6426667.96	58	*Corymbia calophylla*	No suitable hollow/s	
322		406743.37	6426641.54	58	*Corymbia calophylla*	No suitable hollow/s	
323		406736.56	6426644.36	51	*Corymbia calophylla*	No suitable hollow/s	
324		406742.93	6426637.98	53	*Corymbia calophylla*	No suitable hollow/s	
325		406719.24	6426612.82	68	*Corymbia calophylla*	No suitable hollow/s	
327		406668.69	6426560.14	62	*Corymbia calophylla*	No suitable hollow/s	
2669		406493.75	6426364.40	92	*Corymbia calophylla*	No suitable hollow/s	
1032		406726.11	6426562.22	158	*Corymbia calophylla*	No suitable hollow/s	
1033		406723.88	6426569.63	63	*Corymbia calophylla*	No suitable hollow/s	
1034		406728.90	6426576.99	76	*Corymbia calophylla*	No suitable hollow/s	
1035		406759.89	6426626.28	57	Corymbia calophylla	No suitable hollow/s	
1036		406765.41	6426619.90	58	*Corymbia calophylla*	No suitable hollow/s	
1037		406763.98	6426642.39	59	*Corymbia calophylla*	No suitable hollow/s	
1038		406781.65	6426656.08	56	*Corymbia calophylla*	No suitable hollow/s	
1039		406781.74	6426656.64	63	*Corymbia calophylla*	No suitable hollow/s	
1040		406779.75	6426678.90	51	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
1041		406772.19	6426692.25	72	*Corymbia calophylla*	No suitable hollow/s	
1043		406767.55	6426714.82	51	Corymbia calophylla	No suitable hollow/s	
1044		406702.34	6426719.87	54	*Corymbia calophylla*	No suitable hollow/s	
1045		406718.95	6426695.52	62	Corymbia calophylla	No suitable hollow/s	
1046		406702.48	6426683.95	59	Corymbia calophylla	No suitable hollow/s	
1047		406685.56	6426690.78	65	*Corymbia calophylla*	No suitable hollow/s	
1048		406725.35	6426655.12	66	Corymbia calophylla	No suitable hollow/s	
1049		406718.24	6426650.17	61	*Corymbia calophylla*	No suitable hollow/s	
1050		406713.48	6426594.36	55	*Corymbia calophylla*	No suitable hollow/s	
963		406752.89	6426497.83	135	*Corymbia calophylla*	No suitable hollow/s	
964		406732.54	6426508.62	50	*Corymbia calophylla*	No suitable hollow/s	
965		406731.23	6426527.90	94	*Corymbia calophylla*	No suitable hollow/s	
966		406713.12	6426541.48	77	*Eucalyptus marginata*	No suitable hollow/s	
967		406718.18	6426513.59	51	*Corymbia calophylla*	No suitable hollow/s	
968		406722.84	6426509.20	66	*Corymbia calophylla*	No suitable hollow/s	
969		406715.98	6426507.14	70	*Corymbia calophylla*	No suitable hollow/s	
970		406711.11	6426514.30	87	Corymbia calophylla	No suitable hollow/s	
971		406707.50	6426507.72	70	Corymbia calophylla	No suitable hollow/s	
972		406703.96	6426503.48	113	*Corymbia calophylla*	No suitable hollow/s	
973		406702.12	6426509.56	86	*Corymbia calophylla*	No suitable hollow/s	
974		406697.77	6426511.40	80	*Corymbia calophylla*	No suitable hollow/s	
975		406695.66	6426515.60	84	*Corymbia calophylla*	No suitable hollow/s	
976		406691.64	6426502.37	84	*Corymbia calophylla*	No suitable hollow/s	
977		406689.25	6426525.85	55	*Corymbia calophylla*	No suitable hollow/s	
978		406666.40	6426502.25	60	*Corymbia calophylla*	No suitable hollow/s	
979		406668.95	6426521.78	65	*Eucalyptus marginata*	No suitable hollow/s	
980		406657.21	6426538.97	66	*Corymbia calophylla*	No suitable hollow/s	
981		406646.25	6426522.90	62	*Corymbia calophylla*	No suitable hollow/s	
982		406636.57	6426530.46	58	*Eucalyptus marginata*	No suitable hollow/s	
983		406642.78	6426530.96	105	*Corymbia calophylla*	No suitable hollow/s	
984		406646.32	6426535.43	50	*Eucalyptus marginata*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
985		406656.66	6426547.72	67	*Eucalyptus marginata*	No suitable hollow/s	
986		406639.22	6426559.86	79	*Corymbia calophylla*	No suitable hollow/s	
987		406637.10	6426545.21	56	*Corymbia calophylla*	No suitable hollow/s	
988		406642.57	6426543.71	51	*Eucalyptus marginata*	No suitable hollow/s	
989		406611.51	6426542.76	108	*Corymbia calophylla*	No suitable hollow/s	
990		406621.53	6426578.99	61	*Corymbia calophylla*	No suitable hollow/s	
991		406648.70	6426705.96	56	*Corymbia calophylla*	No suitable hollow/s	
992		406635.55	6426711.94	51	*Corymbia calophylla*	No suitable hollow/s	
993		406636.64	6426696.76	74	*Corymbia calophylla*	No suitable hollow/s	
994		406632.33	6426693.84	69	*Corymbia calophylla*	No suitable hollow/s	
995		406649.86	6426671.60	62	*Eucalyptus marginata*	No suitable hollow/s	
996		406666.53	6426631.29	61	Eucalyptus marginata	No suitable hollow/s	
997		406667.81	6426615.23	50	*Corymbia calophylla*	No suitable hollow/s	
998		406669.24	6426602.83	70	*Corymbia calophylla*	No suitable hollow/s	
999		406653.56	6426608.00	64	*Corymbia calophylla*	No suitable hollow/s	
1028		406391.87	6426333.06	78	*Corymbia calophylla*	No suitable hollow/s	
1009		406883.60	6426592.77	51	*Corymbia calophylla*	No suitable hollow/s	
1012		406875.21	6426571.80	98	*Corymbia calophylla*	No suitable hollow/s	
1020		406502.99	6426253.15	157	Corymbia calophylla	No suitable hollow/s	
1003		406936.59	6426714.42	50	*Corymbia calophylla*	No suitable hollow/s	
1078		406359.87	6426481.97	97	Corymbia calophylla	No suitable hollow/s	
1058		406557.49	6426330.16	106	Corymbia calophylla	No suitable hollow/s	
1032		406424.94	6426324.85	76	*Corymbia calophylla*	No suitable hollow/s	
1047		406478.65	6426317.84	70	*Corymbia calophylla*	No suitable hollow/s	
997		406936.50	6426738.11	53	*Corymbia calophylla*	No suitable hollow/s	
978		406414.88	6426800.24	55	*Corymbia calophylla*	No suitable hollow/s	
1017		406559.67	6426245.28	109	*Corymbia calophylla*	No suitable hollow/s	
1006		406926.53	6426703.39	58	*Corymbia calophylla*	No suitable hollow/s	
1042		406473.29	6426302.74	86	*Corymbia calophylla*	No suitable hollow/s	
1051		406495.94	6426328.81	65	*Corymbia calophylla*	No suitable hollow/s	
994		406939.11	6426759.47	68	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
986		406726.99	6426813.28	100	Corymbia calophylla	No suitable hollow/s	
1005		406925.01	6426707.59	58	*Corymbia calophylla*	No suitable hollow/s	
1016		406797.58	6426317.42	92	*Corymbia calophylla*	No suitable hollow/s	
1045		406483.40	6426298.59	66	*Corymbia calophylla*	No suitable hollow/s	
975		406304.27	6426784.51	81	*Corymbia calophylla*	No suitable hollow/s	
1010		406882.92	6426588.02	72	*Corymbia calophylla*	No suitable hollow/s	
974		406430.02	6426590.77	75	*Corymbia calophylla*	No suitable hollow/s	
1069		406451.33	6426404.18	53	*Corymbia calophylla*	No suitable hollow/s	
1041		406468.55	6426293.74	129	Corymbia calophylla	No suitable hollow/s	
980		406487.33	6426801.14	63	*Corymbia calophylla*	No suitable hollow/s	
1000		406934.74	6426723.73	50	*Eucalyptus marginata*	No suitable hollow/s	
1037		406445.27	6426325.70	81	*Corymbia calophylla*	No suitable hollow/s	
1073		406451.66	6426426.05	75	Corymbia calophylla	No suitable hollow/s	
1071		406450.04	6426409.73	64	*Corymbia calophylla*	No suitable hollow/s	
1066		406482.27	6426359.41	84	*Corymbia calophylla*	No suitable hollow/s	
992		406793.05	6426773.77	54	*Corymbia calophylla*	No suitable hollow/s	
1076		406381.26	6426462.76	50	*Corymbia calophylla*	No suitable hollow/s	
1021		406494.24	6426239.78	56	*Eucalyptus marginata*	No suitable hollow/s	
1059		406552.04	6426332.06	88	Corymbia calophylla	No suitable hollow/s	
1068		406451.33	6426404.18	102	*Corymbia calophylla*	No suitable hollow/s	
1008		406918.42	6426672.33	120	*Corymbia calophylla*	No suitable hollow/s	
995		406938.84	6426754.84	90	Corymbia calophylla	No suitable hollow/s	
1035		406417.17	6426363.33	110	*Corymbia calophylla*	No suitable hollow/s	
976		406308.16	6426787.44	68	*Corymbia calophylla*	No suitable hollow/s	
1061		406550.46	6426335.75	130	*Corymbia calophylla*	No suitable hollow/s	
985		406676.02	6426813.88	64	*Corymbia calophylla*	No suitable hollow/s	
998		406946.94	6426738.80	52	*Corymbia calophylla*	No suitable hollow/s	
1004		406931.97	6426716.23	68	*Corymbia calophylla*	No suitable hollow/s	
1015		406792.14	6426493.58	67	*Eucalyptus marginata*	No suitable hollow/s	
1075		406386.14	6426464.81	56	*Corymbia calophylla*	No suitable hollow/s	
1062		406545.74	6426327.04	79	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
1052		406493.84	6426337.52	58	*Corymbia calophylla*	No suitable hollow/s	
973		406434.68	6426592.04	77	Corymbia calophylla	No suitable hollow/s	
1064		406506.30	6426338.08	83	*Corymbia calophylla*	No suitable hollow/s	
1080		406347.33	6426437.81	63	*Corymbia calophylla*	No suitable hollow/s	
987		406745.60	6426801.42	53	*Corymbia calophylla*	No suitable hollow/s	
1031		406430.41	6426324.59	127	*Corymbia calophylla*	No suitable hollow/s	
972		406439.19	6426590.01	86	*Corymbia calophylla*	No suitable hollow/s	
1030		406429.42	6426315.37	129	Corymbia calophylla	No suitable hollow/s	
1074		406388.07	6426456.97	78	*Corymbia calophylla*	No suitable hollow/s	
1002		406936.16	6426716.49	62	*Corymbia calophylla*	No suitable hollow/s	
1024		406297.73	6426231.26	110	*Eucalyptus marginata*	No suitable hollow/s	
993		406817.45	6426768.02	79	*Corymbia calophylla*	No suitable hollow/s	
1033		406424.94	6426324.85	56	*Corymbia calophylla*	No suitable hollow/s	
1027		405836.82	6426298.80	86	*Stag*	No suitable hollow/s	
1019		406542.86	6426242.46	79	*Eucalyptus marginata*	No suitable hollow/s	
988		406756.51	6426808.97	84	*Corymbia calophylla*	No suitable hollow/s	
1084		406340.58	6426485.63	53	*Corymbia calophylla*	No suitable hollow/s	
982		406491.60	6426801.02	91	*Stag*	No suitable hollow/s	
1011		406874.81	6426579.93	93	*Corymbia calophylla*	No suitable hollow/s	
1055		406512.54	6426326.07	93	*Corymbia calophylla*	No suitable hollow/s	
1039		406459.00	6426322.52	64	*Corymbia calophylla*	No suitable hollow/s	
1050		406493.93	6426327.50	136	*Corymbia calophylla*	No suitable hollow/s	
1053		406489.69	6426342.60	128	*Corymbia calophylla*	No suitable hollow/s	
1057		406540.87	6426317.97	145	*Corymbia calophylla*	No suitable hollow/s	
1081		406350.28	6426456.97	60	*Corymbia calophylla*	No suitable hollow/s	
1029		406418.31	6426304.08	94	Corymbia calophylla	No suitable hollow/s	
1072		406441.97	6426415.24	55	*Corymbia calophylla*	No suitable hollow/s	
1014		406795.20	6426496.97	73	Eucalyptus marginata	No suitable hollow/s	
977		406288.89	6426805.74	62	Corymbia calophylla	No suitable hollow/s	
1082		406343.84	6426484.03	50	Corymbia calophylla	No suitable hollow/s	
1079		406348.64	6426457.11	63	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
1013		406859.68	6426526.19	100	*Eucalyptus marginata*	No suitable hollow/s	
996		406935.52	6426745.36	50	*Corymbia calophylla*	No suitable hollow/s	
1022		406491.52	6426260.80	136	*Corymbia calophylla*	No suitable hollow/s	
1001		406929.35	6426722.55	58	*Corymbia calophylla*	No suitable hollow/s	
1044		406480.29	6426304.15	73	*Corymbia calophylla*	No suitable hollow/s	
1054		406512.59	6426324.22	96	*Corymbia calophylla*	No suitable hollow/s	
1048		406483.93	6426316.79	50	*Corymbia calophylla*	No suitable hollow/s	
1085		406331.32	6426485.86	51	*Corymbia calophylla*	No suitable hollow/s	
1025		406290.30	6426228.77	50	*Eucalyptus marginata*	No suitable hollow/s	
1077		406356.02	6426454.79	53	*Corymbia calophylla*	No suitable hollow/s	
1026		406288.63	6426227.75	67	Eucalyptus marginata	No suitable hollow/s	
990		406780.13	6426802.24	60	*Corymbia calophylla*	No suitable hollow/s	
1067		406483.58	6426398.98	50	*Corymbia calophylla*	No suitable hollow/s	
1046		406476.13	6426313.23	115	*Corymbia calophylla*	No suitable hollow/s	
1056		406522.27	6426325.56	115	*Corymbia calophylla*	No suitable hollow/s	
1018		406550.49	6426250.38	101	*Eucalyptus marginata*	No suitable hollow/s	
1083		406346.40	6426486.81	51	*Corymbia calophylla*	No suitable hollow/s	
981		406487.65	6426807.52	79	*Corymbia calophylla*	No suitable hollow/s	
991		406786.75	6426768.96	86	*Corymbia calophylla*	No suitable hollow/s	
999		406937.97	6426719.14	65	*Corymbia calophylla*	No suitable hollow/s	
983		406486.05	6426792.77	75	*Corymbia calophylla*	No suitable hollow/s	
1063		406504.83	6426343.59	57	*Corymbia calophylla*	No suitable hollow/s	
1070		406451.29	6426404.55	50	*Corymbia calophylla*	No suitable hollow/s	
1002		406456.99	6426389.24	78	Corymbia calophylla	No suitable hollow/s	
1013		406372.39	6426439.36	58	Corymbia calophylla	No suitable hollow/s	
1009		406398.74	6426406.45	74	*Corymbia calophylla*	No suitable hollow/s	
1016		406357.52	6426402.02	56	*Corymbia calophylla*	No suitable hollow/s	
1003		406450.43	6426395.65	63	*Corymbia calophylla*	No suitable hollow/s	
1019		406325.51	6426425.22	92	*Corymbia calophylla*	No suitable hollow/s	
1004		406451.74	6426393.40	53	*Corymbia calophylla*	No suitable hollow/s	
1010		406390.13	6426411.56	63	*Corymbia calophylla*	No suitable hollow/s	

ID No.	Tag No.	Easting	Northing	DBH (cm)	Species	Category	Notes
1020		406320.16	6426433.50	101	*Corymbia calophylla*	No suitable hollow/s	
1008		406401.85	6426407.61	54	*Corymbia calophylla*	No suitable hollow/s	
1014		406375.11	6426417.89	56	*Corymbia calophylla*	No suitable hollow/s	
1012		406381.55	6426428.20	61	*Corymbia calophylla*	No suitable hollow/s	
1006		406410.94	6426408.64	61	*Corymbia calophylla*	No suitable hollow/s	
1005		406451.74	6426393.40	87	*Corymbia calophylla*	No suitable hollow/s	
1007		406407.61	6426406.00	78	*Corymbia calophylla*	No suitable hollow/s	
1018		406340.08	6426433.84	78	*Corymbia calophylla*	No suitable hollow/s	
1017		406352.14	6426406.78	98	Corymbia calophylla	No suitable hollow/s	
1011		406387.10	6426425.48	59	*Corymbia calophylla*	No suitable hollow/s	
1015		406375.11	6426417.89	65	*Corymbia calophylla*	No suitable hollow/s	
1043		406490.61	6426296.96	110	*Corymbia calophylla*	No suitable hollow/s	

Appendix D

Black Cockatoo Hollow Data

Black Cockatoo Hollow Data
Lot 4359 Keirnan Street, Mundijong

Tree ID 854

Project no.: EP21-057(3)
Inspection date: 12/11/2021
DBH (cm): 125
Tree species: *Eucalyptus marginata*
No. hollows: 2

Hollow ID: 1
Hollow type: Top-entry
Inspection type(s):
Pole camera

Determined hollow category

~~Confirmed nest~~

~~Suitable hollow(s) with signs of use~~

~~Suitable hollow(s)~~

Potentially suitable hollow(s)

Signs of hollow use:

Chicks: No
Egg/s or egg fragments: Yes
Feathers: Yes
Chew marks: Yes
Birds in/near hollow: No

Justification of hollow category:

- Internal inspection was inconclusive as the hollow is quite narrow and could not entirely explored using the hollow inspection camera

Hollow only suitable if it does extend past the visable range of the inspection camera (otherwise too shallow)

- Hollow appears potentially suitable as it is located in a suitably sized trunk and has a sufficiently sized opening
- Internal dimensions at the base are unknown
- Suitability of the base are unknown
- No evidence of use by black cockatoos

Black Cockatoo Hollow Data
Lot 4359 Keirnan Street, Mundijong

Tree ID 854 (continued)