Black Cockatoo Habitat Assessment

Newdegate Grain Receival Site

Proposed Expansion

CBH Group

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Version 2

On behalf of:
Eco Logical Australia
PO Box 7537
Cloisters Square
PERTH WA 6850

Prepared by:
Greg Harewood
Zoologist
PO Box 755
BUNBURY WA 6231
M: 0402 141 197
E: gharewood@iinet.net.au

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SUMMARY

This report details the results of a targeted black cockatoo habitat assessment undertaken over an area of land adjacent to the existing Newdegate Grain Receival Site. The land, herein referred as the study area, has an area of 24.8 ha and is comprised of part Lots 102 and 208, unallocated crown land, an unmade road reserve and a rail reserve.

CBH Group (CBH) is proposing to utilise the land within the study area for a planned expansion of existing grain receival facilities. This assessment has been carried out to assist in filling information gaps prior to the submission of a *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (*EPBC Act*) referral and Western Australian Native Vegetation Clearing Permit application under Part V of the *Environmental Protection Act 1986* (*EP Act*) in support of the future development.

The habitat assessment has been carried out in accordance with methods described within the Revised Draft Black Cockatoo *EPBC Act* Referral Guidelines (Commonwealth of Australia 2017), with the primary aim being to identifying habitat used for foraging, breeding or roosting within the study area. The assessment has included a review of 31 trees, previously assessed by 360 Environmental in 2015, that had observable hollows considered potentially suitable for Carnaby's cockatoo. A review of available regional information has also been undertaken. Information was also gathered to allow use of the “scoring tool” which has been developed to assist in determining if the study area contains quality foraging habitat.

During their survey 360 Environmental (2015b) identified the following black cockatoo habitat elements within the study area:

- Foraging Habitat

  20.3 ha of vegetation contains plant species known to or thought to be used as a foraging resource (i.e. all areas of salmon gum, red morell and Kondinin blackbutt).

  No evidence of actual foraging observed.

- Breeding Habitat

  92 trees identified as representing potential black cockatoo breeding habitat (i.e. DBH (1.3 metres from the ground) of 500 mm, or 300 mm if salmon gum).

  31 of the 92 trees had observable hollow entrances that were considered to be large enough and at a height to be suitable for black cockatoos to use for nesting.

  No actual breeding activity observed.

- Roosting Habitat

  No evidence of roosting or any other black cockatoo activity observed.

The review of black cockatoo habitat values at the Newdegate Grain Receival Site carried out in March 2109 identified the following:

- Foraging Habitat

  8.98 ha of vegetation contains plant species documented as being used as a foraging resource (i.e. all areas of salmon gum and York gum as mapped by ELA (2018)). Areas containing red morell and Kondinin blackbutt included by 360 Environmental (2015b) as forging habitat have been excluded from this total as they are not specifically documented as being fed upon by black cockatoos.

  No evidence of actual foraging observed.

- Breeding Habitat

  88 potential black cockatoo breeding trees (i.e. DBH (1.3 metres from the ground) of 500 mm, or 300 mm if salmon gum);

  61 of the 88 trees do not contain any hollows or possible small hollows only;

  4 of the 31 previously identified hollow bearing trees are no long present (fallen over or felled);

  17 of the 31 previously identified hollow bearing trees appear unsuitable for black cockatoos due to hollows appearing to be too small and/or too low to the ground. This disparity with 360 Environmental results appears to be a consequence of their nitial assessment apparently being almost totally based on the hollow entrance size only (>100mm), with no other characteristics of the hollow (such as the size of the branch into which it provides entry) being taken into consideration when determining its suitability.

  10 of the previously identified hollow bearing trees appear potentially suitable for black cockatoos based on apparent suitable internal dimensions, orientation and position.

- Two hollows show some evidence of possible blackcoat cockatoo activity but In no case was it possible to conclusively state that any of the hollows had definitely been used for nesting by black cockatoos.

- Roosting Habitat

  No evidence of roosting or any other black cockatoo activity observed. The survey was however undertaken outside of the period when Carnaby's cockatoo would be most likely to frequent the area and therefore the lack of any roosting activity may not be indicative of the study areas actual degree of use for the purpose.

Based on available vegetation mapping it is estimated that there is approximately 5,500 ha of native vegetation within 12 km of the study area. These areas have not been specifically assessed however are very likely to contain some potential black cockatoo habitat of some

sort (foraging, breeding and/or roosting). It should be noted that there are no historical records of Carnaby's cockatoos from within a search radius of 16 km from the Newdegate town site based on NatureMap (accessed 4 April 2019). Most records are concentrated around the larger nature reserves and remnants and particularly, to the south of the study area.

Birdlife Australia have indicated that black cockatoo nesting has been recorded around "Lake Magenta and further east" in recent years (A. Peck, personal communication, 4 April 2019). These areas are located roughly 40 km south and south east of Newdegate. NatureMap (accessed 4 April 2019) also shows some apparent Carnaby's cockatoo breeding records from a location about 34 km south east of Newdegate (dated November 2016).

These areas south of Newdegate may be favoured by Carnaby's cockatoos for breeding due to their proximity to the larger nature reserves where large expanses of quality foraging habitat are likely to occur.

A review of the 2018 Great Cocky Count report shows no roost sites within or near the study area, with the closest documented sites being situated over 130 km south east near the coast (Peck *et al.* 2018).

An assessment of the study area using the DoTEE's "foraging habitat scoring tool" (Commonwealth of Australia 2017) returned a habitat quality score of eight (8). This score equates to a habitat quality rating of "very high" to "high quality". While it could be argued that this rating has been incorrectly inflated by the lack of options for a starting score which better reflect the nature of the vegetation present, a score of seven (7) or six (6) would still result in a recommendation for referral being advisable.

It should be noted that if the removal of any one of the identified habitat trees is required then the proposed expansion qualifies as "likely to have a significant impact" using the draft revised DotEE criteria, in which case the submission of a referral, to ensure compliance with the *EPBC Act*, would be advisable in any event (if these referral guidelines were in place), irrespective of the habitat score rating.

1. INTRODUCTION

This report details the results of a targeted black cockatoo habitat assessment undertaken over an area of land adjacent to the existing Newdegate Grain Receival Site. The land, herein referred as the study area, has an area of 24.8 ha and is comprised of part Lots 102 and 208, unallocated crown land, an unmade road reserve and a rail reserve (Figure 1 and 2).

CBH Group (CBH) is proposing to utilise the land within the study area for a planned expansion of existing grain receival facilities. This assessment has been carried out to assist in filling information gaps prior to the submission of a *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (*EPBC Act*) referral and Western Australian Native Vegetation Clearing Permit application under Part V of the *Environmental Protection Act 1986* (*EP Act*) in support of the future development.

The study area is within the known distribution of Carnaby's cockatoo (*Calyptorhynchus latirostris*) only, with Baudin's cockatoo (*Calyptorhynchus baudinii*) and the forest red-tailed black cockatoos (*Calyptorhynchus banksii naso*) having distribution limits that do not extend into this section of Western Australia. Carnaby's cockatoo is therefore the only species of black cockatoo considered within this report.

2. SCOPE OF WORKS

The scope of works was defined as:

- Define and map potential foraging, breeding and roosting habitat quality using a scale and assess the habitat against the revised draft Cockatoo *EPBC Act* Referral Guidelines (Commonwealth of Australia 2017), or finalised guidelines, if released prior to the survey date;
- Inspect the 31 trees with hollows previously identified by 360 Environmental for suitability and signs of black cockatoo breeding use; and
- Provide a report detailing survey findings (including photos of breeding use of hollows), including a discussion outlining the proximity to the closest known breeding, foraging and roosting sites, and the implications of clearing the habitat present in the study area.

3. METHODS

The field aspect of this assessment was undertaken on the 24 and 25 March 2019 by Greg Harewood (zoologist) and Kristopher Harewood (field assistant).

The habitat assessment has been carried out in accordance with methods described within the Revised Draft Black Cockatoo *EPBC Act* Referral Guidelines (Commonwealth of Australia 2017), with the primary aim being to identifying habitat used for foraging, breeding or roosting within the study area. Information was gathered to allow use of the "scoring tool" which has been developed to assist in determining if the study area contains **quality** foraging habitat.

The following information was be gathered during the field survey where possible and where necessary literature reviews to allow for the "scoring tool" to be used:

- The presence of all plant species that provide foraging, including non-native food sources used by black cockatoos.

  This has primarily included a review of the flora and vegetation survey carried out within the study area by Eco Logical Australia (2018) with the aim of identify all plant species present known to be used by Carnaby's cockatoos as a forging resource. Evidence of foraging by black cockatoos was also searched for and recorded during the field survey period.

- The presence of tree species used for breeding.

  This facet of the assessment has already been completed by 360 (360 Environmental 2015). Results of this assessment have been reviewed in the field to ensure appropriate methods were employed and that there are no data gaps (see Section 3.2).

- Use as a roosting site;

  One dusk survey was carried out during the field survey to determine if any roosting is occurring. This also included looking for evidence of roosting in the form of accumulated branch clippings, feathers and dropping at the base of trees.

- The vegetation present in the surrounding area, i.e. at least 12 km from the study area, including proximity to any breeding habitat, roosting sites or watering points;

  A review of available mapping will be carried out to provide an estimate of the amount of remnant native vegetation present with 12km of the assessment area.

- Breeding habitat, such as an estimate of the number of trees with a diameter at breast height (1.3 metres from the ground) of 500 mm, or 300 mm if salmon gum or wandoo;

This facet of the assessment has already been completed by 360 (360 Environmental 2015b). Results of this assessment have been reviewed in the field to ensure appropriate methods were employed and that there are no data gaps. (see Section 3.2)

- Numbers of any known nesting trees.

  This facet of the assessment has already been completed by 360 (360 Environmental 2015). Results of this assessment have been reviewed in the field to ensure appropriate methods were employed and that there are no data gaps. (see Section 3.2)

- Presence of disease, such as *Phytophthora cinnamomi* or marri canker (*Quambalaria coyrecup*).

  Evidence of impacts of any plant pathogens were recorded if observed during the field survey.

3.1 Foraging Habitat

The foraging potential of each plant species identified by Eco Logical Australia (2018) as being present has been assessed using available literature and placed into one of two categories:

- Known – specific plant species documented in literature as being foraged upon by Carnaby's cockatoos;

- Not Documented - specific plant species not documented in literature as being foraged upon by Carnaby's cockatoos.

Primary sources of information for Carnaby's cockatoo foraging species have included DPaW (2016), Davies (1966), DEC (2012), Groom (2011), Higgins (1999), Johnstone and Storr (1998), Johnstone and Kirkby (2011), Saunders (1974, 1979a, 1979b, 1980 & 1986), Saunders *et al.* (1982), Commonwealth of Australia (2012) and Shah (2006).

The location and nature of black cockatoo foraging evidence (e.g. chewed fruits around base of trees) observed during the field survey were recorded.

A review of available literature was also carried out to determine the location/extent of any known/likely black cockatoo foraging habitat areas in the vicinity of the study area.

3.2 Breeding Habitat

As part of the assessment all previously identified habitat trees containing observable hollows (31 in total) deemed "suitable to be used for Carnaby's cockatoo nesting" (360 Environmental 2015b) (Figure 3) were revisited and specific details on any hollows present recorded. This included but was not be limited to recording specific details on any evidence of actual use (e.g. significant chew marks around hollow entrances).

Where practical to do so a drone (DJI Mavic Air) was used to examine and photograph each potential hollow at close range to assist in determining suitability and to aid in identifying any signs of current or previous use by black cockatoos.

Identified hollows have initially been placed into one of three categories based on the type of hollow entry (Birdlife Australia 2018a):

- Chimney: the hollow entry faces directly upwards in the end of the trunk;
- Spout: hollow entry which is at the end of a broken branch; or
- Side: the entry is directly into the side of the trunk or a branch with no protrusions.

For the purpose of this review, hollows have then been placed into one of seven categories based on the observable characteristics of each hollow. The categories used were:

- Confirmed Hollow: Black cockatoos observed utilising the hollow for breeding purposes;
- Chewed Hollow: The hollow shows signs of chewing ("chipping" around or near entrance and/or internally) attributed to black cockatoo activity (in most cases indicating nesting activity, but in some cases possibly marks left by black cockatoos investigating ("prospecting") hollows);
- Unused Hollow: The hollow appears to be of a suitable size for black cockatoos to use for nesting, but no conclusive evidence of this activity seen. It should be noted that chew marks/chipping are not always evident or present on some hollows that have been used for nesting. Hollows classified as "unused" may therefore have been used for nesting but cannot be specifically classified as such. Alternatively, some "unused" hollows may not be suitable for black cockatoos as a range of characteristics, not all of which can be seen or measured, ultimately determined if a hollow will ever actually be used;
- Unsuitable Hollow: The hollow has been assessed, based on information obtained, as being unlikely to be suitable for black cockatoos (generally because of the entrance appearing to be too small or because the actual hollow or accommodating branch/tree trunk appears to be too small or as having an unfavourable orientation);
- No Hollow: The tree was not observed to contain any hollows. During the initial assessment no hollows were observed. Trees previously identified as having a hollow/s can also be re-classified into this category. Generally, this would be due to mis-identification from ground level during the initial assessment where a feature of the tree appeared to possibly represent a hollow but upon closer inspection was found not to qualify as such;
- No Tree Present: A standing tree is no longer present i.e. the original tree has fallen over, been burnt or has been removed/felled.

- Status Unknown: The tree could not be found or was not revisited.

A review of available literature was carried out to determine the location/extent of any known/likely black cockatoo breeding habitat areas in the vicinity of the study area.

3.3 Roosting Habitat

A single dusk survey was carried out on the 24 March 2019 from about 5:30pm to 6:30pm and involved observing and listening for any black cockatoo activity from a vantage point near the southern end of the study area.

Direct and indirect evidence of black cockatoos roosting within trees within the study area site was noted during the field survey if observed (e.g. branch clippings, droppings or moulted feathers).

A review of available literature was also carried out to determine the location/extent of any known/likely black cockatoo roosting habitat areas in the vicinity of the study area.

4. RESULTS

4.1 Foraging Habitat

The vegetation units present as mapped by ELA (2018) are shown in Figure 4. The identified units are:

- **EkElg**: *Eucalyptus kondininensis*, *E. longicornis* open forest over *Atriplex paludosa* subsp. *baudinii* scattered low shrubs. Some parts included where *Eucalyptus longicornis* occurs as the single dominant tree species (7.90 ha/31.85%);
- **Elx**: *Eucalyptus loxophleba* subsp. *gratiae* low open mallee forest over *Melaleuca acuminata* subsp*. acuminata* scattered tall shrubs to tall open shrubland (open to closed scrub in parts) over *Dodonaea ptarmicaefolia*, *Acacia hemiteles* shrubland over *Austrostipa elegantissima* very open grassland (5.72 ha/23.07%);
- **EkAv**: *Eucalyptus kondininensis* open forest over *Atriplex vesicaria* low open shrubland over *Threlkeldia diffusa* very open low herbland (4.56 ha/18.38%);
- **Es**: *Eucalyptus salmonophloia* open to closed forest over *Dodonaea stenozyga* scattered shrubs to open shrubland over *Olearia muelleri, Acacia erinacea* low open shrubland (3.26 ha/13.13%);
- **TuAv**: *Tecticornia undulata*, *Atriplex vesicaria, Tecticornia syncarpa* low open heath over *Disphyma crassifolium* subsp. *clavellatum* very open herbland (1.71 ha/6.89%);
- **ElgMl**: *Eucalyptus longicornis* open forest over *Melaleuca lanceolata* open scrub over *Atriplex paludosa* subsp. *baudinii* scattered low shrubs (0.87 ha/3.49%);

- **Cleared**: Cleared areas, completely devoid of vegetation (0.79 ha/3.19%).

A total of 178 taxa (including species, subspecies, varieties and forms, and specimens not identified to species level) from 111 genera and 42 families were recorded from quadrats, relevés and opportunistic collections in the study area by ELA (2018) and previous surveys (360 Environmental 2015a; Cardno 2014).

Table 1 below lists the all flora species recorded along with their documented black cockatoo foraging status.

Table 1: Identified Flora Species within the Study Area and Black Cockatoo Foraging Status

Genus & Species	Status	Carnaby's Cockatoo Foraging Species
Acacia acanthoclada		Not documented
Acacia erinacea		Not documented
Acacia hemiteles		Not documented
Acacia leptospermoides		Not documented
Acacia merrallii		Not documented
Alyxia buxifolia		Not documented
Arctotheca calendula	Introduced	Not documented
Arthropodium curvipes		Not documented
Asteraceae sp.		Not documented
Asteridea athrixioides		Not documented
Atriplex bunburyana		Not documented
Atriplex cinerea		Not documented
Atriplex paludosa		Not documented
Atriplex vesicaria		Not documented
Austrostipa acrociliata		Not documented
Austrostipa elegantissima		Not documented
Austrostipa exilis		Not documented
Austrostipa pycnostachya		Not documented
Austrostipa sp.		Not documented
Austrostipa trichophylla		Not documented
Avena barbata	Introduced	Not documented
Blennospora drummondii		Not documented
Blennospora phlegmatocarpa		Not documented
Brachyscome ciliaris		Not documented
Brachyscome eyrensis		Not documented
Brachyscome perpusilla		Not documented
Brassica napus	Introduced	Not documented
Brassica tournefortii	Introduced	Not documented
Bromus rubens	Introduced	Not documented
Caladenia dimidia		Not documented
Caladenia hirta		Not documented
Calandrinia calyptrata		Not documented
Calandrinia sp.		Not documented
Calotis hispidula		Not documented
Carpobrotus modestus		Not documented
Cassytha melantha		Not documented
Cenchrus clandestinus	Introduced	Not documented
Chenopodiaceae sp.		Not documented
Chenopodium desertorum		Not documented
Cirsium vulgare	Introduced	Not documented
Comesperma integerrimum		Not documented
Conyza bonariensis	Introduced	Not documented
Coopernookia strophiolata		Not documented
Corunastylis fuscoviridis		Not documented
Cotula bipinnata	Introduced	Not documented

Genus & Species	Status	Carnaby's Cockatoo Foraging Species
Crassula colorata		Not documented
Crassula colorata acuminata		Not documented
Cryptandra minutifolia		Not documented
Cryptandra nutans		Not documented
Cryptandra wilsonii		Not documented
Dampiera lavandulacea		Not documented
Daucus glochidiatus		Not documented
Daviesia scoparia		Not documented
Dianella revoluta		Not documented
Disphyma crassifolium clavellatum		Not documented
Dodonaea ptarmicaefolia		Not documented
Dodonaea stenozyga		Not documented
Drosera bulbosa		Not documented
Ehrharta longiflora	Introduced	Not documented
Enchylaena lanata		Not documented
Enchylaena tomentosa		Not documented
Eremophila decipiens		Not documented
Eremophila deserti		Not documented
Ericksonella saccharata		Not documented
Eriochilus dilatatus		Not documented
Erodium cicutarium	Introduced	Not documented
Erodium cygnorum		Not documented
Erymophyllum tenellum		Not documented
Eucalyptus kondininensis		Not documented
Eucalyptus longicornis		Not documented
Eucalyptus loxophleba		Known
Eucalyptus salmonophloia		Known
Eucalyptus salubris		Not documented
Exocarpos aphyllus		Not documented
Goodenia berardiana		Not documented
Goodenia pusilliflora		Not documented
Helichrysum leucopsideum		Not documented
Helichrysum luteoalbum		Not documented
Hordeum leporinum	Introduced	Not documented
Hyalosperma glutinosum		Not documented
Hydrocotyle pilifera		Not documented
Hypochaeris glabra	Introduced	Not documented
Indeterminant sp.		Not documented
Lawrencia squamata		Not documented
Lepidium rotundum		Not documented
Lepidium sp.		Not documented
Lepidosperma diurnum		Not documented
Lepidosperma drummondii		Not documented
Lolium rigidum	Introduced	Not documented
Lomandra effusa		Not documented
Lycium australe		Not documented
Lysimachia arvensis	Introduced	Not documented
Maireana enchylaenoides		Not documented
Maireana erioclada		Not documented
Maireana marginata		Not documented
Maireana suaedifolia		Not documented
Maireana trichoptera		Not documented
Melaleuca acuminata		Not documented
Melaleuca adnata		Not documented
Melaleuca lanceolata		Not documented
Melaleuca lateriflora		Not documented
Melaleuca pauperiflora		Not documented
Melaleuca scalena		Not documented
Melaleuca sp.		Not documented
Melaleuca thyoides		Not documented

Genus & Species	Status	Carnaby's Cockatoo Foraging Species
Mesembryanthemum nodiflorum	Introduced	Not documented
Microcybe multiflora		Not documented
Millotia myosotidifolia		Not documented
Monoculus monstrosus	Introduced	Not documented
Neurachne alopecuroidea		Not documented
Olearia muelleri		Not documented
Olearia subspicata		Not documented
Omphalolappula concava		Not documented
Oxalis perennans		Not documented
Oxalis pes-caprae	Introduced	Not documented
Pauridia glabella		Not documented
Pelargonium havlasae		Not documented
Pentameris airoides	Introduced	Not documented
Pittosporum angustifolium		Not documented
Plantago coronopus	Introduced	Not documented
Plantago debilis		Not documented
Poaceae sp.		Not documented
Pogonolepis sp.		Not documented
Prasophyllum gracile		Not documented
Pterostylis mutica		Not documented
Pterostylis picta		Not documented
Pterostylis scabra		Not documented
Ptilotus holosericeus		Not documented
Ptilotus spathulatus		Not documented
Raphanus raphanistrum	Introduced	Known
Rhagodia crassifolia		Not documented
Rhagodia drummondii		Not documented
Rhagodia preissii		Not documented
Rhodanthe heterantha		Not documented
Rhodanthe pygmaea		Not documented
Roepera glauca		Not documented
Rumex crispus	Introduced	Not documented
Rytidosperma acerosum		Not documented
Salvia verbenaca	Introduced	Not documented
Santalum acuminatum		Not documented
Scaevola spinescens		Not documented
Sclerolaena diacantha		Not documented
Senecio glomeratus		Not documented
Senecio glossanthus		Not documented
Senna artemisioides		Not documented
Senna sp.		Not documented
Siloxerus humifusus		Not documented
Sonchus oleraceus	Introduced	Not documented
Stellaria filiformis		Not documented
Stenopetalum lineare		Not documented
Tecticornia indica		Not documented
Tecticornia pergranulata		Not documented
Tecticornia sp.		Not documented
Tecticornia syncarpa		Not documented
Tecticornia undulata		Not documented
Templetonia rossii		Not documented
Teucrium sessiliflorum		Not documented
Thelymitra graminea		Not documented
Thelymitra macrophylla		Not documented
Threlkeldia diffusa		Not documented
Thysanotus lavanduliflorus		Not documented
Thysanotus manglesianus		Not documented
Thysanotus patersonii		Not documented
Trachymene ornata		Not documented
Trachymene pilosa		Not documented

Genus & Species	Status	Carnaby's Cockatoo Foraging Species
Trifolium hirtum	Introduced	Not documented
Trifolium sp. 1	Introduced	Not documented
Trifolium sp. 2	Introduced	Not documented
Trifolium tomentosum	Introduced	Not documented
Triticum aestivum	Introduced	Not documented
Trymalium myrtillus		Not documented
Ursinia anthemoides	Introduced	Not documented
Vulpia myuros forma myuros	Introduced	Not documented
Vulpia sp.	Introduced	Not documented
Waitzia suaveolens		Not documented
Westringia cephalantha		Not documented
Westringia rigida		Not documented
Wilsonia rotundifolia		Not documented
Wurmbea tenella		Not documented
Xanthoparmelia semiviridis		Not documented

Only three species of plant present with the study area are confirmed/known dietary items of Carnaby's cockatoo, these being:

- Salmon Gum (*Eucalyptus salmonophloia*);
- York Gum (*Eucalyptus loxophleba*); and
- Wild Radish (*Raphanus raphanistrum*) (introduced).

Salmon gum (**Es**) and York gum (**Elx**) dominated units make up about 8.98 ha (~36.2%) of the study area (see Figure 4). York gum was also recorded in low densities within areas dominated by Kondinin blackbutt (*Eucalyptus kondininensis)* and red morrel (*E. longicornis*) (**EkElg**) (ELA 2018). Wild radish (a small weed) was recorded in two quadrats by ELA (2018) but is not expected to represent foraging habitat of any significance as its contribution to the overall foraging resource available in the study area would be small/negligible.

Both salmon gum and York gum both have relatively small fruits and as such can be regarded as being of low to moderate foraging value given the amount of effort that would be required by black cockatoos to extract seeds when compared to other more favourable species. The absence of any other flora species known to be utilised by black cockatoos as a food source (in particular diverse shrublands/kwongon heath/banksia) also lowers the overall foraging value of vegetation with the study area.

With respect to the DotEE foraging habitat scoring tool (Commonwealth of Australia 2017) the foraging habitat present in the study area (estimated to cover about 8.98 ha) must still be rated as having an initial starting score of 7 (high quality habitat) when assessed using the broad criteria listed (see Table 3 - Commonwealth of Australia 2017). This is based on the fact that the area contains "eucalypt woodland" comprised of some documented foraging species, albeit only species with apparent low relative value.

No evidence of any black cockatoo foraging activity was observed during the course of the field survey or during any previous surveys (Cardno 2014, 360 Environmental 2015a &

2015b and ELA 2018) which is consistent with the conclusion that the foraging habitat is of low value and therefore possibly rarely utilised.

It should be noted that 360 (360 Environmental 2015b) incorrectly document red morrel as representing foraging habitat when in fact the reference they refer to (Groom (DEC) 2011) indicates it represents potential breeding habitat only. 360 have also considered Kondinin blackbutt as representing foraging habitat. Like red morrel, this tree species is not specifically identified as a plant species fed upon by black cockatoos in any of the available references, which suggests it should not be considered foraging habitat for the purpose of any assessment as it is likely to exaggerate the areas actual value.

These eucalypt species are possibly not favoured by black cockatoos due to the small size of their fruiting bodies making seed extraction time consuming and energy inefficient relative to more favoured plant species. Because of the inclusion of these two tree species 360 have mapped the extent of foraging habitat within the study area as being ~ 20.3 ha, which appears, based on the current review, to be an overestimation of what is actually foraging habitat of any value.

Based on available vegetation mapping it is estimated that there is approximately 5,500 ha of native vegetation within 12 km the study area. These areas have not been specifically assessed but at least some areas are very likely to represent potential black cockatoo foraging habitat of some type. The foraging habitat identified within the study area makes up about 0.1% of the total area of remnant vegetation present in this 12 km area.

No evidence of any impacts on vegetation that could be attributed to plant pathogens were observed during the field survey.

4.2 Breeding Habitat

A summary of the results of the black cockatoo tree review are presented in Table 2 below. Additional details (photos and descriptions) on each tree inspected including their original and reviewed status are held in Appendix A. The location of these trees is shown in Figure 5.

Table 2: Hollow Bearing Habitat Tree Review - Summary Results

ID	Tree Species	No. of Hollows	360 (2015) Classification	Revised (2019) Classification	Comments
2	Red Morrel	1	Suitable Hollow	Unsuitable Hollow	Very low, marginal size, appears unsuitable.
11	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small, possibly occupied by owls?
18	Salmon Gum	2	Suitable Hollow	Unsuitable Hollows	All appear too small.
21	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small, in use by feral bees.
22	Salmon Gum	1	Suitable Hollow	Unused Hollow	Appears suitable, no sign of use.
27	Salmon Gum	1	Suitable Hollow	No Tree Present	Fallen over/felled.
28	Salmon Gum	2	Suitable Hollow	Unsuitable Hollows	All appear too small.
39	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small.

ID	Tree Species	No. of Hollows	360 (2015) Classification	Revised (2019) Classification	Comments
42	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small.
43	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small, used by galahs.
51	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small, used by galahs.
53	Salmon Gum	1	Suitable Hollow	Unused Hollow	Appears suitable, no sign of use.
57	Salmon Gum	1	Suitable Hollow	Chewed Hollow	Marginal size but possible evidence of use.
58	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Low, marginal size, appears unsuitable.
60	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small, used by galahs.
72	Salmon Gum	2	Suitable Hollow	Chewed Hollow	Marginal size but possible evidence of use, used by galahs.
73	Salmon Gum	4	Suitable Hollow	Unsuitable Hollows	All appear too small, used by galahs and feral bees.
74	Salmon Gum	3	Suitable Hollow	Unsuitable Hollows	All appear too small, used by galahs.
76	Salmon Gum	4	Suitable Hollow	Unsuitable Hollows	All appear too small, used by feral bees
77	Salmon Gum	2	Suitable Hollow	No Tree Present	Fallen over/felled.
78	Salmon Gum	4	Suitable Hollow	Unused Hollow	One hollow appears suitable, used by galahs.
79	Salmon Gum	1	Suitable Hollow	Unused Hollow	Appears suitable, no sign of use.
81	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small.
83	Salmon Gum	3	Suitable Hollow	Unused Hollow	One hollow appears suitable, used by galahs.
85	Salmon Gum	1	Suitable Hollow	Unsuitable Hollow	Appears too small, used by galahs.
86	Salmon Gum	2	Suitable Hollow	Unused Hollow	One hollow appears suitable, no sign of use.
87	Salmon Gum	4	Suitable Hollow	Unused Hollow	One hollow appears suitable, used by feral bees.
88	Stag	1	Suitable Hollow	No Tree Present	Felled.
89	Stag	2	Suitable Hollow	Unused Hollow	One hollow appears suitable, no sign of use.
91	Stag	3	Suitable Hollow	Unsuitable Hollows	All appear too small.
92	Stag	3	Suitable Hollow	No Tree Present	Fallen over.

Over half (17) of the trees initially identified as having “hollows large enough for black cockatoos to breed in” (360 Environmental 2015b) have been reassessed as being unsuitable. For most of the trees (15) this reassessment was primarily based on the apparent internal size of the hollow itself or the size of the accommodating branch/tree trunk, with observations made in the field suggesting they would be too small for a black cockatoo to utilise for nesting purposes. Two of the 17 trees have been assessed as unsuitable as the hollows appeared to be both marginal in size and too low to the ground.

This large disparity appears to be a consequence of the initial assessment apparently being almost totally based on the hollow entrance size only ($\geq$100mm), with no other characteristics of the hollow (such as the size of the branch into which it provides entry) being taken into consideration when determining its suitability.

Four (4) trees were found to have either fallen over or been felled, apparently for firewood given evidence of chainsaw use.

The remaining 10 trees from the original data set identified by 360 have been assessed as containing at least one hollow potentially suitable for black cockatoos to use for nesting. This conclusion has been based on the hollows appearing to be of a suitable size, position and orientation based on observations made in the field.

In no case was it possible to conclusively state that any of the hollows had definitely been used for nesting by black cockatoos though two (2) were classified as “chewed hollows” as they showed some evidence of “chipping” (potentially caused by black cockatoos chewing wood from the internal surface or outer rim of the hollow). This is often indicative of nesting activity but sometimes is a consequence of repeated “prospecting” (investigation) for suitable hollows only.

It should also be noted that galahs also chew hollows (referred to as “chipping”) to a certain degree and some overlap in characteristics may occur. Generally, a few chips around a hollow entrance is indicative of Carnaby’s cockatoo activity, chipping around the entire hollow entrance is a sign of galahs. Galahs also chew the bark from the tree in which they are nesting (and sometimes adjacent trees) leaving very obvious scarring.

Galah nesting activity appears to be common within the study area with eight (8) of the 31 trees examined showing some evidence of use for this purpose. This was mainly in the form of extensive scarring of tree bark. Four (4) trees were also found to be occupied by feral bees.

As a consequence of the review the dataset of habitat trees present within the study area now consists of 88 trees with a DBH of >300mm or more (for Salmon Gum, ≥500mm for Red Morrel) (Figure 6). Sixty one (61) of these, as identified by 360 Environmental (2015b), were not observed to have any hollows. Seventeen (17) trees have hollows that have been assessed as being unsuitable for cockatoos.

Ten (10) trees appear to have hollows possibly suitable for cockatoos, with two showing some evidence of use though it can not be conclusively be attributed to nesting black cockatoos at this point in time.

Four (4) trees have been removed from the original dataset as they have fallen over or been felled. The location of the above-mentioned trees is shown in Figure 6 with summary details being provided in Appendix B.

There is a paucity of publicly available breeding data for black cockatoos. This is probably due to both a lack of survey work and/or reporting but also because information is withheld due its sensitive nature.

The most recently available report by Birdlife Australia (2018) does however provide some summary results of surveys carried out between mid-September and mid-January 2017 at 34 sites around regional Western Australia. The report shows the rough location of two survey sites both about 40 km south and south east of Newdegate respectively, one within the Lake Magenta Nature Reserve and one near the Dunn Rock Nature Reserve. The report does not specify if breeding activity was recorded at either location, however

discussion with Adam Peck directly indicates that they have recorded breeding activity, mainly "on private land around Lake Magenta and further east" (A. Peck, personal communication, 4 April 2019). NatureMap (accessed 4 April 2019) also shows some apparent Carnaby's cockatoo breeding records from a location about 34 km south east of Newdegate, made in November 2016 (Figure 7). These appear to be related to some of Birdlife Australia's previous monitoring work.

These areas, south of Newdegate, may be favoured by Carnaby's cockatoos for breeding due to their proximity to the larger nature reserves where large expanses of quality foraging habitat are likely to occur.

Based on available vegetation mapping it is estimated that there is approximately 5,500 ha of native vegetation within 12 km the study area. These areas have not been specifically assessed however some areas are very likely to contain potential black cockatoo breeding habitat of some type (i.e. trees with a DBH $\geq$300mm). The study area as a whole (~24.8 ha) makes up about 0.45% of this remnant vegetation.

4.3 Roosting Habitat

No roosting activity by Carnaby's cockatoos was recorded during the single dusk survey or during the daytime assessment carried out on the following day. The survey was however undertaken outside of the period when Carnaby's cockatoo would be most likely to frequent the area and therefore the lack of any roosting activity may not be indicative of the study areas actual degree of use for the purpose.

No roosting activity (or any other black cockatoo activity) has been recorded during previous surveys over the study area (Cardno 2014 (October 2014), 360 Environmental 2015a (September 2015) and 2015b (May 2015) and ELA 2018 (June/December 2018)).

The study area does contain large trees that presumably represent potential roosting habitat and the waste water treatment plant directly adjoining the site contains ponds of water, which may represent a potential drinking site, though the palatability of the water to black cockatoos is not known. It should be noted that there are numerous (possibly thousands) of potential watering sites for black cockatoos throughout the wheatbelt. Most of these are manmade sources (e.g. dams and water troughs) in place for livestock. Which ones have been or are used by black cockatoos is not documented.

Black cockatoo roost surveys have been undertaken across Western Australia for a number of years by Birdlife Australia. A review of the 2018 Great Cocky Count report shows no roost sites within or near the study area, with the closest documented sites being situated over 130 km south east near the coast (Peck *et al.* 2018).

Based on available vegetation mapping it is estimated that there is approximately 5,500 ha of native vegetation within 12 km the study area. These areas have not been specifically assessed however some areas are very likely to contain some potential black cockatoo roosting habitat. It should be noted that there are no historical records of Carnaby's cockatoos from within a search radius of 16 km from the Newdegate town site based on

NatureMap (accessed 4 April 2019). Most records are concentrated around the larger nature reserves and remnants and particularly, to the south of the study area (Figure 7).

5. REVISED DRAFT REFERRAL GUIDELINES ASSESSMENT

The revised referral guidelines (Commonwealth of Australia 2017) have not been officially adopted but an assessment is provided here as a guide in the event they (or a modified version thereof) are enacted in the near future.

The following summary points contained within the revised document provide general guidance on what, in DotEE's view, may constitute significant impact on black cockatoos. An action that will or is likely to result in a significant impact will require referral to the Australian Government (Commonwealth of Australia 2017).

1. Clearing of known nesting trees or breeding habitat is likely to result in a significant impact;

2. Complete clearance of roost sites that are close to high quality foraging habitat and water resources in non-breeding areas is likely to result in a significant impact;

3. Clearing very high to high quality foraging is likely to result in a significant impact;

    i. Impacts on *higher quality* foraging habitat are likely to have a significant impact, with a lower acceptability of loss in hectares; your action should be referred.

    ii. Impacts on *low quality* foraging habitat is more likely to be acceptable. Committing to priority mitigation actions in the relevant region means your action is less likely to result in a significant impact and require referral.

    iii. Impacts on foraging habitat that is *valued*, with a score of 4 to 6, may still require referral, depending upon how much habitat is being impacted, the location and what measures are proposed to avoid and/or mitigate that impact.

4. Various other actions with indirect or facilitated impacts on black cockatoos (but where there is a commitment to the mitigation objectives and priorities with the guidelines), are less likely to have a significant impact on black cockatoos.

The study area was found to contain 88 trees which would be regarded by the DotEE as representing potential black cockatoo breeding habitat due to their DBH size being 300mm or greater. Despite the fact that no actual breeding within any of these trees has been confirmed, the removal of just one of these trees will compromise criterion 1 and be regarded as "likely to result in a significant impact".

No black cockatoo roosting activity was found during the assessment and therefore it is considered unlikely that criterion 2 will be compromised. The survey was however undertaken outside of the period when Carnaby's cockatoo would be most likely to frequent

the area of its range and therefore the lack of any roosting activity may not be indicative of the study areas actual use for the purpose.

The foraging habitat tool assessment for Carnaby's cockatoo species is provided in the table below to provide guidance in criterion 3.

Table 3: Foraging Habitat Scoring Tool

Scoring Component	Foraging habitat for Carnaby's Cockatoo	Score	Comments
Starting Score	Native shrubland, kwongan heathland and woodland dominated by proteaceous plant species such as *Banksia* spp. (including *Dryandra* spp.), *Hakea* spp. and *Grevillea* spp., as well as **native eucalypt woodland** and forest that contains foraging species, including along roadsides. Does not include orchards, canola, or areas under a RFA.	7 (High Quality)	This starting score can be regarded as being too high given the study area is considered to only support small fruited eucalypts with relatively low foraging value compared to other tree species. Lower criteria however do not specifically apply and can therefore not be used.
Additions	**Context adjustor - attributes improving functionality of foraging habitat**		
	Contains trees with suitable nest hollows	+3	Ten trees identified with potentially suitable hollows.
	Contains trees with potential to be used for breeding (dbh ≥ 500 mm or ≥ 300 mm dbh for salmon gum and wandoo).	+2	Eighty eight trees with a dbh of ≥300m identified.
Subtractions	**Context adjustor - attributes reducing functionality of foraging habitat**		
	No clear evidence of feeding debris.	-2	None observed during three targeted fauna surveys.
	Is > 12 km from a known breeding location.	-1	Closest documented nest sites are over 30km away.
	Is > 12 km from a known roosting site.	-1	Closest documented roost sites are over 130km away.
Total Score		**8**	

The foraging habitat scoring tool indicates a habitat quality score of eight (8). This score equates to a habitat quality rating of very high to high quality. While it could be argued that this rating has been incorrectly inflated by the lack of options for a starting score which better reflect the nature of the vegetation present, a score of seven (7) or six (6) would still result in a recommendation for referral being advisable.

It should be noted that if the removal of any one of the identified habitat trees is required then the proposed expansion qualifies as "likely to have a significant impact" using the draft revised DotEE criteria, in which case the submission of a referral, to ensure compliance with the *EPBC Act*, would be advisable in any event (if these referral guidelines were in place), irrespective of the habitat score rating.

6. CONCLUSION

The review reported on here was undertaken with the primary aim of providing additional information on potential Carnaby's cockatoo foraging, breeding and roosting habitat with land adjacent to the existing Newdegate Grain Receival Site with specific reference to previous work undertaken by 360 Environmental (2015b) and ELA (2018).

During their survey 360 Environmental (2015b) identified the following black cockatoo habitat elements within the study area:

- Foraging Habitat

  20.3 ha of vegetation contains plant species known to or thought to be used as a foraging resource (i.e. all areas of salmon gum, red morell and Kondinin blackbutt).

  No evidence of actual foraging observed.

- Breeding Habitat

  92 trees identified as representing potential black cockatoo breeding habitat (i.e. DBH (1.3 metres from the ground) of 500 mm, or 300 mm if salmon gum).

  31 of the 92 trees had observable hollow entrances that were considered to be large enough and at a height to be suitable for black cockatoos to use for nesting.

  No actual breeding activity observed.

- Roosting Habitat

  No evidence of roosting or any other black cockatoo activity observed.

The review of black cockatoo habitat values at the Newdegate Grain Receival Site carried out in March 2109 identified the following:

- Foraging Habitat

  8.98 ha of vegetation contains plant species documented as being used as a foraging resource (i.e. all areas of salmon gum and York gum as mapped by ELA (2018)). Areas containing red morell and Kondinin blackbutt included by 360 Environmental (2015b) as forging habitat have been excluded from this total as they are not specifically documented as being fed upon by black cockatoos.

  No evidence of actual foraging observed.

- Breeding Habitat

  88 potential black cockatoo breeding trees (i.e. DBH (1.3 metres from the ground) of 500 mm, or 300 mm if salmon gum);

61 of the 88 trees do not contain any hollows or possible small hollows only;

4 of the 31 previously identified hollow bearing trees are no long present (fallen over or felled);

17 of the 31 previously identified hollow bearing trees appear unsuitable for black cockatoos due to hollows appearing to be too small and/or too low to the ground. This disparity with 360 Environmental results appears to be a consequence of their nitial assessment apparently being almost totally based on the hollow entrance size only (>100mm), with no other characteristics of the hollow (such as the size of the branch into which it provides entry) being taken into consideration when determining its suitability.

10 of the previously identified hollow bearing trees appear potentially suitable for black cockatoos based on apparent suitable internal dimensions, orientation and position.

- Two hollows show some evidence of possible blackcoat cockatoo activity but In no case was it possible to conclusively state that any of the hollows had definitely been used for nesting by black cockatoos.

- <u>Roosting Habitat</u>

  No evidence of roosting or any other black cockatoo activity observed. The survey was however undertaken outside of the period when Carnaby's cockatoo would be most likely to frequent the area and therefore the lack of any roosting activity may not be indicative of the study areas actual degree of use for the purpose.

Based on available vegetation mapping it is estimated that there is approximately 5,500 ha of native vegetation within 12 km of the study area. These areas have not been specifically assessed however are very likely to contain some potential black cockatoo habitat of some sort (foraging, breeding and/or roosting). It should be noted that there are no historical records of Carnaby's cockatoos from within a search radius of 16 km from the Newdegate town site based on NatureMap (accessed 4 April 2019). Most records are concentrated around the larger nature reserves and remnants and particularly, to the south of the study area.

Birdlife Australia have indicated that black cockatoo nesting has been recorded around "Lake Magenta and further east" in recent years (A. Peck, personal communication, 4 April 2019). These areas are located roughly 40 km south and south east of Newdegate. NatureMap (accessed 4 April 2019) also shows some apparent Carnaby's cockatoo breeding records from a location about 34 km south east of Newdegate (dated November 2016).

These areas south of Newdegate may be favoured by Carnaby's cockatoos for breeding due to their proximity to the larger nature reserves where large expanses of quality foraging habitat are likely to occur.

A review of the 2018 Great Cocky Count report shows no roost sites within or near the study area, with the closest documented sites being situated over 130 km south east near the coast (Peck *et al.* 2018).

An assessment of the study area using the DoTEE's "foraging habitat scoring tool" (Commonwealth of Australia 2017) returned a habitat quality score of eight (8). This score equates to a habitat quality rating of "very high" to "high quality". While it could be argued that this rating has been incorrectly inflated by the lack of options for a starting score which better reflect the nature of the vegetation present, a score of seven (7) or six (6) would still result in a recommendation for referral being advisable.

It should be noted that if the removal of any one of the identified habitat trees is required then the proposed expansion qualifies as "likely to have a significant impact" using the draft revised DotEE criteria, in which case the submission of a referral, to ensure compliance with the *EPBC Act*, would be advisable in any event (if these referral guidelines were in place), irrespective of the habitat score rating.

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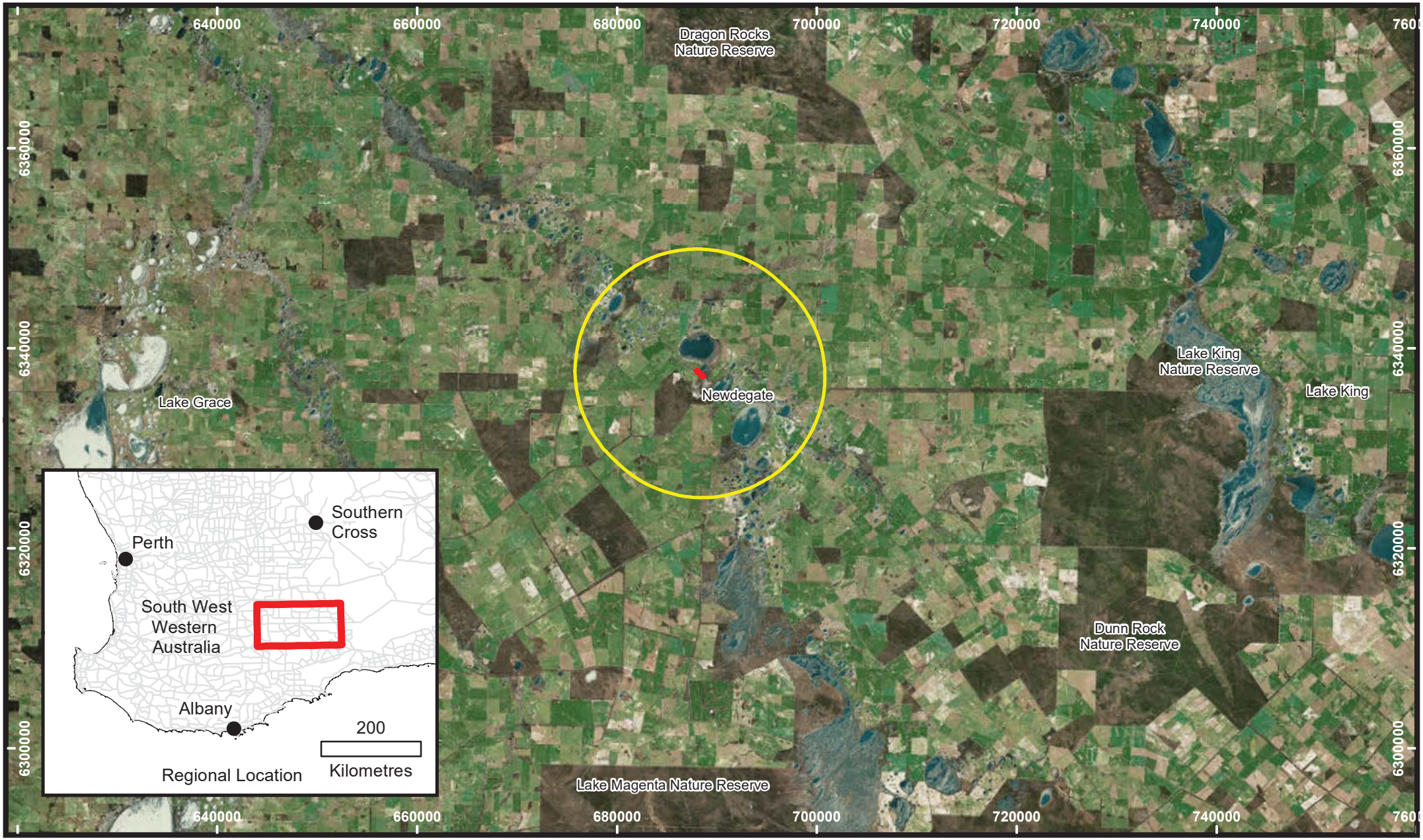
FIGURES



Legend

- Study Area
- 12km buffer

0 10 20 30 40 50

Kilometres

Fauna Survey

Newdegate Grain Receival Site
Proposed Expansion
CBH Group

Regional Location Plan

Drawn: G. Harewood
Date: March 2019
Scale: 1:500,000
Projection/Coordinate System: UTM/MGA Zone 50

Figure: 1

Legend

Study Area

N

0 100 200 300 400 500

Metres

Fauna Survey

Drawn: G. Harewood

Date: April 2019

Scale: 1:5,750

Projection/Coordinate System: UTM/MGA Zone 50

Newdegate Grain Receival Site
Proposed Expansion
CBH Group

Aerial Photograph

Figure: 2

Legend

Study Area

Habitat Trees with Hollows Suitable for Black Cockatoos (360 Environmental 2015)

0 100 200 300 400 500

Metres

Fauna Survey

Drawn: G. Harewood

Date: April 2019

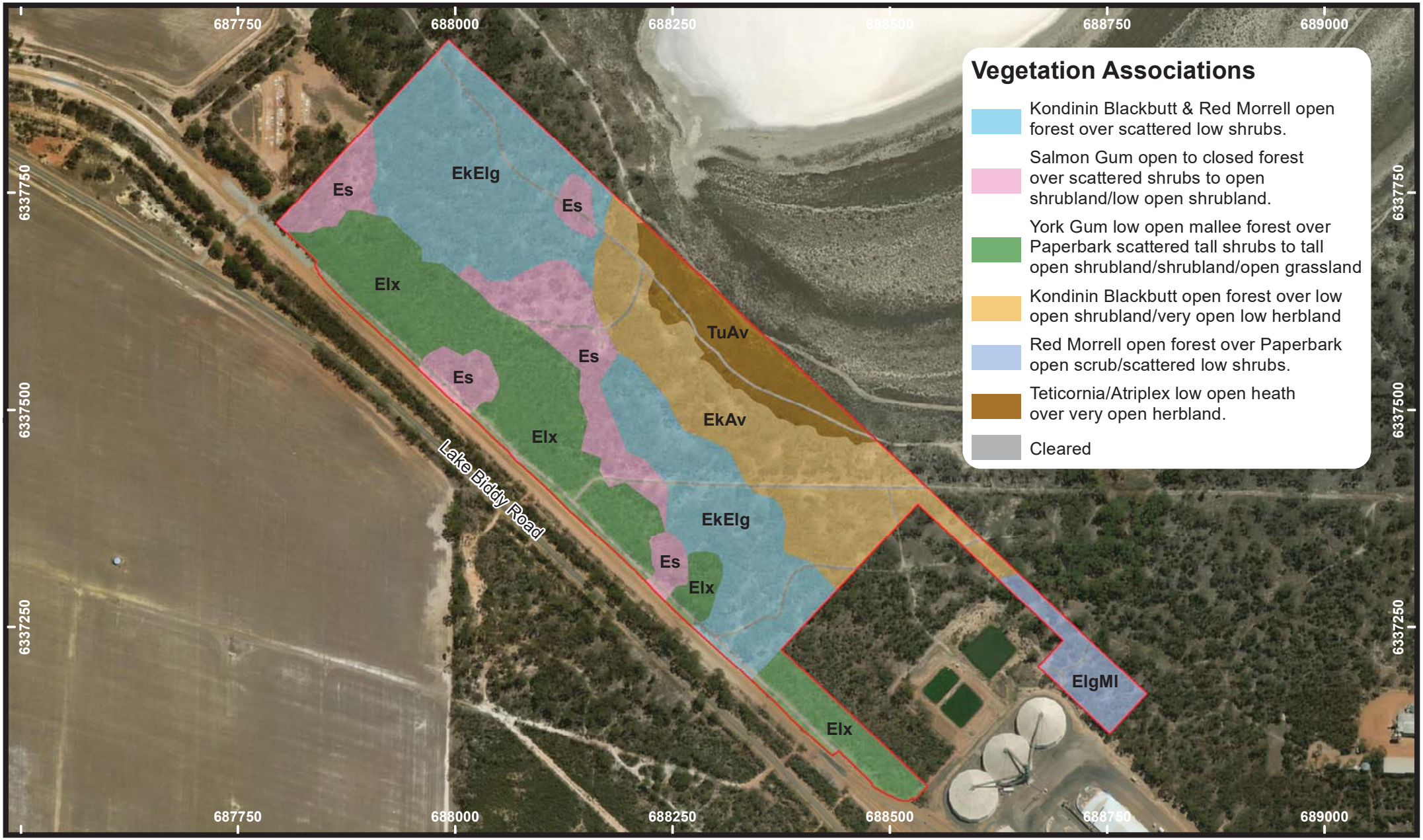
Scale: 1:5,750

Projection/Coordinate System: UTM/MGA Zone 50

Newdegate Grain Receival Site
Proposed Expansion
CBH Group

Habitat Trees with Hollows Suitable for Black Cockatoos
(360 Environmental 2015)

Figure: 3



Legend

Study Area

N

0 100 200 300 400 500

Metres

Fauna Survey

Drawn: G. Harewood

Date: April 2019

Scale: 1:5,750

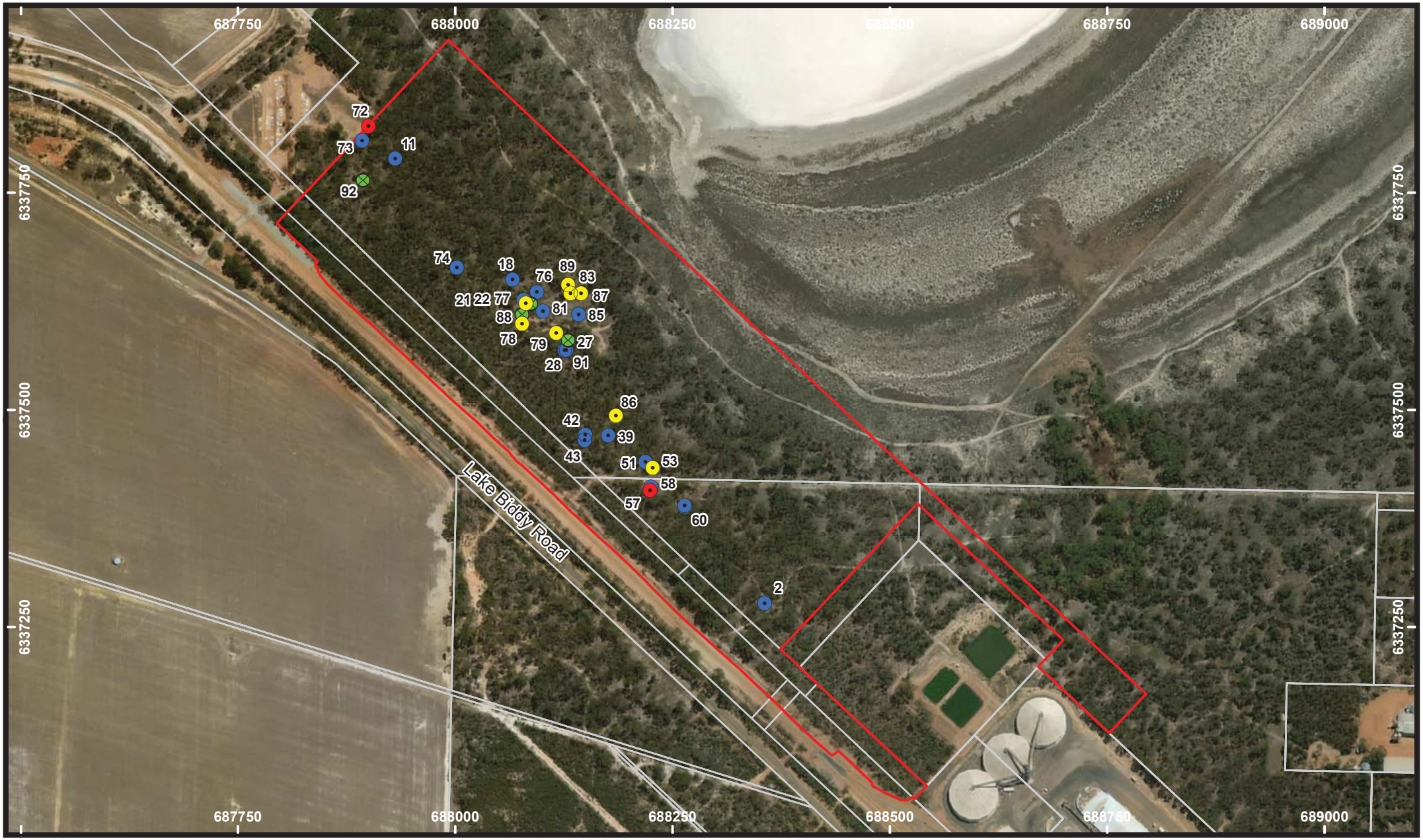
Projection/Coordinate System: UTM/MGA Zone 50

Newdegate Grain Receival Site
Proposed Expansion
CBH Group

Vegetation Associations within the Study Area

(ELA 2018)

Figure: 4



Legend

- Study Area
- Chewed Hollow
- Unused Hollow
- Unsuitable Hollow
- No Tree Present

0 100 200 300 400 500

Metres

Fauna Survey

Drawn: G. Harewood

Date: April 2019

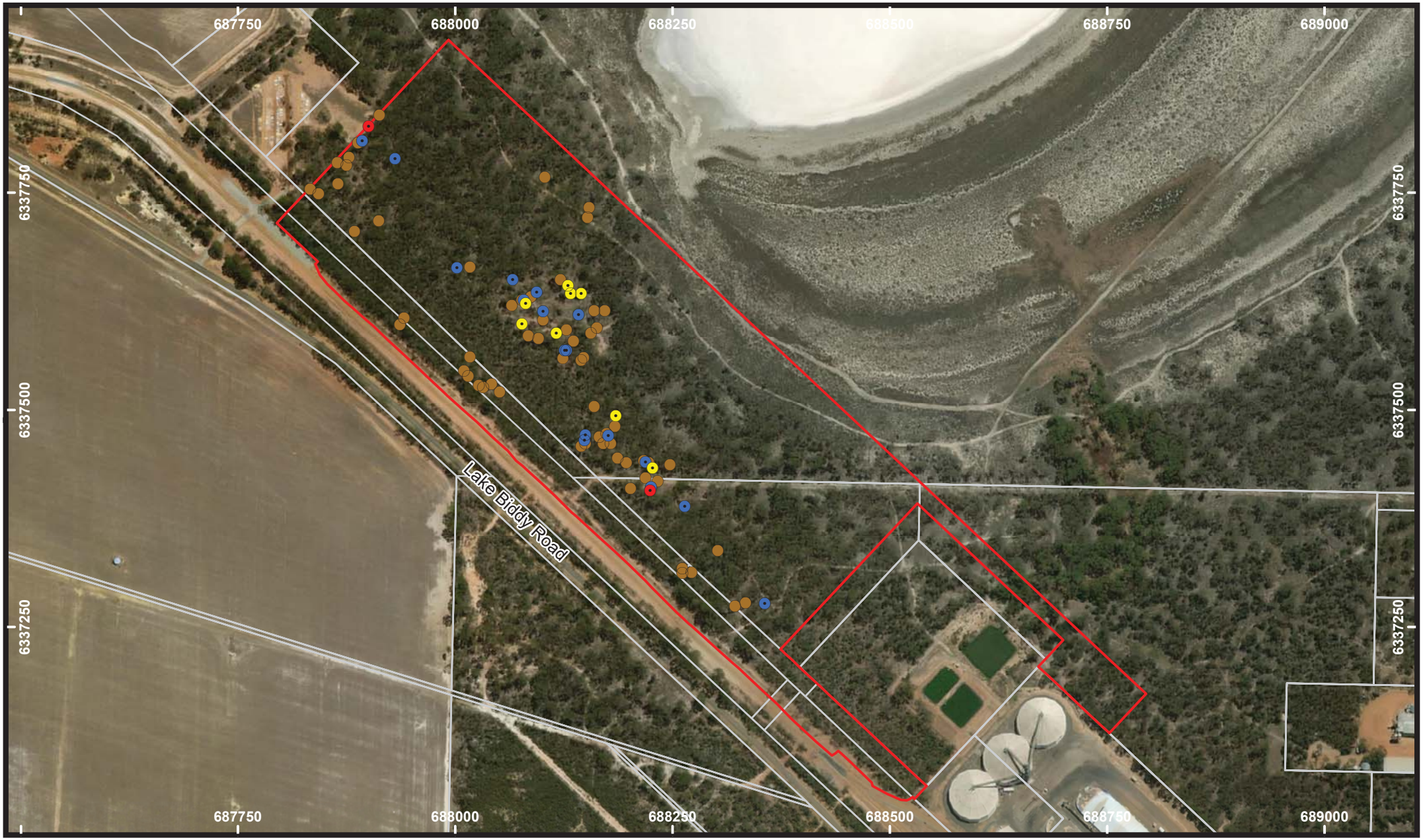
Scale: 1:5,750

Projection/Coordinate System: UTM/MGA Zone 50

Newdegate Grain Receival Site
Proposed Expansion
CBH Group

Revised Hollows Suitable for Black Cockatoos

Figure: 5



Legend

- Study Area
- Chewed Hollow
- Unused Hollow
- Unsuitable Hollow
- No Hollow

0 100 200 300 400 500

Metres

Fauna Survey

Drawn: G. Harewood

Date: April 2019

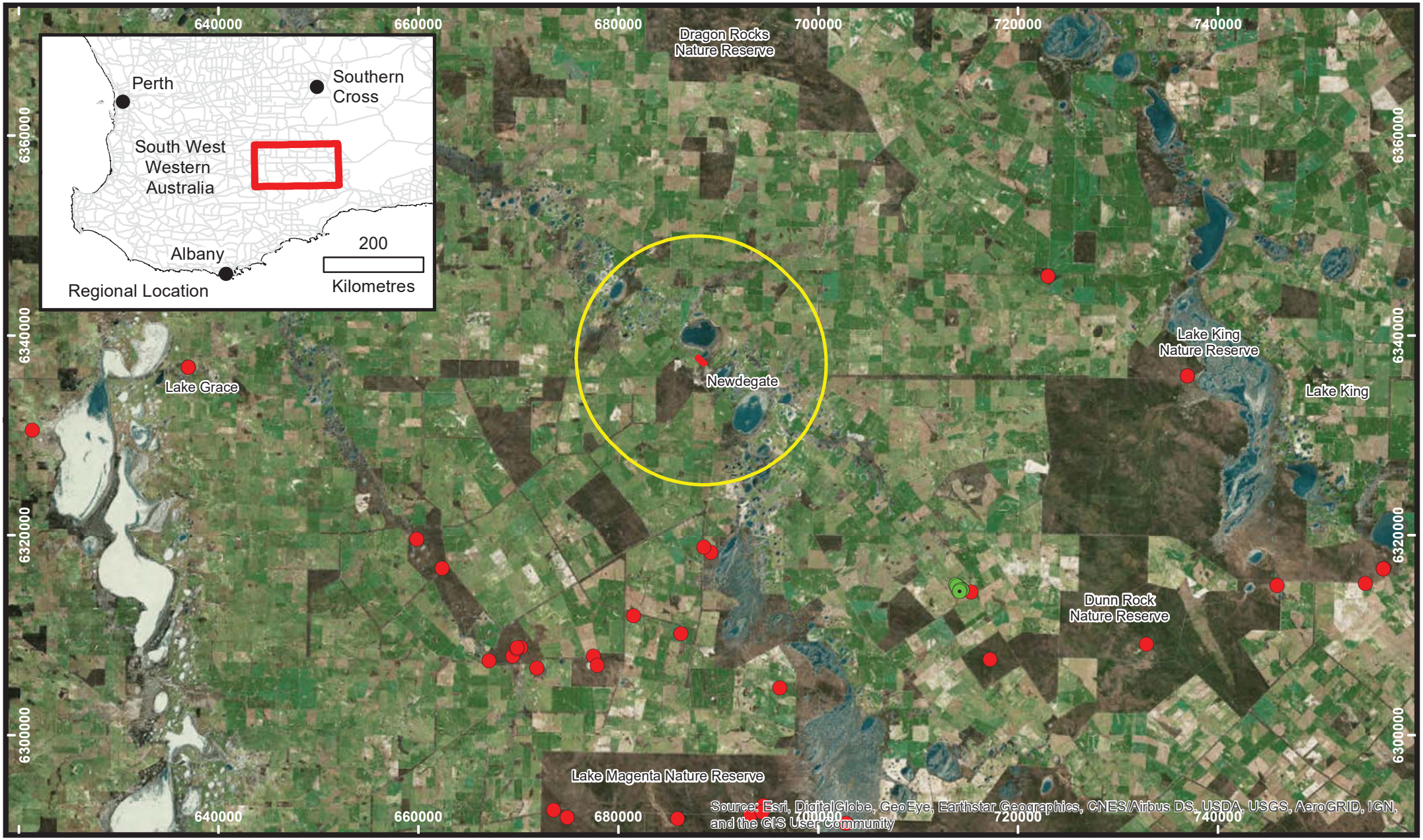
Scale: 1:5,750

Projection/Coordinate System: UTM/MGA Zone 50

Newdegate Grain Receival Site
Proposed Expansion
CBH Group

Revised Potential Black Cockatoo Breeding Trees (DBH >300mm)

Figure: 6



Legend

- Study Area
- 12km buffer
- Carnaby's Black Cockatoo Record
- Carnaby's Black Cockatoo Breeding Record

N

0 10 20 30 40 50

Kilometres

Fauna Survey

Drawn: G. Harewood
Date: March 2019
Scale: 1:500,000
Projection/Coordinate System: UTM/MGA Zone 50

Newdegate Grain Receival Site
Proposed Expansion
CBH Group

Carnaby's Cockatoo Records (NatureMap 2019)

Figure: 7

APPENDIX A

Hollow Bearing Habitat Tree Review

Results

ID	Location Data (MGA 94)	Z 50	688356 mE	6337277 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
2	Comments - 360 Environmental (2015)	One hollow (250mm entrance) in *Eucalyptus longicornis* (DBH 624mm).					Original Classification	Suitable Hollow
	Review Comments	Low (2.5m) angled spout. Hollow has some depth though possibly too narrow. No signs of use. Overall characteristics suggest this hollow is unlikely to be suitable for cockatoos.					Revised Classification	Unsuitable Hollow

ID	Location Data (MGA 94)	Z 50	687931 mE	6337789 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
11	Comments - 360 Environmental (2015)	One hollow (150mm entrance) in *Eucalyptus salmonophloia* (DBH 324mm).					Original Classification	Suitable Hollow
	Review Comments	Side entry hollow into narrow trunk that appears too small for black cockatoos to use for nesting. Some other smaller spouts. Droppings at base of tree suggest use, possibly by owls.					Revised Classification	Unsuitable Hollow

ID	Location Data (MGA 94)	Z 50	688066 mE	6337650 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
18	**Comments - 360 Environmental (2015)**	Two hollows (100mm entrances) in *Eucalyptus salmonophloia* (DBH 382mm).					**Original Classification**	Suitable Hollow
	Review Comments	Two spouts in small branches. Neither appear big enough to accommodate a nest black cockatoo. No signs of use.					**Revised Classification**	Unsuitable Hollows

ID	Location Data (MGA 94)	Z 50	688079 mE	6337626 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
21	Comments - 360 Environmental (2015)	One hollow (100mm entrance) in *Eucalyptus salmonophloia* (DBH 414mm). Occupied by feral bees.					Original Classification	Suitable Hollow
	Review Comments	Spout and upward facing side entry hollow (knot hole). Accommodating branches and trunk appear too small for black cockatoos to use for nesting. Spout being used by feral bees.					Revised Classification	Unsuitable Hollow (in use by feral bees)

ID	Location Data (MGA 94)	Z 50	688081 mE	6337622 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
22	Comments - 360 Environmental (2015)	One hollow (250mm entrance) in *Eucalyptus salmonophloia* (DBH 478mm).					Original Classification	Suitable Hollow
	Review Comments	Chimney – appears possible suitable for black cockatoos though no sign of any use.					Revised Classification	Unused Hollow

ID	Location Data (MGA 94)	Z 50	688130 mE	6337580 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
27	**Comments - 360 Environmental (2015)**	One hollow (200mm entrance) in *Eucalyptus salmonophloia* (DBH 318mm).					**Original Classification**	Suitable Hollow
	Review Comments	This tree appears of have fallen over and/or been used for firewood.					**Revised Classification**	No Tree Present

ID	Location Data (MGA 94)	Z 50	688126 mE	6337568 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
28	Comments - 360 Environmental (2015)	Two hollows (250mm entrances) in *Eucalyptus salmonophloia* (DBH 484mm).					Original Classification	Suitable Hollow
	Review Comments	Spout and side entry hollows (pictured) into narrow trunk which appears too small to be suitable for black cockatoos. One other small spout. No signs of use.					Revised Classification	Unsuitable Hollow

ID	Location Data (MGA 94)	Z 50	688176 mE	6337470 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
39	Comments - 360 Environmental (2015)	One hollow (150mm entrance) in *Eucalyptus salmonophloia* (DBH 433mm).					Original Classification	Suitable Hollow
	Review Comments	Spout and side entry hollow entrances into upward facing branch (pictured). Accommodating branch is too small for use by black cockatoos for nesting. No signs of use.					Revised Classification	Unsuitable Hollow

ID	Location Data (MGA 94)	Z 50	688150 mE	6337471 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
42	Comments - 360 Environmental (2015)	One hollow (100mm entrance) in *Eucalyptus salmonophloia* (DBH 398mm).					Original Classification	Suitable Hollow
	Review Comments	Side entry hollow into a narrow branch, too small for black cockatoos to use for nesting. Some other smaller spouts. No signs of use.					Revised Classification	Unsuitable Hollow

ID	Location Data (MGA 94)	Z 50	688149 mE	6337465 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
43	Comments - 360 Environmental (2015)	One hollow (150mm entrance) in *Eucalyptus salmonophloia* (DBH 433mm). Hollow being used by nesting Galahs.					Original Classification	Suitable Hollow
	Review Comments	One chimney (pictured) and smaller spout. Tree trunk and branch accommodating hollows appear too small for use by black cockatoos. Chew mark on tree by galahs (pictured).					Revised Classification	Unsuitable Hollows (used by galahs)

ID	Location Data (MGA 94)	Z 50	688219 mE	6337440 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
51	Comments - 360 Environmental (2015)	One hollow (100mm entrance) in *Eucalyptus salmonophloia* (DBH 331mm).					Original Classification	Suitable Hollow
	Review Comments	Side entry hollow. Accommodating tree trunk appears to be too small for black cockatoos to use for nesting. Chew marks around the perimeter of hollow entrance suggest use by galahs.					Revised Classification	Unsuitable Hollow (used by galahs)

ID	Location Data (MGA 94)	Z 50	688227 mE	6337433 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
53	Comments - 360 Environmental (2015)	One hollow (100mm entrance) in *Eucalyptus salmonophloia* (DBH 430mm).					Original Classification	Suitable Hollow
	Review Comments	Two possible spouts. Accommodating branch forming angled spout (top left picture) appears too small for black cockatoos to use for entry. Upward facing spout (bottom left picture) has a larger entrance into a hollow with depth and may be suitable for use by black cockatoos though possibly marginal dimensions. No signs of use evident.					Revised Classification	Unused Hollow

ID	Location Data (MGA 94)	Z 50	688224 mE	6337407 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
57	Comments - 360 Environmental (2015)	One hollow (150mm entrance) in *Eucalyptus salmonophloia* (DBH 382mm).					Original Classification	Suitable Hollow
	Review Comments	Chimney style hollow. Accommodating branch appears marginal in size for black cockatoos to use for nesting however some evidence of chipping inside the hollow.					Revised Classification	Chewed Hollow

ID	Location Data (MGA 94)	Z 50	688225 mE	6337411 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
58	Comments - 360 Environmental (2015)	One hollow (250mm entrance) in *Eucalyptus salmonophloia* (DBH 478mm).					Original Classification	Suitable Hollow
	Review Comments	Low (~3m) chimney style hollow with some depth. Hollow appears suitable but low height lessens likelihood of actual use. No signs of use. Overall characteristics suggest this hollow is unlikely to be suitable for cockatoos.					Revised Classification	Unsuitable Hollow

ID	Location Data (MGA 94)	Z 50	688264 mE	6337389 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
60	Comments - 360 Environmental (2015)	One hollow (100mm entrance) in *Eucalyptus salmonophloia* (DBH 376mm).					Original Classification	Suitable Hollow
	Review Comments	Side entry hollow. Accommodating tree trunk appears too narrow to be suitable for black cockatoos. Chew marks around the complete perimeter of hollow entrance are indicative of use by galahs.					Revised Classification	Unsuitable Hollow (used by galahs)

ID	Location Data (MGA 94)	Z 50	688264 mE	6337389 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
72	Comments - 360 Environmental (2015)	Two hollows (150mm entrances) in *Eucalyptus salmonophloia* (DBH 541mm).					Original Classification	Suitable Hollow
	Review Comments	Chimney and smaller spout (left picture). Internal dimensions of chimney appear marginal for black cockatoos to use for nesting though some evidence of chipping (galahs?). Chew marks on tree trunk also suggest galah activity.					Revised Classification	Chewed Hollow (used by galahs)

ID	Location Data (MGA 94)	Z 50	687893 mE	6337809 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
73	Comments - 360 Environmental (2015)	Four hollows (100mm entrances) in *Eucalyptus salmonophloia* (DBH 631mm). One hollow occupied by feral bees.					Original Classification	Suitable Hollow
	Review Comments	Two side entry hollows (top and bottom left photos) and spout (centre photo) plus several other much smaller spouts. One side entry hollow is in use by feral bees. Accommodating branches and trunk appear too small for black cockatoos to use for nesting. Chew marks on trunk by galahs.					Revised Classification	Unsuitable Hollows (used by galahs/feral bees)

ID	Location Data (MGA 94)	Z 50	688002 mE	6337663 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
74	Comments - 360 Environmental (2015)	Three hollows (100mm entrances) in *Eucalyptus salmonophloia* (DBH 554mm).					Original Classification	Suitable Hollow
	Review Comments	Three spouts, two small (bottom left photo) and one larger (top left photo). Accommodating branches appear too small for black cockatoos in all cases. Scarring on tree trunk indicates galah breeding activity.					Revised Classification	Unsuitable Hollow (used by galahs)

ID	Location Data (MGA 94)	Z 50	688094 mE	6337635 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
76	Comments - 360 Environmental (2015)	Four hollows (100 - 200mm entrances) in *Eucalyptus salmonophloia* (DBH 713mm). One hollow occupied by feral bees. Galahs nesting in another hollow.					Original Classification	Suitable Hollow
	Review Comments	Several spouts. Accommodating branches appear too small for black cockatoos in all cases. Small side entry hollow occupied by bees.					Revised Classification	Unsuitable Hollows (tree used by feral bees)

ID	Location Data (MGA 94)	Z 50	688087 mE	6337621 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
77	Comments - 360 Environmental (2015)	Two hollows (100 - 200mm entrances) in *Eucalyptus salmonophloia* (DBH 669mm). One hollow occupied by feral bees. Elegant parrots present.					Original Classification	Suitable Hollow
	Review Comments	This tree appears of been felled and used for firewood.					Revised Classification	No Tree Present

ID	Location Data (MGA 94)	Z 50	688077 mE	6337599 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
78	Comments - 360 Environmental (2015)	Four hollows (250mm entrances) in *Eucalyptus salmonophloia* (DBH 656mm). One hollow being used by nesting Galahs.					Original Classification	Suitable Hollow
	Review Comments	Two main spouts (top and bottom left photos) and a side entry hollow (centre bottom photo). Other smaller spouts. Largest spout potentially suitable for breeding black cockatoos. No sign of use by black cockatoos by scarring on tree trunk consistent with previously reported galah breeding activity.					Revised Classification	Unused Hollow (used by galahs)

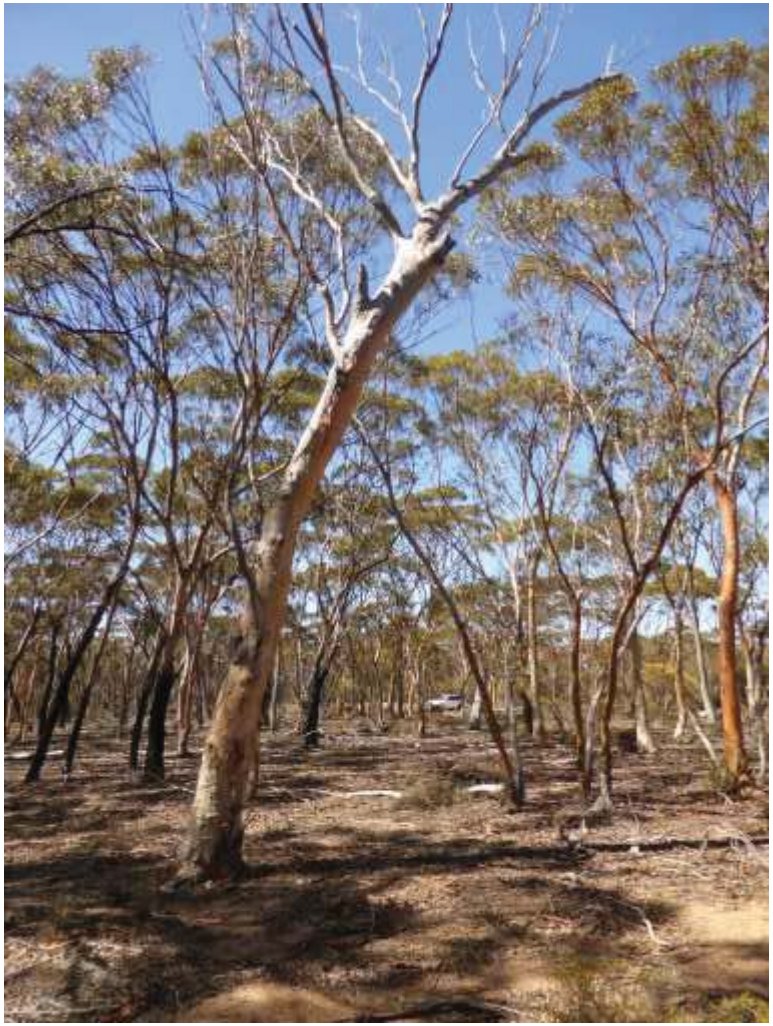
ID	Location Data (MGA 94)	Z 50	688116 mE	6337588 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
79	Comments - 360 Environmental (2015)	One hollow (100mm entrance) in *Eucalyptus salmonophloia* (DBH 589mm). Hollow being used by nesting Galahs.					Original Classification	Suitable Hollow
	Review Comments	Side entry hollow into main trunk. Appears to be suitable for black cockatoos though accommodating truck possibly marginal in size. Regent parrots observed nearby.					Revised Classification	Unused Hollow

ID	Location Data (MGA 94)	Z 50	688101 mE	6337613 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
81	Comments - 360 Environmental (2015)	One hollow (100mm entrance) in *Eucalyptus salmonophloia* (DBH 510mm).					Original Classification	Suitable Hollow
	Review Comments	Recently created spout (snapped branch) just above small side entry hollow (both pictured). Other smaller spouts. Accommodating branches in all cases too small for black cockatoos. No sign of use.					Revised Classification	Unsuitable Hollow

ID	Location Data (MGA 94)	Z 50	688133 mE	6337634 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
83	Comments - 360 Environmental (2015)	Three hollows (250mm entrances) in *Eucalyptus salmonophloia* (DBH 688mm).					Original Classification	Suitable Hollow
	Review Comments	Spout and side entry hollow in addition to some smaller hollow branches. Spout (bottom left photo) is too small for black cockatoo to use for nesting. Side entry hollow (top left photo) potentially suitable. This hollow and tree trunk (centre photo) have been chewed by galahs.					Revised Classification	Unused Hollow (used by galahs)

ID	Location Data (MGA 94)	Z 50	688142 mE	6337609 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
85	Comments - 360 Environmental (2015)	One hollow (200mm entrance) in *Eucalyptus salmonophloia* (DBH 596mm).					Original Classification	Suitable Hollow
	Review Comments	Upward facing spout (centre and left photos). Accommodating branch appears too small for black cockatoos to use for nesting. Extensive chew marks on trunk indicate galah activity.					Revised Classification	Unsuitable Hollow (used by galahs)

ID	Location Data (MGA 94)	Z 50	688185 mE	6337493 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
86	Comments - 360 Environmental (2015)	Two hollows (150mm entrances) in *Eucalyptus salmonophloia* (DBH 529mm).					Original Classification	Suitable Hollow
	Review Comments	Three chimney type hollow branches are all too small for black cockatoos. Side entry hollow (pictured) appears to have some depth and therefore may be suitable. No signs of use.					Revised Classification	Unused Hollow



ID	Location Data (MGA 94)	Z 50	688145 mE	6337634 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
87	Comments - 360 Environmental (2015)	Four hollows (250-300mm entrances) in *Eucalyptus salmonophloia* (DBH 1051mm).					Original Classification	Suitable Hollow
	Review Comments	Spout and side entry into trunk (top left photo) that appears suitable for black cockatoos. Other smaller spouts unsuitable (bottom left photo). Bees using small knot hole. No other signs of use.					Revised Classification	Unused Hollow (bees in other hollow)

ID	Location Data (MGA 94)	Z 50	688077 mE	6337609 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
88	Comments - 360 Environmental (2015)	One hollow (200mm entrance) in dead stag (DBH 414mm).					Original Classification	Suitable Hollow
	Review Comments	This tree appears of have felled and used for firewood.					Revised Classification	No Tree Present

ID	Location Data (MGA 94)	Z 50	688130 mE	6337643 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
89	Comments - 360 Environmental (2015)	Two hollows (300mm entrances) in dead stag (DBH 389mm).					Original Classification	Suitable Hollow
	Review Comments	Chimney (bottom left photo) and side entry hollow (top left photo) providing entry to same trunk at different levels. Accommodating trunk is possibly marginal is size but maybe suitable. No signs of use.					Revised Classification	Unused Hollow

ID	Location Data (MGA 94)	Z 50	688128 mE	6337568 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
91	Comments - 360 Environmental (2015)	Three hollows (150-200mm entrances) in dead stag (DBH 516mm).					Original Classification	Suitable Hollow
	Review Comments	Chimney (centre photo), spout (top left photo) and side entry (bottom left photo) type hollows. Accommodating trunk/branches appear to be too small for black cockatoos to use for nesting. No signs of use.					Revised Classification	Unsuitable Hollows

ID	Location Data (MGA 94)	Z 50	687894 mE	6337764 mN	Original Survey Date	26-27/05/2015	Photo Date	25/03/2019
92	Comments - 360 Environmental (2015)	Three hollows (150mm entrances) in dead stag (DBH 596mm).					Original Classification	Suitable Hollow
	Review Comments	This tree appears to have fallen over.					Revised Classification	No Tree Present

APPENDIX B

Revised Potential Black Cockatoo Breeding Trees (DBH >300mm)

Summary Details

Habitat Trees
DBH >300mm
Datum GDA 94 Z50

ID	Tree Species	Common Name	mE	mN	DBH (mm)	Size Class (360 2015)	No. of Hollows	Hollow Entrance Size (mm)	360 (2015) Classification	360 (2015) Notes	Revised (2019) Classification	Review (2019) Notes
1	Eucalyptus longicornis	Red Morrell	688322	6337274	500	A			No Hollows			
2	Eucalyptus longicornis	Red Morrell	688356	6337277	624	B	1	250	Suitable Hollow		Unsuitable Hollow	Very low, marginal size, appears unsuitable
3	Eucalyptus longicornis	Red Morrell	688334	6337278	599	B			No Hollows			
4	Eucalyptus salmonophloia	Salmon Gum	687913	6337839	433	A			No Hollows			
5	Eucalyptus salmonophloia	Salmon Gum	687878	6337790	318	A			No Hollows			
6	Eucalyptus salmonophloia	Salmon Gum	687875	6337781	350	A			No Hollows			
7	Eucalyptus salmonophloia	Salmon Gum	687864	6337784	331	A			No Hollows			
8	Eucalyptus salmonophloia	Salmon Gum	687833	6337754	331	A			No Hollows			
9	Eucalyptus salmonophloia	Salmon Gum	687843	6337748	344	A			No Hollows			
10	Eucalyptus salmonophloia	Salmon Gum	687865	6337760	465	A			No Hollows			
11	Eucalyptus salmonophloia	Salmon Gum	687931	6337789	325	A	1	150	Suitable Hollow		Unsuitable Hollow	Appears too small, occupied by owls ?
12	Eucalyptus salmonophloia	Salmon Gum	687884	6337705	318	A			No Hollows			
13	Eucalyptus salmonophloia	Salmon Gum	687912	6337717	328	A			No Hollows			
14	Eucalyptus salmonophloia	Salmon Gum	687941	6337605	338	A			No Hollows			
15	Eucalyptus salmonophloia	Salmon Gum	687936	6337598	366	A			No Hollows			
16	Eucalyptus salmonophloia	Salmon Gum	688017	6337664	318	A			No Hollows			
17	Eucalyptus salmonophloia	Salmon Gum	688103	6337767	322	A			No Hollows			
18	Eucalyptus salmonophloia	Salmon Gum	688066	6337650	382	A	2	100	Suitable Hollow		Unsuitable Hollows	All appear too small
19	Eucalyptus salmonophloia	Salmon Gum	688065	6337620	350	A			No Hollows			
20	Eucalyptus salmonophloia	Salmon Gum	688077	6337626	344	A			No Hollows			
21	Eucalyptus salmonophloia	Salmon Gum	688079	6337626	414	A	1	100	Suitable Hollow	Bees	Unsuitable Hollow	Appears too small, in use by feral bees
22	Eucalyptus salmonophloia	Salmon Gum	688081	6337622	478	A	1	250	Suitable Hollow		Unused Hollow	Appears suitable, no sign of use
23	Eucalyptus salmonophloia	Salmon Gum	688084	6337585	318	A			No Hollows			
24	Eucalyptus salmonophloia	Salmon Gum	688096	6337582	315	A			No Hollows			
25	Eucalyptus salmonophloia	Salmon Gum	688128	6337592	320	A			No Hollows			
26	Eucalyptus salmonophloia	Salmon Gum	688136	6337579	344	A			No Hollows			
27	Eucalyptus salmonophloia	Salmon Gum	688130	6337580	318	A	1	200	Suitable Hollow		No Tree Present	Fallen over/felled
28	Eucalyptus salmonophloia	Salmon Gum	688126	6337568	484	A	2	250	Suitable Hollow		Unsuitable Hollows	All appear too small
29	Eucalyptus salmonophloia	Salmon Gum	688124	6337559	366	A			No Hollows			
30	Eucalyptus salmonophloia	Salmon Gum	688145	6337557	398	A			No Hollows			
31	Eucalyptus salmonophloia	Salmon Gum	688148	6337560	360	A			No Hollows			
32	Eucalyptus salmonophloia	Salmon Gum	688156	6337588	465	A			No Hollows			
33	Eucalyptus salmonophloia	Salmon Gum	688163	6337594	420	A			No Hollows			
34	Eucalyptus salmonophloia	Salmon Gum	688172	6337614	455	A			No Hollows			
35	Eucalyptus salmonophloia	Salmon Gum	688152	6337721	350	A			No Hollows			
36	Eucalyptus salmonophloia	Salmon Gum	688154	6337732	318	A			No Hollows			
37	Eucalyptus salmonophloia	Salmon Gum	688160	6337504	325	A			No Hollows			
38	Eucalyptus salmonophloia	Salmon Gum	688184	6337481	392	A			No Hollows			
39	Eucalyptus salmonophloia	Salmon Gum	688176	6337470	433	A	1	150	Suitable Hollow		Unsuitable Hollow	Appears too small
40	Eucalyptus salmonophloia	Salmon Gum	688174	6337473	459	A			No Hollows			
41	Eucalyptus salmonophloia	Salmon Gum	688166	6337469	414	A			No Hollows			
42	Eucalyptus salmonophloia	Salmon Gum	688150	6337471	398	A	1	100	Suitable Hollow		Unsuitable Hollow	Appears too small
43	Eucalyptus salmonophloia	Salmon Gum	688149	6337465	443	A	1	150	Suitable Hollow	Pink and Greys nesting	Unsuitable Hollow	Appears too small, used by galahs
44	Eucalyptus salmonophloia	Salmon Gum	688150	6337461	318	A			No Hollows			
45	Eucalyptus salmonophloia	Salmon Gum	688145	6337458	382	A			No Hollows			
46	Eucalyptus salmonophloia	Salmon Gum	688170	6337461	408	A			No Hollows			
47	Eucalyptus salmonophloia	Salmon Gum	688179	6337461	369	A			No Hollows			
48	Eucalyptus salmonophloia	Salmon Gum	688187	6337444	424	A			No Hollows			
49	Eucalyptus salmonophloia	Salmon Gum	688197	6337439	344	A			No Hollows			
50	Eucalyptus salmonophloia	Salmon Gum	688217	6337441	392	A			No Hollows			
51	Eucalyptus salmonophloia	Salmon Gum	688219	6337440	331	A	1	100	Suitable Hollow		Unsuitable Hollow	Appears too small, used by galahs
52	Eucalyptus salmonophloia	Salmon Gum	688223	6337439	439	A			No Hollows			
53	Eucalyptus salmonophloia	Salmon Gum	688227	6337433	430	A	1	100	Suitable Hollow		Unused Hollow	Appears suitable, no sign of use
54	Eucalyptus salmonophloia	Salmon Gum	688247	6337437	350	A			No Hollows			
55	Eucalyptus salmonophloia	Salmon Gum	688202	6337409	436	A			No Hollows			
56	Eucalyptus salmonophloia	Salmon Gum	688219	6337422	318	A			No Hollows			
57	Eucalyptus salmonophloia	Salmon Gum	688224	6337407	382	A	1	150	Suitable Hollow		Chewed Hollow	Marginal size but possible evidence of use
58	Eucalyptus salmonophloia	Salmon Gum	688225	6337411	478	A	1	250	Suitable Hollow		Unsuitable Hollow	Low, marginal size, appears unsuitable
59	Eucalyptus salmonophloia	Salmon Gum	688233	6337418	446	A			No Hollows			
60	Eucalyptus salmonophloia	Salmon Gum	688264	6337389	376	A	1	100	Suitable Hollow		Unsuitable Hollow	Appears too small, used by galahs
61	Eucalyptus salmonophloia	Salmon Gum	688261	6337317	318	A			No Hollows			
62	Eucalyptus salmonophloia	Salmon Gum	688261	6337312	398	A			No Hollows			
63	Eucalyptus salmonophloia	Salmon Gum	688272	6337313	318	A			No Hollows			
64	Eucalyptus salmonophloia	Salmon Gum	688302	6337338	312	A			No Hollows			
65	Eucalyptus salmonophloia	Salmon Gum	688027	6337528	318	A			No Hollows			

ID	Tree Species	Common Name	mE	mN	DBH (mm)	Size Class (360 2015)	No. of Hollows	Hollow Entrance Size (mm)	360 (2015) Classification	360 (2015) Notes	Revised (2019) Classification	Review (2019) Notes
66	Eucalyptus salmonophloia	Salmon Gum	688032	6337526	334	A			No Hollows			
67	Eucalyptus salmonophloia	Salmon Gum	688051	6337520	350	A			No Hollows			
68	Eucalyptus salmonophloia	Salmon Gum	688042	6337530	382	A			No Hollows			
69	Eucalyptus salmonophloia	Salmon Gum	688017	6337561	398	A			No Hollows			
70	Eucalyptus salmonophloia	Salmon Gum	688010	6337545	344	A			No Hollows			
71	Eucalyptus salmonophloia	Salmon Gum	688015	6337539	363	A			No Hollows			
72	Eucalyptus salmonophloia	Salmon Gum	687900	6337826	541	B	2	150	Suitable Hollow		Chewed Hollow	Marginal size but possible evidence of use, used by galahs
73	Eucalyptus salmonophloia	Salmon Gum	687893	6337809	631	B	4	100	Suitable Hollow	Bees	Unsuitable Hollows	All appear too small, used by galahs and feral bees
74	Eucalyptus salmonophloia	Salmon Gum	688002	6337663	554	B	3	100	Suitable Hollow		Unsuitable Hollows	All appear too small, used by galahs
75	Eucalyptus salmonophloia	Salmon Gum	688087	6337630	510	B			No Hollows			
76	Eucalyptus salmonophloia	Salmon Gum	688094	6337635	713	B	4	100-200	Suitable Hollow	Bees, Pink and Greys nesting	Unsuitable Hollows	All appear too small, used by feral bees
77	Eucalyptus salmonophloia	Salmon Gum	688087	6337621	669	B	2	100-200	Suitable Hollow	Bees, Elegant parrots	No Tree Present	Fallen over/felled
78	Eucalyptus salmonophloia	Salmon Gum	688077	6337599	656	B	4	250	Suitable Hollow	Pink and Greys nesting	Unused Hollow	One hollow appears suitable, used by galahs
79	Eucalyptus salmonophloia	Salmon Gum	688116	6337588	589	B	1	100	Suitable Hollow		Unused Hollow	Appears suitable, no sign of use
80	Eucalyptus salmonophloia	Salmon Gum	688101	6337603	541	B			No Hollows			
81	Eucalyptus salmonophloia	Salmon Gum	688101	6337613	510	B	1	100	Suitable Hollow		Unsuitable Hollow	Appears too small
82	Eucalyptus salmonophloia	Salmon Gum	688121	6337650	510	B			No Hollows			
83	Eucalyptus salmonophloia	Salmon Gum	688133	6337634	688	B	3	250	Suitable Hollow		Unused Hollow	One hollow appears suitable, used by galahs
84	Eucalyptus salmonophloia	Salmon Gum	688160	6337614	535	B			No Hollows			
85	Eucalyptus salmonophloia	Salmon Gum	688142	6337609	596	B	1	200	Suitable Hollow		Unsuitable Hollow	Appears too small, used by galahs
86	Eucalyptus salmonophloia	Salmon Gum	688185	6337493	529	B	2	150	Suitable Hollow		Unused Hollow	One hollow appears suitable, no sign of use
87	Eucalyptus salmonophloia	Salmon Gum	688145	6337634	1051	C	4	250-300	Suitable Hollow		Unused Hollow	One hollow appears suitable, feral bees
88	Stag	Stag	688077	6337609	414	A	1	200	Suitable Hollow		No Tree Present	Felled
89	Stag	Stag	688130	6337643	389	A	2	300	Suitable Hollow		Unused Hollow	One hollow appears suitable, no sign of use
90	Stag	Stag	687888	6337807	573	B			No Hollows			
91	Stag	Stag	688128	6337568	516	B	3	150-200	Suitable Hollow		Unsuitable Hollows	All appear too small
92	Stag	Stag	687894	6337764	596	B	3	150	Suitable Hollow		No Tree Present	Fallen over

DISCLAIMER

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