
Tuesday, 4 March 2025



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Dear Chris,

**Re: Ecological Assessment Report for development of Lot 3 DP801467,
Gregory St, South West Rocks**

We have reviewed the previous report and D.A. consent; considered the new site survey information; and provide the following in context of the new Development Application for the proposed multi-dwelling housing estate:

The new development proposal was assessed in accordance with the requirements of the NSW *Biodiversity Conservation (BC) Act 2016*, *NSW Biodiversity Conservation SEPP 2020* (KSC CKPoM 2011); and *Environment Protection and Biodiversity Conservation Act*.

In summary:

- The site is subject to a substantially commenced DA for residential development. Tree removal was undertaken in accordance with this DA. The proposal is now to establish a multi-dwelling housing estate.
- Under the existing consent, all but 2 Tallowwoods have been cleared from the site. The 2 Tallowwoods were previously identified as falling within Preferred Koala Habitat, and thus recommended to be retained to avoid triggering offsets under the KSC CKPoM.
- No threatened flora were detected or considered potential to occur.
- No EECs occur on site or in the study area.
- Habitat values of the site are severely limited by previous clearing, with no hollow-bearing trees present. There was no evidence of use of the 2 Tallowwoods by the local Koala population.

- Site habitat thus only has some nominal value to support a wide ranging birds, aerial foragers and bats which are known to use urban woodland habitats. The 2 Tallowwoods have at best marginal foraging value for the Koala and Squirrel Glider.
- On the basis of limited accuracy of hand held GPS and in the absence of location by a registered surveyor, the 2 Tallowwoods were previously assumed to fall into Preferred Koala Habitat (PKH). Subsequent survey has found the trees are outside the PKH, and thus they can be removed without offset requirements under the KSC CKPoM.
- Assessment under the Five Part Tests and EPBC Act MNES Assessment determined the impact, while a very minor generic negative effect in terms of incremental loss of habitat, is unlikely to be of sufficient order of magnitude to have a significant impact. Hence a BDAR or referral to the Commonwealth DCCEEW is not considered required.

1 BACKGROUND INFORMATION

1.1 Location of the Development Site

The development site is Lot 3 DP801467, Gregory St, South West Rocks.

1.2 Development Proposal

The site has an existing Development Application (DA) approval for a 44 lot residential development (T6-14-333) which has been deemed as substantially commenced.

The consent entitles clearing of the entire site, except for 2 Tallowwoods located in the southeast. These two trees were previously identified as falling within mapped Preferred Koala Habitat under the Kempsey Shire Council (KSC) Comprehensive Koala Plan of Management (CKPoM). Retention of these trees was recommended in the original ecological assessment (Darkheart 2014) to avoid triggering offset obligations under the CKPoM.

Under the existing consent, all but the 2 Tallowwoods have been cleared from the site.

The proposed development is now changing to multi-dwelling housing estate development (see **Figure 2**), and hence a new DA is being lodged for this development. The two remaining Tallowwoods are now proposed to be removed both due to new information in regards to their long term health and legal status (see section 2), and that significant cut and fill requirements for the development will compromise their safe retention and longevity.

1.3 BC Act 2016 Planning Pathway

As the removal of these 2 trees is an additional impact, the new DA has to be assessed under the BC Act for the necessity to assess the proposal under the Biodiversity Offsets Scheme (BOS).

As shown in **Figure 1**, the subject site is not mapped as Sensitive Biodiversity Value Land (SBVL) on the Biodiversity Values Map and Threshold Tool (<https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BOSETMap>).

The 2 Tallowoods were nominated in the approved layout to be retained in a single residential lot. This would have seen suppression of all undergrowth under the crown of these trees. Hence for the purpose of applying the area threshold, the drip line of the trees is assessed as the area to be cleared.

The site is zoned R1 General Residential and R3 Medium Density Residential, with a minimum lot size of 500m² and 40ha. The area threshold trigger is 0.25ha for the smaller lot size. The area of the two trees is <600m². The area threshold is thus not exceeded.

Assessment under the Five Part Tests is required. If a significant is determined, the BOS will be triggered and a Biodiversity Development Assessment Report (BDAR) will be required.

Figure 1: BOSET map of site



Figure 2: Proposed development masterplan and landscape plan

(see following)



MASTERPLAN LEGEND

- SITE BOUNDARY
- DWELLING SITE BOUNDARY
- DWELLING SITES WITH 11m FRONTAGES (65)
- DWELLING SITES WITH 12m FRONTAGES (36)
- - - APZ
- - - - - DCP BOUNDARY SETBACKS
- - - - - DCP BUFFER SETBACK AREAS
- - - - - OFFSET FROM HV ABOVE GROUND CABLES
- STORMWATER DRAIN
- SCREENED WASTE AND RECYCLING BIN ENCLOSURES
- EXISTING TREE TO BE REMOVED
- PROPOSED TREES
- COMMUNITY BUILDING
- SOFT LANDSCAPE AREA
- CONCRETE PATH
- ROAD PAVEMENT

SUMMARY TABLE

DWELLING SITES	101
VISITOR PARKING SPACES	26
DISABLED PARKING SPACES	2
WASTE BINS (660L)	10
RECYCLING BINS (660L)	10
FOGO BINS (240L)	20

KEY DESIGN ELEMENTS

1. GATED VEHICLE ENTRY FROM GREGORY STREET
2. PEDESTRIAN CROSSING POINT WITH REFUGE ISLAND ON GREGORY STREET
3. COMMUNITY BUILDING
4. OUTDOOR POOL
5. ELEVATED PARK WITH DISTRICT VIEWS AND LARGE CANOPY TREES
6. CENTRAL PARK WITH LARGER CANOPY TREES AND SHELTERED PICNIC SETTINGS
7. PARK WITH PICKLEBALL COURT, PICNIC SHELTER, DOG EXERCISE AREA AND ADDITIONAL PEDESTRIAN ACCESS TO GREGORY STREET. 360m3 DETENTION BASIN UNDER COURT AND WATER QUALITY TREATMENT BASINS (ATLAN).
8. SCREEN PLANTING AND PEDESTRIAN ACCESS FROM DWELLING SITES VIA STAIRS AND PATHS ONTO GREGORY STREET
9. MAINTENANCE SHED/COMMUNITY WORKSHOP
10. PEDESTRIAN CONNECTION AND EMERGENCY VEHICLE EGRESS WITH LOCKED GATE ONTO RACEMOSA CIRCUIT
11. MID-BLOCK PEDESTRIAN PATH CONNECTION
12. PEDESTRIAN ACCESS PATH AND LARGER TREE AVENUE ON ENTRY ROAD FROM GREGORY STREET.

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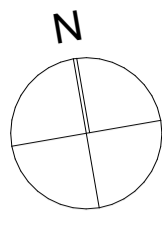
DA SUBMISSION

REV.	DATE	DESCRIPTION	BY
D	4/03/2025	For Development Application Submission	NS
C	27/02/2025	For Development Application Submission	NS
B	21/02/2025	For Development Application Submission	NS
A	21/02/2025	Draft Development Application Submission	NS

DATUM: AHD
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PROJECT NO:	7247
DA NO.:	#DA Number
DESIGNED BY:	DH
DRAWN BY:	DH
CHECKED BY:	NS
DATE CREATED:	21.02.2024

DRAWING TITLE:	MASTERPLAN	DRAWING NO.:	7247_DA1.1	REVISION:	D
PROJECT:	BROADLANDS SOUTH WEST ROCKS LOT 3 DP 801467 286-310 GREGORY STREET SOUTH WEST ROCKS NSW	CLIENT:	SOUTH WEST ROCKS LIVING PTY LTD		



TREE AND SHRUB PLANTING TO GREGORY STREET FRONTAGE TO SOFTEN THE VISUAL IMPACT OF THE RETAINING WALLS AND PROVIDE SHADE AND AMENITY FOR THE PUBLIC PATH IN THE ROAD RESERVE. STAIR ACCESS FROM EACH DWELLING SITE TO THE PUBLIC PATH WILL ACTIVATE THE WESTERN BOUNDARY AND IMPROVE THE PRESENTATION TO GREGORY STREET.

SCREEN PLANTING ON THE LOWER RETAINED TERRACE TO REDUCE VISUAL PROMINANCE OF RETAINING WALLS.

SHADED PEDESTRIAN ACCESS PATH AND LARGE CANOPY STREET TREES ALONG ENTRY ROAD.

SMALL TREE PLANTING WITH LOW UNDERSTOREY ON THE LOWER RETAINED TERRACE TO REDUCE VISUAL PROMINANCE OF RETAINING WALLS AND IMPROVE GENERAL AMENITY.

LARGER CANOPY TREES WITH LOW UNDERSTOREY PLANTING TO IMPROVE VISUAL AND PHYSICAL AMENITY FOR FUTURE RESIDENTS AND THE SURROUNDING NEIGHBOURHOOD. OPPORTUNITIES TO SIT AND TAKE IN THE DISTRICT VIEWS ARE PROVIDED IN THE FORM OF SEATING AREAS.

MEDIUM SIZE STREET TREES ALONG THE WESTERN VERGE OF ACCESS ROADS TO SHADE THE ROAD SURFACE IN THE AFTERNOON AND PROVIDE AMENITY FOR FUTURE RESIDENTS.

MIDBLOCK PEDESTRIAN ACCESS PATH WITH SMALL SHADE/FRUIT TREES.

CENTRAL PARK WITH LARGE SHADE TREES, SHELTERED PICNIC SETTINGS AND VISITOR PARKING TO PROVIDE FUTURE RESIDENTS WITH AN OPPORTUNITY FOR PASSIVE RECREATION AND SMALL GATHERINGS.

EXISTING TREES TO BE REMOVED. REFER TO ARBORIST REPORT.

OUTDOOR POOL AND FLEXIBLE OPEN SPACE (PAVING AND TURF) PROVIDING OUTDOOR RECREATION OPPORTUNITIES ASSOCIATED WITH THE COMMUNITY BUILDING. SHADE TREES PLANTED TO THE NORTH AND SOUTH OF THE BUILDING FRAME DISTRICT VIEWS AND OBSCURE SIGHTLINES TO PRIVATE SPACE IN ADJACENT RESIDENTIAL LOTS.

DISABLED PARKING SPACES WITH ACCESSIBLE PATH OF TRAVEL TO THE COMMUNITY BUILDING.

VISITOR PARKING ALONG SECTIONS OF ROAD 1 WITH GRADES LESS THAN 5%.

DOG OFF-LEASH PARK AND PICKLEBALL COURT WITH MEDIUM SHADE TREES, VISITOR PARKING AND SHELTERED PICNIC SETTINGS TO PROVIDE FUTURE RESIDENTS WITH AN OPPORTUNITY FOR ACTIVE RECREATION AND SMALL GATHERINGS.

2.4m HIGH SCREEN PLANTING ALONG SOUTHERN BOUNDARY TO HELP MAINTAIN PRIVACY AND AMENITY FOR EXISTING RESIDENTIAL DWELLINGS.

PEDESTRIAN ACCESS FROM ADJACENT RESIDENTIAL AREA VIA RACEMOSA CIRCUIT TO THE COMMUNITY BUILDING.

2.4m HIGH SCREEN PLANTING ALONG SOUTHERN BOUNDARY TO HELP MAINTAIN PRIVACY AND AMENITY FOR EXISTING RESIDENTIAL DWELLINGS.

LANDSCAPE LEGEND

- SITE BOUNDARY
- DWELLING SITE BOUNDARY
- APZ
- RETAINING WALLS (VARIOUS HEIGHTS)
- ROCK LINED CONCRETE DRAIN WITH INLET PITS
- SCREENED WASTE AND RECYCLING BIN ENCLOSURES
- EXISTING TREE TO BE REMOVED
- PROPOSED LARGE TREE (10m TO 12m CANOPY)
- PROPOSED MEDIUM TREE (8m TO 10m CANOPY)
- PROPOSED SMALL TREE (UP TO 6m CANOPY)
- COMMUNITY BUILDING
- SCREEN PLANTING
- LOW WATER USE GARDEN AREAS
- TURF
- CONCRETE PATH
- ROAD PAVEMENT

NOTE
REFER TO INDICATIVE PLANTING PALETTE FOR TREE, SHRUB AND GROUND COVER SPECIES

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REV.	DATE	DESCRIPTION	BY
D	4/03/2025	For Development Application Submission	NS
C	27/02/2025	For Development Application Submission	NS
B	21/02/2025	For Development Application Submission	NS
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DA NO.:	#DA Number
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DRAWING TITLE:	LANDSCAPE PLAN
PROJECT:	BROADLANDS SOUTH WEST ROCKS LOT 3 DP 801467 286-310 GREGORY STREET SOUTH WEST ROCKS NSW
CLIENT:	SOUTH WEST ROCKS LIVING PTY LTD

DRAWING NO:	7247_DA1.2	REVISION:	D
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2 BIODIVERSITY CONSERVATION SEPP 2021 ASSESSMENT

2.1 Background

The approved subdivision was previously assessed under *SEPP 44 – Koala Habitat Protection 1995*. Under the SEPP, this required a compliance assessment with the KSC CKPoM.

The site was assessed not to qualify as Core Koala Habitat, hence the relevant provisions did not apply.

The assessment determined the 2 Tallowwoods in the southeast just fell into the edge of mapped Preferred Koala Habitat. To avoid triggering offsets under s4.12 of the CKPoM, the layout was designed to retain these trees.

SEPP 44 was replaced in 2018 by a new SEPP, which was subsequently replaced again in 2020: *State Environmental Planning Policy (KSEPP) 2020*.

In early 2021, the Koala Habitat Protection State Environmental Planning Policy (KSEPP) 2020, was replaced by *Koala Habitat Protection SEPP 2021*, but the latter only for urban and environmental zones (DPIE 2021) until Private Native Forest (PNF) and Land Management Codes (LMCs) under *Local Land Services Act 2013* are updated to remove DA requirements for PNF on Rural zoned land (where relevant).

The two SEPPs were later amalgamated into the *Biodiversity Conservation (BC) SEPP 2021*, as Chapter 3 and 4 respectively.

The site is currently zoned R3, and hence Chapter 4 Koala Protection 2021 requires assessment.

Under SEPP 44, the Kempsey Shire Council Comprehensive Koala Plan of Management (KSC CKPoM) came into effect, and remains current under the BC SEPP.

2.2 Preferred Koala Habitat Assessment

The previous assessment assumed that the 2 Tallowwoods (**K4** and **K5**) in the southeast on the edge of the area mapped as Secondary B Preferred Koala Habitat (PKH) under the CKPoM.

As shown in **Figure 3**, no other Koala food trees listed in the CKPoM occurred in the other areas of PKH.

This assumption was made as the tree locations shown in Figure 3, were made by handheld GPS, and were not formally located by a registered surveyor. Accuracy of handheld GPS varies with a range of factors (eg. GPS model, number of satellite locks, tree cover, terrain, etc), with ~5m being the closest accuracy. Differential GPS is required for high accuracy (<1cm).

Survey by a registered surveyor for the new masterplan found the 2 Tallowwoods are actually located just outside the PKH (see **Figure 4**).

Consequently, no offsets under section 4.12 are triggered by removal of these trees.

2.3 Performance Criteria Compliance Assessment

Section 4.10 of the CKPoM lists Performance Criteria for PKH. Assessment is provided as follows:

Table 1: KSC CKPoM Compliance Assessment

Performance Criteria	Compliance Assessment
<p>a) maximise retention and minimise degradation of native vegetation across the subject land</p>	<p>Due to earthwork requirements, retention of any trees within the development envelope is not possible.</p> <p>All but the 2 Tallowwoods have been cleared under the existing consent.</p>
<p>b) minimise the removal of any identified preferred Koala food trees, where they occur across the subject land;</p>	<p>No KFTs fall in the mapped PKH on site.</p>
<p>c) ensure such trees will not be negatively impacted by subsequent development works including the construction of buildings, associated infrastructure and/or provision of public utilities.</p>	<p>N/A</p>
<p>d) maintain key linkages across the landscape, where they occur, to reduce the effects of habitat fragmentation;</p>	<p>The site currently no linkage values prior to clearing due to being largely cleared, with trees in a parkland state. Only 2 trees remain in the southeast, isolated by residential land to the south and cleared paddock around them on site. Their removal will not impact current connectivity.</p>
<p>e) comply with the Habitat Compensation Measures where relevant as per Section 4.12 of this plan;</p>	<p>Not applicable as no KFTs to be removed from PKH.</p>
<p>f) where Onsite KFT Tree Replacement Measures have been applied, as per Section 4.9 of this plan, measures to ensure the retention of replacement trees over time, which may include but are not limited to restrictions on title; and</p>	<p>Not applicable</p>
<p>g) where Koala habitat and associated linkages are proposed to be retained on the development site to mitigate impacts, measures to ensure the protection of those areas in the long term, which may include but are not limited to restrictions on title;</p>	<p>N/A.</p>
<p>h) appropriate measures (ie erection of exclusion fencing) are to be in place to ensure Koalas are protected during site construction works. Should Koalas be found on site during clearing, construction or site works then provisions (i) and (j) in Section 4.11 apply.</p>	<p>Fencing not required as no KFTs retained in the development footprint.</p> <p>Vegetation to be inspected before clearing commences to ensure site is free of Koalas.</p>

Figure 3: Previous KFT and PKH mapping (Darkheart 2014)

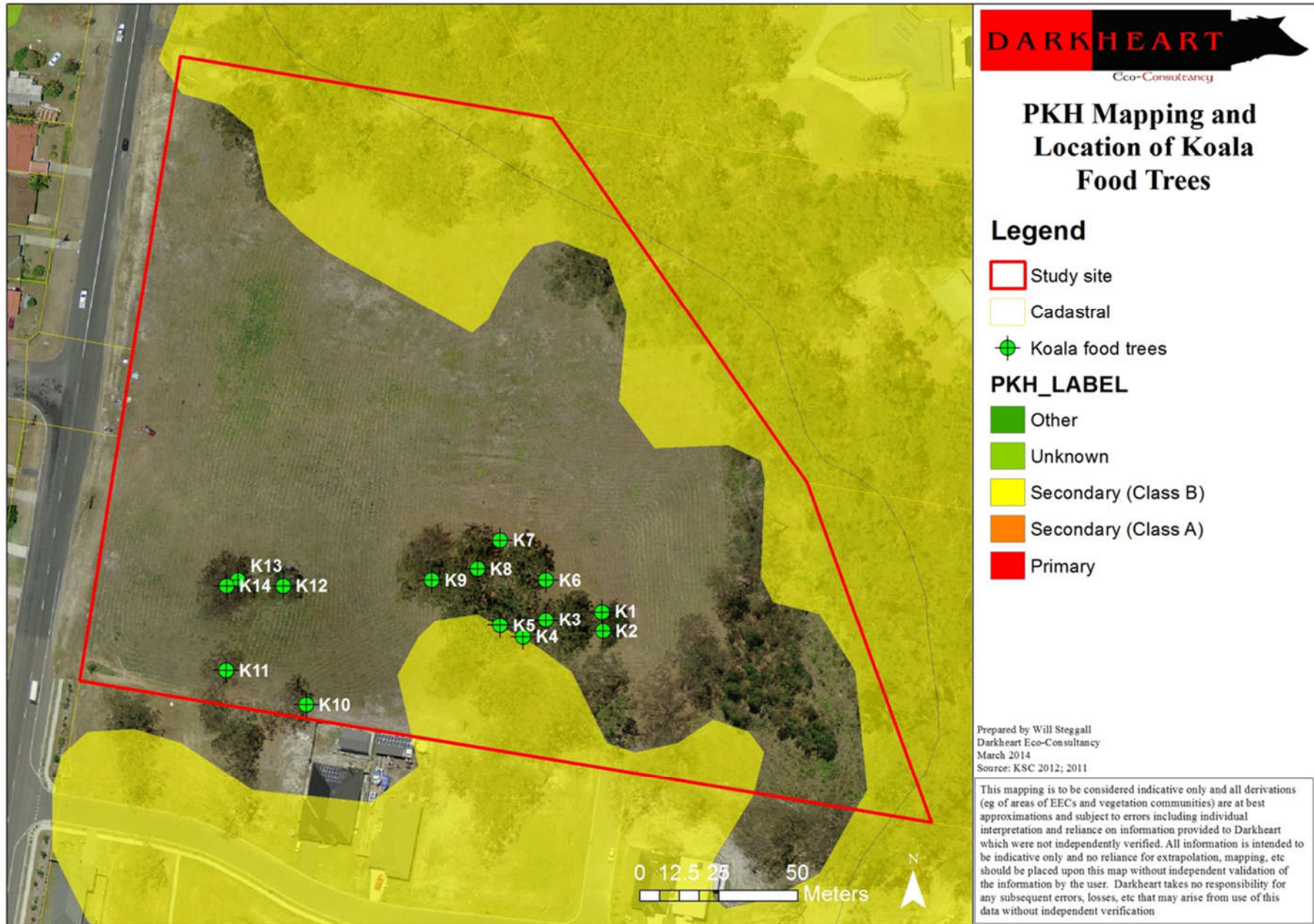
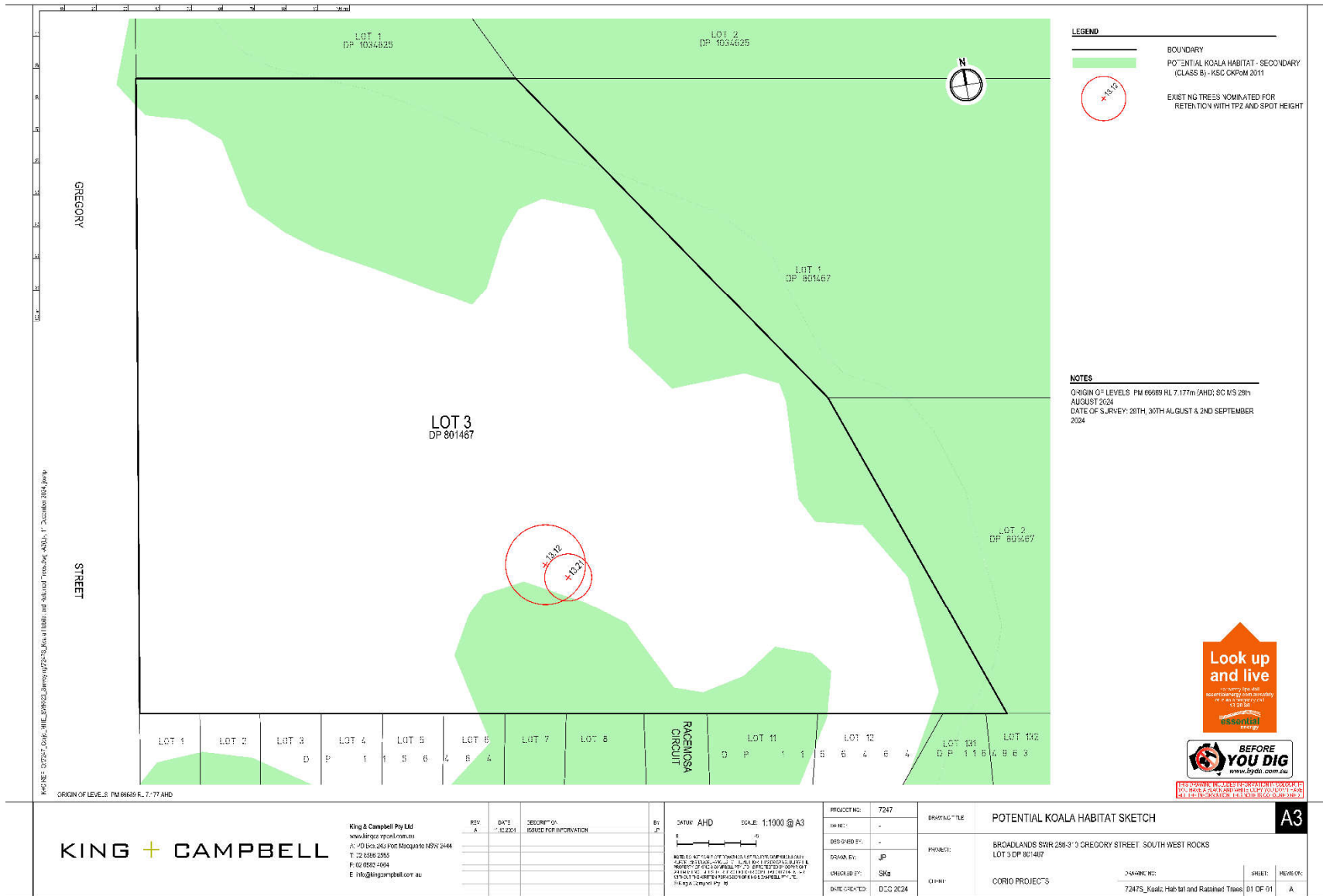


Figure 4: 2024 KFT survey relative to PKH



3 FIVE PART TESTS

The current approval was assessed under the 7 Part Tests Parts, which were described by Section 5A of the *Environmental Planning and Assessment Act 1979*, as amended by the *Threatened Species Act 1995* which in turn was amended by the *Threatened Species Conservation Amendments Act 2002*.

The *Threatened Species Act 1995* and *Threatened Species Conservation Amendments Act 2002* were repealed by the BC Act 2016, replacing the 7 Part Test with the 5 Part Tests when the BOS did not apply.

3.1 Entities to be Assessed

The 5 Part Tests are used to determine whether a proposed development is likely to have a significant effect on threatened species, Endangered Ecological Communities, and areas of Outstanding Biodiversity Value (OBV) listed under schedules of the *Biodiversity Conservation Act 2016* known or considered reasonably likely to occur in the area influenced by a development proposal. Considerations must be given to the possible significant impacts a proposed development may have on threatened species, ecological communities, and their habitats (OEH 2018).

The content of the 5 Parts are specified by Section 7.3 of the *Biodiversity Conservation Act 2016*.

The guidelines currently associated with the revised factors have provided definitions for key terms with the most significant being that of the “local population” and “local occurrence” as follows (OEH 2018):

- **“Local occurrence”**: the ecological community that occurs within the study area. However, the local occurrence may include adjacent areas if the ecological community on the study area forms part of a larger contiguous area of that ecological community and the movement of individuals and exchange of genetic material across the boundary of the study area can be clearly demonstrated.
- **“Local population”**: the population that occurs in the study area. The assessment of the local population may be extended to include individuals beyond the study area if it can be clearly demonstrated that contiguous or interconnecting parts of the population continue beyond the study area, according to the following definitions.
 - The local population of a threatened plant species comprises those individuals occurring in the study area or the cluster of individuals that extend into habitat adjoining and contiguous with the study area that could reasonably be expected to be cross-pollinating with those in the study area.
 - The local population of resident fauna species comprises those individuals known or likely to occur in the study area, as well as any individuals occurring in adjoining areas (contiguous or otherwise) that are known or likely to utilise habitats in the study area.
 - The local population of migratory or nomadic fauna species comprises those individuals that are likely to occur in the study area from time to time....”

No Endangered Ecological Communities (EECs) occur on site or in the study area and no threatened flora have been recorded (Darkheart 2014). Hence no further assessment is required of these.

Appendix 1 reviews threatened species known or predicted to occur from Bionet (DCCEEWSW 2025, DCCEEW 2025) for their potential to occur on site.

3.1.1 Potential Occurring Threatened Species

Species listed in the following table are considered potential occurrences in the study area and thus require formal statutory assessment (see section 8 and 9):

Table 2: Threatened species potentially occurring in the study area

Species	Legal Status	Local Population
Square-tailed Kite	V-BCA	The local pair potentially using habitat within site/study area depending on prey abundance as part of larger territory. Local population requires much more habitat that found within study area to meet lifecycle requirements
Local Lorikeet	V-BCA	Any birds which may seasonally occur and possibly nest in the study area, but more likely in the locality. Local population thus requires much more habitat that found within study area to meet lifecycle requirements.
Koala	E-BCA, E-EPBCA	The local Koala aggregate, which may range into the study area from known habitat in Hat Head National Park and nearby Arakoon rural-residential area, most likely only as a dispersing sub-adult given lack of evidence of home range activity. Local population thus requires much more habitat that found within study area to meet lifecycle requirements.
Squirrel Glider	V-BCA	Colony potentially occurring in the study area to the east, with site forming the outermost marginal fringe of the local population's home range.
Grey-headed Flying Fox	V-BCA, V- EPBCA	The population which uses camps in the locality (eg. Spencers Creek and recent small camp near the Spencerville bridge), of which the site would constitute a miniscule fraction of its range to meet all lifecycle requirements.
White-throated Needletail	V-BCA, V-EPBCA	Any individuals aerially foraging in the study area, as a minute fraction of their international non-breeding range. Local population thus requires much more habitat that found within study area to meet lifecycle requirements
Eastern Bentwing Bat and Eastern Bentwing Bat	V-BCA	Any individuals known/potentially using habitat within site/study area depending on lifecycle stage/seasonal range. Due to the ecology of these species, the local population requires far more habitat that found within study area to meet lifecycle requirements.
Yellow-belled Sheathtail Bat.	V-BCA	
Hoary Bat	V-BCA	
East-coast Freetail Bat	V-BCA	
Greater Broad-nosed Bat	V-BCA	
Eastern False Pipistrelle		

3.2 Five Part Test Assessment

The 5 Part Test for this proposal is as follows:

a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The impact of the proposal will vary in significance and context per species/species groups as follows:

(i). Highly Mobile/Large Range/Seasonally Nomadic Fauna: Square-tailed Kite, White-throated Needletail, Little Lorikeet, Grey-headed Flying Fox, Yangochiropteran Bats

All of the subject species require home ranges/territories, or seasonably variable ranges that far exceed the development site (Dwyer 1966, 1968, DCCEEWSW 2025b, ABS 2025, Smith *et al* 1995, Hall and Richards 2000, Barnes *et al* 1999, Debus and Czechura 1989 etc). Hence any known/potentially occurring local population of these species would extend well beyond the site/study area (As detailed in Appendix 1).

The site's value to these species have been largely compromised by the original development and recent clearing, with most of the tree cover removed, leaving only the periphery lined with 2 small trees, and a paddock dominated by exotic and native groundcovers.

No roosting or nesting habitat for subject species occurs on site, hence there is no risk of impacts on these key habitats and lifecycle stage.

Overall, due to the ecology of these species and the presence of more core habitat within range of the site (eg. Hat Head National Park), it is readily apparent that sufficient habitat and connectivity for these species to forage and fulfil their individual lifecycle requirements will remain in the study area and the locality in which the local populations of these species are likely to routinely range. Hence the proposal will at most essentially constitute an extremely minor contraction of their wider foraging range.

Given this, the local populations would extend well beyond the confines of the site/study area: the order of magnitude of the proposal's negative effects is not considered sufficient to result in a direct decline (i.e. reduce viability) of the local population of any of the subject species.

(ii). Koala

Recent records (Bionet 2025a) suggest the Koala population in South West Rocks (SWR) has been progressively increasing in range and size since the 1990s. Formally only known from a small aggregate around the Smokey Cape campground (KSC 2011), records have been increasing to extend over eastern SWR, with recent records in western SWR.

Tallowwood is a primary preferred Koala food tree in the Kempsey LGA, but there appears to be poorly defined relationship between tree maturity, edaphics and also landscape mosaics and disturbance history influencing use (KSC 2011).

Inspection in this and previous survey failed to find evidence of Koalas using the trees on site, strongly indicating that it does not form part of a Koala's home range. The loss of these two trees is recognised as an incremental and cumulative addition to the loss of habitat in the SWR area. However, their removal is unlikely to result in a negative impact on the local population as it they do not form part of Core Koala Habitat.

Their removal will also reduce the potential for a Koala to enter a landscape where mortality threats (dog attack and vehicle strike) are elevated, and physical barriers posed by fencing are extensive.

Considering the above, the removal of the two trees on site is not considered likely to be sufficient to be considered likely to place a local population at risk of extinction.

(iii). Squirrel Glider:

The Squirrel Glider has been recorded in interconnected habitat to the south, north and east (as well to the far west). Due to the limited foraging and lack of denning resources on the site however, as well as separation of the 2 trees from the nearest forest: they have only at best a very low chance of incidental use when flowering. The core habitat for these species would be the intact forest to the east of the site, which interconnects to a very large area of habitat, much of which is conserved in Hat Head National Park. At the most, the 2 trees on site now only represent the extreme marginal fringe of their territory.

The loss of the 2 trees will incrementally and cumulatively contribute to identified threatening processes for these species (DCCEEWSW 2025b) and the contraction of habitat in the area. No hollow-bearing trees will be removed however.

While this is a negative impact in the strictest sense, it is unlikely to result in any significant detrimental impacts capable of placing the subject species at risk of extinction as the habitat on site is very low value (eg. lacks preferred sap species and flowering understorey for the Squirrel Glider); and its loss essentially constitutes a contraction of the marginal fringe of their likely core habitat area to the east and north which is capable of sustaining the local populations. Further, as the site is currently mostly cleared, the proposal will not remove or impact a key linkage or create a significant barrier for these species.

An incremental increase in threats/secondary impacts such as increased predator access/abundance (ie pet cats), increased human presence and artificial lighting and noise may or will result from the proposed subdivision. This is considered a net negative impact on the potential occurrence of these species in the study area and these impacts are all recognised as threatening processes responsible for the continuing decline of these species (DCCEEWSW 2025b, Smith and Murray 2003, Melton 2007, WWF 2002, Gibbons and Lindenmayer 2002, etc).

Overall following consideration of the above, while it will have negative effects and contribute to threatening processes, the proposal is not considered likely to result in an impact of sufficient order of magnitude that may significantly affect the lifecycle of the local population of either of the subject species to the point of increasing likely extinction risk, especially given the extent of alternative known/potential (and generally better quality) foraging and denning habitat available to the local population of the subject species in adjacent habitat.

b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

- (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or**
- (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,**

No EECs have been recorded on site or adjacent.

- c) in relation to the habitat of a threatened species or ecological community:**
 - (i) the extent to which habitat is likely to be removed or modified as a result of the action proposed,**

The proposal will see removal of the remaining two trees on the otherwise cleared site.

- (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and**
- (iii) the importance of the habitat to be removed, modified fragmented or isolated to the long-term survival of the species or ecological community in the locality;**

The site’s value as a linkage has been effectively compromised by the original clearing on site decades ago, recent clearing for the current consent, and clearing of adjacent land south and west for the last few decades. It has no value even as a stepping stone.

As previously mentioned, the site represents only a very small and marginal area of potential foraging habitat for the subject species. Given this, that no critical lifecycle habitat components (eg. actual hollow-bearing trees or home range trees) occur on the site or will be removed by the proposal, and large areas of higher quality habitat occur in close proximity to the site: the vegetation proposed to be removed is considered to be of limited importance to any potential local population of any of the subject species.

- d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),**

No declared areas of outstanding biodiversity value have been identified in the locality.

- e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.**

The proposal will contribute to or mitigate the following Key Threatening Processes:

Table 3: Contribution to Key Threatening Processes

KTP	EXTENT/MANNER WHICH PROPOSAL AFFECTS KTP	MITIGABLE?
Clearing of native vegetation (NSWSC 2001c)	Removal of 2 native trees	No due to cut requirement to meet engineering standards.
Human induced climate change (NSWSC 2000d).	Removal of 2 native trees	No due to cut requirement to meet engineering standards.

4 EPBC ACT MNES ASSESSMENT

4.1 General Assessment Overview

The provisions of the EPBCA require determination of whether the proposal has, will or is likely to have a significant impact on a “*matter of national environmental significance*”. These matters are listed and addressed as follows:

1. **World Heritage Properties:** The site/study area is not listed as a World Heritage area nor does the proposal affect any such area.
2. **Ramsar Wetlands of International Significance:** No Ramsar wetland occurs on or adjacent to the site, nor does the proposal affect a Ramsar Wetland.
3. **EPBC Act listed Threatened Species and Communities:** The White-throated Needletail (Vulnerable) and Grey-headed Flying Fox (Vulnerable) are known or potential occurrences in the study area. Neither are considered likely to be significantly impacted given the site is not a significant area of habitat, nor is it a key area of breeding habitat. Impacts on their lifecycle and recovery are thus negligible. The Koala (Endangered) occurs as small population in South West Rocks – Hat Head National Park, but appears to have no value for the 2 trees on site. Their removal is not likely to lead to a long term decrease in the population of this species.
4. **Migratory Species Protected under International Agreements:** No migratory species is likely to be significantly affected by the proposal, as detailed in section 4.2.3.
5. **Nuclear Actions:** The proposal is not a nuclear action.
6. **The Commonwealth Marine Environment (CME):** Listed as relevant to the site though is not within the CME nor does it affect such.
7. **The Great Barrier Reef Marine Park:** The proposal does not affect the Great Barrier Reef Marine Park.
8. **National Heritage:** The site does not contain an item of National Heritage.
9. **A water resource, in relation to coal seam gas development and large coal mining development:** The proposal is not a mining development.

The proposal thus is not considered to require referral to the Department of Climate Change, Energy, Environment and Water (DCCEEWC) for approval under the EPBC Act.

4.2 Threatened Biodiversity

4.2.1 Threatened Flora and EECs

No indigenous EPBC Act listed flora species were found on the study site or considered likely potential occurrences, and are thus not considered further.

No EPBC Act listed EECs occur onsite or adjacent.

4.2.2 Threatened Fauna

White-throated Needletail (V), Koala (E) and Grey-headed Flying Fox (V)

For the purposes of discussion, the “*important population*” of Grey-Headed Flying Foxes is defined as that population of the species likely to depend on colonial roosts in the locality or within foraging range of the site.

The White-throated Needletail breeds in Asia, spending a non-breeding migration mainly in eastern Australia with vagrants in the west. The “*important population*” is thus the group of birds visiting the locality during their non-breeding seasons.

For the Koala, the “*population*” would be that population that inhabits South West Rocks area and northern end of Hat Head National Park, which appears to be a possibly isolated population due to lack of records south.

a) Lead to a long-term decrease in the size of an important population (Vulnerable) or population (Endangered) of a species, or:

The proposed activity will only see the removal of 2 eucalypts.

The two trees only generic potential foraging habitat for the Flying Fox. The White-throated Needletail may forage aerially over residential areas, but the site is very low value prey habitat. The loss of this habitat thus has no capability of leading to a long term decrease in the population size.

The site contains 2 trees which can be preferred for browsing by Koalas in the LGA. However, there is no indication of use. This appears likely to be the result of the trees being too remote from Core Koala Habitat, and no resident Koalas in the adjacent forest to the east. Its use may at best might be by a transient sub-adult exploring the fringes of known Core Koala Habitat further east in Hat Head National Park, but this would encourage the Koala into a hostile landscape matrix where risk of dog attack and vehicle strike are high, and physical barriers posed by fencing is widespread. The loss of these trees is thus very unlikely to lead to a long term decrease in the population’s size.

No other aspect of the proposed activity is considered to pose a significant threat to these species given their high level tolerance of human presence and use of residential areas.

The proposal will thus not lead to a long-term decrease in the size of an important population.

b) Reduce the area of occupancy of an important population (Vulnerable) or population (Endangered), or:

The site is not known roosting habitat for the Grey-Headed Flying Fox and is unlikely to be used for roosting. The proposal is likely to remove 2 canopy trees which offer generic potential forage when flowering, resulting in a minute contraction of the local foraging resource. The loss is considered unlikely to be significant to the local foraging success of the Grey-Headed Flying Fox as the trees are not critical foraging habitat; and a relatively large area of similar habitat is accessible locally in nearby NPWS estate (eg. Hat Head National Park), as well as private land.

For the Koala, the loss of 2 food trees remote from known Core Koala Habitat which is located in the relatively expanse of habitat in eastern SWR is a relatively miniscule part of the habitat required to support a population/important population given the extent of habitat required for these species.

The White-throated Needletail is a non-breeding migrant, ranging extensively across Australia, and can be observed foraging over natural to highly modified habitats eg. residential areas. Only a very small area of marginal potential generic prey habitat is to be removed/modified.

c) Fragment an existing important population (Vulnerable) or population (Endangered) into two or more populations, or:

All 3 species are highly mobile and known to be capable of crossing human-modified habitat.

The proposal will offer no barrier to movement of the White-throated Needletail or Grey-headed Flying Fox, but the significant change to site topography with retaining walls and fencing will probably deter potential passage by the Koala. As the site is not a linkage, and any east-west connection currently is met by the forest north of the site and further south, it will not fragment an existing important population.

d) Adversely affect habitat critical to the survival of a species, or:

“*Critical habitat*” refers to areas critical to the survival of a species or ecological community may include areas that are necessary for/to:

- Activities such as foraging, breeding, roosting or dispersal.
- Succession.
- Maintain genetic diversity and long term evolutionary development, or
- Reintroduction of populations or recovery of the species/community.

As mentioned previously, the land proposed to be impacted on by the development is not roosting habitat for the Grey-Headed Flying Fox, nor is any significant area of potential foraging habitat to be removed by the proposal.

The site has no association with Core Koala Habitat, hence its loss is not likely to affect critical habitat.

The White-throated Needletail are non-breeding migrants, ranging extensively across Australia, hence the study area is not breeding habitat which is critical to the species survival. The proposal will have no long term impacts on this species.

e) Disrupt the breeding cycle of an important population (Vulnerable) or population (Endangered) or:

The proposal is unlikely to disrupt the breeding cycle of an important population/population given that:

- The site does not represent potential breeding habitat for the Grey-Headed Flying Fox, with extensive habitat more likely to support breeding in the surrounding conservation reserves;
- Breeding habitat of the White-throated Needletail does not occur in Australia (non-breeding international migratory species).
- The extent of potential foraging habitat to be removed comprises a miniscule fraction of the local extent for the White-throated Needletail and Grey-Headed Flying Fox.
- No association of Koala with the site, hence not part of Core Koala Habitat.
- White-throated Needletail and Grey-Headed Flying Fox have very large ranges that far exceed the site and study area,

- The potential for the species to occur within the study area will be retained post-development; and

f) Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline, or:

As detailed previously, the site and the degree of vegetation/habitat loss is not significant enough to affect the local population of the subject species to the point it could cause a decline of the species.

g) Result in invasive species, that are harmful (by competition, modification of habitat, or predation) to a Vulnerable and/or Endangered species, becoming established in the Vulnerable and/or Endangered species' habitat, or:

No new species that affects any of the subject species is likely to be introduced as a direct result of the proposed works.

The loss of 2 unused trees is not capable of influencing current disease expression in the population of Koala.

h) Introduce disease that may cause a species to decline; or

No disease that affects any of the subject species is likely to be introduced as a direct result

i) Interferes substantially with the recovery of the species.

Ideally, the goal in threatened species recovery is to increase the number and extent of the threatened species, so that it is not in risk of becoming extinct. As detailed previously, the proposal will result in the modification of a relatively minute area of potential foraging habitat that is not significant enough to interfere with the recovery of either of the subject species.

f) Conclusion

The proposal will not have a significant impact on the Grey Headed Flying Fox, Koala or White-throated Needletail.

4.2.3 Migratory Species

No EPBC Act listed migratory species was recorded on the site. However two aerially foraging species (White-throated Needletail, Fork-tailed Swift) have been recorded in similar situations and are considered potential occurrences.

a) Substantially modify (including fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat of the migratory species, or;

First, the site is not considered likely to constitute an *important area of habitat* on the basis of the following:

1. A number of species are considered potential occurrences, mostly as vagrants or seasonal foragers utilising the general area of part of their large seasonally nomadic range. The value of this habitat is as a fraction of a significant extent of similar habitat not only in the LGA, but the North Coast Bioregion. The study area and site are not known breeding habitat for any of these species. The study area is not considered capable of supporting an ecologically significant proportion of any of these species (for some at most only a small group or transient individuals).

2. While some migratory species occurring in the locality may be at the limits of their range, no such species were recorded in the study area. Additionally, similar habitat is known to occur both north and south of the locality.
3. If the site were located at the limits of a species whose abundance and range is declining, it would not be considered significant as such habitat is locally abundant in the area, and habitat with greater capability occurs within 10km eg Conservation Areas, Nature Reserves, State Forests, etc.

In regards to point (a): The proposal does not affect important habitat, and while the proposal will most likely see a small reduction in the potential habitat for migratory species on the site, the area and locality contains an abundance of alternative habitat which is available to those species.

b) Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat of the migratory species, or;

In regards to point (b): An invasive species is one that may become established in the habitat, and harm the migratory species by direct competition, modification of habitat, or predation. No such invasive species is to be introduced by the proposal.

c) Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of the species.

In regards to point (c): No disruption on the lifecycle of any migratory bird is likely as:

- Potential habitat to be affected is either only marginally suitable, and/or locally abundant.
- No nesting/breeding habitat is affected.
- Key habitat areas are not impacted.

In view of the above, no migratory bird is considered likely to be significantly affected by the proposal.

5 CONCLUSION

As the site had been largely cleared by original owners and subsequently almost totally cleared under the recent development approval, its ecological values are now very low.

It has no significant habitat components such as hollow-bearing trees, and the two Tallowwoods are separated from the nearby forest by cleared land. Neither tree shows any evidence indicating it forms part of a Koala's home range.

No threatened flora or fauna species were recorded on the site, and generally only highly mobile threatened species of animals were considered to have at best low potential to use the site as the marginal fringe of their local range.

The proposal is to remove the final two trees on site due to engineering constraints deeming their retention impractical. Overall, it is acknowledged this will nominally result in a very minor negative incremental and cumulative contribution to the threatened processes affecting the subject species. However given that the site has no evident value to the Koala, and only represents a marginal and miniscule area of foraging habitat for the other subject species; no areas critical for breeding or connectivity will be removed; and the presence of relatively extensive areas of alternative habitat and ecology of the species within the range of the local

populations: the order of magnitude of these impacts are not considered likely to be sufficient to directly result in loss of viability of a local population of a threatened species.

Hence no referral to the Commonwealth DCCEEW or a BDAR is considered required.

Yours faithfully,



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MECANSW, MRZNSW, MABS, MAPCN

REFERENCES

- Australian Koala Foundation (2025). Website: www.savetheKoala.com.au .
- Australasian Bat Society (2025). Australian Bat Society website. www.abs.org.au
- Berrigan, J.A. (2003b). *Threatened Species, EPBCA and SEPP 44 Assessment for Proposed Residential Subdivision on Lot 1 DP 871437, Frank Cooper St, South West Rocks*. Unpublished report to Covey and Associates. Darkheart Eco-Consultancy, Port Macquarie.
- Briggs, B. (1996). *Tracks, Scats and Other Traces*. Oxford University Press, Melbourne.
- Churchill, S. (2002) *Australian Bats*. Reed-New Holland, Sydney.
- Clancy, G.P. and V.A. (2003). *Species Impact Statement – Scotts Head Proposed Rifle Range*. Greg. P. Clancy and Val. A Clancy Environmental Consultants, Coutts Crossing.
- Darkheart Eco-Consultancy (2004). *Flora and Fauna Survey for Proposed Western Distributor Rd*. Unpublished report to King and Campbell. Darkheart Eco-Consultancy, Port Macquarie.
- DECC (2008). *Recovery Plan for the Koala (Phascolarctos cinereus)*. NSW DECC, Hurstville.
- Department of Environment and Conservation (2006). *Recovery Plan for the Large Forest Owls: Powerful Owl (Ninox strenua), Sooty Owl (Tyto tenebricosa), and Masked Owl (Tyto novaehollandiae)*. NSW DECC, Hurstville.
- DCCEEW, Commonwealth (2025a). *Matters of National Environmental Significance Search Tool*. <http://www.environment.gov.au/epbc/pmst/index.html>
- DAWE (2025b). *Species Profiles and Threats (SPRAT) Database*. <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>
- DotE (2013). *Matters of National Environmental Significance: Significant impact guidelines 1.1 - Environment Protection and Biodiversity Conservation Act 1999*. Commonwealth of Australia, Canberra.
- DCCEEW, NSW (2025a) *Bionet /Atlas of Wildlife* (http://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx)
- DCCEEW, NSW (2025b) *Threatened Species Profiles*. www.threatenedspecies.environment.nsw.gov.au
- DPIE (2021). *BOSET User Guide: A step by step process to using the Biodiversity Offset Scheme Entry Threshold Tool*. Office of Environment and Heritage, Sydney.
- Engel, D. (2004). *Some observations on the Squirrel Glider (Petaurus norfolcensis) and implications of these to the management of this threatened species*. Newsletter of the Ecological Consultants Association of NSW. Vol 7 February 2004.
- Environmental Protection Authority, NSW (2020). *Coastal Integrated Forestry Operations Approval – Protocols*. Environment Protection Authority
59 Goulburn Street, Sydney.
- EPA, NSW. (2018). *Coastal Integrated Forestry Operations Approval – Conditions*. Environment Protection Authority
59 Goulburn Street, Sydney.
- EPA, NSW (2016a). *Assessment of Threatened Ecological Communities of the Coastal Integrated Forestry Operations Approval Region*. Environment Protection Authority
59 Goulburn Street, Sydney.
- Gibbons, P. and Lindenmayer, D. (2002). *Tree Hollows and Wildlife Conservation in Australia*. CSIRO Publishing, Collingwood.
- Harden, G.J. (Editor). *Flora of NSW*. Vols 1-4. NSW Press, Sydney.

- Hashimoto, T.R. and Troedson, A.L. (2008). Port Macquarie 1:100 000 and 1:25000, Coastal Quaternary Geology Map Series. Geological Survey of NSW, Maitland.
- Hindell, M.A. and Lee, A.K. (1990). Tree preferences of the Koala. pp117-21 In: Biology of the Koala. Ed. by A.K. Lee, K.A. Handayde and G.D. Sanson. Surrey Beatty and Sons, Sydney.
- Keith, D. and Scott, J. (2005). Native vegetation of coastal floodplains – a diagnosis of the major plant communities in New South Wales. *Pacific Conservation Biology*, 11: 81-104.
- Kempsey Shire Council (2011). *Comprehensive Koala Plan of Management for Eastern Portion of Kempsey Shire LGA - Volume 1: The CKPoM (Working Provisions)*. Kempsey Shire Council and Biolink Ecological Consultants, Uki.
- McDonald, R.C., Isbell, R.F, Speight, J.G., Walker, J. and Hopkins, M.S. (1990). Australian Soil and Land Survey Field Handbook. 2nd Edition. Goanna Printing, Canberra
- NSW Scientific Committee (2010a). *Final Determination to list the Little Lorikeet (Glossopsitta pusilla) (Shaw, 1790), as a Vulnerable Species*. www.environment.nsw.gov.au.
- NSW Scientific Committee (2010b). *Final Determination to list the Little Eagle (Hieraaetus morphnoides) (Gould 1841), as a Vulnerable Species*. www.environment.nsw.gov.au.
- NSW Scientific Committee (2010c). *Final Determination to list the Spotted Harrier (Circus assimilis), as a Vulnerable Species*. www.environment.nsw.gov.au.
- NSW Scientific Committee (2010d). *Final Determination to list the Flame Robin (Petroica phoenicea) Gould 1837, as a Vulnerable Species*. www.environment.nsw.gov.au.
- NSW Scientific Committee (2010e). *Final Determination to list the Scarlet Robin (Petroica boodang) Lesson 1838, as a Vulnerable Species*. www.environment.nsw.gov.au.
- NSW Scientific Committee (2010f). *Final Determination to list the Varied Sittella (Daphoenositta chrysoptera) (Latham 1802), as a Vulnerable Species*. www.environment.nsw.gov.au.
- NSW Scientific Committee (2007a). *Loss of hollow-bearing trees: key threatening process declaration. final determination*. www.environment.nsw.gov.au.
- NSWSC (2004a). Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and South East Corner bioregions - endangered ecological community listing: final determination. www.npws.nsw.gov.au.
- NSWSC (2004b). Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions - endangered ecological community listing: final determination. www.npws.nsw.gov.au.
- NSWSC (2004c). Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions - endangered ecological community listing: final determination. www.npws.nsw.gov.au.
- NSWSC (2001d) *Final Determination - Clearing of native vegetation* as a Key Threatening Process under Schedule 3 of the BCA 1995. www.npws.nsw.gov.au.
- NSWSC (2000a). *Predation by feral cats - Key Threatening Process declaration*. www.npws.nsw.gov.au.
- NSWSC (2000b). *Predation by the European red fox - Key Threatening Process declaration*. www.npws.nsw.gov.au.
- NSWSC (2000c). *Human-caused climate change - key threatening process declaration*. www.npws.nsw.gov.au.
- NSWSC (2000d). *Ecological consequences of high frequency fires - key threatening process declaration*. www.npws.nsw.gov.au
- OEH (2017a). Guidance to assist a decision maker to determine a serious and irreversible impact. Office of Environment and Heritage, Sydney.
- OEH (2016a). Threatened Species Test of Significance Guidelines. OEH, Hurstville.

OEH (2016b). NSW Guide to Surveying Threatened Plants. NSW OEH, Hurstville

Preston, B.J. and Adam, P. (2004a). Describing and listing threatened ecological communities under the *Threatened Species Conservation Act 1995* (NSW): Part 1 – the assemblage of species and the particular area. *Environmental and Planning Law Journal*, **21**:250-263

Preston and Adams (2004b). Describing and listing threatened ecological communities under the *Threatened Species Conservation Act 1995* (NSW): Part 2 – the role of supplementary descriptors and the listing process. *Environmental and Planning Law Journal*, **21**:372-390

Scotts, D. (2002) editor. Key Habitats and Corridors for Forest Fauna of North-East NSW: A regional landscape to focus conservation, planning, assessment and management. NSW NPWS, Hurstville.

Troedson A.L. & Hashimoto T.R. (2008). Coastal Quaternary Geology – north and south coast of NSW. Geological Survey of New South Wales, Bulletin 34.

L&EC Citations:

CBD Prestige Holdings Pty Ltd v Lake Macquarie City Council [2005] NSWLEC 367

Gales Holdings Pty Limited v Tweed Shire Council [2008] NSWLEC 209

Motorplex (Australia) Pty Limited v Port Stephens Council [2007] NSWLEC 74

APPENDIX 1: POTENTIAL OCCURRENCE ASSESSMENT

Table 4: Eligibility for the Five Part Tests and MNES

Marine, pelagic, estuarine and wetland species listed in Bionet and PMST results are not assessed as there is no habitat on site or in the study area for these species, and the proposal had no reasonable likelihood of detecting an indirect impact on them or their habitats.

Scientific Name	Common Name	NSW status	Comm. status	Records	Potential to occur/Assessment required.
<i>Ptilinopus magnificus</i>	Wompoo Fruit-Dove	V		6	No rainforest or wet sclerophyll with rainforest on site. No habitat, hence no potential to occur. No further assessment required.
<i>Ptilinopus regina</i>	Rose-crowned Fruit-Dove	V		2	No rainforest or wet sclerophyll with rainforest on site. No habitat, hence no potential to occur. No further assessment required.
<i>Hirundapus caudacutus</i>	White-throated Needletail	V	V,C,J,K	9	Generic overfly foraging habitat, forming miniscule part of international non-breeding range of this migratory species. 5 part tests and MNES assessment required.
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V		107	No nests in the trees, and dense habitat deters nesting or feeding perch suitability. No habitat, hence no potential to occur. No further assessment required.
<i>Lophoictinia isura</i>	Square-tailed Kite	V		13	Known to use urban woodland habitats similar to site as marginal part of territory. At least low potential for overfly on marginal fringe of high value habitat to east. 5 part tests required.
<i>Pandion cristatus</i>	Eastern Osprey	V		113	No nests in the trees, and dense habitat deters nesting or feeding perch suitability. No habitat, hence no potential to occur. No further assessment required.
<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	V	V	49	No potential food or nest trees onsite. No habitat, hence no potential to occur. No further assessment required.
<i>Glossopsitta pusilla</i>	Little Lorikeet	V		4	Two trees offer some generic nectar source, forming minute fraction of such habitat in the locality. No potential nesting hollows. At best low potential to incidentally forage in the trees. 5 part tests required.

Scientific Name	Common Name	NSW status	Comm. status	Records	Potential to occur/Assessment required.
<i>Lathamus discolor</i>	Swift Parrot	E	CE	24	No preferred nectar or lerp species. No habitat on site, hence no potential to occur. No further assessment required.
<i>Ninox connivens</i>	Barking Owl	V		1	No potential nest trees and prey habitat largely displaced as groundcover is over and low, and no significant arboreal habitat. No habitat on site, hence no potential to occur. No further assessment required.
<i>Ninox strenua</i>	Powerful Owl	V		6	No potential nest trees and prey habitat largely displaced as no significant arboreal habitat. No habitat on site, hence no potential to occur. No further assessment required.
<i>Tyto longimembris</i>	Eastern Grass Owl	V		4	No grassland habitat on site. No habitat on site, hence no potential to occur. No further assessment required.
<i>Tyto novaehollandiae</i>	Masked Owl	V		7	No potential nest trees and prey habitat largely displaced as no significant arboreal habitat. No habitat on site, hence no potential to occur. No further assessment required.
<i>Tyto tenebricosa</i>	Sooty Owl	V		1	No rainforest or wet sclerophyll forest on site. No potential nest trees and prey habitat largely displaced as no significant arboreal habitat. No habitat on site, hence no potential to occur. No further assessment required.
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	CE	1	No preferred nectar or lerp species. No habitat on site, hence no potential to occur. No further assessment required.
<i>Epthianura albifrons</i>	White-fronted Chat	V		3	No saltmarsh on or adjacent to site. No habitat on site, hence no potential to occur. No further assessment required.
<i>Lichenostomus fasciogularis</i>	Mangrove Honeyeater	V		1	No mangroves on or adjacent to site. No habitat on site, hence no potential to occur. No further assessment required.

Scientific Name	Common Name	NSW status	Comm. status	Records	Potential to occur/Assessment required.
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V		3	This species is not generally out-competed in urban and derived woodland by aggressive birds such as Noisy Miner, hence is not likely to use the two trees on site. No habitat on site, hence no potential to occur. No further assessment required.
<i>Coracina lineata</i>	Barred Cuckoo-shrike	V		2	No rainforest or wet sclerophyll with rainforest on site. No habitat, hence no potential to occur. No further assessment required.
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V	E	3	Not found in urban woodland habitats due to extreme threats. No habitat, hence no potential to occur. No further assessment required.
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	V		55	Not found in urban woodland habitats due to extreme threats. No habitat, hence no potential to occur. No further assessment required.
<i>Planigale maculata</i>	Common Planigale	V		1	Not found in urban woodland habitats due to extreme threats. No habitat, hence no potential to occur. No further assessment required.
<i>Phascolarctos cinereus</i>	Koala	E	E	241	No evidence of usage of the trees on site. At best, very low to low chance of incidental occurrence of dispersing sub-adult. 5 part tests and MNES assessment required.
<i>Cercartetus nanus</i>	Eastern Pygmy-possum	V		1	Not found in urban woodland habitats due to extreme threats. No habitat, hence no potential to occur. No further assessment required.
<i>Petaurus norfolcensis</i>	Squirrel Glider	V		83	Can range into urban woodlands where a mosaic of intact remnants provides core habitat, and this is widely occurring in SWR. The 2 Tallowoods lack hollows, but could possibly be used when flowering as part of home range centred in intact forest to east. 5 part tests required.
<i>Potorous tridactylus tridactylus</i>	Northern long-nosed potoroo	V	V	1	Not found in urban woodland habitats due to extreme threats. No habitat, hence no potential to occur. No further assessment required.

Scientific Name	Common Name	NSW status	Comm. status	Records	Potential to occur/Assessment required.
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V	78	Readily uses urban woodland and remnants, and likely to forage on site trees when flowering. High chance of occurrence, but not a roosting site. 5 part tests and MNES assessment required.
<i>Syconycteris australis</i>	Common Blossom-bat	V		3	Not found in urban woodland and not preferred foraging species. No potential roosting habitat. No habitat, hence no potential to occur. No further assessment required.
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V		1	May foraging on edge of adjacent forest and site's open paddock. No potential roosts on site but occur in study area. At least low potential to occur. 5 part tests required.
<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	V		9	May foraging on edge of adjacent forest and site's open paddock. No potential roosts on site but occur in study area. At least low potential to occur. 5 part tests required.
<i>Chalinolobus nigrogriseus</i>	Hoary Wattled Bat	V		3	May foraging on edge of adjacent forest and site's open paddock. No potential roosts on site but occur in study area. At least low potential to occur. 5 part tests required.
<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	V		1	May foraging on edge of adjacent forest and site's open paddock. No potential roosts on site but occur in study area. At least low potential to occur. 5 part tests required.
<i>Myotis macropus</i>	Southern Myotis	V		2	No potential foraging habitat as no watercourses or waterbodies. No potential roosts.
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	V		2	May foraging on edge of adjacent forest and site's open paddock. No potential roosts on site but occur in study area. At least low potential to occur. 5 part tests required.

Scientific Name	Common Name	NSW status	Comm. status	Records	Potential to occur/Assessment required.
<i>Vespadelus troughtoni</i>	Eastern Cave Bat	V		4	No potential roosts on or adjacent to site. Prefers more intact habitats, such as over Arakoon to Smokey Cape, hence unlikely to occur on site. No potential to occur, hence no further assessment required.
<i>Miniopterus australis</i>	Little Bent-winged Bat	V		16	May foraging on edge of adjacent forest and site's open paddock. No potential roosts on site but occur in study area. At least low potential to occur. 5 part tests required.
<i>Miniopterus orianae oceanensis</i>	Large/Common Bent-winged Bat	V		5	May foraging on edge of adjacent forest and site's open paddock. No potential roosts on site but occur in study area. At least low potential to occur. 5 part tests required.
<i>Cynanchum elegans</i>	White-flowered Wax Plant	E	E	6	No suitable habitat on site or in study area. No found in any survey on site or adjacent. No potential to occur, no further assessment required.
<i>Allocasuarina thalassoscopica</i>			E	1	No suitable habitat on site or in study area. No found in any survey on site or adjacent. No potential to occur, no further assessment required.
<i>Chamaesyce psammogeton</i>	Sand Spurge	E		1	No suitable habitat on site or in study area. No found in any survey on site or adjacent. No potential to occur, no further assessment required.
<i>Caesalpinia bonduc</i>	Knicker Nut	E		4	No suitable habitat on site or in study area. No found in any survey on site or adjacent. No potential to occur, no further assessment required.
<i>Rhodamnia rubescens</i>	Scrub Turpentine	CE	CE	3	Highly disturbed site, and appears to have long been displaced. Not found and not likely to occur. No further assessment required.
<i>Rhodomyrtus psidioides</i>	Native Guava	CE	CE	4	Highly disturbed site, and appears to have long been displaced. Not found and not likely to occur. No further assessment required.

Scientific Name	Common Name	NSW status	Comm. status	Records	Potential to occur/Assessment required.
<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	E	V	1	Highly disturbed site, and appears to have long been displaced. Not found and not likely to occur. No further assessment required.
<i>Peristeranthus hillii</i>	Brown Fairy-chain Orchid	V		1	No suitable habitat on site or in study area. No found in any survey on site or adjacent. No potential to occur, no further assessment required.
<i>Phaius australis</i>	Southern Swamp Orchid	E	E	1	No suitable habitat on site or in study area. No found in any survey on site or adjacent. No potential to occur, no further assessment required.
<i>Acronychia littoralis</i>	Scented Acronychia	E	E	13	No suitable habitat on site or in study area. No found in any survey on site or adjacent. No potential to occur, no further assessment required.