



5/04/2022

Focoze Pty Ltd
C/- PDA Planning
Attn: Tony Fish
tfish@pdaplanning.com.au

Dear Tony,

Addendum Ecological Assessment for Caters Creek Subdivision Modification

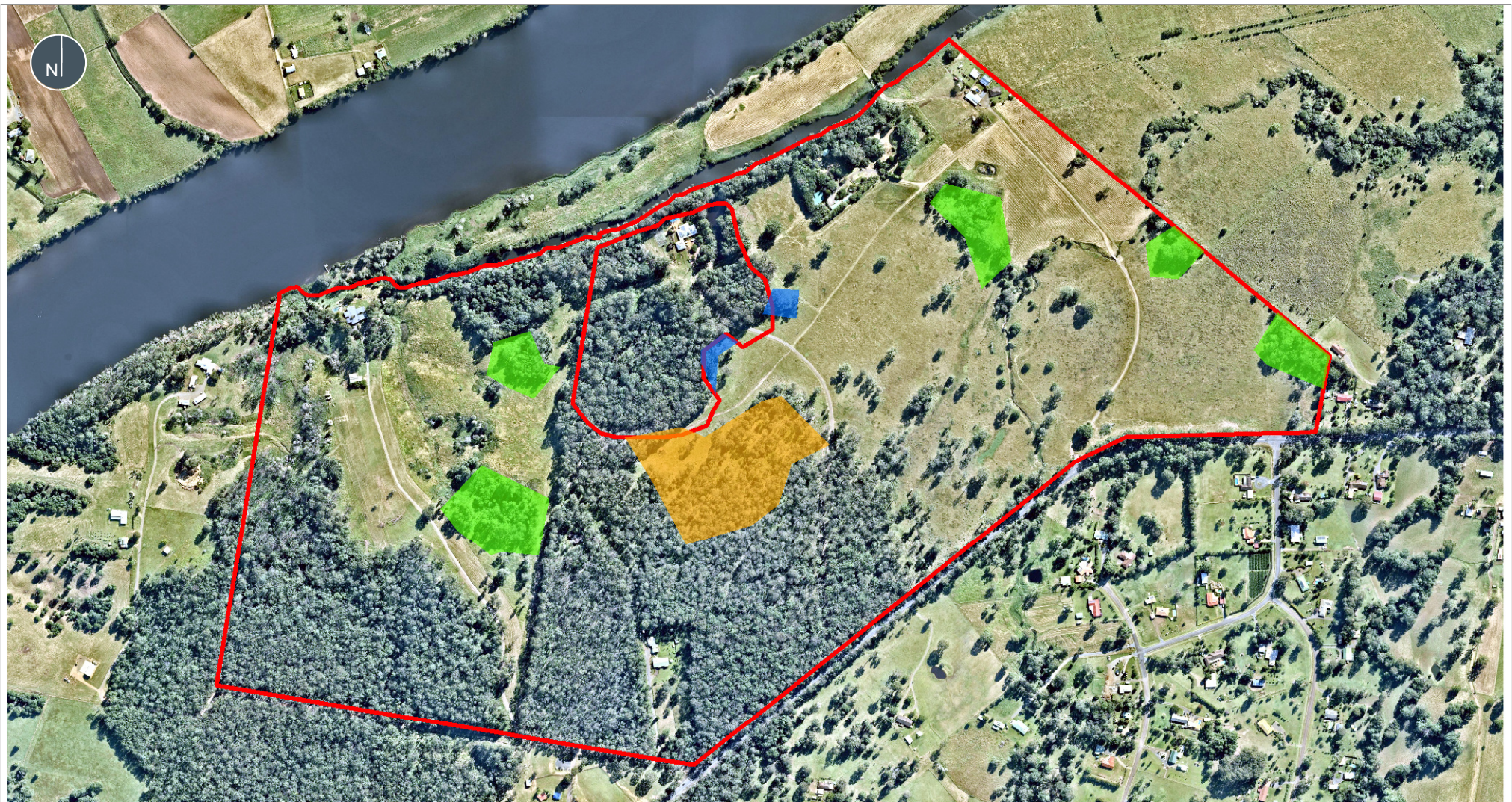
As requested, we provide updated ecological advice relating to the subdivision modification at Bucketts Way, Tinonee.

1. BACKGROUND INFORMATION

The subdivision was approved under the major projects pathway in 2009. A subdivision modification application has been recently lodged. The modification includes changes to the approved subdivision layout including changes to the Lot and road layout.

Biodiversity Australia prepared an ecological assessment in September 2020 to carry out updated surveys for the Koala and address the potential impacts of the development on threatened species that had been listed since the project was approved. An additional ecological report was prepared by Wolfpeak in March 2021 to carry out significance assessments for species not assessed in the Biodiversity Australia report. Wolfpeak then prepared a report in November 2021 confirming the ecological assessment pathway and that a BDAR should not be required.

The subdivision modification layout was updated in February 2022 which has further reduced the amount of native vegetation that requires removal. This assessment provides an addendum to the original ecological report prepared by Biodiversity Australia in 2020 and provides analysis of the updated plan. A site inspection of new areas of vegetation removal was carried out on 29 March 2022. This report also relies on previous fieldwork undertaken by Biodiversity Australia in 2020. The areas of the site surveyed by both of these surveys is provided in Figure 1.



Data Sources: Wolfpeak 2021, Imagery

Legend

- Subject Site
- Biodiversity Australia 2020
- Biodiversity Australia 2020 & Wolfpeak 2022
- Wolfpeak 2022



GDA2020 MGA Zone 56

1:9,207 @ A4

Figure 1 | Survey Areas

2. SUMMARY OF PREVIOUS ECOLOGICAL ASSESSMENTS

Ecological assessments have been previously undertaken on the site. A summary of these is provided below. For further detail, refer to Biodiversity Australia (2020).

2.1 Orogen 2007

Orogen undertook a comprehensive flora and fauna survey over the site in 2006. A range of different survey techniques were used. This resulted in the detection of eleven threatened fauna species. An additional flora survey was undertaken in September 2008 which detected a large population of Pale Yellow Doubletail (*Diuris flavescens*) in the western portion of the site.

Key recommendations of the Orogen ecological assessment are provided in the Biodiversity Australia report.

2.2 Biodiversity Australia 2020

Biodiversity Australia carried out general site traverses, threatened flora searches and a Koala survey in August 2020. The vegetation that would be impacted as part of the modification for the access road and creation of Lots 151-161, Lot 186 (and adjacent cul-de-sac), Lot 110, Lot 916, Lot 903 and Lot 904 were assessed during this survey. This resulted in the detection of the Koala and it was determined that the site still provides Core Koala Habitat. No other threatened species were detected. Six hollow-bearing trees were identified and mapped.

The vegetation comprises Dry Sclerophyll Open Forest dominated by Spotted Gum and Grey Ironbark with occasional White Mahogany and Small-fruited Grey Gum. There is no understorey or shrub layer and the groundcover comprises a low cover of native and exotic grasses that are grazed and slashed. It was determined that this vegetation does not comprise an Endangered Ecological Community.

Three recommendations were provided in this report comprising the following:

- **Koala food tree and Hollow-bearing tree mark-up and survey:** Detailed survey of all Koala food trees and hollow trees within the clearing/thinning footprint and trees identified clearly on civil construction plans
- **Tree retention in APZ:** Vegetation thinning in APZ is to selectively retain hollow-bearing trees, Koala food trees and Bloodwoods
- **Updated Orchid Survey:** Updated survey for the Pale Yellow Doubletail was recommended.

3. UPDATED FIELD SURVEY RESULTS

3.1 Survey Methods

A site inspection and field survey was carried out on 29th March 2022. This involved assessment of the new areas that will form APZs for the project in proposed Lots 151-164. The following survey methods were undertaken:

- Assessment of vegetation
- Hollow-bearing tree survey
- Koala scat searches
- Opportunistic searches for threatened fauna
- Detailed searches for threatened plants

3.2 Survey Results

3.2.1 Vegetation Communities

The vegetation in Lots 151-164 comprises a dry sclerophyll open forest community dominated by Spotted Gum and Grey Ironbark, with common canopy associated including Small-fruited Grey Gum, White Mahogany and Tallowwood. The canopy trees were largely regrowth, however a handful of large remnant trees were also present. There is not understorey or shrub layer present due to cattle grazing and slashing. The groundcover consists of a mix of native and exotic grasses. This vegetation would align with PCT 1549 (*Tallowwood - Spotted Gum - Grey Gum grassy tall open forest of the lower North Coast*).

This vegetation does not comprise an Endangered Ecological Community.

Photo 1: Open forest in proposed Lot 163



Photo 2: Open forest vegetation / proposed Lot 162



Photo 3: Open forest vegetation on proposed Lots 157 & 158



3.2.2 Fauna and Habitat

The vegetation affected by the modification would provide habitat for a range of fauna species. The Eucalypts provide a nectar source for nectar feeding birds and mammals when in flower, and may also provide a sap source for the Squirrel and Sugar Glider. Given that no understorey and shrub layer is present and the groundcover is slashed it would not be suitable for small terrestrial species dependant on cover such as the Common Planigale or some woodland bird species such as Robins or Varied Sittella. There is no aquatic habitat present in these areas, and no habitat for threatened amphibians or waterbirds.

Two species of preferred Koala food tree occur throughout in low density, comprising Tallowwood and Small-fruited Grey Gum.

Eight hollow-bearing trees were identified within the areas assessed. These fall in APZs and can be selectively retained. Details are provided in the table below and a photo of each tree is provided.

Table 1: Hollow-bearing tree data

	Species	Location	Height (m)	Trunk Diameter (cm)	No and size of hollows	Fauna suitability
HBT 1	Small-fruited Grey Gum	Proposed Lot 155	20	100	2 small, 2 medium, 1 large hollows	Large tree with hollows suitable for microbats, small mammals to medium (e.g Gliders, Phascogale) and small to medium birds (eg Little Lorikeet).
HBT 2	Small-fruited Grey Gum	Proposed Lot 155	20	110	3 small hollows	Low value tree with poorly formed hollows. Suitable for microbats. No evidence of current usage noted.
HBT 3	Small-fruited Grey Gum	Proposed Lot 155	23	80	2 small 3 medium hollows	Contains active hollows. Suitable for microbats, small to medium mammals (e.g Gliders, Phascogale) and small birds (eg Little Lorikeet).
HBT 4	Small-fruited Grey Gum	Proposed Lot 155	23	100	2 small, 4 medium hollows	Suitable for microbats, small to medium mammals (e.g Gliders, Phascogale) and small birds (eg Little Lorikeet). Trunk scratches.

HBT 5	Spotted Gum	Proposed Lot 153	25	100	2 small, 2 medium hollows	Suitable for microbats, small to medium mammals (e.g Gliders, Phascogale) and small birds (eg Little Lorikeet). No evidence of current usage noted.
HBT 6	Small-fruited Grey Gum	Proposed Lot 111	23	90	2 medium	High value trunk hollows suitable for , small mammals (e.g Glider, Phascogale) and small bids (eg Little Lorikeet).
HBT 7	Small-fruited Grey Gum	Proposed Lot 163	28	120	Approx 3 small and 3 medium hollows	Suitable for microbats, small mammals (e.g Glider, Phascogale) and small bids (eg Little Lorikeet). Scratches observed on trunk.
HBT 8	Small-fruited Grey Gum	Proposed Lot 163	27	120	Approx 2 small and 2 medium hollows	Suitable for microbats, small mammals (e.g Glider, Phascogale) and small bids (eg Little Lorikeet). No evidence of current usage noted.

Photo 4: HBT 1



Photo 5: HBT 2



Photo 6: HBT 3



Photo 7: HBT 4



Photo 8: HBT 5



Photo 9: HBT 6



Photo 10: HBT 7



Photo 11: HBT 8



3.2.3 Threatened Species

The Koala was the only threatened species recorded during the field survey. Koala scats were detected under a Tallowwood on proposed Lot 162 and appeared to be fresh. Koala scats were also recoded on proposed Lots 151, 155, 158, 186, 188 and 110 during the Biodiversity Australia 2020 survey. The location of the identified Koala scats is shown in Figure 3.



Data Sources: Woflpeak 2021, Imagery

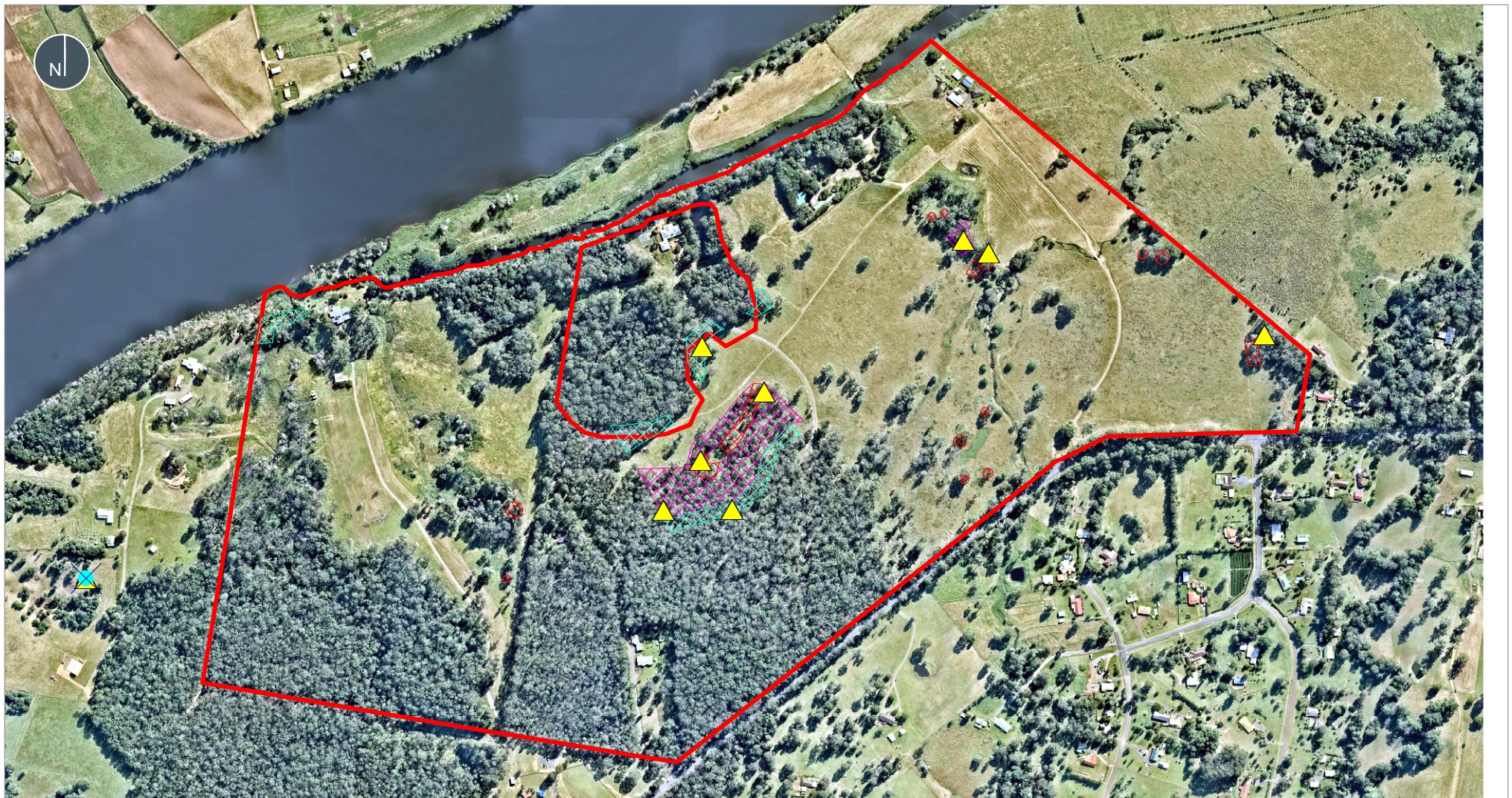
Legend

- Subject Site
- Hollow-bearing Tree
- Clearing 100%
- Thinning 30%
- Thinning 85%

GDA2020 MGA Zone 56 1:8,000 @ A4

Figure 2 | Hollow-bearing Trees





Data Sources: Wolfpeak 2021, Imagery

0

1

2km

Legend

- Subject Site
- ▲ Koala Scats
- Clearing 100%
- Thinning 30%
- Thinning 85%

GDA2020 MGA Zone 56

1:9,207 @ A4

Figure 3 | Koala Scats



4. ASSESSMENT OF APPROVED AND MODIFIED PLAN

4.1 Approved Subdivision

The subdivision was assessed through the major project part 3A pathway. It was granted consent by the Minister for Planning in April 2009. The approved subdivision consists of 123 Lots which comprise rural residential Lots and large forested Lots containing environmental protection areas (Figure 4).

Vegetation removal is limited to small patches of complete vegetation removal for development envelopes and roads; and thinning over larger areas to allow for APZs. Most vegetation removal would occur in the central portion of the site, for Lots 309-311 and Lots 323-326. The amount of vegetation removal totals 4.36 ha.

4.2 Modified Subdivision

An updated subdivision layout has been prepared (Figure 5). This is similar to the plan previously assessed by Biodiversity Australia (2020). In the updated plan, the size of the APZ in Lots 151-155 has been reduced, however new areas of APZ have been added on Lots 161-164.

The vegetation removal now required is 3.01ha which is 0.2ha less than the 2020 plan and 1.35ha less than the original approved plan. The following table compares the clearing extent of the approved subdivision and modified subdivision.

Table 2: Comparison of vegetation removal

Attribute	Approved Subdivision	Modified Subdivision (updated Feb 22)
Vegetation clearing (100%)	2.46	0.2
Vegetation thinning (85%)	-	1.85
Vegetation thinning (70%)	-	0.96
Vegetation thinning (30%)	1.9	-
Total	4.36ha	3.01ha

The areas in the above table are derived from the development layout plans provided by McGlashan and Crisp surveyors and have been checked by Wolfpeak. For the vegetation thinning areas, the percentage of vegetation to be removed in the APZ has been factored into the area shown.

As a result of the reduced clearing and vegetation thinning footprint, the modified subdivision will have a lesser impact on biodiversity.

10 20 30 40 50 60 70 80 90 100
Horizontal Scale 1:2000

INSTRUTION NUMBER 18/10
FILE NO. 18/10 - 18/10
DESIGNED: ...
DRAWN: ...
CHECKED: ...
DATE: ...
CONTOUR INTERVAL: 1/2

18/10/2018
18/10/2018

EUREKA 2 PROJECT 5
PTY LTD.

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VEGETATION RETENTION
AND REVEGETATION
PLAN

DEPARTMENT OF PLANNING
SALIN PROJECT 18/10
THE BUREAU OF HERITAGE

SHEET 1 OF 1 18/10/18

INDICATES VEGETATION IDENTIFIED
BY DATA TO BE RETAINED
LAND TO BE CLEARED 18/10
18/10/2018

18/10/2018
PLANT LOCATIONS
PALE YELLOW DOUBLETAIL GROUND ORCHID
LOCATED BY GREAT LAKES SURVEYS

Vegetation to be retained under covenant and management plan applied, for habitat purposes.	29.06 ha
Public reserve to be retained in council ownership.	3,641 ha
Area of drainage reserve to be rehabilitated to Subtropical Coastal Floodplain Forest EEC	6,055 ha
Locations of <i>disia flavescens</i> to be retained under covenant and management plan applied	0.18 ha



REVISION	SCALE: 1:3500 @ A2	CLIENT	RTS SUPER		McGLASHAN & CRISP Pty Ltd CONSULTING SURVEYORS 117 VICTORIA STREET, TAREE 2430. Ph:02 65521566. DX 7009 Email: admin@mcglashanncrisp.com.au	PLAN SHOWING PROPOSED VEGETATION CLEARING THE BUCKEETS WAY, TINONEE	REFERENCE F57A/3513/2017
	DRAWN: LD & GAC	DATUM:	L.G.A.				COMPUTER FILE
	DATE: 21.07.2021	APPROXIMATE MGA & AHD	MID-COAST				Carters_Creek_2021.mjo

4.3 Impact Assessments

The 2020 ecological assessment prepared an assessment of Significance for the Koala due to its listing under the EPBC Act. The 2021 Wolfpeak report also undertook a test of significance for relevant species that had been listed as threatened since the Orogen report. These comprised the following species:

- Scrub Turpentine
- Native Guava
- Varied Sittella
- White-bellied Sea Eagle
- Dusky Woodswallow
- White-throated Needletail
- Little Lorikeet

These assessments determined that the modified subdivision would not be capable of placing a local population of these species at risk of extinction and therefore would not result in a significant impact.

5. CONCLUSION

This report has summarised results of updated and previous assessments relating to the proposed subdivision modification at Carters Creek development site, Tinonee. The approved development has been compared against the updated subdivision layout for the proposed modification. The new development layout has reduced the amount of vegetation to be cleared and the amount requiring removal is 1.35ha less than the approved development. Surveys have been undertaken over all proposed clearing and thinning areas and identified eight hollow-bearing trees and numerous Koala food trees. No threatened plant species have been found in the proposed APZ and road footprint areas.

Previous assessments have determined that the modification proposal does not require entry into the Biodiversity Offset Scheme as no greater or additional impact will result. Recorded and potentially occurring threatened species have been assessed via Five Part Test of Significance which determined that the modification would not result in a significant impact.

Should you have any queries or require further information please do not hesitate to contact me on 0477611677 or at wsteggall@wolfpeak.com.au.

Yours sincerely,



Will Steggall
Senior Ecologist