



Addendum Ecological Assessment – South Lindfield Rezoning

FEBRUARY 2022

Revision History

Revision	Date	Prepared By	Reviewed By	Description
0	28/02/2022	Will Steggall	David Stubbs	Final Report

Authorisation

Author name	Will Steggall	Reviewer / approver name	
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Date	28/02/2022	Date	28/02/2022

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1. BACKGROUND INFORMATION

1.1 Site Description and Location

The development site comprises part of a large rural landholding (Lot 499 DP 1258597) located in the South Lindfield precinct and is accessed from Blackwood Street. The development site is currently zoned as RU1 primary production. It consists of areas of previously cleared land that is regularly slashed, and patches of native vegetation. The location of the site is shown in Figure 1.

Adjoining land uses include the crematorium to the west, residential land to the north and rural land to the south (approved for golf course) which adjoins part of Lake Innes Nature Reserve.

1.2 Rezoning Proposal

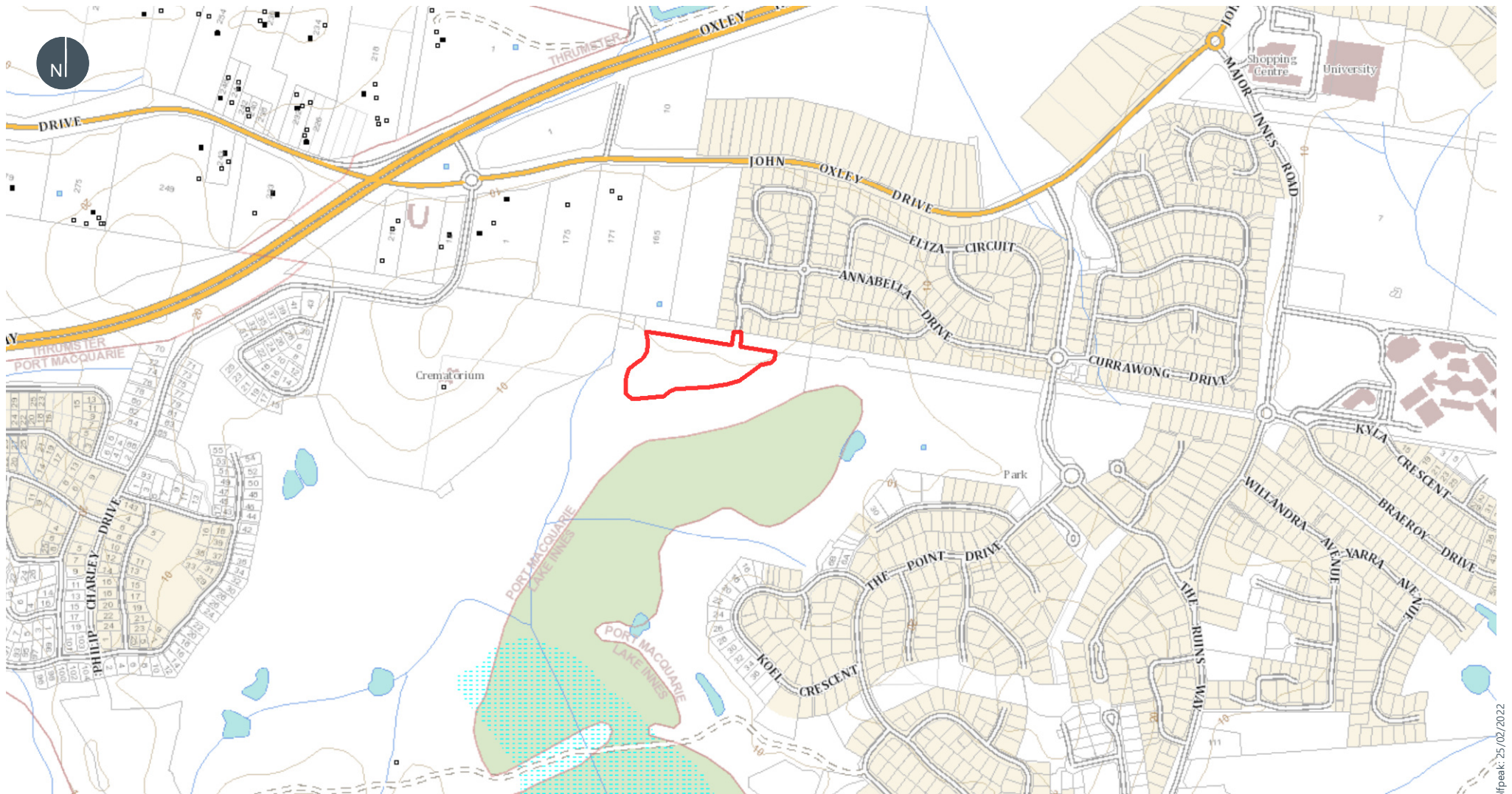
The proposal is to rezone land in the South Lindfield precinct from Rural to Residential (R1) and Environmental Protection (C2). The previous proposal was to rezone 2.86ha of land. Based on Council feedback, the current rezoning area has been reduced and now covers an area of 2ha. The area of land to be rezoned to C2 has also increased and now covers an area of 10.8ha. The former and current rezoning footprints are shown in Figure 2 and the proposed rezoning plan is shown in Figure 3.

The reduced residential zone footprint will require less native vegetation to be removed, and it now avoids areas mapped on the Biodiversity Values Map (Figure 4) and areas mapped as Swift Parrot Important Habitat. As a result of the reduced footprint, the trigger for entry into the Biodiversity Offset Scheme (BOS) is now only the area threshold which will be exceeded.

This report comprises an addendum to the Provisional Biodiversity Development Assessment Report (pBDAR) that was prepared by JB Enviro in January 2021. The addendum is required to assess the updated development envelope that has been reduced from the previous envelope assessed by JB Enviro.

This report provides an updated assessment of the new development envelope, updated Biodiversity credit assessment and commentary on the consistency of the new plan with the conclusions of the pBDAR.

A site inspection was undertaken on 28th February 2022 by WolfPeaks Senior Ecologist to inspect the new development envelope and determine if any changes to the site conditions have occurred.



Data Sources: Wolfpeak 2021, Imagery © Department of Customer Service 2020

Legend

Development Site

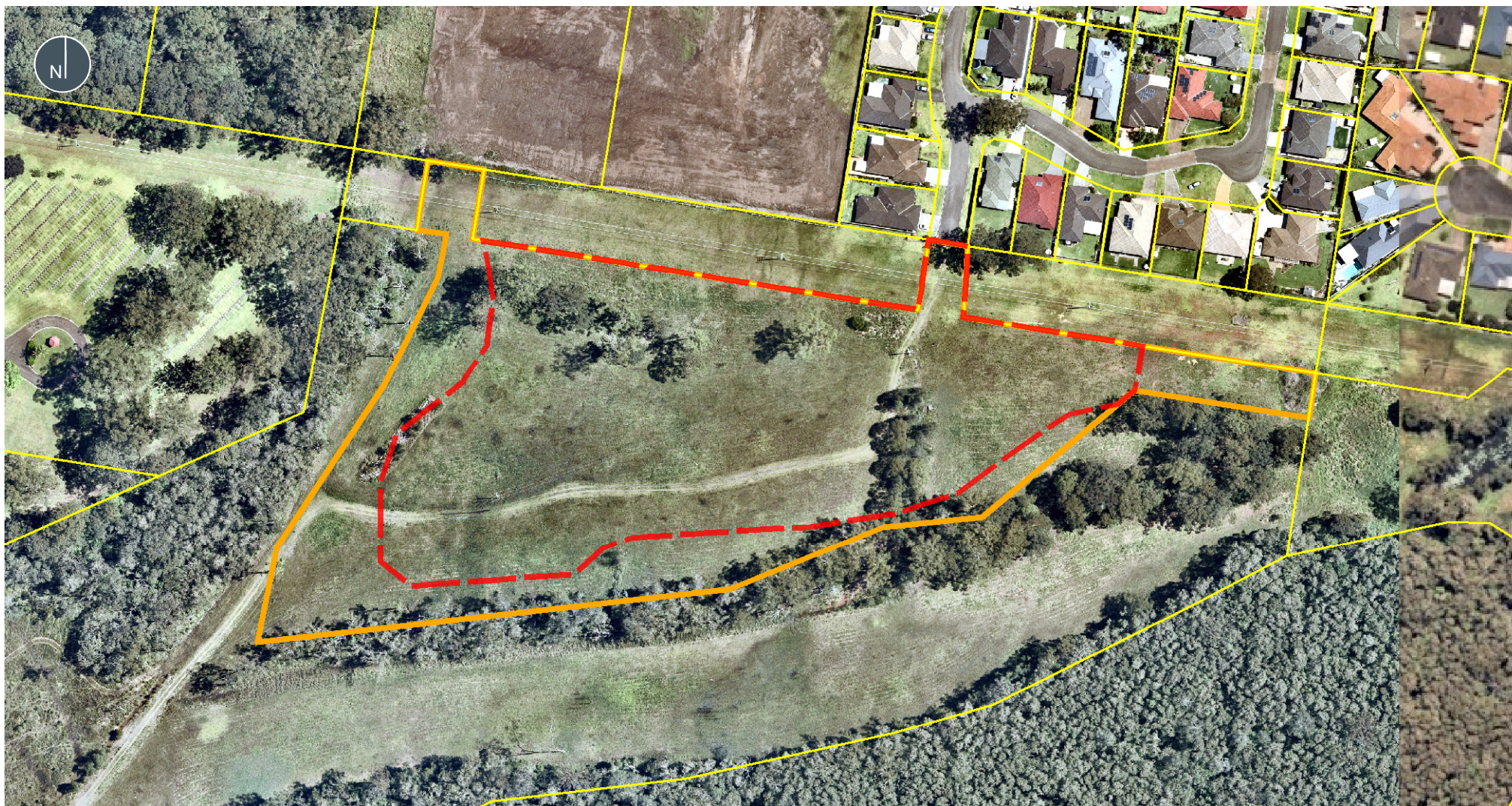
0 65 130 260 390 520 650 Meters

GDA2020 MGA Zone 56 1:10,000 @ A4

Wolfpeak: 25/02/2022



Figure 1 | Locality

South Lindfield Rezoning



Data Sources: Wolfpeak 2021, Imagery

Legend

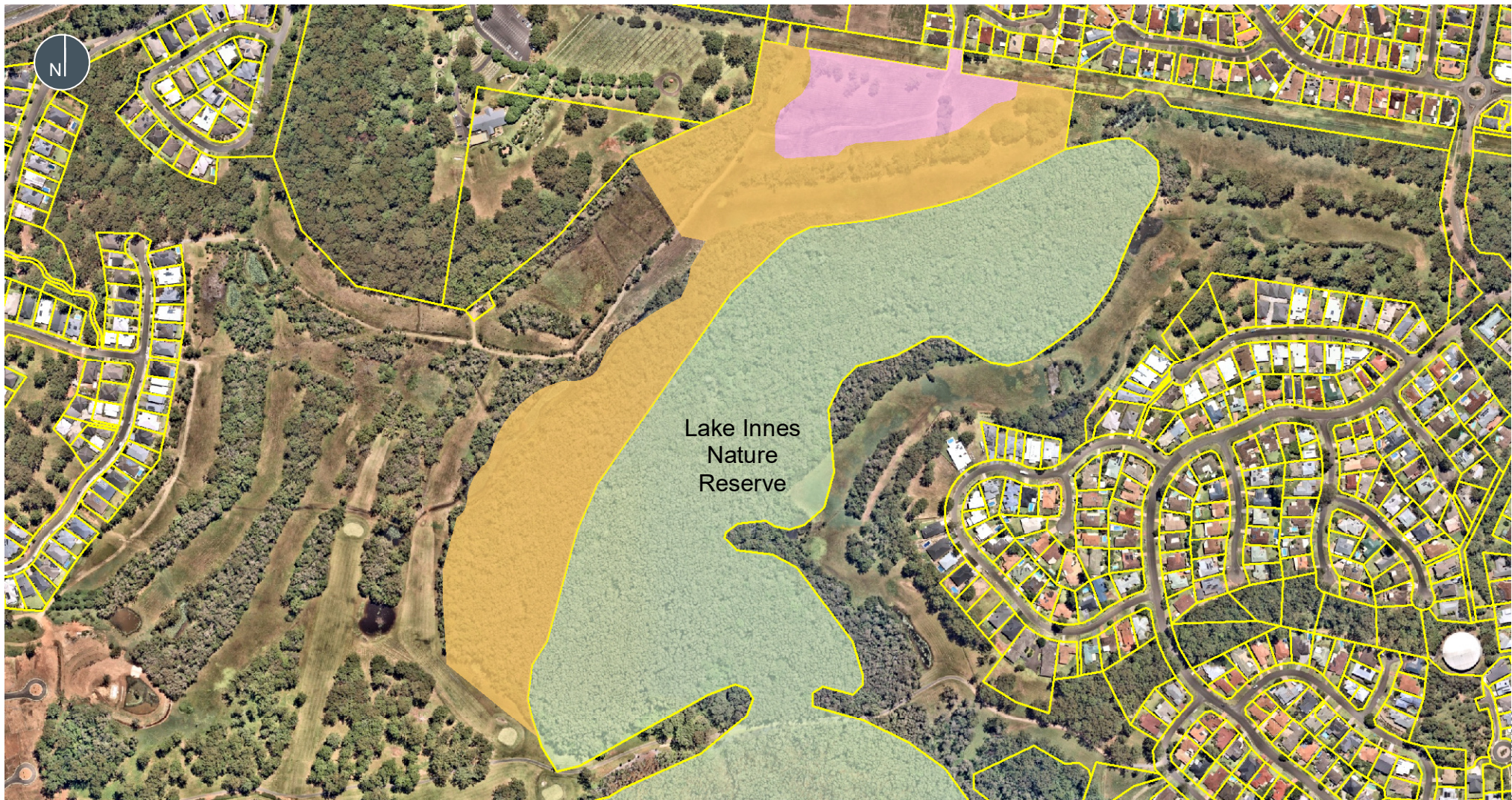
-  Proposed R1 Development Envelope
-  Former R1 Development Envelope
-  Lot Boundaries



0 12.5 25 50 75 100 125
Meters
GDA2020 MGA Zone 56 1:2,000 @ A4

Figure 2 | Rezoning Development Footprint

South Lindfield Rezoning



Data Sources: Wolfpeak 2021, Imagery

Legend

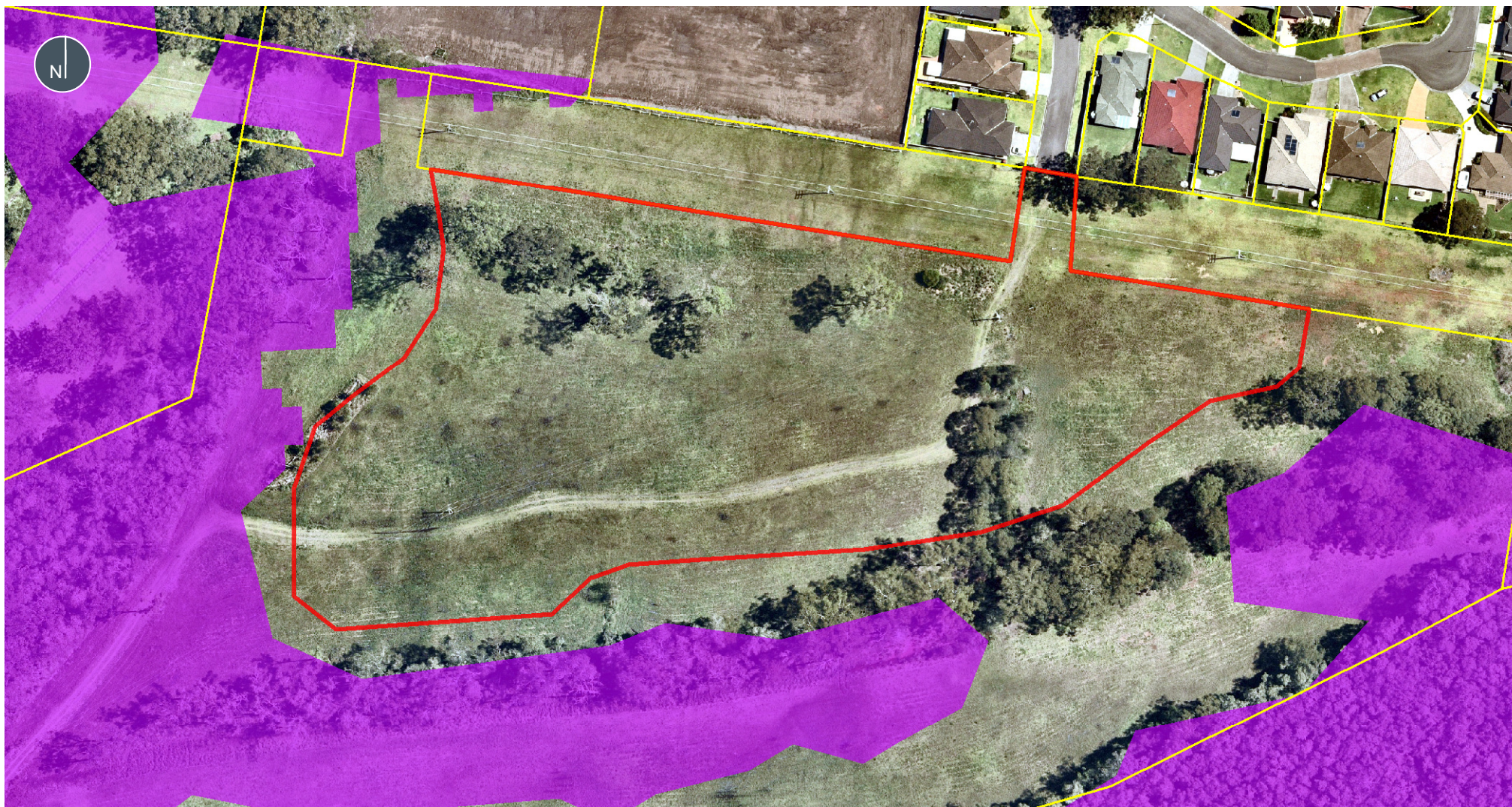
- Proposed R1 Zone
- Proposed C2 Zone
- Lot Boundaries
- National Parks & Reserves

0 40 80 160 240 320 400 Meters
GDA2020 MGA Zone 56 1:6,225 @ A4

Wolfpeak: 24/02/2022

Figure 3 | Proposed Zoning

South Lindfield Rezoning



Data Sources: Wolfpeak 2021, Imagery

Legend

- Development Envelope
- Lot Boundaries
- Biodiversity Values



0 5 10 20 30 40 50
Meters

GDA2020 MGA Zone 56

1:1,500 @ A4

Figure 4 | BV Map

South Lindfield Rezoning

Wolfpeak: 24/02/2022

2. ASSESSMENT OF NEW DEVELOPMENT ENVELOPE

2.1 General

The updated development envelope is 0.86ha smaller than the previously assessed envelope. It has been changed to create a greater buffer to adjoining sensitive habitats including Swamp Forest and Native Guavas. It also avoids areas mapped on the Biodiversity Values Map. The main change is in the west and south where the boundary has been shifted eastward and northward from between 15-35m. Photos of the development envelope are shown in Photos 1-4.

2.2 Vegetation Removal

The updated development envelope has a reduced impact on native vegetation. Table 1 below provides the impact associated with the updated envelope and comparison to the previously assessed envelope.

Table 1: Vegetation impacted

Zone	PCT ID	Condition	Area impacted - updated	Area impacted - previous
1	690: Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion	Moderate	0.07	0.09
2	690: Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion	Low	1.23	1.59
3	690: Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion	Moderate	0.17	0.24
4	1724: Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast	Low	0.5	0.96

Photo 1: Looking west from eastern edge of site



Photo 2: PCT 690 in the east of the site

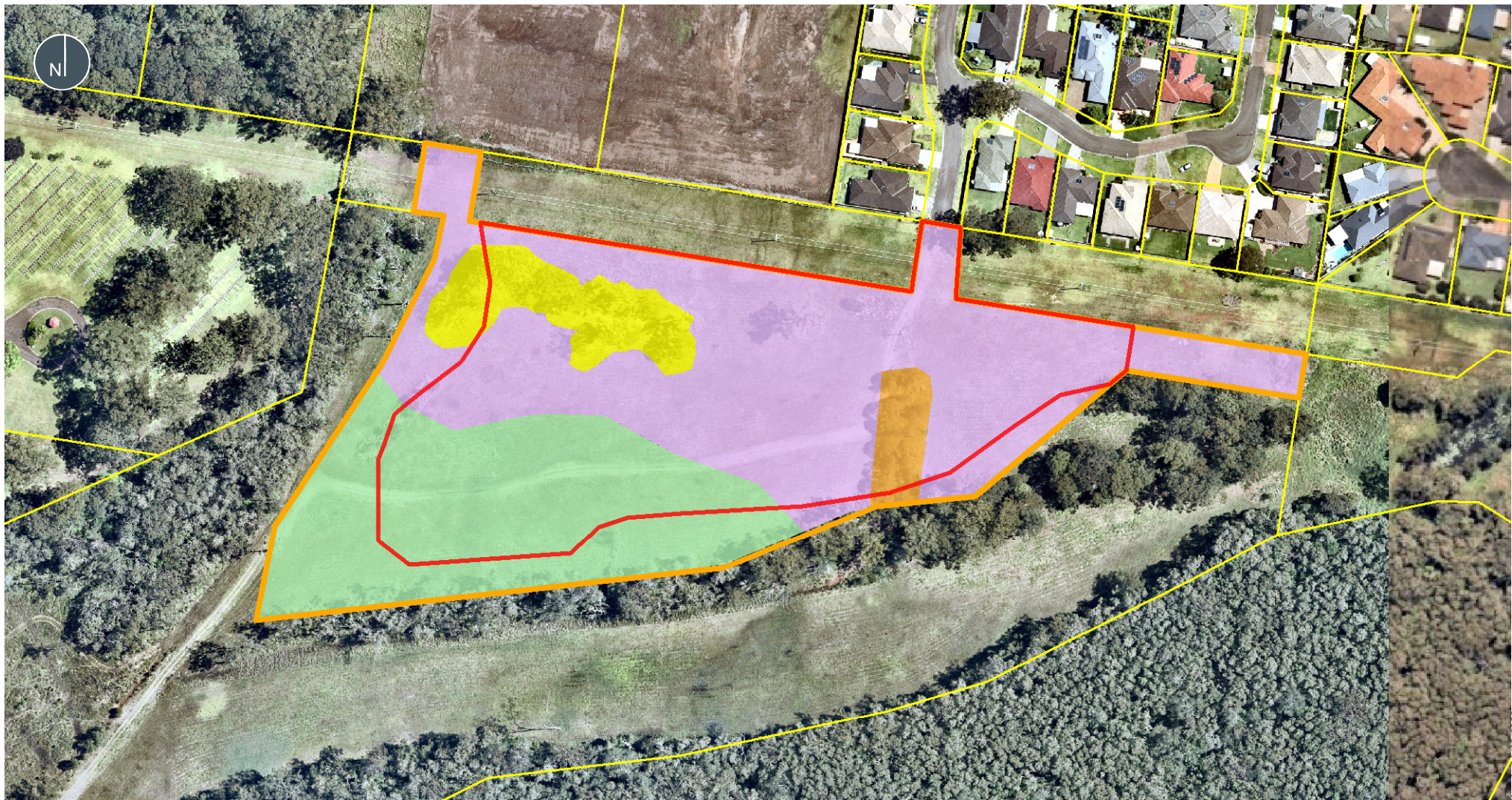


Photo 3: PCT 690 in the northwest of the site



Photo 4: Looking south along the western site boundary





Data Sources: Wolfpeak 2021, Imagery

Legend

- | | |
|------------------------------|---------------|
| Updated Development Envelope | PCT 690 VZ 1 |
| Former Development Envelope | PCT 690 VZ 2 |
| Lot Boundaries | PCT 690 VZ 3 |
| | PCT 1230 VZ 4 |



0 12.5 25 50 75 100 125 Meters
GDA2020 MGA Zone 56 1:2,000 @ A4

Figure 5 | Plant Community Types

South Lindfield Rezoning

2.3 Updated Credit Calculator Results

2.3.1 BAM Calculator Details

A new BAM Calculator (BAM-C) Case has been created for this addendum assessment. Table 2 below provides the assessor and case details.

Table 2: BAM Calculator details

Assessor	Assessor Number	Accreditation Expiry date	BAM-C Version	BAM App data Version	Case Number	BAM-C Status
Will Steggall	BAAS17107	19/12/2024	1.4.0.00	50	00031304	In progress

2.3.2 Vegetation Integrity

The vegetation integrity for the four vegetation zones on the development site remains the same as the previous assessment. No new or updated vegetation survey is required and the vegetation integrity scores remain the same

2.3.3 Predicted Species

2.3.3.1 New species in BAM-C

The updated BAM-C case has two new predicted species, which are shown in the table below.

Table 3: New predicted species since 2021 assessment

Common Name	Scientific Name	Listing Status		Credit Class	Included/excluded
		BC Act	EPBC Act		
White-throated Needletail	<i>Hirundapus caudacutus</i>	-	Vulnerable	Ecosystem	Included
Common Blossom Bat	<i>Syconycteris australis</i>	Vulnerable	-	Ecosystem	Included

2.3.3.2 Species Included as Predicted

The JB Enviro pBDAR provides a list of predicted species that have been generated by the BAM-C. This assessment however has incorrectly excluded some species which do not have listed habitat constraints. The updated BAM-C case has include the following species as predicted species given as per BAM 2020 requirements.

Table 4: Predicted species now included in assessment

Common Name	Scientific Name	Listing Status		Credit Class	Included/excluded
		BC Act	EPBC Act		
Regent Honeyeater	<i>Anthochaera phrygia</i>	CE	CE	Dual	Included
Barred Cuckoo shrike	<i>Coracina lineata</i>	V	-	Ecosystem	Included
Spotted-tailed Quoll	<i>Dasyurus maculatus</i>	E	E	Ecosystem	Included
Swift Parrot	<i>Lathamus discolor</i>	E	CE	Dual	Included
Barking Owl	<i>Ninox cnrivens</i>	V	-	Ecosystem	Included
Eastern Osprey	<i>Pandion cristatus</i>	V	-	Dual	Included
Golden-tipped Bat	<i>Phoniscus papuensis</i>	V	-	Ecosystem	Included
Eastern Chestnut Mouse	<i>Pseudomys gracilicaudatus</i>	V	-	Ecosystem	Included

2.3.4 Candidate Species

The only new candidate species in the BAM-C for the updated assessment is the Greater Glider. This is now in the candidate species list as species only listed under the EPBC Act have been added to the BAM-C since the 2021 JB Enviro assessment. This species can be excluded as a candidate species as it requires tree hollows which do not occur within the development envelope.

2.3.5 Assessment of Further Survey Requirement

The pBDAR has undertaken the required vegetation plot and transect surveys to the requirements of the BAM. There are no further targeted surveys for candidate species required as the only new candidate species identified in the BAM-C is the Greater Glider. The surveys done to date meet the requirements for this species and it can be excluded from assessment due to the absence of hollow-bearing trees in the development envelope.

2.4 Updated Credit Summary

2.4.1 Ecosystem Credits

The development will require ecosystem credits of offset impacts on native vegetation. The number and type of credits required are detailed in the following table. A credit summary report from the BAM calculator is provided in Appendix 4.

Table 5: Preliminary ecosystem credit calculations

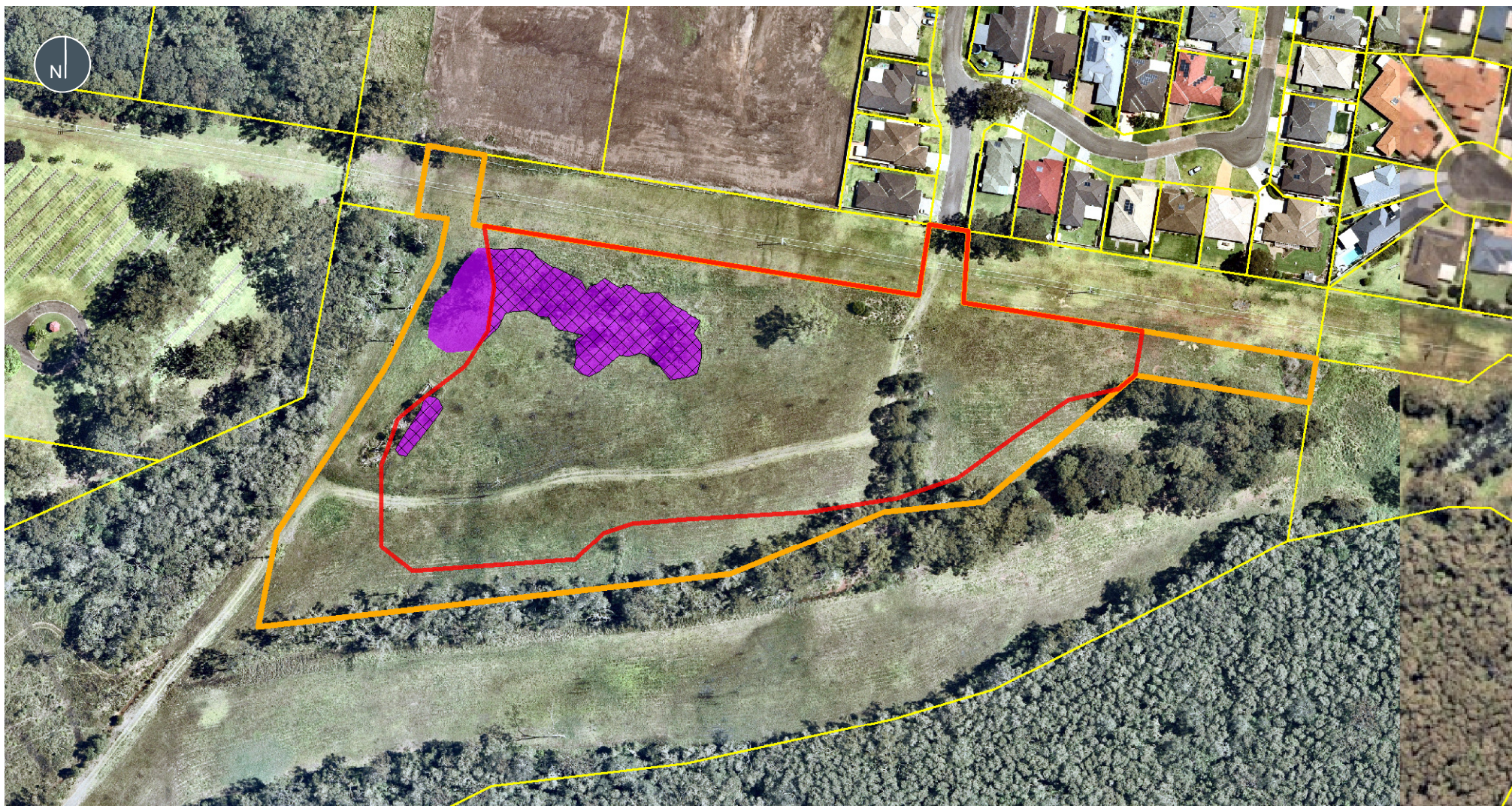
Zone	Condition	PCT Name	Area Impacted	Change in Integrity Score	Credits
1	Moderate	690: Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion	0.07	-33.1	1
2	Low	690: Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion	1.23	-4.8	0
3	Moderate	690: Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion	0.17	-39.3	3
4	Low	1724: Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast	0.5	-5.9	0
Total					4

2.4.2 Species Credits

The following table provides the number of credits per hectare/individuals that would be required to offset known threatened fauna species on the site. If further species credit species are detected as part of detailed surveys, further credits for these species would be required.

Table 6: Species credits required

Name	SAIL Candidate	Vegetation Zone	Area Impacted	Credits
Koala	No	Zone 1: PCT 690	0.17ha	3



Data Sources: Wolfpeak 2021, Imagery

Legend

- Updated Development Envelope
- Updated Koala Species Polygon
- Former Development Envelope
- Former Koala Species Polygon



Figure 6 | Koala Species Polygon

South Lindfield Rezoning

2.5 Consistency with Provisional BDAR Conclusions

2.5.1 Avoiding and Minimising Impacts

The updated proposal has demonstrated the avoid and minimise principles and will result in less vegetation removal than the previous proposal.

The measures to avoid and minimise impacts remain the same and no additional measures are required. The measures recommended in the pBDAR include the following:

- Design of the development envelope to avoid impacts on threatened species and High Ecological Value Land
- Retention of linkages
- APZs located in existing cleared land
- Offset plantings of Koala food trees
- Preparation of Vegetation Management Plan
- Pre-clearing Surveys and clearing protocol
- Stormwater design to direct runoff away from sensitive habitats
- Hygiene protocols

2.5.2 Prescribed Impacts

The updated proposal will not result in any further or increased prescribed impacts and the conclusions of the pBDAR remain the same.

2.5.3 Serious and Irreversible Impacts

The pBDAR assessed the Swift Parrot, Native Guava and Scrub Turpentine and concluded that the rezoning would not result in Serious and Irreversible Impacts. The conclusions are still supported as the updated proposal will not directly affect three species and remove less native vegetation.

There are no further listed SAIL candidate species listed since the pBDAR was completed that are relevant to this proposal.

2.5.4 EPBC Act MNES Assessment

The pBDAR undertook an assessment of significance for the Native Guava, Scrub Turpentine, Grey-headed Flying Fox, Swift Parrot and White-throated Needletail. This determined that the proposal would be unlikely to result in a significant impact. This conclusion remains the same for the updated proposal.

A referral assessment for the Koala was also undertaken which determined that the rezoning would not warrant referral. On 12th February 2022, the Koala was uplisted from Vulnerable to

Endangered under the EPBC Act. As a result, the 2014 referral guidelines for the Koala are no longer current. The department advises that proponents should refer to the Significant Impact Guidelines. In the case of the updated proposal, it is considered unlikely that it will result in a significant impact as it will have a reduced impact on the Koala, and a referral is not required.

2.5.5 Koala Habitat SEPP 2020

The pBDAR undertook an assessment under the Koala Habitat SEPP 2020. This concluded that Core koala Habitat was present on the development site and a Koala Plan of Management (KPoM) was prepared. The KPOM has been updated to reflect the new rezoning footprint.

2.5.6 PMHC DCP 2013 – Environmental Provisions

The PMH Development Controls Plan has provisions for Hollow-bearing trees, Koala Food trees, Endangered Ecological Communities and Riparian Zones.

The assessment in the pBDAR remains the same, however for the updated proposal, only 16 preferred Koala food trees require removal (four less than previous assessment). As a result, a total of 32 offset plantings are now required as per the 2:1 offset ratio specified by the DCP. Further details are provided in the KPoM.

Figure 7: HBTs and KFTs



3. CONCLUSION

This addendum ecological report has assessed the updated development footprint for the South Lindfield Rezoning proposal. A provisional BDAR was prepared by JB Enviro in January 2021 as per the requirements of the Biodiversity Assessment Method 2020. The proposed residential zone development envelope has been reduced and the amount of native vegetation removal has been reduced by approximately 0.8ha. The extent of proposed C2 zone has also increased.

An updated biodiversity credit assessment was undertaken using the new development envelope, and one less ecosystem credit and three less Koala credits are required to offset the impacts of the proposal.

The consistency and currency of the pBDAR was evaluated to determine if any additional threatened species or legislation changes are required to be assessed. This found that the conclusions of the pBDAR largely remain the same and the overall impact is reduced with the updated proposal.

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Appendix A: Predicted Species Report

BAM Predicted Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00031303/BAAS17107/22/00031304	South Lindfield Rezoning Update	24/11/2021
Assessor Name	Report Created	BAM Data version *
Will Steggall	23/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17107	Part 4 Developments (General)	Open
Assessment Revision	BOS entry trigger	Date Finalised
1	BOS Threshold: Area clearing threshold	To be finalised

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

Threatened species reliably predicted to utilise the site. No surveys are required for these species. Ecosystem credits apply to these species.

Common Name	Scientific Name	Vegetation Types(s)
Barking Owl	Ninox connivens	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Barred Cuckoo-shrike	Coracina lineata	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
Brown Treecreeper (eastern subspecies)	Climacteris picumnus victoriae	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
Common Blossom-bat	Syconycteris australis	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Dusky Woodswallow	Artamus cyanopterus cyanopterus	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
Eastern Chestnut Mouse	Pseudomys gracilicaudatus	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast

BAM Predicted Species Report

Eastern Coastal Free-tailed Bat	Micronomus norfolkensis	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
		1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Eastern False Pipistrelle	Falsistrellus tasmaniensis	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
		1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Eastern Osprey	Pandion cristatus	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Golden-tipped Bat	Phoniscus papuensis	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Greater Broad-nosed Bat	Scoteanax rueppellii	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
		1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Grey-headed Flying-fox	Pteropus poliocephalus	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
		1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Hoary Wattled Bat	Chalinolobus nigrogriseus	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
Koala	Phascolarctos cinereus	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
		1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Large Bent-winged Bat	Miniopterus orianae oceanensis	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
		1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Little Bent-winged Bat	Miniopterus australis	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion

BAM Predicted Species Report

Little Bent-winged Bat	<i>Miniopterus australis</i>	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Little Eagle	<i>Hieraaetus morphnoides</i>	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Little Lorikeet	<i>Glossopsitta pusilla</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Masked Owl	<i>Tyto novaehollandiae</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
Powerful Owl	<i>Ninox strenua</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
Regent Honeyeater	<i>Anthochaera phrygia</i>	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Spotted-tailed Quoll	<i>Dasyurus maculatus</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Square-tailed Kite	<i>Lophoictinia isura</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
Swift Parrot	<i>Lathamus discolor</i>	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Varied Sittella	<i>Daphoenositta chrysoptera</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
White-throated Needletail	<i>Hirundapus caudacutus</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Yellow-bellied Sheath-tail-bat	<i>Saccolaimus flaviventris</i>	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion

BAM Predicted Species Report

Yellow-bellied Sheath-tail-bat	Saccolaimus flaviventris	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
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Threatened species Manually Added

None added

Threatened species assessed as not within the vegetation zone(s) for the PCT(s)

Common Name	Scientific Name	Plant Community Type(s)
Black Bittern	Ixobrychus flavicollis	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Black-necked Stork	Ephippiorhynchus asiaticus	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Glossy Black-Cockatoo	Calyptorhynchus lathami	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Pale-vented Bush-hen	Amauornis moluccana	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion
White-bellied Sea-Eagle	Haliaeetus leucogaster	1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast
Yellow-bellied Glider	Petaurus australis	690-Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion 1724-Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast

Threatened species assessed as not within the vegetation zone(s) for the PCT(s)

Refer to BAR for detailed justification

Common Name	Scientific Name	Justification in the BAM-C
Black Bittern	Ixobrychus flavicollis	Habitat constraints
Black-necked Stork	Ephippiorhynchus asiaticus	Habitat constraints
Glossy Black-Cockatoo	Calyptorhynchus lathami	Habitat constraints
Pale-vented Bush-hen	Amauornis moluccana	Habitat constraints
White-bellied Sea-Eagle	Haliaeetus leucogaster	Habitat constraints



BAM Predicted Species Report

Yellow-bellied Glider	Petaurus australis	Habitat constraints
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Appendix B: Candidate Species Report

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00031303/BAAS17107/22/00031304	South Lindfield Rezoning Update	24/11/2021
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Assessment Revision	Date Finalised	BOS entry trigger
1	To be finalised	BOS Threshold: Area clearing threshold

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Asperula asthenes</i> Trailing Woodruff	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Burhinus grallarius</i> Bush Stone-curlew	No (surveyed)	<input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Crinia tinnula</i> Wallum Froglet	No (surveyed)	<input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

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<i>Hieraaetus morphnoides</i> Little Eagle	No (surveyed) *Survey months are outside of the months specified in Bionet.	<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input checked="" type="checkbox"/> Survey month outside the specified months? </div>
<i>Lindernia alsinoides</i> Noah's False Chickweed	No (surveyed)	<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Litoria aurea</i> Green and Golden Bell Frog	No (surveyed)	<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Lophoictinia isura</i> Square-tailed Kite	No (surveyed)	<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Maundia triglochinoides</i> Maundia triglochinoides	No (surveyed)	<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Melaleuca biconvexa</i> Biconvex Paperbark	No (surveyed)	<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Myotis macropus</i> Southern Myotis	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Niemeyera whitei</i> Rusty Plum, Plum Boxwood	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Parsonsia dorrigoensis</i> Milky Silkpod	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Petaurus norfolcensis</i> Squirrel Glider	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Phascogale tapoatafa</i> Brush-tailed Phascogale	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Phascolarctos cinereus</i> Koala	Yes (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

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<i>Pomaderris queenslandica</i> Scant Pomaderris	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec
		<input type="checkbox"/> Survey month outside the specified months?
<i>Pteropus poliocephalus</i> Grey-headed Flying-fox	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec
		<input type="checkbox"/> Survey month outside the specified months?
<i>Rhodamnia rubescens</i> Scrub Turpentine	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec
		<input type="checkbox"/> Survey month outside the specified months?
<i>Rhodomyrtus psidioides</i> Native Guava	No (surveyed)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec
		<input type="checkbox"/> Survey month outside the specified months?
<i>Turnix maculosus</i> Red-backed Button-quail	No (surveyed)	<input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec
		<input type="checkbox"/> Survey month outside the specified months?

Threatened species Manually Added

None added

Threatened species assessed as not on site

Refer to BAR for detailed justification

BAM Candidate Species Report

Common name	Scientific name	Justification in the BAM-C
Barking Owl	<i>Ninox connivens</i>	Habitat constraints
Brush-tailed Rock-wallaby	<i>Petrogale penicillata</i>	Habitat constraints
Common Planigale	<i>Planigale maculata</i>	Habitat degraded
Eastern Cave Bat	<i>Vespadelus troughtoni</i>	Habitat constraints
Eastern Osprey	<i>Pandion cristatus</i>	Habitat constraints
Eastern Pygmy-possum	<i>Cercartetus nanus</i>	Refer to BAR
Eucalyptus seeana population in the Greater Taree local government area	<i>Eucalyptus seeana</i> - endangered population	Refer to BAR
Giant Dragonfly	<i>Petalura gigantea</i>	Habitat constraints
Glossy Black-Cockatoo	<i>Calyptorhynchus lathami</i>	Habitat constraints
Greater Glider	<i>Petauroides volans</i>	Habitat constraints
Green-thighed Frog	<i>Litoria brevipalmata</i>	Habitat constraints
Grove's Paperbark	<i>Melaleuca groveana</i>	Refer to BAR
Large Bent-winged Bat	<i>Miniopterus orianae oceanensis</i>	Habitat constraints
Little Bent-winged Bat	<i>Miniopterus australis</i>	Habitat constraints
Long-nosed Potoroo	<i>Potorous tridactylus</i>	Habitat constraints
Masked Owl	<i>Tyto novaehollandiae</i>	Habitat constraints
North Brother Wattle	<i>Acacia courtii</i>	Refer to BAR
Pale-headed Snake	<i>Hoplocephalus bitorquatus</i>	Refer to BAR
Parma Wallaby	<i>Macropus parma</i>	Refer to BAR
Powerful Owl	<i>Ninox strenua</i>	Habitat constraints
Regent Honeyeater	<i>Anthochaera phrygia</i>	Habitat constraints
Rufous Bettong	<i>Aepyprymnus rufescens</i>	Refer to BAR
Stephens' Banded Snake	<i>Hoplocephalus stephensii</i>	Habitat constraints
Stuttering Frog	<i>Mixophyes balbus</i>	Refer to BAR
Swift Parrot	<i>Lathamus discolor</i>	Habitat constraints
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	Habitat constraints

Appendix C: Credit Summary Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00031303/BAAS17107/22/00031304	South Lindfield Rezoning Update	24/11/2021
Assessor Name	Report Created	BAM Data version *
Will Steggall	23/02/2022	50
Assessor Number	BAM Case Status	Date Finalised
BAAS17107	Open	To be finalised
Assessment Revision	Assessment Type	BOS entry trigger
0	Part 4 Developments (General)	BOS Threshold: Area clearing threshold

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Ecosystem credits for plant communities types (PCT), ecological communities & threatened species habitat

Zone	Vegetation zone name	TEC name	Current Vegetation integrity score	Change in Vegetation integrity (loss / gain)	Area (ha)	Sensitivity to loss (Justification)	Species sensitivity to gain class	BC Act Listing status	EPBC Act listing status	Biodiversity risk weighting	Potential SAI	Ecosystem credits
Blackbutt - Tallowwood dry grassy open forest of the central parts NSW North Coast Bioregion												
1	690_Mode rate_A	Not a TEC	33.1	33.1	0.07	PCT Cleared - 55%	High Sensitivity to Potential Gain			1.75		1

BAM Credit Summary Report

2	690_VeryLow	Not a TEC	4.8	4.8	1.2	PCT Cleared - 55%	High Sensitivity to Potential Gain			1.75		0
3	690_ModerateB	Not a TEC	39.3	39.3	0.17	PCT Cleared - 55%	High Sensitivity to Potential Gain			1.75		3
										Subtotal		4
Broad-leaved Paperbark - Swamp Oak - Saw Sedge swamp forest on coastal lowlands of the Central Coast and Lower North Coast												
4	1724_VeryLow	Not a TEC	5.9	5.9	0.5	PCT Cleared - 31%	High Sensitivity to Potential Gain			1.50		0
										Subtotal		0
										Total		4

Species credits for threatened species

Vegetation zone name	Habitat condition (Vegetation Integrity)	Change in habitat condition	Area (ha)/Count (no. individuals)	Sensitivity to loss (Justification)	Sensitivity to gain (Justification)	BC Act Listing status	EPBC Act listing status	Potential SAIL	Species credits
<i>Phascolarctos cinereus</i> / Koala (Fauna)									
690_ModerateB		39.3	39.3	0.17		Vulnerable	Vulnerable	False	3
Subtotal									3