Flora and Fauna Assessment Report

369 Jacks Corner Road, Kangaroo Valley

Report prepared by Narla Environmental

for The Scots College, Glengarry Campus

September 2025

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Report Certification

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Glossary

Acronym/ Term	Definition
APZ	Asset Protection Zone
asl	Above sea level
BAM	Biodiversity Assessment Methodology
BC Act	New South Wales Biodiversity Conservation Act 2016
BDAR	Biodiversity Development Assessment Report
DA	Development Application
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment, and Water
DEC	Department of Environment and Conservation
DEE	Department of the Environment and Energy
Development	The use of land, and the subdivision of land, and the carrying out of a work, and the demolition of a building or work, and the erection of a building, and any other act, matter, or thing referred to in section 26 that is controlled by an environmental planning instrument but does not include any development of a class or description prescribed by the regulations for the purposes of this definition (Environmental Planning and Assessment Act 1979)
DPE	Department of Planning and Environment (now NDCCEEW)
DPI	Department of Primary Industries
DPIE	Department of Planning, Industry, and Environment
EP&A Act	Environmental Planning & Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
FFA	Flora and Fauna Assessment
Fisheries Management Act 1994	FM Act
ha	Hectares
km	Kilometres
LGA	Local Government Area
m	metres
mm	millimetres
NDCCEEW	New South Wales Department of Climate Change, Energy, the Environment, and Water
NSW	New South Wales
OEH	Office of Environment and Heritage (now known as DPE)
SDCP	Shoalhaven Development Control Plan 2014
SEPP	State Environmental Planning Policy
SLEP	Shoalhaven Local Environmental Plan 2014
Subject Property	369 Jacks Corner Road, Kangaroo Valley (Lot27/-/DP881838)
Subject Site	The location of the proposed development
TEC	Threatened Ecological Community
Threatened species, populations, and ecological communities	Species, populations, and ecological communities specified in Schedules 1 and 2 of the BC Act 2016

1. Introduction

1.1 Project Background

Narla Environmental Pty Ltd (Narla) was engaged by Scots College (the Proponent) to prepare a Flora and Fauna Assessment (FFA) for the proposed development at 369 Jacks Corner Road, Kangaroo Valley NSW 2577 (Lot 27/DP881838), hereafter referred to as the Subject Property. The proposed development includes the construction of additional staff housing, student accommodation, administration buildings, wastewater treatment facilities, and workshops, as well as the extension of an existing Asset Protection Zone (APZ). The original APZ was approved under DA 1221/34. These proposed works will require the removal of eighty (80) exotic and native trees (Gummiferra 2025; **Appendix J**).

The first Development Application (DA) will cover the Masterplan, which includes all proposed buildings, landscape, and civil works, with detailed plans for three dormitories as part of Stage 1 (**Appendix I**). This FFA considers the overall impact of the full Masterplan while noting that Stage 1 is the initial focus. All impacts on ecological values associated with the proposed development will hereafter be referred to as the Subject Site (**Figure 1, Figure 2, Figure 3**).

Type of Impact	Description	Area of native vegetation impacted
School grounds (buildings, road upgrades etc)	Impacts within the school grounds have been calculated in accordance with the approved site plans and arborist report. These impacts represent the required vegetation removal associated with the construction footprint.	0.14 ha (Table 5)
Asset Protection Zone	The APZ will be considered a full impact. Dead trees located within the APZ footprint are included as part of the impact calculation. Dead trees located outside the APZ are excluded.	0.66 ha (Table 4)
Wastewater infrastructure	Council agreed in a meeting on the 8th September 2025 that the wastewater infrastructure works are considered upgrades to an existing system rather than new impacts. As such, the only ecological impact requiring consideration relates to the connection points, where minor disturbance to native shrubs and grasses may occur. The effluent disposal area already supports irrigation infrastructure and has been previously impacted. The proposed system will replace the existing sprinklers with an upgraded design that treats	0.01 ha (Table 4)

Type of Impact	Description	Area of native vegetation impacted
	effluent to a higher standard, resulting in reduced nutrient loads compared to the current system. Retained trees within the disposal area have already been subject to irrigation impacts, and no additional significant impacts are expected.	
Passing bays on entry road	The passing bays will not require tree removal. Impacts have nonetheless been conservatively considered for the understorey vegetation within the footprint.	0.03 ha (Table 6)

Narla has produced this report to assess any potential impacts associated with the proposed development on terrestrial biodiversity, particularly threatened species, populations, and ecological communities listed under the Biodiversity Conservation Act 2016 (BC Act) and the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The report recommends appropriate measures to mitigate any potential impacts in line with all relevant State Environmental Planning Policies (SEPP) and local government plans, namely the Shoalhaven Local Environmental Plan 2014 (SLEP) and the Shoalhaven Development Control Plan 2014 (SDCP).

1.2 Site Description and Location

The Subject Property is located on Jacks Corner Road, Kangaroo Valley within the Shoalhaven City Council Local Government Area (LGA), covering an area of approximately 275.12 ha. The Subject Property includes native remnant bushland and a central area with partially cleared land, buildings, and roadways associated with the current educational and recreational use of the site. The property is surrounded by similar bushland properties and acreages typical of the area. The Subject Site comprises a total area of approximately 3.99 ha.

1.3 Topography, Geology, and Soil

The Subject Site is located on a south-facing slope, ranging from 122 metres above sea level (asl) in the north to 74 metres asl in the south (Google Earth 2025). It lies on geology from the Shoalhaven Group, characterised by a range of sedimentary formations, including pebble paraconglomerate, sandstone, siltstone, minor shale, and occasional carbonate and fossil deposits (Department of Regional NSW Minview, 2025).

1.4 Hydrology

One (1) mapped 1st order watercourse is located within the Subject Site (**Figure 1**). Additionally, an unmapped small dam was found within the Subject Site.

1.5 Scope of Assessment

The objectives of this FFA were to:

- Establish the likelihood of occurrence of migratory species, threatened species, endangered populations, and threatened ecological communities as listed under the BC Act and/or the EPBC Act
- Assess any potential impacts to species and/or communities listed under the BC Act and EPBC Act
- Identify and map the distribution of vegetation communities within the Subject Site

- Record presence and the extent of any known or potential fauna habitat features such as nests, dreys, caves, crevices, culverts, pools, soaks, flowering trees, fruiting trees, or hollow-bearing trees and provide recommendations for ongoing management of these habitat features and any fauna present.
- Record presence and the extent of any Priority Weeds or weed infestations and provide recommendations for ongoing management; and
- Recommend any controls or additional actions to be taken to protect or improve environmental outcomes of the proposed development.

1.6 Study Limitations

This study was not intended to provide a complete inventory of all flora and fauna species with potential to occur within the Subject Site. The species list provided for the Subject Site within this report was restricted to what was observed during the site assessment by the Narla Ecologist. The survey timing may not have aligned with the emergence or activity periods of certain species, such as seasonally flowering herbs, migratory fauna, or nocturnal fauna. To account for those species that could not be identified during the site assessment, detailed habitat assessments were combined with desktop research and local ecological knowledge to establish an accurate prediction of the potential for such species to occur on or adjacent to the Subject Site.

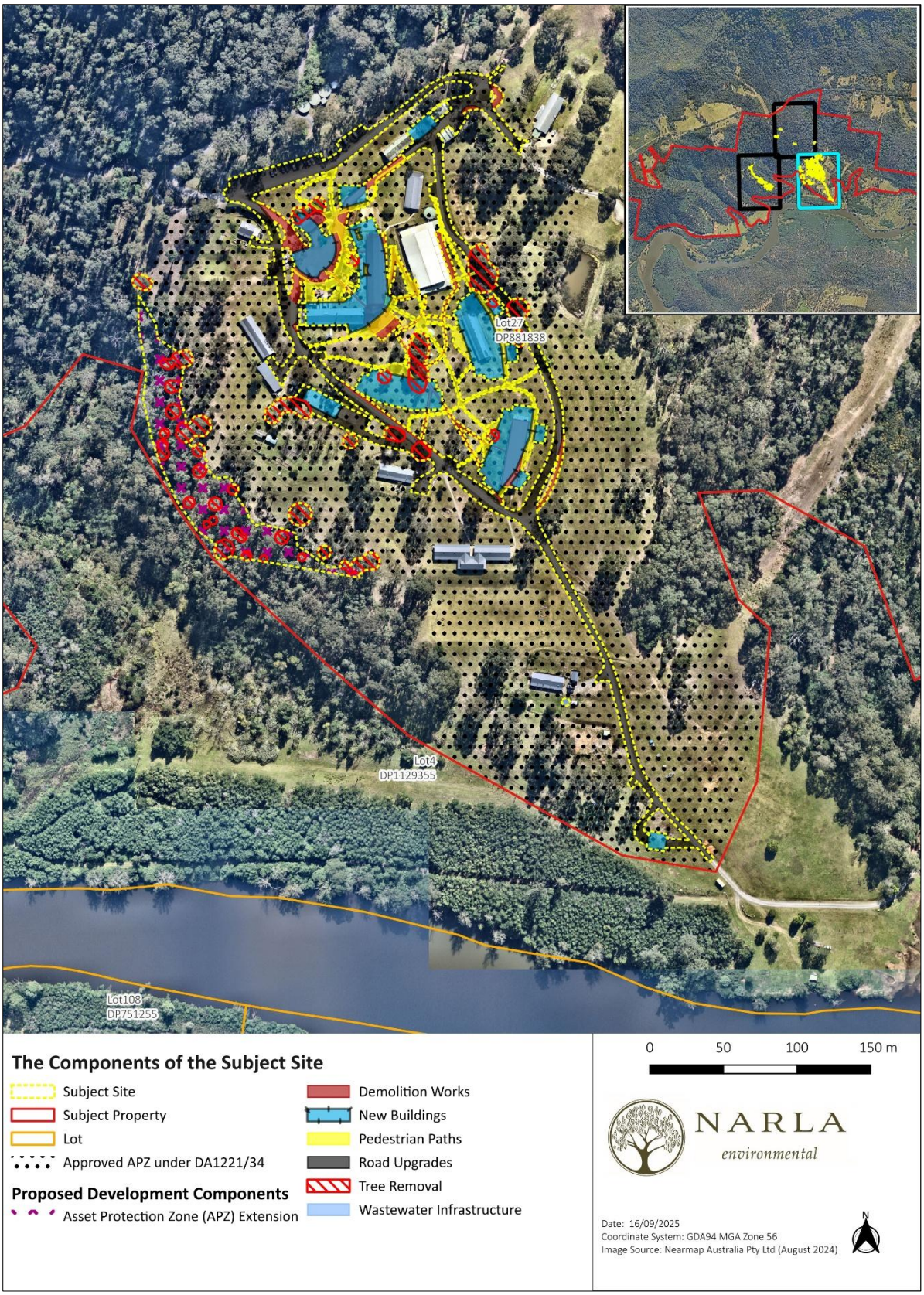

Figure 1. Components of the Subject Site.

Figure 2. Components of the Subject Site.

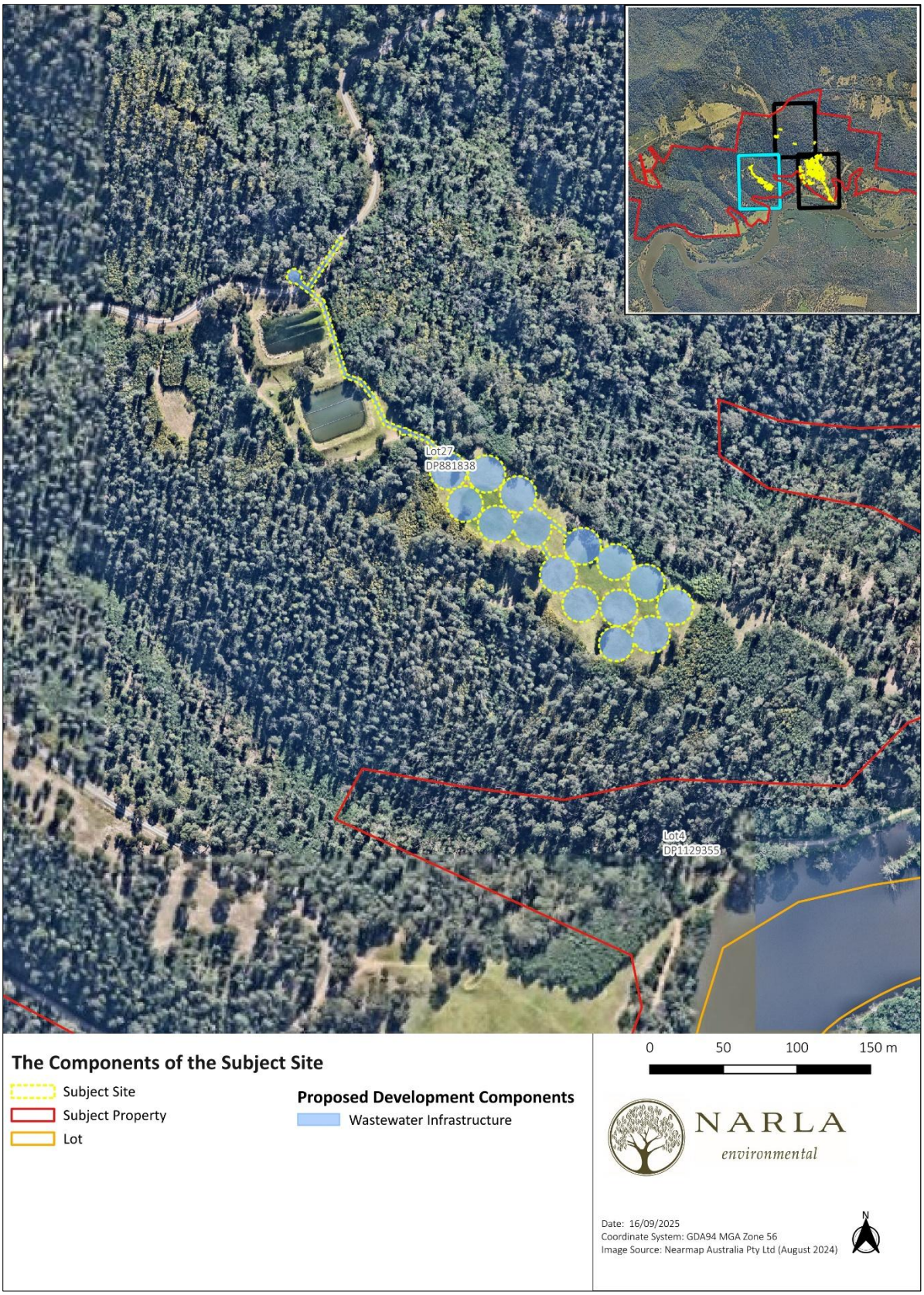

Figure 3. Components of the Subject Site.

1.7 Relevant Legislation and Policy

The legislation and policy that are addressed in this report are listed in **Table 1.**

Table 1. Relevant legislation and policy addressed in this report.

Legislation/Policy	Relevant Ecological Feature on Site	Triggered	Action Required
Environmental Planning and Assessment Act 1979 (EP&A Act)	All threatened species, populations, and ecological communities and their habitat that occur or are likely to occur within the Subject Site during a part of their lifecycle.	Yes	This FFA and all subsequent recommendations relevant to the planning process under 'Part 4 Development assessment and consent'.
Biodiversity Conservation Act (BC Act) (New South Wales)	No BC Act listed threatened communities were observed within the Subject Site. No BC Act listed threatened species were observed during the site assessment, however, suitable habitat for threatened species was identified. Several common native fauna species were identified within and around the Subject Site during the site assessment as well as potential signs of threatened fauna (i.e, scratching and scars from Koala and Yellow-Bellied Gliders).	Yes	This FFA, particularly the likelihood tables for threatened fauna and flora species occurring or potentially occurring within the Subject Site. A Test of Significance (5-part test) was undertaken in accordance with the BC Act to assess potential impacts from the proposed activity on any potentially occurring threatened species (**Appendix C, Appendix D, Appendix E**)
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Commonwealth)	No threatened species, populations or endangered ecological communities listed under the EPBC Act were identified within the Subject Site at the time of the site assessment; however, suitable habitat for various threatened species listed under the EPBC Act was identified. Several common native fauna species were identified within and around the Subject Site during the site assessment as well as potential signs of threatened fauna (i.e., scratching and scars from Koala and Yellow-Bellied Gliders).	Yes	This FFA, particularly the likelihood tables for threatened fauna and flora species occurring or potentially occurring within the Subject Site, as well as severity of potential impacts. An Assessment of Significant Impact Criteria from the proposed activity on any potentially occurring threatened species (**Appendix F, Appendix G. Appendix H**)
Biosecurity Act 2015 (Bio Act)	One (1) Priority Weed for the Southeast region was identified within the Subject Property: ▪ *Senecio madagascariensis*	Yes	The listed Priority Weed must be managed in accordance with the Biosecurity Act 2015.
State Environmental Planning Policy (Resilience and Hazards) 2021 – Chapter 2 Coastal Management	The Subject Property does not contain areas mapped as 'Coastal Wetlands' or 'Littoral Rainforest' therefore, Chapter 2 of this SEPP does not apply.	No	None.
State Environmental Planning Policy (Biodiversity and Conservation) 2021 – Chapter 4 Koala	This chapter of the SEPP applies to land within the Shoalhaven LGA and encompasses an area larger than 1ha.	Yes	An assessment of impacts on the species has been undertaken in **Section 1.11** and within a Koala Assessment Report prepared by Narla (2025).

Legislation/Policy	Relevant Ecological Feature on Site	Triggered	Action Required
Habitat Protection 2021			
Water Management Act 2000	Mapped watercourses were located within the Subject Property.	Yes	Controlled activities refer to work, or action done on waterfront land, as defined by the Water Management Act 2000. A controlled activity approval is required before undertaking any work or development on waterfront land if an exemption does not apply. See **Section 1.9.**

1.8 Biodiversity Assessment Pathway

The requirements of the BC Act 2016 and Biodiversity Conservation Regulation 2017 are mandatory for all Development Applications (DA) assessed pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) submitted to the Shoalhaven City Council LGA.

The BC Act and its regulations stipulate clearing 'area threshold' values (**Table 2**) that determine whether a development is required to be assessed in accordance with the 'Biodiversity Offset Scheme' (BOS). Minimum entry thresholds for vegetation clearing depend on the minimum lot size (shown in the Lot Size Maps made under the relevant Local Environmental Plan (LEP) or actual lot size (where there is no minimum lot size provided for the relevant land under the LEP).

The Subject Property has a minimum lot size of 40 ha. To avoid triggering the BOS, the proponent must limit the clearing of native vegetation to no more than 1 hectare per DA. The proposed development will clear 0.84 ha of native vegetation, as such the BOS does not apply.

Table 2. Biodiversity Offset Scheme entry thresholds.

Minimum lot size associated with the property	Threshold for clearing, above which the BAM and offsets scheme apply
Less than 1 ha	0.25 ha or more
1 ha to less than 40 ha	0.50 ha or more
40 ha to less than 1000 ha	**1 ha or more**
1000 ha or more	2 ha or more

In addition to the clearing 'area threshold', the Biodiversity Values (BV) Map (NDCCEEW 2025a) identifies land with high biodiversity values that are particularly sensitive to impacts from development and clearing. The map is another of the Biodiversity Offsets Scheme Entry Thresholds, which is a trigger for determining whether the Biodiversity Offset Scheme (BOS) applies to a clearing or development proposal. The map has been prepared by the NSW Department of Climate Change, Energy, the Environment, and Water (NDCCEEW) under Part 7 of the Biodiversity Conservation Act 2016 (BC Act).

The Subject Property contains areas identified on the BV Map. Any impact on native vegetation within these mapped areas will necessitate a BDAR and entry into the BOS. A recent review (**Figure 4**) has resulted in the removal of BV mapping that was previously present within the Subject Site, therefore the BOS does not apply.

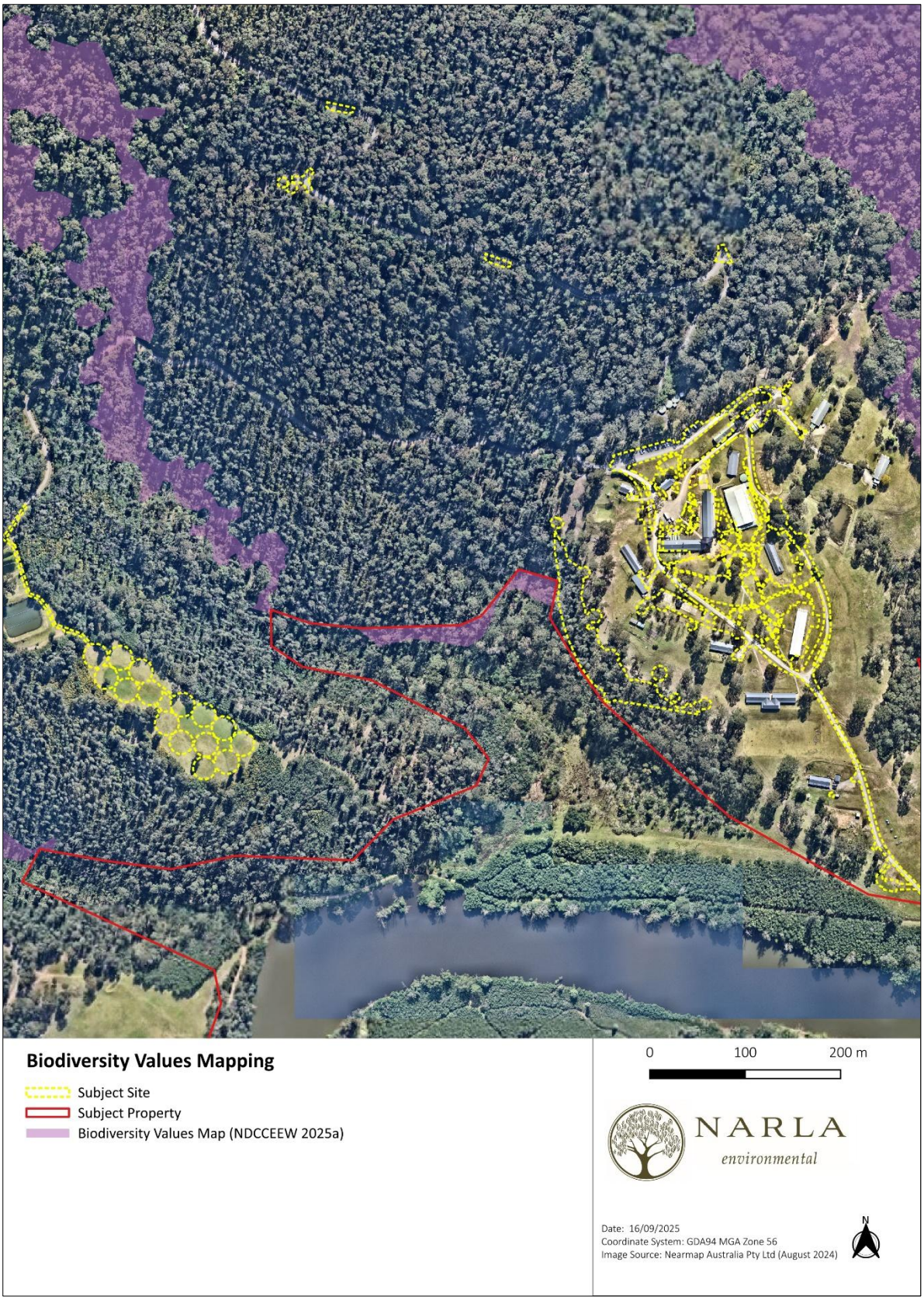

Figure 4. Biodiversity Values Mapping Around the Subject Site.

1.9 Water Management Act 2000

Controlled activities refer to work, or action done on waterfront land, as defined by the Water Management Act 2000. A controlled activity approval is required before undertaking any work or development on waterfront land if an exemption does not apply. Waterfront land includes the bed of rivers, lakes, or estuaries, as well as land on each side within 40 metres of a riverbank. The Subject Site contains land that is classified as 'Waterfront Land'.

The NSW Department of Planning and Environment's "Controlled Activities–Guidelines for Riparian Corridors on Waterfront Land" (2022) outlines permissible works within riparian corridors (RC) according to the WM Act.

The riparian corridor (RC) is defined as the channel of the watercourse, comprising the bed and banks of the watercourse (up to the highest bank), along with the Vegetated Riparian Zone (VRZ) adjacent to the channel (Figure 5).

In the proposed development, native vegetation removal within the RC will be minimal in nature. To mitigate potential impacts, a sedimentation and erosion control plan will be included in the Development Application (DA). Furthermore, the existing bike pump track will be removed, and the affected watercourse will be rehabilitated over time with endemic plant species to restore its ecological function and stability. These measures ensure compliance with both the Water Management Act and riparian guidelines, while supporting long-term sustainability and biodiversity conservation within the site.

1.10 Shoalhaven Local Environmental Plan 2014 (SLEP)

1.10.1 Zoning

The Subject Site contains land zoned as 'C3: Environmental Management', 'C2: Environmental Conservation'. The SLEP requires that the development satisfies the zone objectives, which are as follows:

- C3: Environmental Management
    - To protect, manage and restore areas with special ecological, scientific, cultural, or aesthetic values
    - To provide for a limited range of development that does not have an adverse effect on those values
    - To protect the natural and cultural features of the landscape, including coastal and foreshore areas, that contribute to scenic value and visual amenity; and
    - To maintain the stability of coastal landforms and protect the water quality and ecological values of estuaries and coastal streams
- C2: Environmental Conservation:
    - To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values
    - To prevent development that could destroy, damage or otherwise have an adverse effect on those values
    - To protect water quality and the ecological integrity of water supply catchments and other catchments and natural waterways
    - To protect the scenic, ecological, educational and recreational values of wetlands, rainforests, escarpment areas, and fauna habitat linkages
    - To conserve and, where appropriate, restore natural vegetation in order to protect the erosion and slippage of steep slopes

The proposed development meets these objectives by being situated in a location of lower biodiversity value where possible (i.e., avoiding areas mapped as containing Biodiversity Values (NDCCEEW 2025a)). Additionally,

the development will not impact water supply, catchments, or natural waterways, nor will it exacerbate erosion or slippage in the landscape.

1.11 Shoalhaven Development Control Plan 2014 (SDCP)

1.11.1 Biodiversity Impact Assessment (Chapter G5)

Chapter G5 of the SDCP pertains to biodiversity impact assessments. The objectives of this chapter are to:

- Protect threatened species, populations and Threatened Ecological Communities (TECs) against direct and indirect impacts generated by development; and
- Ensure that developments which have the potential to impact upon threatened species, populations, or TECs are assessed in accordance with legislative requirements.

The proposed development satisfies the controls of Chapter G5 of the SDCP, as this FFA has been prepared to determine the potential impacts on native vegetation, which may provide habitat for species listed in Schedules 1 and 2 of the BC Act 2016. The proposed development is anticipated to have minimal impacts on any potentially occurring threatened species, populations, or communities.

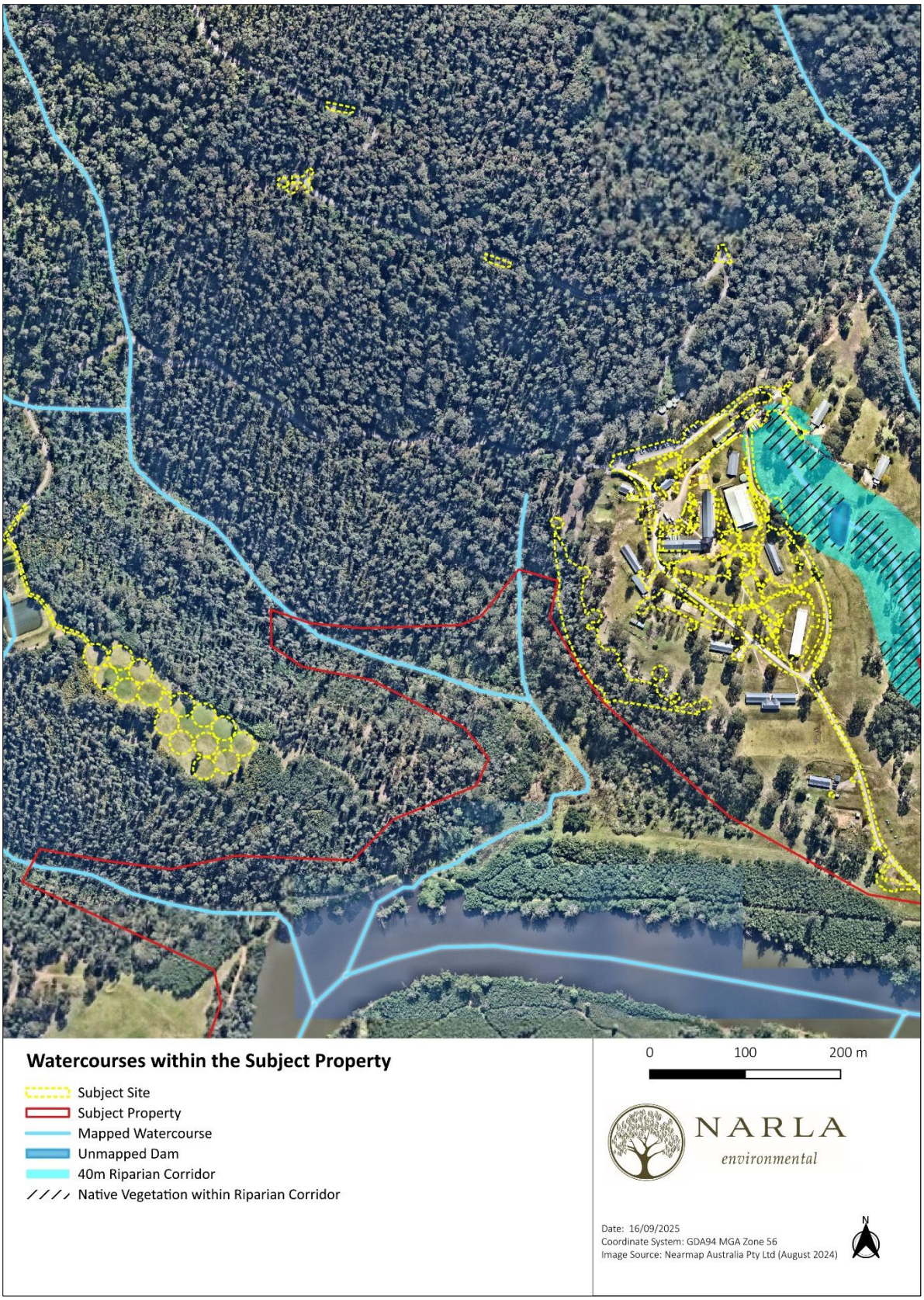

Figure 5. Watercourses within the Subject Property.

1.12 State Environmental Planning Policy (Biodiversity and Conservation) 2021–Chapter 4 Koala Habitat Protection

This Chapter aims to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas to support a permanent free-living population over their present range and reverse the current trend of koala population decline. As the Shoalhaven LGA is included in Schedule 2 of State Environmental Planning Policy (Koala Habitat Protection) 2021, this SEPP applies to the Subject Property.

This section applies to land to which this Chapter applies if the land:

- Has an area of at least 1 hectare (including adjoining land within the same ownership); and
- Does not have an approved koala plan of management applying to the land

Before a council may grant consent to a DA for consent to perform development on the land, the council must assess whether the development is likely to have any impact on koalas or koala habitat. If the council is satisfied that the development is likely to have low or no impact on koalas or koala habitat, the council may grant consent to the DA.

A site assessment was undertaken to determine whether the land contained core koala habitat, which is defined by the SEPP as:

- An area of land which has been assessed by a suitably qualified and experienced person as being highly suitable koala habitat and where koalas are recorded as being present at the time of assessment of the land as highly suitable koala habitat, or
- An area of land which has been assessed by a suitably qualified and experienced person as being highly suitable koala habitat and where koalas have been recorded as being present in the previous 18 years

The dominant trees on the Subject Property were identified as *Eucalyptus piperita*, *Eucalyptus globoidea*, *Syncarpia glomulifera*, *Eucalyptus paniculata*, *Corymbia maculata*, *Eucalyptus fibrosa*, and *Eucalyptus punctata*. It was then determined that the Subject Property contains 'Highly suitable Koala Habitat', where 15% or more of the total number of trees are species listed in Schedule 2 of the SEPP. Evidence of koalas, such as scratch marks, was observed within the Subject Site, and there are historical records of koalas within the Subject Property (**Figure 6,** NDCCEEW 2025c).

The proposed development involves partial clearing at the edge of a larger patch of potential koala habitat. However, this clearing is minor and confined to a limited area, reducing the likelihood of significant habitat fragmentation. Given the small scale and carefully selected location of the proposed works, it is not expected that the development will lead to an increase in risks such as fire, vehicle strikes, domestic dog attacks, disease, or canopy dieback. The measures taken to ensure that impacts on the koala population will remain minimal, with no anticipated adverse effects on koala movement or habitat connectivity.

A Koala Assessment Report (Narla 2025) has been undertaken as a separate document to address any concerns regarding to koalas in the locality.

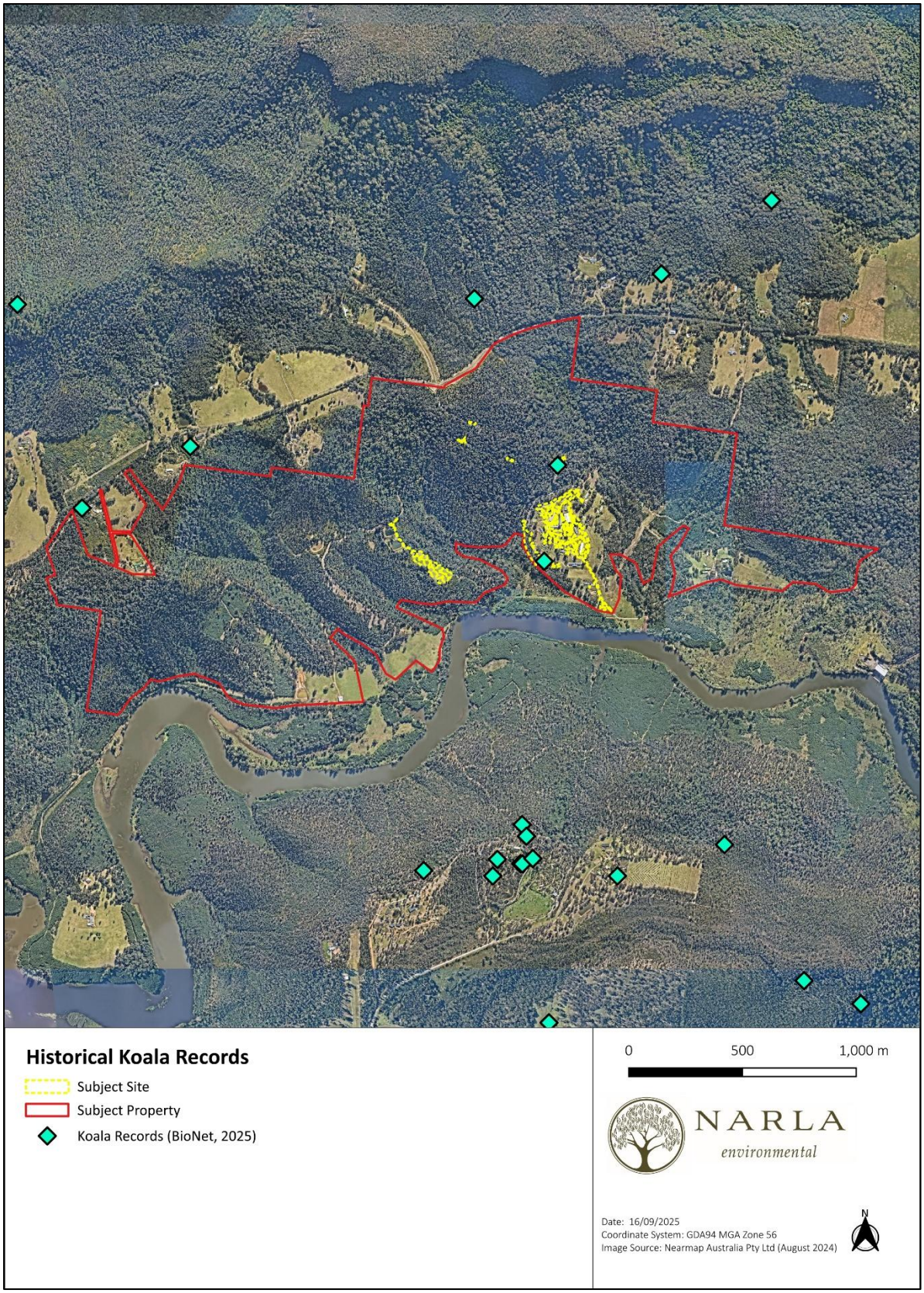

Figure 6. Historical koala records within the Subject Property.

2. Methodology

2.1 Desktop Assessment and Literature Review

A thorough literature review of local information relevant to the City of Shoalhaven LGA was undertaken. Searches using NSW Wildlife Atlas (BioNet; NDCCEEW 2025c) and the Commonwealth Protected Matters Search Tool (DCCEEW 2025) were conducted to identify all current threatened flora and fauna, as well as migratory fauna records within a 10km x 10km cell search area centred on the Subject Site. These data were used to assess the presence or likelihood of ecological values on or adjacent to the Subject Site, and to inform our Ecologist about potential species or habitats to observe during the site assessment.

2.2 Ecological Site Assessment

2.2.1 General Survey

A site assessment was undertaken by experienced Narla Ecologists on the following dates:

- Brodie Miller and Allirah Wallace on the 23rd of May 2024
- Brodie Miller on the 16th of April 2025

During the site assessment, the following activities were undertaken:

- Identifying and recording the vegetation communities present within the Subject Site, with a focus on identifying any threatened ecological communities.
- Recording a detailed list of flora species encountered within the Subject Site, with a focus on threatened species, species diagnostic of threatened ecological communities and Priority Weeds
- Recording opportunistic sightings of any fauna species seen or heard on or within the immediate surrounds of the Subject Site
- Targeted surveys for threatened flora
- Identifying and recording the locations of notable fauna habitat, such as important nesting, roosting or foraging microhabitats
- Assessing the connectivity and quality of the vegetation within the Subject Site and surrounding area; and
- Targeting the habitat of any threatened and regionally significant fauna, including:
    - Tree hollows (habitat for threatened large forest owls, parrots, and arboreal mammals)
    - Caves and crevices (habitat for threatened reptiles, small mammals, and microbats);
    - Termite mounds (habitat for threatened reptiles)
    - Soaks (habitat for threatened frogs)
    - Wetlands (habitat for threatened fish, frogs, and water birds)
    - Drainage lines (habitat for threatened fish and frogs)
    - Fruiting trees (food for threatened frugivorous birds and mammals)
    - Flowering trees (food for threatened nectarivorous birds and mammals)
    - Trees and shrubs supporting nest structures (habitat for threatened birds and arboreal mammals); and
    - Any other habitat features that may support fauna (particularly threatened) species.

2.2.2 Weather Conditions

Weather conditions recorded at the nearest weather stations (Moss Vale AWS) prior to and during the general flora and fauna survey period are provided in **Table 3** (BOM 2024, 2025). The data indicate cool to moderate

temperatures with minor rainfall preceding the survey. Weather conditions were unlikely to support the emergence of annual herbs or observable threatened species.

Table 3. Weather conditions recorded at Moss Vale AWS (station 068239) preceding and during the site assessments (site assessment dates in bold).

Survey date	Minimum Temp. (°C)	Maximum Temp. (°C)	Rainfall (mm)
16/05/2024	3.6	16.5	0.2
17/05/2024	4	18	0.2
18/05/2024	5.3	9.6	0
19/05/2024	0.4	12.2	0
20/05/2024	0.8	12.8	0
21/05/2024	4.7	13.3	0
22/05/2024	-1	12.6	0
23/05/2024	**-1.7**	**16.3**	**0.2**
9/04/2025	9.5	20.4	0.8
10/04/2025	12.3	22.6	0
11/04/2025	9.7	24.4	0.2
12/04/2025	13.4	22.3	0
13/04/2025	10.5	23	0.2
14/04/2025	8.3	23.3	0.2
15/04/2025	11.7	16.4	2
16/04/2025	**9.1**	**18.1**	**0.2**

2.2.3 Mapping and Analysis of Vegetation Communities

Narla conducted an analysis using local satellite imagery, geological maps, soil landscape maps, and topographic data to stratify the Subject Property and guide the survey efforts. The following documents were consulted during assessment to assist with the identification of vegetation communities present within the Subject Property:

- ESPADE v2.2 (NDCCEEW 2025d)
- DPE (2022) NSW State Vegetation Type Map; and
- Department of Regional NSW Minview (2025)

2.2.4 Impact Assessment

An assessment of likely occurrence was performed for locally occurring threatened species (**Table 4**, **Table 5**, **Table 7**). It was then determined that a BC Act (5-Part Test) and EPBC Act Assessment of Significant Impact was needed to be performed for the following locally occurring threatened species:

- *Phascolarctos cinereus* (Koala) (**Appendix C, Appendix F**)
- *Petaurus australis* (Yellow-bellied Glider) (**Appendix D**, **Appendix G**)
- *Callocephalon fimbriatum* (Gang-gang Cockatoo) (**Appendix E, Appendix H**)

3. Native Vegetation

3.1 Vegetation Community

3.1.1 Historically Mapped Vegetation Communities

The NSW State Vegetation Map (DPE 2022) identifies five (5) native plant communities within the Subject Site in addition to non-classified vegetation (**Figure 7**):

- Nattai-Morton Sandstone Peppermint Gully Forest
- Shoalhaven Foothills Bloodwood Heathy Forest
- Shoalhaven Foothills Turpentine Forest
- Shoalhaven Foothills Spotted Gum Forest; and
- Shoalhaven Lowland Bloodwood Shrub Forest

3.2 Field Validated Vegetation Communities

The site assessment identified four (4) distinct vegetation zones within the Subject Site (**Figure 8, Figure 9, Figure 10**):

- Shoalhaven Foothills Spotted Gum Forest
- Shoalhaven Foothills Turpentine Forest
- Nattai-Morton Sandstone Peppermint Gully Forest; and
- Exotic Dominated Vegetation

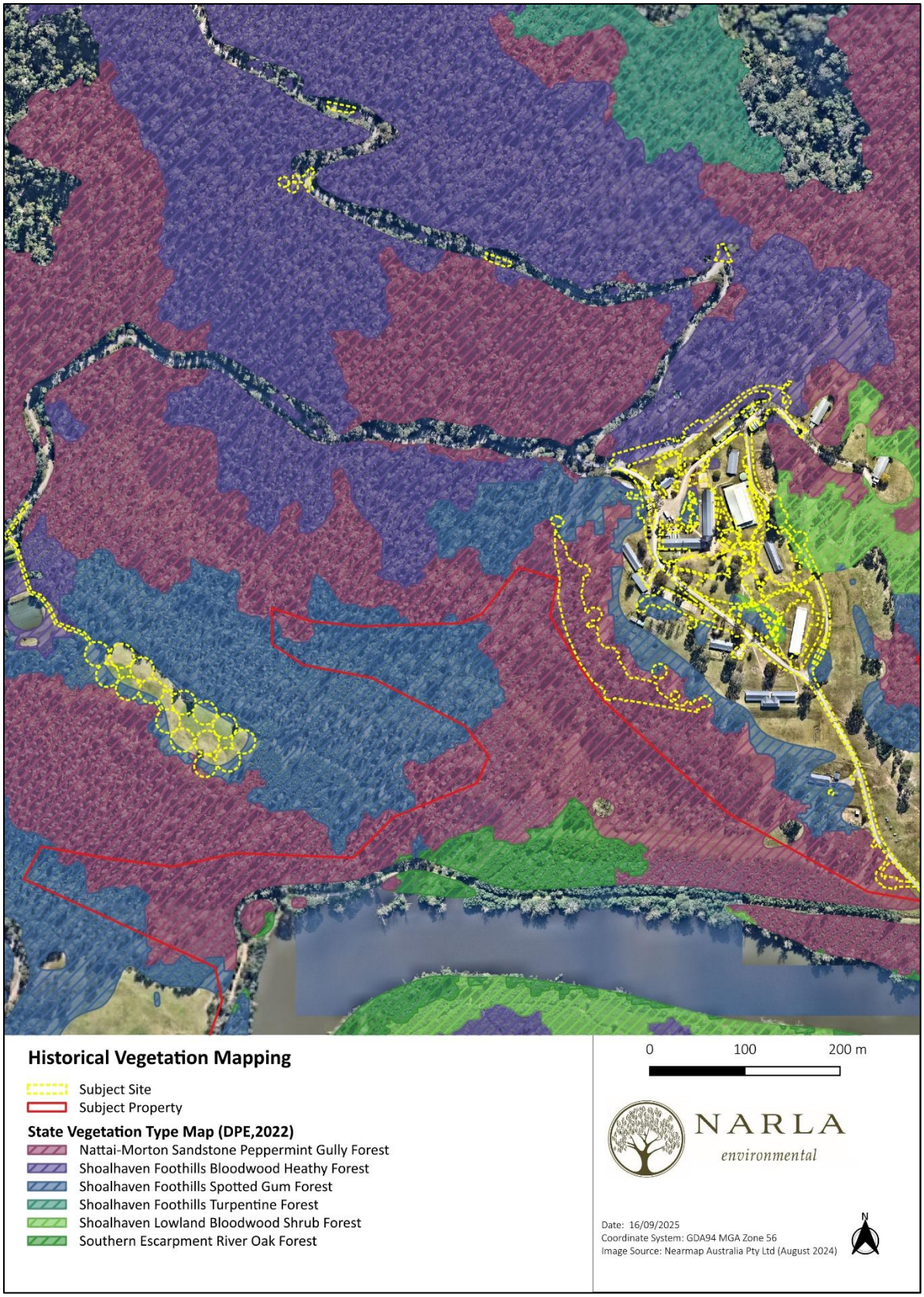

Figure 7. Historically mapped vegetation communities within and surrounding the Subject Site.

Figure 8. Narla field-validated vegetation communities within the Subject Site.

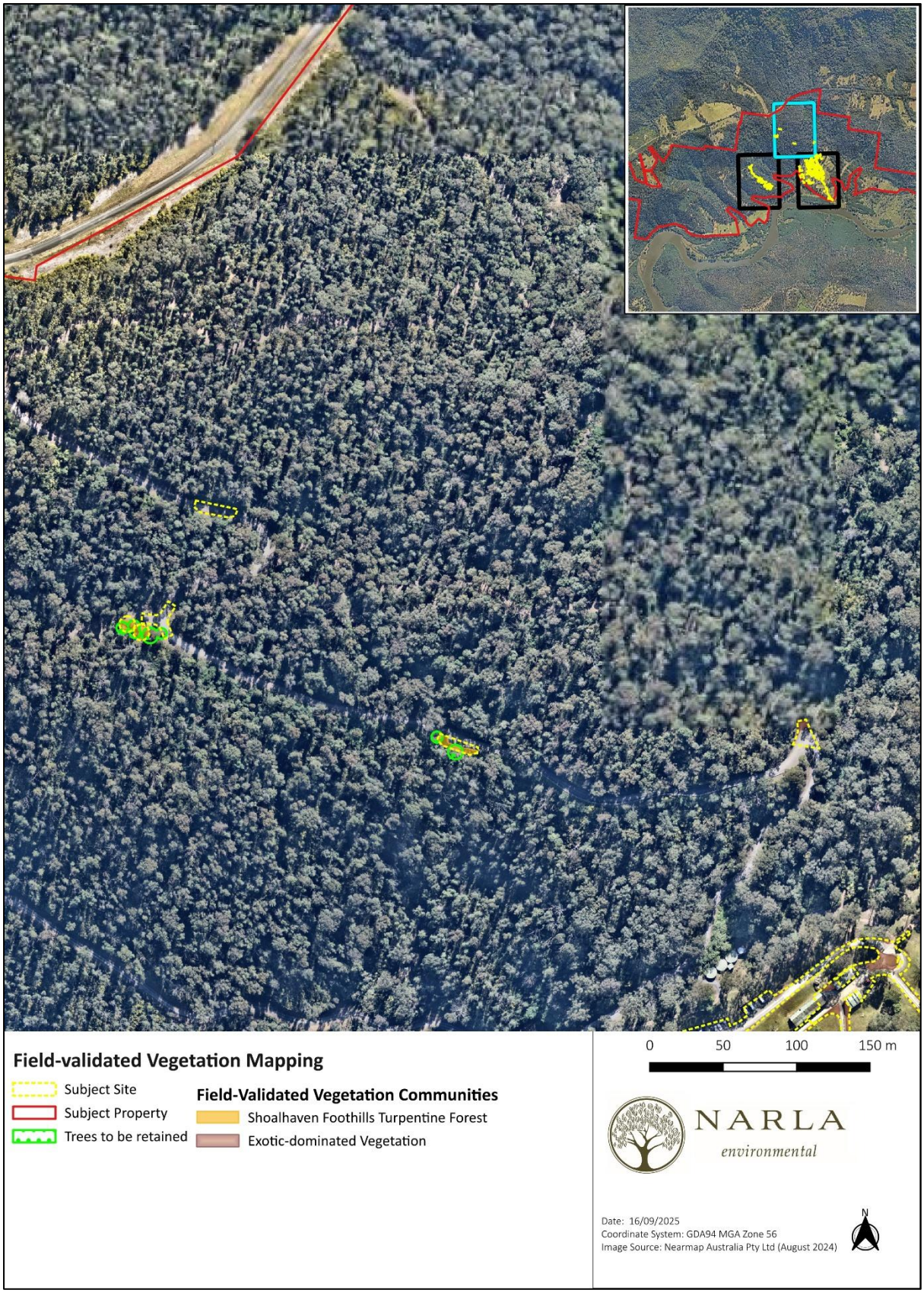

Figure 9. Narla field-validated vegetation communities within the Subject Site.

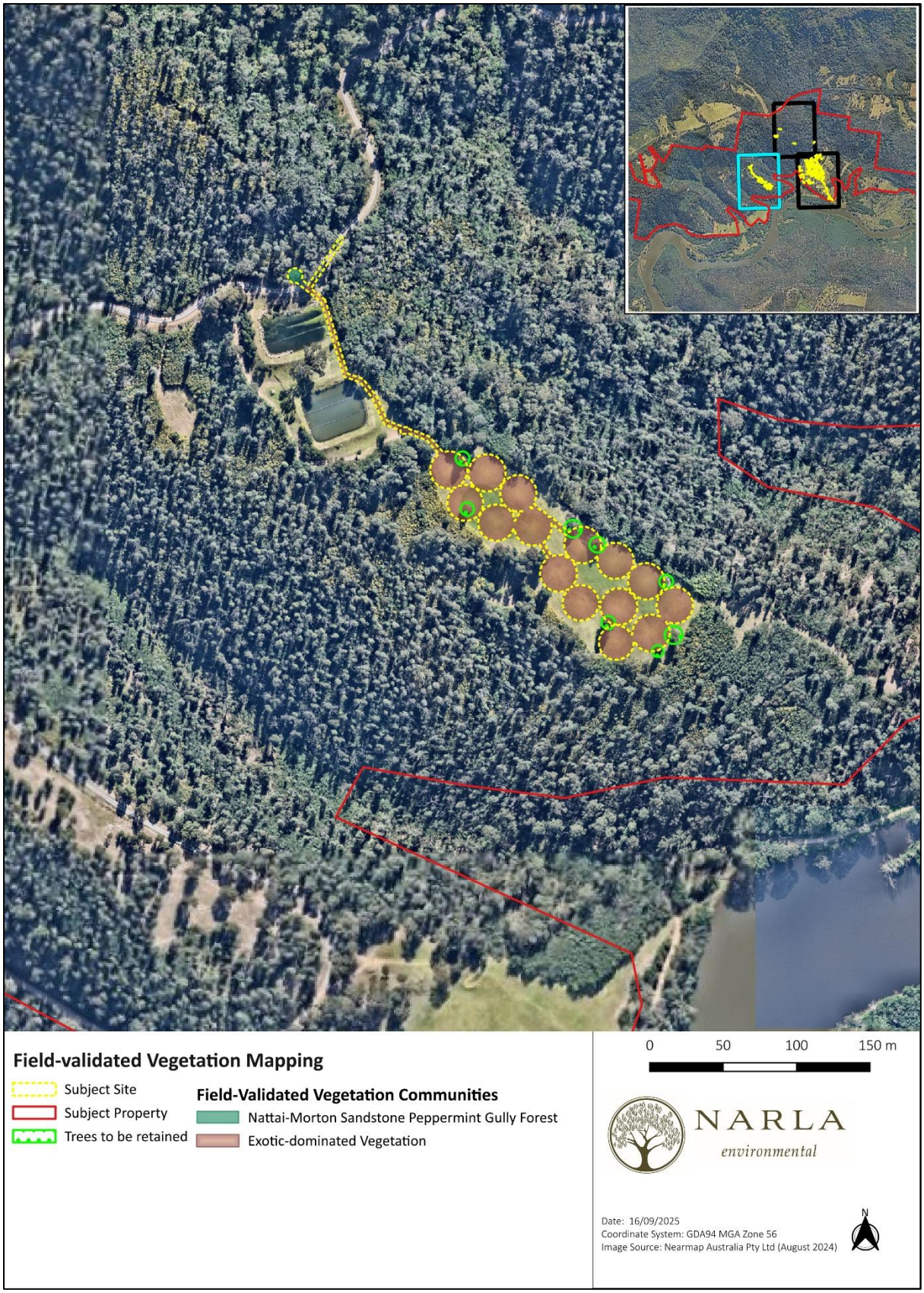

Figure 10. Narla field-validated vegetation communities within the Subject Site.

Table 4. Description of Nattai-Morton Sandstone Peppermint Gully Forest within the Subject Site.

Nattai-Morton Sandstone Peppermint Gully Forest	
	
Description from VIS (NDCCEEW 2025b)	
A tall to very tall sclerophyll open forest with a sparse dry shrub layer and ferny ground layer found in elevated sandstone gullies and sheltered slopes of the Southern Highlands and Shoalhaven ranges. The tree canopy is almost always dominated by *Eucalyptus piperita*, rarely with *Syncarpia glomulifera*, *Corymbia gummifera*, or tall cool climate eucalypt species such as *Eucalyptus smithii*, *Eucalyptus elata*, or *Eucalyptus cypellocarpa*. The mid-stratum is layered with a sparse cover of small trees that almost always includes *Elaeocarpus reticulatus* and, occasionally or rarely, taller Acacia species such as *Acacia irrorata*. A sparse lower layer of dry shrubs very frequently includes *Leucopenia lanceolatus* and *Persoonia linearis*. The ground layer is characterised by a high cover of ferns that almost always includes *Pteridium esculentum*, very frequently with *Calochlaena dubia* and *Blechnum cartilagineum*. Small climbers are diverse, and very frequently include *Tylophora barbata* and *Eustrephus latifolius*, and commonly *Clematis aristata*. This PCT occurs on both Triassic and Permian quartz-rich sandstones, with the former occurring in the southern Nattai and Woronora plateaus, in areas of generally above 400 metres asl. East of the Southern Highlands and onto the Morton plateau it is more commonly associated with Shoalhaven Group sandstones and falls to near 100 metres asl at the lowest recorded plot. In wetter environments on the escarpment edge, it is replaced by fern forest PCT 3589, and in drier and lower elevations, it is replaced by dry shrub forest PCT 3612. This community grades into tall wet forest PCT 3187 in gullies of the Shoalhaven ranges.	
Extent within Subject Site (approximate)	0.67 ha
Vegetation Description	The canopy within this vegetation zone is dominated by *Eucalyptus piperita*, with associated occurrences of *Eucalyptus globoidea*, *Eucalyptus punctata*, *Corymbia gummifera*, *Syncarpia glomulifera*, and *Angophora floribunda*. The mid-storey comprises a sparse layer of native species including *Acacia irrorata*, *Acacia longifolia*, *Acacia maidenii*, *Acacia terminalis*, *Acacia ulicifolia*, *Banksia spinulosa*, *Breynia oblongifolia*, *Lissanthe strigosa*, and *Pittosporum undulatum*. *Solanum mauritianum* and *Ligustrum sinense* are also present within the mid-storey and are

Nattai-Morton Sandstone Peppermint Gully Forest	
	considered exotic. The ground layer includes, but is not limited to, native species such as *Cayratia clematidea*, *Commelina cyanea*, *Entolasia marginata*, *Lomandra multiflora*, and *Pteridium esculentum*. Exotic ground layer species include but are not limited to Axonopus spp., *Ageratina adenophora*, *Bidens subalternans*, *Sporobolus fertilis*, and *Senecio madagascariensis*.
Justification of Vegetation Community	The classification of this community is based on the IBRA Bioregion and Sub-region, landscape characteristics, soil type, elevation, and the presence, cover, and frequency of several diagnostic species.
BC Act Status	N/A
EPBC Act Status	N/A

Table 5. Description of Shoalhaven Foothills Spotted Gum Forest within the Subject Site.

Shoalhaven Foothills Spotted Gum Forest	
	
Description from VIS (NDCCEEW 2025b)	
A restricted tall to very tall dry shrubby sclerophyll open forest with a sparse grassy ground layer found on steep slopes of the lower Shoalhaven gorge and surrounding tributaries. The tree canopy very frequently includes a high cover of both *Corymbia maculata* and *Eucalyptus fibrosa*, with a less frequent and sparse cover of *Corymbia gummifera* and *Eucalyptus punctata*. Other common species are stringybarks (*Eucalyptus sparsifolia*, *Eucalyptus agglomerata*, *Eucalyptus eugenioides*), however individual species are rare. The mid-stratum is a sparse cover of dry shrubs with *Persoonia linearis* almost always present, very frequently with *Daviesia ulicifolia* and commonly *Dillwynia sieberi*, *Hakea sericea*, *Acacia ulicifolia*, and *Jacksonia scoparia*. The ground layer is also generally sparse, however almost always includes a few individuals of *Macrozamia communis*. Other life forms such as grasses are very frequent and relatively diverse with *Panicum simile*, *Entolasia stricta*, *Aristida vagans*, and *Themeda triandra* all recorded in over half of the plots. The graminoids *Dianella revoluta* and *Lepidosperma laterale* are also very frequent. An interesting feature of this PCT is the moderately strong floristic similarity to the dry shrub grass forest PCT 3444 dominated by *Corymbia maculata* found in the lower Hunter valley almost 250 km to the north. PCT 3444 also occurs on Permian aged sediments within similar elevation ranges however includes some species that are endemic to the Hunter region. In the Shoalhaven PCT 3447 occurs in rugged rather than low-lying relief landscapes and is strongly associated with the sandstones of the Snapper Point Formation or Nowra sandstone on crests, exposed and semi-sheltered slopes.	
Extent within Subject Site (approximate)	0.14 ha
Vegetation Description	The canopy in this vegetation zone comprises *Corymbia maculata*, *Eucalyptus amplifolia*, *Eucalyptus cinerea*, and *Eucalyptus punctata*. These areas show signs of historical management, with altered structure and composition. The mid-storey is

Shoalhaven Foothills Spotted Gum Forest	
	sparse but includes Acacia spp. and *Pittosporum undulatum*. The ground layer contains native species, such as *Commelina cyanea*, *Microlaena stipoides*, *Dichondra repens*, *Echinopogon ovatus*, and *Eragrostis leptostachya*. Exotic grasses such as Axonopus spp. and *Digitaria sanguinalis* are dominant in this zone.
Justification of Vegetation Community	The classification of this community is based on the IBRA Bioregion and Sub-region, landscape characteristics, soil type, elevation, and the presence, cover, and frequency of several diagnostic species.
BC Act Status	N/A
EPBC Act Status	N/A

Table 6. Description of Shoalhaven Foothills Turpentine Forest within the Subject Site.

Shoalhaven Foothills Turpentine Forest	
	
Description from VIS (NDCCEEW 2025b)	
A very tall dry shrubby sclerophyll open forest mainly found on Nowra sandstone crests and semi sheltered slopes on the foothills of the Shoalhaven escarpment. The tree canopy almost always includes a high cover of *Syncarpia glomulifera* and *Corymbia gummifera* with *Eucalyptus piperita* also common. Occasionally a sparse cover of *Eucalyptus scias* is included and at lower elevations near the grade into PCT 3654 *Eucalyptus pilularis* may retain a high cover. A sparse to mid-dense shrub layer almost always includes *Persoonia Linearis*, very frequently *Leucopogon lanceolatus* and *Acacia obtusifolia* and commonly *Banksia spinulosa* and *Lomatia silaifolia*. The ground layer is characterised by a sparse cover of grasses, graminoids, and ferns with *Entolasia stricta*, *Dianella caerulea*, *Lomandra longifolia*, and *Pteridium esculentum* either very frequently or commonly recorded. This PCT extends north from the Ulladulla district to the Shoalhaven gorge at Tallowa dam on coarse grained Permian sediments. It shares some species with PCT 3654 into which it grades at lower elevations with low relief however typically is less species rich than that PCT. This community also grades into PCTs 3689 and 3588 on shallow or rocky sandstone soils at higher elevations.	
Extent within Subject Site (approximate)	0.03 ha
Vegetation Description	This zone occurs along a developed roadway adjacent to the Subject Site. No trees are proposed for removal within this zone; however, vegetation on the edges of this area have been included as part of the assessment as a precautionary measure. Canopy species observed in the surrounding area include *Eucalyptus pilularis*, *Corymbia gummifera*, *Eucalyptus paniculata*, and *Angophora floribunda*. The mid-storey includes *Acacia irrorata*, *Pimelea linifolia*, *Phyllanthus hirtellus*, and *Platysace lanceolata*, among others. The ground layer is disturbed but contains scattered

Shoalhaven Foothills Turpentine Forest	
	native species such as *Entolasia stricta*, *Dianella caerulea*, *Lomandra longifolia*, and *Pteridium esculentum* among others, interspersed with exotic annual and perennial weeds.
Justification of Vegetation Community	The classification of this community is based on the IBRA Bioregion and Sub-region, landscape characteristics, soil type, elevation, and the presence, cover, and frequency of several diagnostic species.
BC Act Status	N/A
EPBC Act Status	N/A

Table 7. Description of Exotic Dominated Vegetation within the Subject Site.

Exotic Dominated Vegetation	
	
Extent within Subject Site (approximate)	1.74 ha
Vegetation Description	The areas mapped as Exotic Dominated Vegetation are characterised by exotic trees, lawns, and garden beds. Canopy species include Jacaranda spp. and Pinus spp. among others. The mid-story includes, but is not limited to, Buxus spp., *Ligustrum sinense*, and *Corymbia ficifolia*. The ground layer features *Dietes spp., Axonopus spp., Geranium spp., Richea spp.*, and *Digitaria sanguinalis*, among others.
Justification of Vegetation Community	The species observed in these areas do not correspond to any Plant Community Types (PCTs) recognised for the IBRA Bioregion and Subregion. Therefore, these areas have been categorised as Exotic Dominated Vegetation.
BC Act Status	N/A
EPBC Act Status	N/A

4. Threatened Species

4.1 Threatened Flora

Desktop analysis revealed a range of threatened flora as occurring or having the potential to occur on or within a 10km x 10km cell centred on the Subject Site. Thorough targeted surveys were undertaken throughout the Subject Property (**Error! Reference source not found.**, **Figure 12**, **Figure 13**) for potentially occurring threatened flora, whose NDCCEEW endorsed survey period coincided with the site assessment. No threatened flora was identified at the time of the site assessment.

Following the assessment of the Subject Site, it was determined that the proposed works are unlikely to significantly impact upon a local viable population or occurrence of the threatened species. Therefore, no BDAR or EPBC Act Referral to the Commonwealth is required for the proposed development.

A comprehensive list of flora species identified within the Subject Site during the site assessment is presented in **Appendix A**. Locally occurring species were assessed for their potential to occur within the Subject Site in **Table 8**.

Table 8. Assessment of likely occurrence of threatened flora species within the Subject Site. V = Vulnerable, E = Endangered, CE = Critically Endangered.

Species	BC Act	EPBC Act	Likelihood of occurrence within the Subject Site	Further Impact Assessment Required?
Acacia pubescens (Downy Wattle)	V	V	Absent. This species occurs on alluviums, shales and at the intergrade between shales and sandstones. The soils are characteristically gravely soils, often with ironstone. Some sub-optimal habitat is present within the Subject Site; however, the species was not identified during the targeted survey conducted in the NDCCEEW-endorsed period.	No
Galium australe (Tangled Bedstraw)	E	-	Low. In NSW (and ACT Territory in Jervis Bay), this species has been recorded in Turpentine Forest and coastal Acacia shrubland. In other States the species is found in a range of near-coastal habitats, including sand dunes, sand spits, shrubland, and woodland. No suitable habitat for this species was found within the Subject Site.	No
Irenepharsus trypherus (Illawarra Irene)	E	E	Low. This species typically inhabits steep rocky slopes near cliff lines and ridge tops. This species is occasionally found in rock crevices or on narrow benches along cliff lines. Associated vegetation includes moist sclerophyll forest, Ironwood *Backhousia myrtifolia* thicket, and rainforest. No suitable habitat is potentially present within the Subject Site.	No
Pomaderris cotoneaster (Cotoneaster Pomaderris)	E	E	Low. This species has been recorded in a range of habitats in predominantly forested country. The habitats include forest with deep, friable soil, amongst rock beside a creek, on rocky forested slopes and in steep gullies between sandstone cliffs. Some habitat is present within the Subject Site; however, this species was not identified.	No
Rhodamnia rubescens (Scrub Turpentine)	CE	CE	Absent. Found in littoral, warm temperate and subtropical rainforest, and wet sclerophyll forest, usually on volcanic and sedimentary soils. Some habitat was present within the Subject Site; however, a targeted survey was conducted within the NDCCEEW endorsed	No

Species	BC Act	EPBC Act	Likelihood of occurrence within the Subject Site	Further Impact Assessment Required?
			survey period (all year) and this species was not identified.	
Solanum celatum	E	-	Low. This species is known to grow in rainforest clearing, or in wet sclerophyll forests. Normally recorded in disturbed margins and clearings. Some habitat is present within the Subject Site; however, this species was not identified.	No

4.2 Threatened Fauna

Details of the threatened fauna habitat recorded within the Subject Site are included in **Table 9**. The likelihood of occurrence of threatened fauna species within the Subject Site is presented in **Table 10.**

Based on the breeding habitat present within the Subject Site, the proposed works are unlikely to significantly impact any local viable populations or occurrences of threatened species. Therefore, no BDAR or EPBC Act Referral to the Commonwealth is required for the proposed development.

Several common native fauna species were identified within and around the Subject Site during the site assessment as well as potential signs of threatened fauna (i.e, scratching and scars from Koala and Yellow-Bellied Gliders) (**Error! Reference source not found.**, **Figure 12**, **Figure 13**). All native fauna species encountered are listed as 'protected' under the BC Act. The list of fauna recorded during the site visit was produced opportunistically (**Appendix B**).

Table 9. Fauna habitat values identified within the Subject Site.

Habitat component	Site values
Coarse woody debris	Coarse woody debris was present sporadically throughout the Subject Site and may provide habitat for threatened reptiles and small mammal species.
Rock outcrops and bush rock	Bush rock is present within the Subject Site but is not proposed for impact or removal.
Caves, crevices, and overhangs	Absent
Culverts, bridges, mine shafts, or abandoned structures	Absent.
Nectar/lerp-bearing Trees	Many nectar-bearing Eucalypts and sporadically occurring nectar-bearing shrubs were recorded within the Subject Site. These may provide intermittent nectar and/or lerp sources for nomadic nectivores such as the Grey-headed Flying-fox.
Nectar-bearing shrubs	Nectar bearing shrubs occurred sporadically throughout the Subject Site. These shrubs may provide intermittent nectar and/or lerp sources for similar nectivores.
Koala Feed Trees	Koala feed tree species were identified within the Subject Site.
Large stick nests	No stick nests were observed within the Subject Site.
Sap and gum sources	Native sap and gum source trees were recorded within the Subject Site given the canopy of Eucalyptus spp.
She-oak fruit (Glossy Black Cockatoo feed)	Absent.
Seed-bearing trees and shrubs	Seed-bearing trees such as the Eucalypt species identified within the Subject Site may provide foraging habitat for threatened species.
Soft-fruit-bearing trees	Soft-fruit-bearing shrubs such as *Pittosporum undulatum* were identified within the Subject Site and may provide foraging habitat for threatened species.
Dense shrubbery and leaf litter	Present.

Habitat component	Site values
Tree hollows	Multiple hollows and nest boxes are present across the Subject Property, though none are within the Subject Site.
Decorticating bark	Absent.
Wetlands, soaks, and streams	One mapped 1st order watercourse and one unmapped dam are located near the southeastern edge of the Subject Site. These features are not proposed for impact.
Open water bodies	Absent.
Estuarine, beach, mudflats, and rocky foreshores	Absent.

4.2.1 Migratory Fauna Species

The following EPBC Act listed migratory fauna species were considered to potentially utilise habitat within or around the Subject Property for foraging or passage:

- *Actitis hypoleucos* (Common Sandpiper)
- *Apus pacificus* (Fork-tailed Swift)
- *Calidris acuminata* (Sharp-tailed Sandpiper)
- *Calidris ferruginea* (Curlew Sandpiper)
- *Calidris melanotos* (Pectoral Sandpiper)
- *Cuculus optatus* (Oriental Cuckoo, Horsfield's Cuckoo)
- *Gallinago hardwickii* (Latham's Snipe, Japanese Snipe)
- *Hirundapus caudacutus* (White-throated Needletail)
- *Monarcha melanopsis* (Black-faced Monarch)
- *Motacilla flava* (Yellow Wagtail)
- *Myiagra cyanoleuca* (Satin Flycatcher)
- *Numenius madagascariensis* (Eastern Curlew, Far Eastern Curlew)
- *Pandion haliaetus* (Osprey)
- *Rhipidura rufifrons* (Rufous Fantail)
- *Symposiachrus trivirgatus* (Spectacled Monarch)
- *Tringa nebularia* (Common Greenshank, Greenshank)

It is deemed that any potential occurrence of these species would be purely sporadic fly-ins. It is not deemed likely that future development within the Subject Property would result in a significant impact on any of these species.

Figure 11. Targeted survey effort for threatened species and their habitats.

Figure 12. Targeted survey effort for threatened species and their habitats.

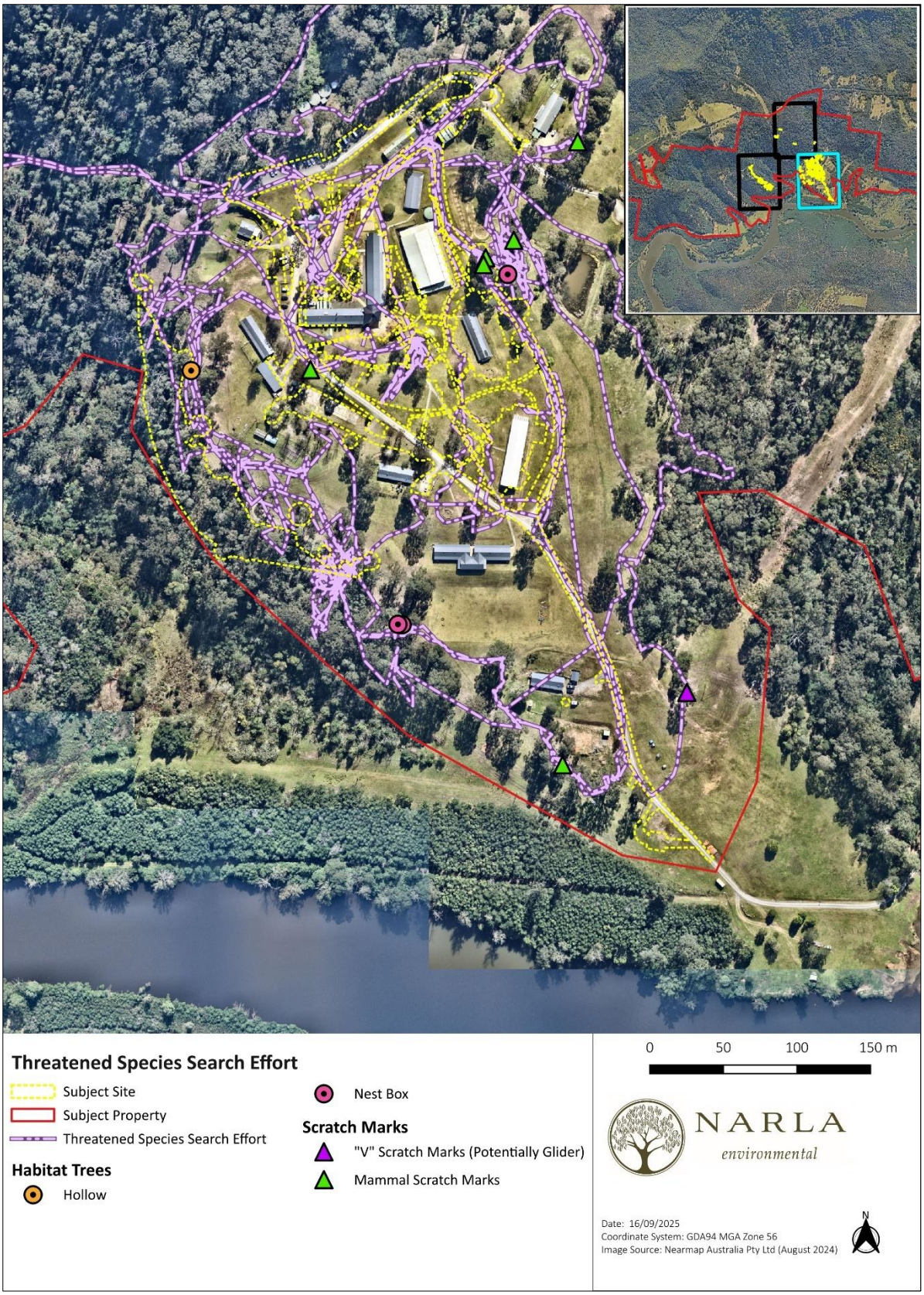

Figure 13. Targeted survey effort for threatened species and their habitats.

Table 10. Assessment of likely occurrence of threatened fauna species within the Subject Site. V = Vulnerable, E = Endangered, CE = Critically Endangered.

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
Anthochaera phrygia (Regent Honeyeater)	CE	CE	Low	The species inhabit dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River She-oak. The Regent Honeyeater is a generalist forager, although it feeds mainly on the nectar from a relatively small number of eucalypts that produce high volumes of nectar. Sub-optimal foraging habitat is present within the Subject Site.	There are three known key breeding areas, two of them in NSW - Capertee Valley and Bundarra-Barraba regions. These breeding areas do not overlap with the Subject Site. The Subject Site is not mapped on the important areas map for this species.	Minimal impact on potential foraging habitat, and negligible impact on breeding habitat. No individuals were detected during the May 2024 and April 2025 site assessment.	No
Aphelocephala leucopsis (Southern Whiteface)	V	V	Low	Preferred habitat comprises dry open forests and woodland and inland scrubs of mallee, mulga, and saltbush, especially areas with fallen timber or dead trees and stumps. No such habitat was present within the Subject Site.	This species builds an untidy domed nest of grass, rootlets, and bark. Nests are built in a hollow limb, stump, or fence post or in the foliage of shrubs and small trees, in sheds or in nest-boxes. No domed nests were identified within the Subject Site during the assessment.	Negligible impact on potential foraging or breeding habitat. Site assessment in May 2024 and April 2025 did not detect this species.	No
Botaurus poiciloptilus (Australasian Bittern)	E	E	Low	Inhabits permanent freshwater wetlands with tall, dense vegetation, particularly bullrushes (Typha spp.) and spike rushes (Eleocharis spp.). Feeding platforms may be constructed over deeper water from trampled reeds. No such habitat was present within the Subject Site.	Nest in secluded places in densely vegetated wetlands on a platform of reeds. Six (6) olive-brown eggs are laid per clutch. No nests were recorded within the Subject Site.	Negligible impact on potential foraging or breeding habitat. Site assessment in May 2024 and April 2025 did not detect this species.	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
Callocephalon fimbriatum (Gang-gang Cockatoo)	V	E	Low	Inhabits tall mountain forests and woodlands, with a preference for mature wet sclerophyll forests. Primarily consumes seeds from native and introduced trees and shrubs, including eucalypts, wattles, and hawthorns. Some suitable habitat is present within the Subject Site.	Prefers old-growth forest and woodland for nesting and roosting. Nests are in tree hollows with a minimum diameter of 10cm, at least 9m above ground in eucalypts. No suitable nesting hollows were identified within the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	A Test of Significance (BC Act) and an Assessment of Significant Impact (EPBC Act) has been undertaken as a precautionary measure due to proximal records present (**Appendix E**, **Appendix H**).
Calyptorhynchus lathami lathami (South-eastern Glossy Black Cockatoo)	V	V	Low	Diet primarily consists of seeds from multiple Casuarina and Allocasuarina species. No suitable foraging habitat is present within the Subject Site.	Requires large, hollow-bearing eucalypts for nesting. No suitable nesting hollows identified on site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	No
Cercartetus nanus (Eastern Pygmy-possum)	V	-	Low	Inhabits a range of habitats including rainforest, sclerophyll forest, woodland, and heath, with a preference for woodland and heath. Primarily consumes nectar, pollen from banksias, eucalypts, and bottlebrushes, supplemented by insects. Suitable foraging habitat present within the Subject Site.	Typically nests in tree hollows, though nests can also be found under bark or in tree forks. No suitable nesting hollows were identified within the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat.	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
Chalinolobus dwyeri (Large-eared Pied Bat)	V	V	Low	Inhabits well-timbered areas containing gullies. Forages on small flying insects within the forest understory. Some sub-optimal foraging habitat was present within the Subject Site.	Roosts in caves (near their entrances), cliff crevices, abandoned mine shafts, and reclaimed Fairy Martin nests within low to mid-elevation, dry, open forest, and woodland. No suitable roosting habitat was identified within the Subject Site.	Negligible impact on both foraging and breeding habitat is anticipated.	No
Climacteris picumnus (Brown Treecreeper)	V		Moderate.	Mainly inhabits woodlands dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey. Also found in mallee and River Red Gum (*Eucalyptus camaldulensis*). Forages in trees and on the ground, eating mostly ants and insects, occasionally sap. Fallen timber is an important habitat component for foraging. Foraging habitat was present within the Subject Site.	Breeds in hollows of living or dead trees. Tree stumps are also vital. No suitable nesting hollows were identified within the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	No
Daphoenositta chrysoptera (Varied Sittella)	V	-	Low	Inhabits eucalypt forests and woodlands, particularly those with rough-barked species, mature smooth-barked gums featuring dead branches, mallee, and Acacia woodland. Forages on arthropods found in crevices of rough or shedding bark, dead branches, standing dead trees, and small branches and twigs in the tree	Constructs a cup-shaped nest from plant fibres and cobwebs in a high tree fork within the living canopy, often reusing the same location. No nests were identified within the Subject Site during the assessment.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
				canopy. Potential foraging habitat was present within the Subject Site.			
Dasyomis brachypterus (Eastern Bristlebird)	E	E	Low	Central and southern populations inhabit dense, low vegetation including heath and open woodland with a heathy understory. Some sub-optimal foraging habitat was present within the Subject Site.	Nests are elliptical domes constructed on or near the ground within dense vegetation. No nests were identified within the Subject Site at the time of the assessment.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	No
Dasyurus maculatus (Spotted-tailed Quoll)	V	E	Low	Inhabits a variety of habitats including rainforest, open forest, woodland, coastal heath, and inland riparian forest across various altitudes. Potential prey species may be present within the Subject Site.	Utilizes hollow-bearing trees, fallen logs, other animal burrows, small caves, and rock outcrops as den sites. No adequate hollow-bearing trees were identified within the Subject Site. While bush rock is present, it will not be impacted by the proposed works.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Low anticipated loss of breeding habitat is expected.	No
Falsistrellus tasmaniensis (Eastern False Pipistrelle)	V	-	Low	Inhabits moist environments with trees exceeding 20 metres in height. Consumes insects. Potential prey species may be present within the Subject Site.	Typically roosts in eucalypt hollows but may also be found under loose tree bark or in nearby buildings. Potential roosting habitat in the form of tree bark is present.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat.	No
Grantiella picta (Painted Honeyeater)	V	V	Low	Inhabits Boree/ Weeping Myall (*Acacia pendula*), Brigalow (A. harpophylla) and Box-Gum	Nest from spring to autumn in a small, delicate nest hanging within the outer	Minimal foraging habitat loss anticipated for this highly mobile species.	No.

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
				Woodlands and Box-Ironbark Forests. This species is a specialist feeder, feeding on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus Amyema. Insects and nectar from mistletoe or eucalypts are occasionally eaten. Potential foraging habitat is present within the Subject Site.	canopy of drooping eucalypts, she-oak, paperbark, or mistletoe branches. No nests were identified within the Subject Site.	Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	
Haliaeetus leucogaster (White-bellied Sea-eagle)	V	-	Low	Inhabits coastal and freshwater environments including bays, inlets, beaches, reefs, lagoons, estuaries, mangroves, swamps, lakes, reservoirs, billabongs, and saltmarsh. Primarily consumes fish and freshwater turtles, but also waterbirds, reptiles, mammals, and carrion. No suitable habitat presents within the Subject Site.	Breeds in large emergent eucalypts using large stick nests. No nests identified within the Subject Site during the site assessment.	Negligible impact on both foraging and breeding habitat is anticipated.	No
Heleioporus australiacus (Giant Burrowing Frog)	V	V	Low	This species exhibits a generalized diet, primarily consuming invertebrates such as ants, beetles, cockroaches, spiders, centipedes, and scorpions. Potential prey items of this nature may be present within the Subject Site	Breeding typically occurs in soaks or pools within first or second order streams. No suitable breeding habitat is present within the Subject Site.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Negligible impact on breeding habitat.	No
Hirundapus caudacutus (White-throated Needletail)	-	V	Low	Consumes flying insects including termites, ants, beetles, and flies. Suitable foraging habitat is present within the Subject Site.	Species does not breed in Australia.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
						on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	
Hoplocephalus bungaroides (Broad-headed snake)	E	V	Low	Diet primarily consists of geckos and small skinks, with occasional consumption of frogs and small mammals. Potential prey species may be present within the Subject Site.	Summer habitat includes sandstone rocks and shelters within tree crevices or hollows located within 500 metres of escarpments. Breeding occurs between January and March. While habitat in the form of bush rock is present, it will not be impacted by the proposed works.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader locality. Low anticipated net loss of breeding habitat is expected.	No
Isoodon obesulus obesulus (Southern Brown Bandicoot)	E	E	Low	Active primarily during dusk and dawn. Typically found in heath or open forest with a heathy understory on sandy or friable soils. Some sub-optimal foraging habitat is present within the Subject Site.	Nests during daylight hours in a shallow ground depression covered by leaf litter, grass, or other plant material. Nests may be located beneath Grass trees, blackberry bushes, other shrubs, or within rabbit burrows. The nest's upper surface is often mixed with earth for waterproofing. No nests or dens were identified within the Subject Site during the assessment.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Negligible impact on breeding habitat.	No
Lathamus discolor (Swift Parrot)	E	CE	Low	On the mainland, this species occurs in areas where eucalypts are flowering profusely or where there	N/A. This species breeds in Tasmania.	Negligible impact to potential foraging and breeding habitat. The	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
				are abundant lerp infestations (from sap-sucking bugs). Favoured feed trees include winter flowering species such as *Eucalyptus robusta*, *Corymbia maculata*, C. gummifera, E. tereticornis, E. sideroxylon, E. pilularis, and E. albens. Potential foraging habitat is present within the Subject Site.		Subject Site is not mapped on the Swift Parrot Important Areas Map (NDCCEEW 2024d). Site assessment in May 2024 and April 2025 did not detect this species.	
Litoria aurea (Green and Golden Bell Frog)	E	V	Low	Inhabits marshes, dams, and stream-sides, particularly those containing bullrushes (Typha spp.) or spike rushes (Eleocharis spp.). Some sub-optimal foraging habitat is present within the Subject Site.	Optimum habitat includes waterbodies that are unshaded, free of predatory fish such as Plague Minnow (*Gambusia holbrooki*), have a grassy area nearby and diurnal sheltering sites available. No suitable breeding habitat is present within the Subject Site.	Negligible, no anticipated net loss of foraging or breeding habitat.	No
Litoria watsoni (Southern Heath Frog)	E	E	Low	This species is only known from few specimens recorded between Nadgee NP, in the far south-east of the state, and a fire dam in Yadboro State Forest. It shelters under leaf litter and low vegetation, and hunts for invertebrate prey either in shrubs or on the ground. Some sub-optimal foraging habitat was identified however the Subject Site is not within the known regions.	This species breeds in the upper reaches of permanent streams and in perched swamps. Breeding is triggered by heavy rain and can potentially occur all year but is usually from late summer to early spring when conditions are favourable. No suitable breeding habitat is present within the Subject Site.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader locality. No anticipated net loss of breeding habitat is expected.	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
Micronomus norfolkensis (Eastern Coastal Free-tailed Bat)	V	-	Low	Inhabits dry sclerophyll, swamp, and mangrove forests east of the Great Dividing Range, feeding on insects. Potential prey species may be present within the Subject Site.	Primarily roosts in tree hollows but may also utilize tree bark or human-made structures. Potential roosting habitat in the form of tree bark is present.	Minimal anticipated loss of foraging habitat for this species with foraging opportunities persisting within the broader Subject Property. Proposed selective tree removal is expected to have a minimal impact on breeding habitat, which is considered insignificant due to the abundance of similar habitat within the local area.	No
Miniopterus orianae oceanensis (Large Bent-winged Bat)	V	-	Low	Hunts for moths and other flying insects within forested areas, above the tree canopy. Potential prey species may be present within the Subject Site.	This species exclusively breeds in caves. No suitable breeding habitat was identified within the Subject Site.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Negligible impact on breeding habitat.	No
Mixophyes balbus (Stuttering Frog)	E	V	Low	This species inhabits rainforests and wet, tall open forests in the foothills and escarpments of the eastern Great Dividing Range. Its diet consists of insects and small frogs. Potential prey items may be found within the Subject Site.	This species breeds in streams following heavy summer rains, laying eggs on rock shelves or shallow riffles in small, flowing streams. No suitable breeding habitat is present within the Subject Site.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Negligible impact on breeding habitat.	No
Myotis macropus (Southern Myotis)	V	-	Low	This species forages by skimming the water surface of streams and pools to catch insects and small fish.	Typically roosting in groups of 10-15 individuals near water, this species seeks shelter in caves, mine	Minimal anticipated loss of foraging habitat for this species with foraging opportunities persisting	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
				Some sub-optimal foraging habitat is present within the Subject Site.	shafts, hollow-bearing trees, stormwater channels, buildings, under bridges, and dense foliage. Marginal breeding habitat is present within the Subject Site in the form of buildings.	within the broader Subject Property. Proposed building removal is expected to have a minimal impact on breeding habitat, which is considered insignificant due to the abundance of higher quality habitat within the local area.	
Ninox connivens (Barking Owl)	V	-	Low	Primarily preys on small arboreal mammals like Squirrel Gliders and Common Ringtail Possums. However, in environments with reduced tree hollow availability and subsequent prey population decline, the owl's diet shifts towards birds, invertebrates, and terrestrial mammals such as rodents and rabbits. Potential prey species may be present within the Subject Site.	Roosting occurs in shaded areas of the tree canopy, often within tall midstory trees with dense foliage like Acacia and Casuarina. During breeding, the male perches near the hollow entrance. Nest sites are in hollows of large, old trees. No suitable habitat of this kind was identified within the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat.	No
Ninox strenua (Powerful Owl)	V	-	Low	The species primarily preys on medium-sized arboreal marsupials, including the Greater Glider, Common Ringtail Possum, and Sugar Glider. Potential prey species may be present within the Subject Site.	Powerful Owls require large tree hollows in eucalypts aged at least 150 years for nesting. No such habitat was identified within the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat.	No
Notamacropus parma (Parma Wallaby)	V	V	Low	Typically feed at night on grasses and herbs in more open eucalypt forest and the edges of nearby grassy areas. Some sub-optimal	Preferred habitat is moist eucalypt forest with thick, shrubby understorey, often with nearby grassy areas, rainforest margins and	Minimal anticipated loss of foraging habitat for this species with foraging opportunities persisting within the broader Subject	No.

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
				foraging habitat is present within the Subject Site.	occasionally drier eucalypt forest. Some sub-optimal breeding habitat was identified within the Subject Site.	Property. Proposed selective tree removal is expected to have a minimal impact on breeding habitat, which is considered insignificant due to the abundance of similar habitat within the local area.	
Petauroides volans (Southern Greater Glider)	E	E	Low	Diet consists exclusively of eucalyptus leaves, buds, flowers, and mistletoe. Suitable foraging habitat is present within the Subject Site.	This species requires areas with numerous large hollows. No suitable nesting hollows were identified within the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat.	No
Petaurus australis (Yellow-bellied Glider)	V	V	Low	Inhabits tall, mature eucalypt forests in areas with high rainfall and nutrient-rich soils. Primarily consumes plant and insect exudates, including nectar, sap, honeydew, and manna, supplemented by pollen and insects for protein. Suitable foraging habitat is present within the Subject Site.	Breeds in tree hollows. No suitable nesting hollows were identified within the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat.	A Test of Significance (BC Act) and an Assessment of Significant Impact (EPBC Act) has been undertaken as a precautionary measure due to detection of scratch marks (**Appendix D**, **Appendix G**)
Petaurus norfolcensis (Squirrel Glider)	V	-	Low	This species inhabits mature or old-growth Box, Box-Ironbark woodlands, River Red Gum forests west of the Great Dividing Range, and Blackbutt-Bloodwood forests	This species requires abundant tree hollows for shelter and nesting. No suitable nesting hollows	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
				with heath understory in coastal areas. Its diet varies seasonally, consisting of Acacia gum, eucalyptus sap, nectar, honeydew, manna, with invertebrates and pollen providing protein. Some suitable foraging habitat is present within the Subject Site.	were identified within the Subject Site.	property. Negligible impact on breeding habitat.	
Petrogale penicillata (Brush-tailed Rock Wallaby)	E	V	Low	Inhabits rocky escarpments, outcrops, and cliffs, preferring complex formations with fissures, caves, and ledges, often with a north-facing aspect. Diet includes grasses, forbs, and the foliage and fruits of shrubs and trees found in and around rocky areas. Limited foraging habitat is present within the Subject Site.	Seeks shelter or basks in rock crevices, caves, and overhangs during daylight hours. No suitable breeding habitat is present within the Subject Site.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Negligible impact on breeding habitat.	No
Petroica boodang (Scarlet Robin)	V	-	Low	This species requires habitats with abundant logs and fallen timber. Some sub-optimal foraging habitat was identified within the Subject Site.	This species constructs an open cup nest from plant fibres and cobwebs, typically located in a tree fork more than two metres above ground. Nests are often found in dead branches of live trees or within dead trees or shrubs. No suitable nesting habitat was identified within the Subject Site.	Negligible impact on both foraging and breeding habitat is anticipated.	No
Phascolarctos cinereus (Koala)	E	E	High	Consumes foliage from over 70 eucalypt and 30 non-eucalypt species, with a preference for specific browse species within each area. Potential foraging habitat is present within the Subject Site.		Given the number of recent records within the locality (**Figure 6**; NDCCEEW	A Test of Significance (BC Act) and an Assessment of

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
						2024c), the likelihood of Koalas occurring on the Subject Property is considered high. However, both foraging and breeding habitat will remain available across the broader Subject Property, with impacts limited to the edges of a high-quality habitat patch. This ensures that the development will have minimal impact on the overall availability of Koala habitat.	Significant Impact (EPBC Act) has been undertaken (**Appendix C, Appendix F**)
Potorous tridactylus (Long-nosed Potoroo)	V	V	Low	Inhabits dense understorey with occasional open areas as an essential part of habitat. May consist of grasstrees, sedges, ferns, or heath, or of low shrubs of tea-trees or melaleucas. A sandy loam soil is also a common feature. The fruit-bodies of hypogenous (underground-fruiting) fungi are a large component of the diet. They also eat roots, tubers, insects, and their larvae and other soft-bodied animals in the soil. Some sub-optimal foraging habitat is present within the Subject Site	Often dig small holes like bandicoots. Bree ding peaks typically occur in late winter to early summer and single young is born per litter. No such breeding habitat was identified within the Subject Site.	Negligible impact on both foraging and breeding habitat is anticipated.	No.
Pseudomys novaehollandiae	-	V	Low	Known to inhabit open heathlands, woodlands, and forests with a heathland understorey and	Lives and breeds in burrows shared with multiple individuals. No such	Minimal foraging habitat loss anticipated for this highly mobile species.	No

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
(New Holland Mouse)				vegetated sand dunes. Some sub-optimal foraging habitat is present within the Subject Site.	breeding habitat was identified within the Subject Site.	Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	
Pteropus poliocephalus (Grey-headed Flying-fox)	V	V	Low	Inhabits subtropical and temperate rainforests, tall sclerophyll forests, and woodlands, heaths, swamps, urban gardens, and cultivated fruit crops. Consumes nectar and pollen from native trees, particularly Eucalyptus, Melaleuca, and Banksia, as well as fruits from rainforest trees and vines. Potential foraging habitat is present within the Subject Site.	No breeding colonies were identified within or surrounding the Subject Site.	Minimal foraging habitat loss anticipated for this highly mobile species. Foraging opportunities will persist within the broader property. Negligible impact on breeding habitat. Species not detected during site assessment in May 2024 and April 2025.	No
Pycnoptilus floccosus (Pilotbird)	V	V	Low	This species is found in wet forested areas and heathland in eastern Victoria and southeastern New South Wales. Forages on the ground, turning over leaf litter using strong legs. Some sub-optimal foraging habitat is present within the Subject Site.	The globular nest is built with a side-entrance and hidden amongst the accumulated debris on the forest floor. It is an untidy construction of bark, ferns, dead leaves, and rootlets. No nests were identified within the Subject Site.	Negligible impact on potential foraging or breeding habitat. Site assessment in May 2024 and April 2025 did not detect this species.	No
Rostratula australis (Australian Painted Snipe)	E	E	Low	This species prefers fringes of swamps, dams, and nearby marshy areas where there is a cover of grasses, lignum, low scrub, or open timber. Forages nocturnally on mudflats and in shallow water. No	This species nests on the ground amongst tall vegetation, such as grasses, tussocks, or reeds. The nest consists of a scrape in the ground, lined with grasses, or reeds. No potential	Negligible impact on potential foraging or breeding habitat.	No.

Species	BC Act	EPBC Act	Likelihood of Occurrence	Foraging Habitat Present Within the Subject Site	Breeding Habitat Present Within the Subject Site	Anticipated Impact	Further Impact Assessment Required?
				potential foraging habitat is present within the Subject Site.	breeding habitat was identified within the Subject Site.		
Sagonopleura guttata (Diamond Firetail)	V	V	Low	Found in grassy eucalypt woodlands, including Box-Gum Woodlands and Snow Gum Eucalyptus pauciflora woodlands. Also occurs in open forest and mallee. Often found in riparian areas (rivers and creeks), and sometimes in lightly wooded farmland. Feeds exclusively on the ground, on ripe and partly ripe grass and herb seeds and green leaves, and on insects Potential foraging habitat is present within the Subject Site.	Builds globular nest structures either in the shrubby understorey, or higher up, especially under hawk's or raven's nests. Birds roost in dense shrubs or in smaller nests built especially for roosting. No nests were identified within the Subject Site.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Negligible impact on breeding habitat.	No
Varanus rosenbergi (Rosenberg's Goanna)	V	-	Low	Inhabits heath, open forest, and woodland. Diet consists of carrion, birds, eggs, reptiles, and small mammals. Potential prey items may occur within the Subject Site.	Utilises hollow logs, rock crevices, and burrows for shelter. May excavate its own burrows or occupy abandoned burrows of other species, such as rabbits. No hollow logs or burrows were identified within the Subject Site at the time of assessment. Bush rock is present within the Subject Site however will not be impacted by the proposed works.	Minimal loss of foraging habitat is anticipated for this species, with foraging opportunities maintained within the broader Subject Property. Negligible impact on breeding habitat.	No

5. Impact Summary

5.1 Vegetation

The proposed development will result in the removal of three distinct vegetation zones, including approximately:

- 0.14 ha of Shoalhaven Foothills Spotted Gum Forest
- 0.03 ha of Shoalhaven Foothills Turpentine Forest
- 0.67 ha of Nattai-Morton Sandstone Peppermint Gully Forest; and
- 1.74 ha of Exotic Dominated Vegetation

Although three (3) of these communities represent native ecosystems, the limited extent of native vegetation proposed for removal and the retention of large portions within the Subject Property reduce the overall impact of the proposed development.

The areas mapped as Exotic Dominated Vegetation consists of introduced species and does not correspond to any recognised native Plant Community Types (PCTs). Its removal will not adversely impact native ecological values.

5.2 Threatened Species

The site assessment and desktop analysis identified several threatened species as potentially occurring within or near the Subject Site. However, targeted surveys conducted did not detect any threatened flora or fauna.

For *Callocephalon fimbriatum* (Gang-gang Cockatoo), *Petaurus australis* (Yellow-bellied Glider) and *Phascolarctos cinereus* (Koala) potential foraging and/or breeding habitat was identified, but the overall loss of habitat is expected to have a low impact, given the retention of substantial habitat within the broader Subject Property. A 5-part test of significance under the BC Act and an Assessment of Significance under the EPBC Act have been conducted for the following species:

- *Phascolarctos cinereus* (Koala) (**Appendix C, Appendix F**)
- *Petaurus australis* (Yellow-bellied Glider) (**Appendix D**, **Appendix G**)
- *Callocephalon fimbriatum* (Gang-gang Cockatoo) (**Appendix E, Appendix H**)

No threatened species were detected during the May 2024 and April 2025 site assessment, and the proposed works do not require a BDAR or EPBC Act Referral to the Commonwealth, as no significant impact on viable populations of threatened species is anticipated.

6. Recommendations

6.1 Impact Mitigation and Minimisation Recommendations

This section of the report details recommended efforts to avoid and minimise impacts on biodiversity values associated with the proposed development. Measures to be implemented before, during, and post construction are detailed in **Table 11.**

Table 11. Measures to be implemented before, during, and after construction to avoid and minimise the impacts of the proposed development.

Action	Outcome	Timing	Responsibility
Project Location, Design and Planning	The proposed development has been deliberately located within a site of lower biodiversity value following consultation with Narla. Although complete avoidance of impacts was not possible, impacts have been significantly minimised to ensure that biodiversity values are preserved within the Subject Property.	Pre-construction phase	Proponent
Assigning a Project Ecologist	The proponent must commission a qualified and experienced Ecologist with a minimum of a tertiary degree in Science, Conservation, Biology, Ecology, Natural Resources Management, Environmental Science, or Environmental Management. The Ecologist must also hold a current Department of Primary Industries Animal Research Authority permit and a New South Wales Scientific License issued under the BC Act. The Ecologist may be required by Council to supervise the clearance of trees to capture, treat and/or relocate any displaced fauna.	Pre-construction phase	Proponent
Sediment and Erosion Controls	Appropriate erosion and sediment control must be erected and always maintained during construction to avoid the potential of incurring indirect impacts on biodiversity values. As a minimum, such measures should comply with the relevant industry guidelines, such as 'the Blue Book' (Landcom, 2004).	Construction phase	Proponent Construction Contractors
Storage and Stockpiling (Soil and Materials)	All storage, stockpiling, and laydown areas should be located away from vegetation planned for retention. Imported soil should be avoided to prevent the introduction of weeds and pathogens.	Construction phase	Construction Contractors
Tree Protections	Australian Standard 4970 (2009) Protection of Trees on Development Sites (AS-4970) outlines that a Tree Protection Zone (TPZ) is the principal means of protecting trees on construction sites. It is an area isolated from construction disturbance so that the tree remains viable. Ideally, works should be avoided within the TPZ. A Minor Encroachment affects less than 10% of the TPZ and is located outside the SRZ. If compensated for elsewhere in the TPZ, Minor Encroachments are acceptable under AS-4970. A Major Encroachment, which impacts more than 10% of the TPZ or occurs within the SRZ, typically requires root investigations using non-destructive methods or tree-sensitive construction techniques. Tree protective fencing should be installed around all trees to be retained in proximity to the development area to avoid any accidental impacts of TPZs during construction.	Construction phase	Proponent Arborist

Action	Outcome	Timing	Responsibility
Tree Replacement	Where possible, trees removed should be replaced elsewhere within the Subject Property at a 1:1 ratio, using species representative of the original vegetation communities.	Construction phase	Proponent

7. Conclusion

The proposed development at 369 Jacks Corner Road, Kangaroo Valley, will result in the removal of four vegetation zones, comprising approximately:

- 0.14 ha of Shoalhaven Foothills Spotted Gum Forest
- 0.03 ha of Shoalhaven Foothills Turpentine Forest
- 0.67 ha of Nattai-Morton Sandstone Peppermint Gully Forest; and
- 1.74 ha of Exotic Dominated Vegetation

Although the proposal will result in the loss of native vegetation, the overall ecological impact is minimised by the limited extent of vegetation removal and the retention of larger areas of native vegetation within the Subject Property.

No threatened flora or fauna species were recorded during targeted surveys, and the loss of potential habitat is considered minimal. The development is not expected to significantly impact any threatened species or ecological communities.

Proposed mitigation measures, including strategic site planning, the implementation of sediment and erosion controls, and the replacement of removed trees, will further reduce potential ecological impacts. As such, the proposal does not trigger the requirement for a Biodiversity Development Assessment Report under the Biodiversity Conservation Act 2016 or a referral under the Environment Protection and Biodiversity Conservation Act 1999.

8. References

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Shoalhaven Local Environmental Plan (2014) https://legislation.nsw.gov.au/view/html/inforce/current/epi-2014-0179

State Environmental Planning Policy (Koala Habitat Protection) (2021) https://legacy.legislation.nsw.gov.au/EPIs/2021-115.pdf

9. Appendices

Appendix A. Flora species identified within the Subject Property during the site assessment.

Appendix B. Fauna species identified within the Subject Property during the site assessment.

Appendix C. Biodiversity Conservation Act 2016 Test of Significance (5-Part Test) for *Phascolarctos cinereus* (Koala).

Appendix D. Biodiversity Conservation Act 2016 Test of Significance (5-Part Test) for *Petaurus australis* (Yellow-bellied Glider).

Appendix E. Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for *Callocephalon fimbriatum* (Gang-gang Cockatoo).

Appendix F. Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Phascolarctos cinereus* (Koala).

Appendix G. Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Petaurus australis* (Yellow-bellied Glider).

Appendix H. Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Callocephalon fimbriatum* (Gang-gang Cockatoo).

Appendix I. Proposed Site Plan (Baxter & Jacobson Architects 2024).

Appendix J. Tree Removal and Retention (Gummifera, 2025).

Appendix A. Flora species identified within the Subject Property during the site assessment.

Scientific Name	Canopy	Midstory	Ground
Acacia binervata		x	
Acacia longifolia		x	
Acacia maidenii		x	
Acacia terminalis		x	
Acacia ulicifolia		x	
*Ageratina adenophora**			x
Angophora floribunda	x		
*Araujia sericifera**			x
*Axonopus spp.**			x
Banksia spinulosa		x	
*Bidens pilosa**			x
*Bidens subalternans**			x
Billardiera scandens			x
Breynia oblongifolia		x	
*Buxus spp.**		x	
Cayratia clematidea			x
Cissus antarctica			x
Commelina cyanea			x
*Conyza spp.**			x
*Corymbia ficifolia**		x	
Corymbia gummifera	x		
Corymbia maculata	x		
Cymbopogon refractus			x
Cynodon dactylon			x
Desmodium spp.			x
Dianella longifolia			x
Dichondra repens			x
*Dietes spp.**			x
*Digitaria sanguinalis**			x
Echinopogon ovatus			x
Entolasia marginata			x
Eragrostis leptostachya			x
Eucalyptus amplifolia	x		
Eucalyptus botryoides	x		
Eucalyptus cinerea	x		
Eucalyptus piperita	x		
Eucalyptus punctata	x		
Eustrephus latifolius			x
Geranium spp.			x
Glycine spp.			x
Grevillea robusta	x		
Hardenbergia violacea			x
Hydrocotyle spp.			x

Scientific Name	Canopy	Midstory	Ground
*Hypochaeris spp.**			x
Hypolepis spp.			x
*Iris spp.**			x
*Jacaranda spp.**	x		
*Ligustrum sinense**		x	
Lissanthe strigosa		x	
Lobelia purpurascens			x
Lomandra longifolia			x
Lomandra multiflora			x
Microlaena stipoides			x
Oplismenus spp.			x
Persoonia linearis		x	
*Pinus spp.**	x		
Pittosporum undulatum		x	
Plectranthus parviflorus			x
Podolobium ilicifolium			x
*Richea spp.**			x
*Senecio madagascariensis***			x
*Sida rhombifolia**			x
Sigesbeckia orientalis			x
*Solanum mauritianum**		x	
*Sporobolus fertilis**			x
Trema tomentosum		x	
Xerochrysum spp.			x

* Denotes exotic species

** Denotes Priority Weed

Appendix B. Fauna species identified within the Subject Property during the site assessment.

Class	Scientific Name	Common Name	Status
Aves	*Corvus coronoides*	Australian Raven	Protected
	Dacelo novaeguineae	Kookaburra	
	Sericornis frontalis	White Browed Scrub Wren	
	Rhipidura albiscapa	Grey Fantail	
	Gymnorhina tibicen	Australian Magpie	
	Anthochaera carunculata	Red Wattlebird	
Mammalia	*Macropus giganteus*	Eastern Grey Kangaroo	Protected

Appendix C. Biodiversity Conservation Act 2016 Test of Significance (5-Part Test) for *Phascolarctos cinereus* (Koala).

Biodiversity Conservation Act 2016– Assessment of Significance (5-part Test) for *Phascolarctos cinereus* (Koala)		
BC Act Status: Endangered		
(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 proposed development will involve the removal of approximately 0.84 ha of vegetation that meets the definition of *core Koala habitat* under cl. 4.2 of the BC SEPP, as the Subject Property contains highly suitable habitat and there are recent records of the species. The 0.84 ha area represents approximately 0.31% of the 270 ha of mapped habitat available within the Subject Property. While the impacted vegetation qualifies as core habitat under the policy definition, the area to be removed is located on the periphery of a larger, higher-quality patch. It does not contain structural or floristic features associated with critical breeding resources, such as high-density *Eucalyptus* species that are preferred foraging trees. The proposed clearing will not result in a substantial reduction of available habitat or compromise the capacity of the broader Subject Property to support the species. Connectivity between retained areas of vegetation on the Subject Property and adjoining bushland will be maintained, ensuring that Koalas can continue to move across the landscape and access resources. Given the limited scale of the impact, the peripheral location of the vegetation to be cleared, and the extent of habitat retained within the Subject Property, the proposed development is not likely to adversely affect the life cycle of the species or place a viable local population at risk of extinction.	
(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	Not applicable.
	(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,	Not applicable.
(c) in relation to the habitat of a threatened species, population, or ecological community:	(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and	The proposed development will remove 0.84 ha of mapped core Koala habitat. This represents a minor proportion (0.31%) of the total 270 ha of habitat available within the Subject Property. The impacted area is primarily peripheral and does not support the same level of structural diversity, floristic composition, or connectivity values present within the central portions of the 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	The proposed clearing will not fragment or isolate habitat. Substantial areas of vegetation will remain both within the Subject Property and in adjoining lands, providing continuous habitat corridors.

Biodiversity Conservation Act 2016– Assessment of Significance (5-part Test) for *Phascolarctos cinereus* (Koala)		
BC Act Status: Endangered		
	development or activity, and	The retained vegetation will continue to support Koala movement across the landscape, maintaining functional connectivity between habitat patches.
	(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,	Although the vegetation proposed for removal is mapped as core habitat, its contribution to the long-term survival of the species is limited. It is located on the edge of a larger patch and does not contain trees or resources considered critical for breeding or long-term occupancy. The removal of this area will not reduce the overall capacity of the Subject Property to sustain Koala populations. The remaining 269+ ha of habitat will continue to provide foraging, shelter, breeding opportunities, and movement pathways for Koalas.
(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),	The proposed activity is not likely to have an adverse effect on any declared area of outstanding biodiversity value, directly or indirectly.	
(e) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the effect of, a key threatening process.	The following Key Threatening Processes (KTPs) may occur as a result of the proposed development: ▪ Loss, modification, and fragmentation of habitat ▪ Vehicle strike ▪ Predation by roaming or domestic dogs ▪ Small population size or geographically isolated populations The proposed development involves the removal of 0.94 ha of Koala habitat, which constitutes a minor loss (0.35%) in the context of the 270 ha of available habitat on the Subject Property. While habitat loss and fragmentation are identified KTPs, the extent of habitat removal is limited, and the remaining habitat will maintain connectivity, minimising the risk of significant fragmentation. Mitigation measures such as Koala-proof fencing during construction and confining domestic dogs to secure yards will reduce the likelihood of predation, while vehicle movements will be managed to limit the risk of vehicle strikes. The development is not expected to exacerbate the risk of small population size or geographic isolation, as the majority of the high-quality habitat will be retained, ensuring sufficient resources and connectivity for the local Koala population.	
References NSW Government (2017) NSW Legislation: Biodiversity Conservation act 2016 No 63, Schedule 4: Key Threatening Processes. https://www.legislation.nsw.gov.au/acts/2016-63.pdf Department of Planning and Environment (DPE) (2022) Koala - profile.		

Appendix D. Biodiversity Conservation Act 2016 Test of Significance (5-Part Test) for *Petaurus australis* (Yellow-bellied Glider).

Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for *Petaurus australis* (Yellow-bellied Glider)		
BC Act Status: Vulnerable		
(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 development will result in the removal of 0.94 ha of potential foraging habitat for *Petaurus australis*. No suitable hollows for breeding are impacted by the proposed development. This area is situated on the edge of a larger high-quality patch within the Subject Property. The loss equates to approximately 0.35% of the available 270ha of habitat. Connectivity will be retained, and the majority of high-quality habitat will remain. The proposed activity is not expected to disrupt the species' life cycle or place a viable local population at risk of extinction.	
(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	Not applicable.
	(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,	Not applicable.
(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 proposed development or activity, and	Approximately 0.94ha of potential foraging habitat will be removed. No known hollow-bearing habitat will be affected. The impacted vegetation occurs at the periphery of a larger patch and represents a small portion of available habitat.
	(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and	The proposed development is not expected to result in habitat fragmentation or isolation. A contiguous area of native vegetation will remain within the Subject Property and in adjacent lands. Habitat connectivity will be maintained.
	(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,	While all foraging habitat contributes to the long-term viability of *Petaurus australis*, the vegetation proposed for removal is situated on the periphery of a larger patch and does not appear to be critical to the species' long-term survival in the locality. Core breeding habitat and key foraging resources will be retained.
(d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding	The proposed activity is not likely to have an adverse effect on any declared area of outstanding biodiversity value, directly or indirectly.	

Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for *Petaurus australis* (Yellow-bellied Glider)	
BC Act Status: Vulnerable	
biodiversity value (either directly or indirectly),	
(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 following Key Threatening Processes (KTPs) may occur as a result of the proposed development: ▪ Loss and fragmentation of habitat ▪ Loss of feed trees While habitat loss may occur, the extent of habitat removal as a result of the proposed development is limited, and the remaining habitat will maintain connectivity, minimising the risk of significant fragmentation.
References NSW Government (2017) NSW Legislation: Biodiversity Conservation act 2016 No 63, Schedule 4: Key Threatening Processes https://www.legislation.nsw.gov.au/acts/2016-63.pdf	

Appendix E. Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for *Callocephalon fimbriatum* (Gang-gang Cockatoo).

Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for *Callocephalon fimbriatum* (Gang-gang Cockatoo)		
BC Act Status: Vulnerable		
(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 proposed development will result in the removal of approximately 0.94ha of vegetation potentially used for foraging by *Callocephalon fimbriatum*. No breeding habitat, including hollow-bearing trees, will be removed. The area to be cleared is located on the periphery of a larger habitat patch and represents a minor proportion of the total available habitat. Connectivity and core habitat features will be retained. The proposed activity is not expected to disrupt the species' life cycle or place a viable local population at risk.	
(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	Not applicable.
	(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,	Not applicable.
(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 proposed development or activity, and	Approximately 0.94 ha of potential foraging habitat for *Callocephalon fimbriatum* will be removed. No known or likely breeding habitat (e.g. hollow-bearing trees) will be affected. The vegetation to be cleared comprises the edge of a larger patch and does not include core areas likely to be critical to the species' persistence in the locality.
	(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and	The proposed development is not expected to result in habitat fragmentation or isolation. A contiguous area of native vegetation will remain within the Subject Property and in adjacent lands. Habitat connectivity will be maintained.
	(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,	While all foraging habitat contributes to the long-term viability of *Callocephalon fimbriatum*, the vegetation proposed for removal is situated on the periphery of a larger patch and does not appear to be critical to the species' long-term survival in the locality. Core breeding habitat and key foraging resources will be retained.
(d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding	The proposed development is not located within, nor is it adjacent to, a declared area of outstanding biodiversity value. It is therefore unlikely to result in any direct or indirect adverse effect on such an area.	

Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for *Callocephalon fimbriatum* (Gang-gang Cockatoo)	
BC Act Status: Vulnerable	
biodiversity value (either directly or indirectly),	
(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 following Key Threatening Processes (KTPs) may occur as a result of the proposed development: ▪ Loss and degradation of breeding and foraging habitat from rural and urban development ▪ Infestation of habitat by invasive weeds While habitat loss may occur, the extent of habitat removal as a result of the proposed development is limited, and the remaining habitat will maintain connectivity, minimising the risk of significant fragmentation. KTPs related to the infestation of habitat by invasive weeds can be managed as part of hygiene protocols in a CEMP.
References NSW Government (2017) NSW Legislation: Biodiversity Conservation act 2016 No 63, Schedule 4: Key Threatening Processes. https://www.legislation.nsw.gov.au/acts/2016-63.pdf NSW Office of Environment and Heritage (2024) Gang-gang Cockatoo – profile. https://threatenedspecies.bionet.nsw.gov.au/profile?id=10975	

Appendix F. Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Phascolarctos cinereus* (Koala).

Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Phascolarctos cinereus* (Koala)	
EPBC Act Status: Endangered	
Significant impact criteria An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:	
Lead to a long-term decrease in the size of a population	The proposed development is not expected to result in a long-term decrease in the size of the population. The development will involve the removal of 0.94ha of habitat, equating to approximately 0.35% of the total 270ha of suitable habitat present within the Subject Property. The area to be cleared is situated on the periphery of a high-quality habitat patch and does not include the core areas known to support essential foraging and breeding activities. The majority of the high-quality habitat will remain intact, thereby retaining the resources and connectivity required to sustain the local population. Mitigation measures, including the retention of large trees and targeted replanting of preferred Koala feed species, will further minimise potential impacts. Given the limited scale of habitat loss and the retention of broader habitat connectivity, the action is not expected to significantly reduce the population size or its long-term viability.
Reduce the area of occupancy of the species	The proposed development is unlikely to significantly reduce the area of occupancy of *Phascolarctos cinereus*. The development footprint will remove only 0.94 ha of habitat, a minor proportion (0.35%) of the 270-ha available within the Subject Property. The area to be removed is located on the fringe of a larger high-quality habitat patch, and the core habitat areas—used for foraging and breeding—will remain undisturbed. Habitat connectivity will be maintained, and restoration measures will be implemented to compensate for minor losses. Therefore, the action is not expected to result in a meaningful reduction in the area of occupancy for the species.
Fragment an existing population into two or more populations	The proposed development is not expected to result in population fragmentation. The habitat to be removed is located on the edge of a continuous, high-quality patch, and its removal will not disrupt connectivity within the Subject Property or between the Subject Property and adjacent remnant vegetation. Essential movement corridors and access to core habitat areas will be retained. Consequently, the development is unlikely to isolate individuals or divide the population into separate groups.
Adversely affect habitat critical to the survival of a species	The habitat proposed for removal is not considered critical to the survival of the species. The 0.94 ha of vegetation to be cleared lies on the periphery of a high-quality patch and does not contain core foraging or breeding habitat. These critical areas will be retained and protected throughout the development. In addition, habitat enhancement measures—including the planting of Koala-preferred tree species—will be implemented. Connectivity between retained habitats will be preserved. Therefore, the proposed development is not expected to adversely affect habitat critical to the species' survival.
Disrupt the breeding cycle of an population	The proposed development is not expected to disrupt the breeding cycle of the local *Phascolarctos cinereus* population.

Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Phascolarctos cinereus* (Koala)	
EPBC Act Status: Endangered	
	Although a small area of potential habitat will be removed, this represents only 0.35% of the total habitat on the Subject Property. Core breeding habitat will remain unaffected, and no breeding trees are proposed for removal. As such, the breeding cycle of the local population will not be meaningfully disrupted.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	The proposed removal of 0.94 ha of habitat is unlikely to result in a decline of the local population. The area to be cleared lies on the edge of the habitat patch and does not contain essential resources. The majority of high-quality habitat—including foraging and breeding areas—will remain unaffected. Habitat connectivity will be preserved. The minor scale of habitat removal and implementation of mitigation measures will ensure that habitat availability and quality are not decreased to a level likely to result in population decline.
Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat	The development is not expected to facilitate the establishment of invasive species harmful to the species. Environmental management protocols will be implemented during construction, including weed control and monitoring for pest species. The majority of the Subject Property will remain undisturbed, limiting the risk of disturbance-related invasive species establishment.
Introduce disease that may cause the species to decline, or	The proposed development is not expected to introduce disease into the environment. Standard biosecurity measures will be implemented to reduce the risk of introducing pathogens harmful to the species, such as Chlamydia spp. and Koala Retrovirus. These measures will be maintained throughout the construction phase to prevent disease transmission.
Interfere with the recovery of the species.	The development is not expected to interfere with the recovery of the species. The action will retain the majority of high-quality foraging and breeding habitat and preserve connectivity within the landscape. Habitat restoration and the retention of key Koala food trees will further support long-term recovery objectives.
References Department of Climate Change, Energy, The Environment, and Water (2023) Species Profile and Threats Database *Phascolarctos cinereus* (combined populations of Queensland, New South Wales and the Australian Capital Territory) Commonwealth of Australia (2013) Matters of National Environmental Significance - Significant impact guidelines 1.1. Environment Protection and Biodiversity Conservation Act 1999	

Appendix G. Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Petaurus australis* (Yellow-bellied Glider).

Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Petaurus australis* (Yellow-bellied Glider)	
EPBC Act Status: Vulnerable	
Significant impact criteria An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	
Lead to a long-term decrease in the size of an important population of a species	The proposed development will involve the removal of approximately 0.94 ha of potential foraging habitat situated on the edge of a larger, high-quality vegetation patch. This area comprises only a small proportion (0.35%) of the 270ha of habitat present on the Subject Property. No hollow-bearing trees will be affected, and the retained habitat will continue to support foraging and sheltering activities. As such, the local population is unlikely to experience a long-term decrease in size.
Reduce the area of occupancy of an important population	The proposed development will result in the removal of marginal, non-core foraging habitat only. The area of occupancy for *Petaurus australis* will not be significantly reduced, as the broader habitat area remains intact, connected, and accessible.
Fragment an existing population into two or more populations	The proposed development will not result in fragmentation of the population. Connectivity between habitat areas within and adjacent to the Subject Property will be maintained, and the Subject Site does not represent a habitat corridor critical to population cohesion.
Adversely affect habitat critical to the survival of a species	The Subject Site is not considered critical habitat. No breeding trees or core foraging areas will be impacted. Sufficient suitable habitat for foraging and shelter will be retained within the Subject Property and adjacent lands.
Disrupt the breeding cycle of an important population	The proposed development will not impact known or potential breeding habitat, such as tree hollows. Therefore, disruption to the breeding cycle of any important population is not anticipated.
Modify, destroy, remove, isolate, or decrease the availability or quality of habitat to the extent that the species is likely to decline	While a small area of potential foraging habitat will be removed, this is peripheral and not of sufficient scale or significance to result in population-level decline. The majority of high-quality habitat remains unaffected.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	The proposed development is not expected to directly facilitate the introduction or establishment of invasive species harmful to P. australis. Standard environmental management measures are expected to be implemented to mitigate this risk.
Introduce disease that may cause the species to decline, or	The proposed development is not anticipated to introduce disease into the environment. No specific vectors associated with the proposed works are identified as posing a disease risk to P. australis.
Interfere with the recovery of the species.	Post-development, the proponent will retain the majority of high-quality habitat, avoid breeding habitat, and maintain landscape connectivity. These measures are consistent with recovery objectives for the species. Therefore, the proposed development is not expected to interfere with the recovery of P. australis.
References	

Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Petaurus australis* (Yellow-bellied Glider)
EPBC Act Status: Vulnerable
Department of Climate Change, Energy, the Environment, and Water (2022) Yellow-bellied Glider (South-eastern)– Species Profile and Threats Database https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=87600 Commonwealth of Australia (2013) Matters of National Environmental Significance - Significant impact guidelines 1.1. Environment Protection and Biodiversity Conservation Act 1999

Appendix H. Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Callocephalon fimbriatum* (Gang-gang Cockatoo).

Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Callocephalon fimbriatum* (Gang-gang Cockatoo)	
EPBC Act Status: Endangered	
Significant impact criteria An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:	
Lead to a long-term decrease in the size of a population	The proposed development is not likely to result in a long-term decrease in the size of a population of the species. The development will involve the removal of approximately 0.94ha of native vegetation that may provide potential foraging habitat. No suitable hollows for breeding are impacted by the proposed development. This area is minor relative to the extent of suitable habitat that will remain within the broader Subject Property and surrounding locality. Given the continued availability of suitable foraging resources, the development is not expected to significantly affect the population size.
Reduce the area of occupancy of the species	The proposed development is unlikely to reduce the area of occupancy of the species. The vegetation to be removed comprises a small area of potential foraging habitat, with no known breeding resources. This habitat loss is negligible in the context of the remaining suitable vegetation across the Subject Property and adjacent areas. Therefore, the species' area of occupancy will not be meaningfully reduced.
Fragment an existing population into two or more populations	The proposed development will not fragment an existing population. Vegetation outside the Subject Site will be retained, and habitat connectivity will be maintained. The development is located on the periphery of an existing vegetation patch, and no isolation of habitat or disruption to movement corridors is anticipated.
Adversely affect habitat critical to the survival of a species	The proposal will not adversely affect habitat critical to the survival of the species. The area to be impacted comprises potential foraging habitat only and does not include breeding habitat or any areas mapped as critical habitat. Extensive suitable habitat will remain within the broader Subject Property and surrounding landscape.
Disrupt the breeding cycle of a population	The proposed development is not expected to disrupt the breeding cycle of the species. No known or potential breeding habitat (e.g. hollow-bearing trees) will be removed or modified. The vegetation to be cleared comprises limited foraging habitat, and sufficient suitable breeding and foraging resources will remain available nearby.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	The proposed development will not result in habitat modification or removal to the extent that the species is likely to decline. The 0.94 ha of vegetation to be removed is peripheral and not essential to the survival of the local population. The majority of high-quality habitat will be retained, and the proposed works are unlikely to affect the quality or function of adjacent habitat.
Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat	The proposed development is not expected to increase the establishment or spread of invasive species in a way that would significantly affect the species. Environmental and priority weeds are already present within the Subject Site and Subject Property. Appropriate management measures are expected to be implemented to limit further spread.
Introduce disease that may cause the species to decline, or	The development is not expected to introduce or exacerbate disease risk for the species. Activities associated with the development do not present a known disease vector pathway, and the risk of disease introduction is considered negligible.

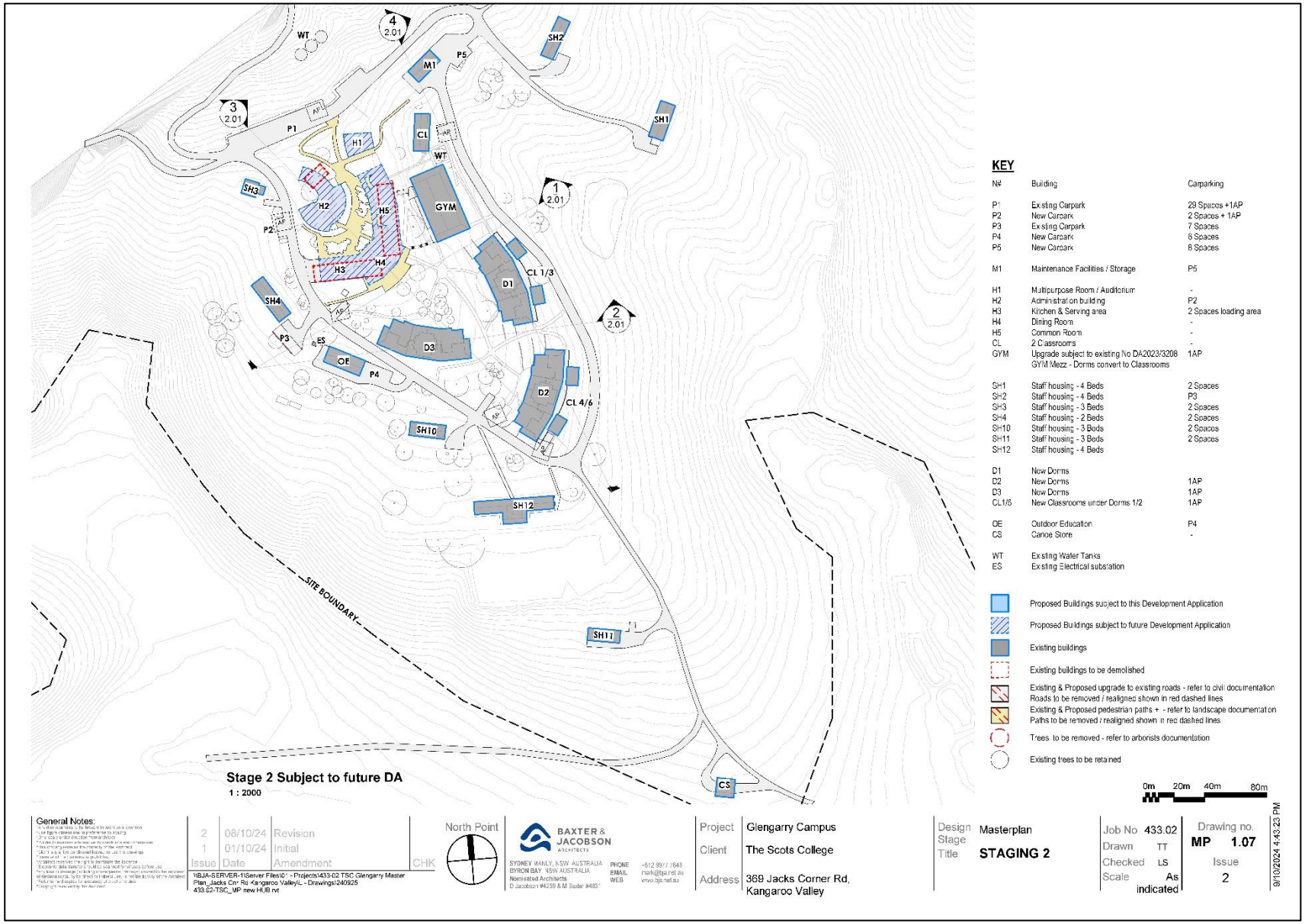
Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Assessment of Significant Impact Criteria for *Callocephalon fimbriatum* (Gang-gang Cockatoo)	
EPBC Act Status: Endangered	
Interfere with the recovery of the species.	The proposed development is unlikely to interfere with the recovery of the species. The impact is restricted to a small area of potential foraging habitat, with no known breeding habitat affected. Habitat connectivity and overall resource availability will be maintained, consistent with the species' recovery objectives.

References

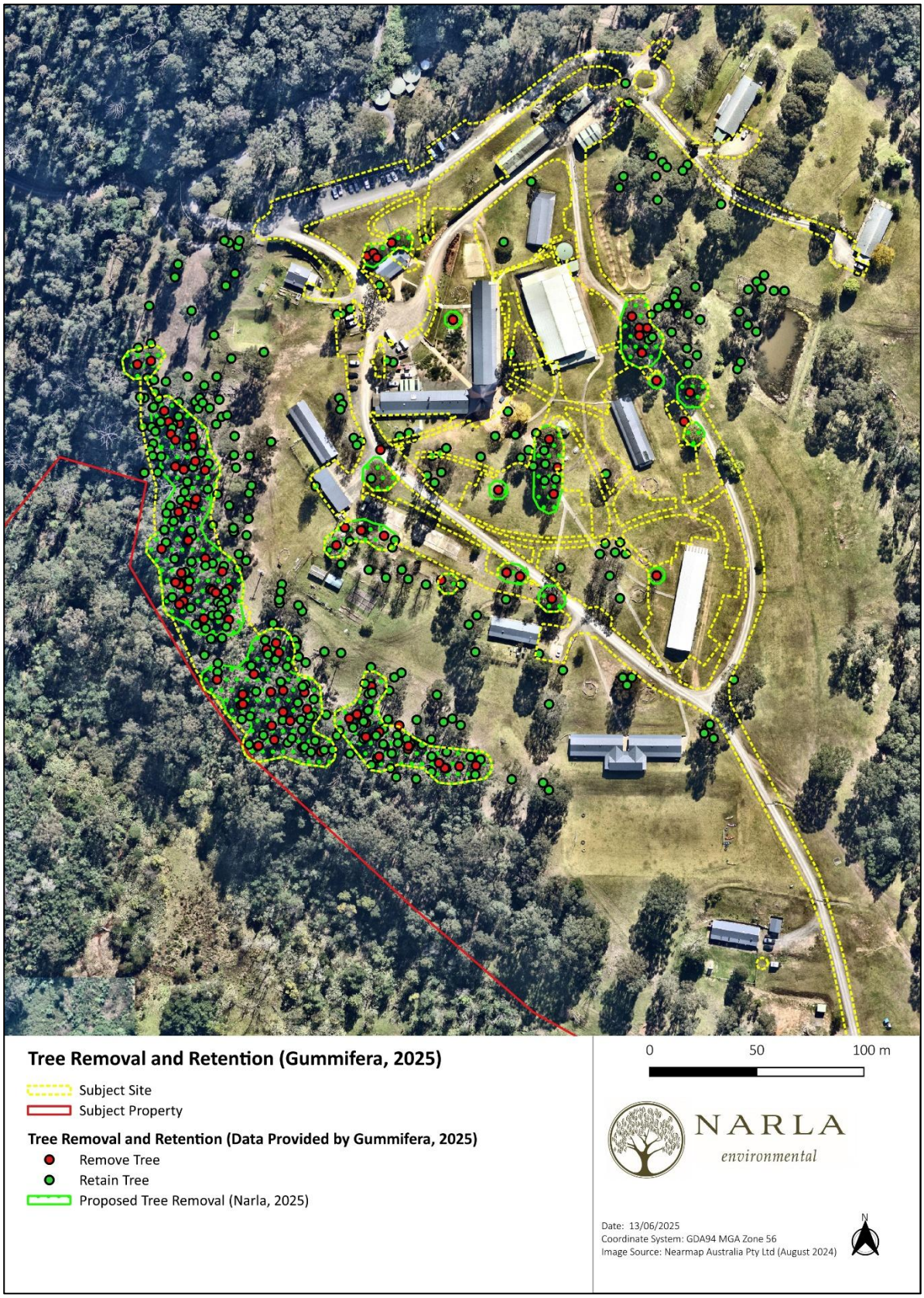
Commonwealth Department of Agriculture, Water, and the Environment (2022). Conservation Advice for *Callocephalon fimbriatum* (Gang-gang Cockatoo). http://www.environment.gov.au/biodiversity/threatened/species/pubs/768-conservation-advice-02032022.pdf.

Commonwealth of Australia (2013) Matters of National Environmental Significance - Significant impact guidelines 1.1. Environment Protection and Biodiversity Conservation Act 1999

Appendix I. Proposed Site Plan (Baxter & Jacobson Architects 2024).



Appendix J. Tree Removal and Retention (Gummifera, 2025).



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