

Nick Winberg
Director
Centurion Project Management
366 Jamison Rd, Jamisontown
NSW 2750



www.landeco.com.au

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Request for a Biodiversity Development Assessment Report Waiver for SummitCare 366 Jamison Rd, Jamisontown NSW 2750

To whom it may concern,

As an Accredited Biodiversity Assessor, I am writing this letter to provide to the NSW Department of Planning in request of a Biodiversity Development Assessment Report (BDAR) Waiver with regard to sections 1.5, 7.3 and 7.9 of the *Biodiversity Conservation Act 2016* (BC Act) and clause 1.4 of the *Biodiversity Conservation Regulation 2017*.

On behalf of the applicant, I kindly request that you provide your confirmation whether you agree that there is no need to submit a Biodiversity Development Assessment Report (BDAR) for a State Significant Development (SSD) application for the proposed re-development of the SummitCare Penrith Aged Care Home at 366 Jamison Rd, (Lot 10/-/DP804382), Jamisontown, NSW 2750 (the 'Subject Land'; **Figure 1**). The Subject Land occurs within the Penrith City Council.

Development Overview

The proposed development involves demolition of the existing man-made structures within the Subject Land and construction of an integrated seniors living development comprising a residential aged care facility and independent living units at the site (**Figure 2**).

Existing Site

The Subject Land covers an area of approximately 1.1 ha and is comprised of an existing residential aged care facility, independent living units and hard stand along with associated ancillary facilities and landscaping. The property has three street frontages; Harris Street (west), Jamison Road (north) and McNaughton Street (east). The vegetation within the Subject Land has been extensively altered through historically clearing, landscaping and infill planting and consists primarily of exotic trees, shrubs, and groundcovers. All vegetation present within the Subject Land is proposed to be removed and therefore impacted by the proposed development.

BDAR Waiver details

Section 7.9(2) of the Biodiversity Conservation Act 2016 (BC Act) stipulates the following:

"Any such application is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values. The authority of the 'Planning Agency Head' is required to determine whether a proposed development is "not likely to have any significant impact on biodiversity values" is usually delegated to Directors within the Planning Services Division."

In preparing this request for a BDAR Waiver, Land Eco have completed a desktop assessment of the native vegetation and threatened species habitat values (PlantNET 2023; DPE 2023b). The Tree Constraints Report (Naturally Trees 2023) for the Subject Land has been reviewed as a part of our assessment. A total of 82 trees were identified by Naturally Trees (2023) within and adjacent to the Subject Land (**Table 2**). Of the 82 trees, only one species, *Melia azedarach*, was identified as being locally indigenous, albeit planted, and only two were native species (*Callistemon sp.* and *Syzygium sp.*), though all were likely planted within the Subject Land. The remainder of the trees on the Subject Land were exotic (i.e. not native to NSW).

In applying for a BDAR Waiver, we have completed the table provided by the NSW Department of Planning and Environment (DPE 2018) in order to assess the significance of the impacts of the proposed SSD on biodiversity values (**Table 3**).

Two Land Eco Ecologists attended the Subject Land on the 28th August 2023 and observed all native and non-native trees within and adjacent to the Subject Land.

Vegetation Within The Subject Land

The vegetation on the Subject Land has been historically cleared and constitutes primarily of planted exotic trees, shrubs and groundcovers. The vegetation (garden beds and lawns) occurring predominantly around the borders of the Subject Land, contain a mixed assemblage of exotic species, both ornamental and noxious plants. The western edge of the Subject Land consisted of a narrow line of exotic trees including *Ligustrum lucidum* and *Photinia serratifolia*, and locally Indigenous *Melia azedarach*.

The vast majority of the Subject Lands trees and shrubs are introduced species and commonly planted ornamentals that offer low habitat value within this highly modified, urbanised locality. Many of the exotic species are invasive bushland weeds including *Ligustrum lucidum*, *Ochna serrulata* and *Asparagus aethiopicus* (NSW WeedWise 2023). The ground cover includes sparse native fragments including *Chloris truncata* though is dominated by lawn grasses and common weeds including *Sonchus arvensis* and *Araujia sericifera*.

Owing to the degraded nature of the vegetation within the Subject Land as a result of historical clearing, infill planting and ongoing garden maintenance, the vegetation within the Subject Land represents low conservation value.

Threatened Species that may use Subject Land

The NSW Wildlife Atlas online survey tool (BioNet) (DPE 2023b) was used to obtain a list of threatened flora and fauna species previously recorded within a 10km radius of the Subject Land. There were no historical records of threatened fauna or flora within the Subject Land. The habitat requirements of each species were assessed and compared to what was observed by Land Eco ecologist within the Subject Land during site visit on the 28th of August 2023. A shortlist of species that may occur on the Subject Land and/or be impacted from the proposed development was produced (Error! Reference source not found.). This shortlist was selected by excluding species from the BioNet search that were considered unlikely to use the Subject Land due to the absence of required habitat features or as a result of the degraded condition of the habitat within the Subject Land. The excluded species are believed to utilise more favourable habitat in proximity to the Nepean River and/or remnant forests on Penrith's fringes and further west towards the Glenbrook/Blue Mountains National Park (BMNP).

No threatened flora species were found on the Subject Land during the site assessment by Land Eco on 28th of August 2023.

The Subject Land offers marginal foraging habitat for species of flying fox such as the Grey-headed Flying-fox (*Pteropus poliocephalus*). Known feed trees such as *Melia azedarach* and *Syzygium* sp. occur within the Subject Land (**Table 2**), however they occur in low abundances in isolated patches. Flying-foxes are highly mobile and capable of moving significantly long distances during foraging bouts. While offering an intermittent foraging resource, it is not expected that the Subject Land forms important foraging or roosting habitat for Grey-headed Flying-foxes (**Table 3**). There are no known records of roost camps for the Grey-headed Flying-fox within the Subject Land (DPE 2023b).

Similarly, the Swift Parrot (*Lathamus discolor*) and Little Lorikeet (*Glossopsitta pusilla*) may potentially forage on the *Callistemon* sp. found within Subject Land (**Table 1**; **Table 2**). However, these threatened species are unlikely to regularly use the Subject Land due to low abundances of native flowering trees, sparse canopy cover and poor habitat connectivity.

While birds of prey such as the Powerful Owl (*Ninox strenua*) and Square-tailed Kite (*Lophoictinia isura*), may occasionally forage within the Subject Land, the habitat is highly degraded with low connectivity to remnant vegetation and no suitable breeding habitat (ie. large eucalypts/hollow-bearing trees) occurs within the Subject Land. These species are highly mobile and the Subject Land is not expected to form important foraging, roosting or breeding habitat.

Locally-occurring threatened microbat species listed in **Table 1** may occasionally forage and fly over the Subject Land. Both the Eastern Coastal Free-tailed Bat (*Micronomus norfolkensis*) and Large Bent-winged Bat (*Miniopterus orianae oceanensis*) calls were detected as having 'probable' presence within the Subject Land using Anabat vocalisation analysis (Corymbia Ecology 2023). It is considered likely that these species (and other locally occurring species) would forage within the Subject Land and may roost within Fairy Martin (*Petrochelidon ariel*) nests and some of the existing buildings, using open gutters and roofing cavities as entry points (**Plate 1**; **Plate 2**) though the Large Bent-winged Bat generally prefers limestone caves, or large man-made structures such as bridges and culverts. Due to the limited canopy cover and disturbed urban locality, the Subject Land is unlikely to form important foraging habitat for these species. Suitable foraging and roosting habitat will continue to remain in the locality post-development.

Protected Species that may use Subject Land

Open or cavernous parts of the existing buildings within the Subject Land may act as roosting and breeding habitat for protected microbat species in the locality (**Plate 1**). Anabat recorders detected various protected microbat calls (Corymbia Ecology 2023) present in the Subject Land. Additionally, a large number of Fairy Martin nests were found under the eaves of these buildings in the Subject Land (**Plate 2**). These protected species will subsequently be affected by the demolition of these buildings involved in the proposed development. Microbat species, including threatened microbats, are known to utilise Fairy Martin nests for shelter and even breeding habitat.



Plate 1. Possibly entry route for microbat recorded by Land Eco Consulting on the Subject Land



Plate 2. Accumulation of active and disused Fairy Martin (*Petrochelidon ariel*) bird nests recorded by Land Eco Consulting on the Subject Land. Bats are known to utilise this type of bird nest as roost habitat.

Table 1. Shortlist of threatened species that may use the Subject Land, produced by Land Eco, derived from a 10km BioNet search of the Subject Land's Area

Class	Scientific Name	Common Name	BC Act	Habitat usage
Aves	<i>Daphoenositta chrysoptera</i>	Varied Sittella	Vulnerable	May on occasion use the Subject Land trees to forage for arthropods. Generally, inhabits eucalypt forests and woodlands, not present within the Subject Land. No suitable nesting habitat.
Aves	<i>Glossopsitta pusilla</i>	Little Lorikeet	Vulnerable	Occasionally may use the habitat within the Subject Land to forage. However, it is unlikely to regularly use the Subject Land due to low abundances of native flowering trees. Unlikely to nest on the Subject Land as Little Lorikeet nest on the limbs or trunk of smooth-barked Eucalypts which do not occur within the site.
Aves	<i>Hieraetus morphnoides</i>	Little Eagle	Vulnerable	Occasionally may use the Subject Land to hunt small prey. However, the Subject Land contains no remnant tall trees suitable for nesting.
Aves	<i>Lathamus discolor</i>	Swift Parrot	Endangered	Occasionally may use the habitat within the Subject Land to forage. However, it is unlikely to regularly use the Subject Land due to low abundances of native flowering trees. Unlikely to roost on Subject Land due tree scarcity. Breeding occurs solely in Tasmania in this species.
Aves	<i>Lophoictinia isura</i>	Square-tailed Kite	Vulnerable	Occasionally may use the Subject Land to hunt small prey. The Subject Land is however disturbed by roads and people and is unlikely to be used regularly. It also does not contain suitable trees for nesting. Square-tailed Kites construct large nest on horizontal forks and branches of tall trees which are not found within or around the Subject Land.
Aves	<i>Ninox strenua</i>	Powerful Owl	Vulnerable	May on occasion use the Subject Land to hunt small prey. However, the Subject Land contains no large hollows in mature trees suitable for breeding or permanent habitation.
Mammalia	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	Vulnerable	May on occasion use the Subject Land to forage but generally forage for small insects beneath the canopy of densely vegetated habitats unlike the habitat within the Subject Land. The Large-eared Pied Bat predominantly roosts in sandstone caves and over-hangs. It is also known to roost in Fairy Martin nests. Not detected during Anabat surveys (Corymbia Ecology 2023).
Mammalia	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	Vulnerable	May on occasion use the Subject Land to forage but generally inhabits moist areas, with trees taller than 20m. The Eastern False Pipistrelle generally roosts in eucalypt hollows but has also been found under loose bark on trees or in buildings. Not detected during Anabat surveys (Corymbia Ecology 2023).
Mammalia	<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	Vulnerable	Occasionally may forage around the Subject Lands tree canopies. The Eastern Coastal Free-tailed Bat calls was detected as having "probable" presence using Anabat vocalisation analysis (Corymbia Ecology 2023). This species may use the buildings within the Subject Land for roosting.
Mammalia	<i>Miniopterus australis</i>	Little Bent-winged Bat	Vulnerable	May on occasion fly over and forage in the Subject Land. However, Little Bent-winged Bats generally forage beneath the canopy of densely vegetated habitats and roost in caves and mine tunnels, and tree hollows. Not detected during Anabat surveys (Corymbia Ecology 2023). It is therefore unlikely the Subject Land acts as an important foraging or roosting site.

Class	Scientific Name	Common Name	BC Act	Habitat usage
Mammalia	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	Vulnerable	Occasionally may use this habitat to forage around tree canopies. Large Bent-winged Bat calls were detected as having “probable” presence using Anabat vocalisation analysis (Corymbia Ecology 2023). This species is unlikely to use the Subject Land’s artificial structures as permanent roosting/breeding habitat as this species primarily uses limestone caves. While this species has also been recorded roosting within man-made structures such as large bridges and culverts, the buildings within the Subject Land are not highly suitable for this species.
Mammalia	<i>Myotis macropus</i>	Southern Myotis	Vulnerable	May on occasion fly over the Subject Land. However, the Southern Myotis forages over streams and pools, none of which are present within the Subject Land. They tend to choose roosts close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges and in dense foliage. The nearest watercourse, Peach Tree Creek is located approx. 360m from the Subject Land (DPE 2023a). This watercourse may act a foraging site for local populations of this species, however Southern Myotis calls were not detected on Anabat recorders within the Subject Land (Corymbia Ecology 2023) and therefore unlikely to regularly forage or roost on the Subject Land.
Mammalia	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vulnerable	Occasionally may use the habitat to forage on nectar from flowering/fruiting trees. Unlikely to roost or breed within the Subject Land due to low habitat connectivity and low abundances of large native trees.
Mammalia	<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	Vulnerable	May on occasion fly over and forage in the Subject Land. The Greater Broad-nosed Bat forages over streams or at forest edges feeding on invertebrates. They tend to choose roosts in wet areas such as rainforests, <i>Melaleuca</i> swamps, wet and dry sclerophyll forests as tree-lined creeks in open areas. They roost in tree hollows but also been found roosting in the roofs of buildings. The nearest watercourse, Peach Tree Creek is located approx. 360m from the Subject Land (DPE 2023a). It may act a foraging site for local populations of this species, however Greater Broad-nosed Bat calls were not detected on Anabat recorders (Corymbia Ecology 2023) and therefore unlikely to regularly forage or roost on the Subject Land.

From the information I have been provided by the applicant, to date, I anticipate the impacts of the proposed development will not adversely affect a local, viable population of any threatened species. I also anticipate that the proposed development will not impact upon any area of remnant or self-sown indigenous native vegetation.

Trees present within and adjacent to the Subject Land, are believed to be historically planted and consist mainly of exotic species commonly used in landscaping. Considering the origins of all of the vegetation on the Subject Land, and their current position in a highly modified, urban landscape (garden beds and road verges), it is not likely that they play a substantial role for local biodiversity.

It is in my professional opinion that any impacts to the historically planted, 'native vegetation' on the Subject Land that may occur as result of the SSD can be easily remediated with replacement plantings elsewhere on the Subject Land. Replacement plantings of locally native species will help ensure the long-term maintenance of the limited biodiversity values currently present within the Subject Land.

In conclusion, it is in my professional opinion that the proponent, SummitCare, should not be required to prepare a BDAR, and therefore I support the request by SummitCare for a BDAR Waiver to accompany this SSD.

Thank you.

Yours sincerely,



Kurtis Lindsay BSc (Hons)
Principal Ecologist
Accredited Biodiversity Assessor (#BAAS18059)
Land Eco Pty Ltd



P 0408765832
E info@landeco.com.au

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Department of Planning and Environment (DPE) (2023b) NSW BioNet. The website of the Atlas of NSW Wildlife <http://www.bionet.nsw.gov.au/> [accessed 20/12/2023]

Jackson Teece (2021) Floor Plan – Ground Floor: Site location: 366 Jamison Road Jamisontown NSW 2750

Naturally Trees (2023) Tree Constraints Report: Site location: 366 Jamison Road Jamisontown NSW 2750

NSW WeedWise (NSW WeedWise) (2023).<https://www.dpi.nsw.gov.au/biosecurity/weeds> [accessed 20/12/2023]

PlantNET (2023) The NSW Plant Information Network System; 2020. Royal Botanic Gardens and Domain Trust, Sydney. <https://plantnet.rbgsyd.nsw.gov.au> [22/12/2023]

Threatened Species Scientific Committee (TSSC) (2001) Commonwealth Listing Advice on *Pteropus poliocephalus* (Grey-headed Flying-fox). <https://www.dcceew.gov.au/environment/biodiversity/threatened/conservation-advice/pteropus-poliocephalus> In effect under the EPBC Act from 06-Dec-2001 [accessed 20/12/2023]

Appendix



Figure 1. The Subject Land 366 Jamison Rd, Jamisontown NSW 2750 (Lot 10/-/DP804382), NSW 2023



Figure 2. 366 Jamison Rd, Jamisontown NSW – Proposed Ground Floor Plan :prepared by Jackson Teece 2021 (Jackson Teece 2021)

Table 2. Trees that are recommended to be removed located within and outside the site boundary for the proposed development (Naturally Trees 2023)

Tree ID Number	Species	Diameter at Breast Height (DBH) (mm)	Threatened Species Usage
1	<i>Ligustrum sinense</i>	200	Grey-headed Flying-fox Feed Tree
2	<i>Cupressus</i> sp.	400	Nil
3	<i>Lagerstroemia indica</i>	100	Grey-headed Flying-fox Feed Tree
4	<i>Magnolia grandiflora</i>	100	Nil
5	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
6	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
7	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
8	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
9	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
10	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
11	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
12	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
13	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
14	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
15	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
16	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
17	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
18	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
19	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
20	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
21	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
22	<i>Ligustrum sinense</i>	150	Grey-headed Flying-fox Feed Tree
23	<i>Syzygium</i> sp.	300	Grey-headed Flying-fox Feed Tree
24	<i>Persea americana</i>	100	Grey-headed Flying-fox Feed Tree
25	<i>Murraya paniculata</i>	50	Nil
26	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
27	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
28	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
29	<i>Callistemon</i> sp.	50	Grey-headed Flying-fox Feed Tree
30	<i>Callistemon</i> sp.	50	Grey-headed Flying-fox Feed Tree
31	<i>Callistemon</i> sp.	50	Grey-headed Flying-fox Feed Tree
32	<i>Callistemon</i> sp.	50	Grey-headed Flying-fox Feed Tree
33	<i>Cupressus</i> sp.	60	Nil
34	<i>Cupressus</i> sp.	60	Nil
35	<i>Camellia</i> sp.	100	Nil
36	<i>Plumeria rubra</i>	100	Nil
37	<i>Plumeria rubra</i>	100	Nil
38	<i>Camellia</i> sp.	40	Nil
39	<i>Callistemon</i> sp.	40	Grey-headed Flying-fox Feed Tree
40	<i>Callistemon</i> sp.	50	Grey-headed Flying-fox Feed Tree
41	<i>Cordyline</i> sp.	60	Nil

Tree ID Number	Species	Diameter at Breast Height (DBH) (mm)	Threatened Species Usage
42	<i>Celtis sinensis</i>	100	Grey-headed Flying-fox Feed Tree
43	<i>Cupressus</i> sp.	400	Nil
44	<i>Schinus areira</i>	700	Grey-headed Flying-fox Feed Tree
45	<i>Murraya paniculata</i>	40	Nil
46	<i>Ligustrum sinense</i>	300	Grey-headed Flying-fox Feed Tree
47	<i>Ligustrum sinense</i>	100	Grey-headed Flying-fox Feed Tree
48	<i>Syzygium</i> sp.	350	Grey-headed Flying-fox Feed Tree
49	<i>Jacaranda mimosifolia</i>	600	Nil
50	<i>Citrus limon</i>	40	Nil
51	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
52	<i>Callistemon</i> sp.	250	Grey-headed Flying-fox Feed Tree
53	<i>Jacaranda mimosifolia</i>	500	Nil
54	<i>Celtis sinensis</i>	250	Grey-headed Flying-fox Feed Tree
55	<i>Celtis sinensis</i>	250	Grey-headed Flying-fox Feed Tree
56	<i>Melia azedarach</i>	400	Grey-headed Flying-fox Feed Tree
57	<i>Prunus cerasifera</i> 'Nigra'	40	Nil
58	<i>Plumeria rubra</i>	100	Nil
59	<i>Plumeria rubra</i>	100	Nil
60	<i>Hibiscus</i> sp.	40	Nil
61	<i>Hibiscus</i> sp.	40	Nil
62	<i>Plumeria rubra</i>	100	Nil
63	<i>Robinia pseudoacacia</i>	350	Nil
64	<i>Prunus cerasifera</i> 'Nigra'	40	Nil
65	<i>Cinnamomum camphora</i>	500	Grey-headed Flying-fox Feed Tree
66	<i>Ulmus parvifolia</i>	400	Nil
67	<i>Populus deltoides</i>	600	Nil
68	<i>Ulmus parvifolia</i>	400	Nil
69	<i>Populus deltoides</i>	600	Nil
70	<i>Ulmus parvifolia</i>	400	Nil
71	<i>Hibiscus</i> sp.	50	Nil
72	<i>Hibiscus</i> sp.	50	Nil
73	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
74	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
75	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
76	<i>Callistemon</i> sp.	250	Grey-headed Flying-fox Feed Tree
77	<i>Hibiscus</i> sp.	50	Nil
78	<i>Viburnum tinus</i>	100	Nil
79	<i>Schinus molle</i> var. <i>areira</i>	900	Grey-headed Flying-fox Feed Tree
80	<i>Viburnum tinus</i>	100	Nil
81	<i>Callistemon</i> sp.	100	Grey-headed Flying-fox Feed Tree
82	<i>Celtis sinensis</i>	30	Grey-headed Flying-fox Feed Tree

Table 3. Analysis of Impacts of the Proposed Development on Biodiversity Values

Biodiversity Value	Meaning	Relevant (✓ or N/A)	Explain and document potential impacts including additional impacts prescribed under the BC Regulation
Vegetation abundance – 1.4(b) BC Regulation	Occurrence and abundance of vegetation at a particular site	✓	All of the vegetation present within the Subject Land is proposed to be removed. Given that the vegetation is all historically planted, and the trees/shrubs are almost entirely exotic, the loss of this vegetation from an urban/industrial landscape in this context is not considered significant to the IBRA sub-bio region, or to any threatened species that may utilise the vegetation on occasion.
Vegetation integrity– 1.5(2)(a) BC Act	Degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state.	✓	The Subject Land consists of hardstand and buildings with narrow garden beds planted with predominantly exotic trees, shrubs and groundcovers. The composition, structure and function of vegetation at the site and the surrounding landscape has been extensively altered due to historical clearing, landscaping, infill planting and ongoing garden maintenance, no longer representing a natural state. It currently represents low conservation value. Of the 82 trees identified by the arborist on the Subject Land and its surrounds, only one species, <i>Melia azedarach</i>, was identified as being locally indigenous and two species as native to NSW, <i>Callistemon</i> sp. and <i>Syzygium</i> sp. (Table 2; Naturally Trees 2023). The remainder of the trees on the Subject Land were exotic. The vegetation within the Subject Land is not representative of a plant community type or intact ecosystem. Replacement/enhancement planting of locally native species is recommended elsewhere on the Subject Land as a part of the proposed development to maintain the native biodiversity. There will be no significant impact upon the vegetation integrity of the Subject Land beyond its current state.
Habitat suitability - 1.5(2)(b) BC Act	Degree to which the habitat needs of threatened species are present at a particular site	✓	The Subject Land does not provide important habitat to any threatened species. Threatened bird species listed in Table 1 such as the Powerful Owl may use the Subject Land as occasional foraging habitat. Due to the limited number of trees and largely exotic vegetation, it is unlikely that the habitat within the Subject Land provides substantial foraging habitat for these species. The lack of hollow-bearing trees, lack of native vegetation and low habitat connectivity make it unlikely the avian species mentioned in Table 1 would use the Subject Land to nest. In addition, any species that may utilise the Subject Land are highly mobile and can fly over the 'hostile matrix' of Penrith without the need for substantial vegetation cover, and therefore would not rely on the trees proposed for removal for facilitated movement. Grey-headed Flying-fox feed trees occur within the Subject Land such as <i>Ligustrum sinense</i>, <i>Celtis sinensis</i>, <i>Schinus areira</i>, <i>Melia azedarach</i>, <i>Cinnamomum camphora</i> (Table 2). This threatened species likely uses this habitat

Biodiversity Value	Meaning	Relevant (✓ or N/A)	Explain and document potential impacts including additional impacts prescribed under the BC Regulation
			for occasional foraging during flowering/fruiting periods, however, these trees occur in low numbers and with poor habitat connectivity to more abundant patches of remnant, native vegetation of flowering trees and shrubs. It is therefore unlikely that the trees and the habitat within the Subject Land would form an important foraging resource for the Grey-headed Flying-fox as this flying-mammal is highly mobile and capable of moving significantly long distances during foraging. Suitable foraging habitat will remain in the locality post-development. It is not expected the Subject Land would ever form important roosting or breeding habitat for the species as the Subject Land is too open and disturbed. Locally occurring threatened microbat species listed in Table 1 may occasionally forage and fly over the Subject Land. However, due to the limited canopy cover and disturbed urban locality, it is unlikely to form important foraging habitat for these species. Both the threatened Eastern Coastal Free-tailed Bat and Large Bent-winged Bat calls were detected as 'probable' within the Subject Land using Anabat recorders (Corymbia Ecology 2023). These species may roost within the Fairy Martin nests and buildings, using open gutters and roofing cavities as entry points (Plate 1). Suitable foraging and roosting habitat however will continue to remain in the locality post-development and as such, the local occurrence of these species will not be substantially impacted. No other threatened species are highly likely to use the habitat within the Subject Land.
Threatened species abundance - 1.4 (a) BC Regulation	Occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site	✓	The impact of the proposed development on threatened birds and flying fox's species listed in Table 1 is negligible. Locally occurring birds of prey will likely only use the Subject Land sporadically due to low connectivity to remnant vegetation and Swift Parrots and Little Lorikeets are unlikely to regularly use the Subject Land due to low abundances of native flowering trees. Grey-headed Flying-fox's will only use the Subject Land when their foraging trees are in flower/ fruiting. Grey-headed Flying-foxes are capable of nightly flights of up to 50 km from their roost to different feeding areas as food resources change (TSSC 2001) and therefore the loss of these feed trees is unlikely to cause a major impact on their local abundance. It is recommended that any replacement planting includes suitable nectar bearing indigenous trees to provide suitable habitat for these species. It is unlikely that the Subject Land forms important foraging habitat for threatened microbat populations listed in Table 1. However, the removal of accumulated Fairy Martin nests, and demolition of buildings has the possibility of effecting locally occurring microbat species that may be roosting inside, such as the threatened Eastern Coastal Free-tailed

Biodiversity Value	Meaning	Relevant (✓ or N/A)	Explain and document potential impacts including additional impacts prescribed under the BC Regulation
			Bats and Large Bent-winged Bats ('probable' presence within the Subject Land using Anabat recorders (Corymbia Ecology 2023)). However, suitable foraging and roosting habitat will continue to remain in the locality post-development. The removal of all vegetation and demolition of buildings may slightly reduce the abundance of threatened species within the Subject Land. However, due to the low overall impact and isolation of the habitat within a hostile urban matrix, the overall value to these species is negligible.
Habitat connectivity – 1.4 (c) BC Regulation	Degree to which a particular site connects different areas of habitat of threatened species to facilitate the movement of those species across their range	N/A	The Subject Land has the potential to facilitate the movement of threatened species across their range. Grey-headed Flying-fox, nomadic nectarivores (e.g., Swift Parrot and Little Lorikeet) and microbats and may temporarily stop and forage in/around the ornamental trees. However, these species are highly mobile and can fly over the 'hostile matrix' of Penrith without the need for cover, and therefore would not heavily rely on the trees proposed for removal for facilitated movement. The proposed development will not significantly impact on habitat connectivity. The vegetation within the Subject Land is an isolated patch of historically planted specimens. There is low habitat connectivity with natural areas (Figure 3).
Threatened species movement – 1.4 (d) Regulation	Degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle	N/A	The proposed development will not significantly impact any threatened species' movement. Although, threatened species including Grey-headed Flying-fox and Powerful Owl may temporarily forage in the Subject Land, these species do not rely on these trees within the Subject Land to facilitate their movement. These species are highly mobile.
Flight path integrity – 1.4 (e) BC Regulation	Degree to which the flight paths of protected animals over a particular site are free from interference	✓	There is the potential that the proposed development will interfere with 'flight paths' of some protected animals. Many protected animals including threatened species discussed in Table 1 could potentially utilise flight paths over the Subject Land. Other protected species such as the Australian White Ibis are likely to use the locality. These species are generally widespread and adapted to urban areas with tall buildings. The proposed buildings are varying in height, with the tallest buildings being the A, B, C blocks which are proposed to be 5 stories tall (Jackson Teece 2021). The proposed development will largely be in scale with the neighbouring building heights (recent development adjacent to the Subject Land is greater than 5 stories tall). The proposed development will not significantly impact on flight path integrity beyond its current state. Many of the species that may utilise this flight path including the Grey-headed Flying-fox (TSSC 2001) and microbat species are highly mobile and can change their movement patterns to avoid collisions with buildings.
Water sustainability 1.4 (f) BC Regulation	Degree to which water quality, water bodies and hydrological	N/A	There are no watercourses within the Subject Land. The closest watercourse is Peach Tree Creek approx. 360m

Biodiversity Value	Meaning	Relevant (✓ or N/A)	Explain and document potential impacts including additional impacts prescribed under the BC Regulation
	processes sustain threatened species and threatened ecological communities at a particular site.		from site (DPE 2023a). Peach Tree Creek is a tributary of Nepean River. The proposed development will not significantly impact on water sustainability due to the low-lying, flat topography of the local area.



0 10 20 40 60 80 100 Meters



Legend

- Subject Land
- Lot
- ~ Habitat Connectivity



Date: 20/12/2023

Coordinate System: GDA 1994 MGA Zone 56
Imagery: NearMap

Data: NSW Biodiversity Values Map (NSW DPE 2023d)

This map was produced for this report only.
It is indicative, not survey-accurate.
It should not be used for design
or construction purposes.

Figure 3. Habitat connectivity (green line) of the Subject Land (red lines).



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