Biodiversity Development Assessment Report

SSD-65595459 Hunter Indoor Sports Centre
24 Wallarah Road and 2 Monash Road, New Lambton

EJE Architecture

412 King Street, Newcastle West, 2300

Prepared by:

SLR Consulting Australia

SLR Project No.: 630.031388.00004

13 June 2025

Revision: 2.2

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
2.2	13 June 2025	Ashleigh Rosenkranz	Jeremy Pepper	Jeremy Pepper

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with EJE Architecture (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

Executive Summary

A State Significant Development Application (SSD-65595459) is being prepared by for the construction of the Hunter Indoor Sports Centre on land defined as Lots 2377-2380 in DP 755247 and Lot 1 in DP 1304081, at 2 Monash Road and 24 Wallarah Road, New Lambton within the Newcastle local government area (LGA). The proposed development consists of an indoor sport centre and amenities block including a carpark, access road and landscaping..

Secretary's Environmental Assessment Requirements for the Environmental Impact Statement have been requested and received. Concerning biodiversity, the Secretary's Environmental Assessment Requirements state, *inter alia*, that "*The Environmental Impact Statement must: Assess any biodiversity impacts associated with the development following the Biodiversity Conservation Act 2016 and the Biodiversity Assessment Method 2020, including the preparation of a Biodiversity Development Assessment Report, unless a waiver is granted, or the subject land is on biodiversity certified land*".

On 27 May 2024, SLR Consulting submitted a Biodiversity Development Assessment Report Waiver Request to the Biodiversity, Conservation and Science group of the Department of Climate Change, Energy, the Environment and Water. The waiver was refused on the basis of potential impacts to biodiversity values associated with planted native vegetation, necessitating the preparation of a streamlined Biodiversity Development Assessment Report for planted native vegetation module of the Biodiversity Assessment Method.

The current use of the subject land is as a recreational sporting field. The existing vegetation includes a mix of planted native vegetation (i.e. native to New South Wales) and planted non-native vegetation (i.e. exotic or non-native to New South Wales). Groundcover vegetation within the subject land includes large swards of exotic mown grasses over the sporting field, with no notable native species or weed infestations. A total of 31 planted native trees are established around the perimeter of the fields. The design of the proposed development will directly impact nine trees, with 22 to be retained, of which two are to be monitored post-construction.

The subject land does not contain any known populations of threatened species or threatened ecological communities. No suitable habitats for threatened plants exist on the subject land. Marginal to negligible foraging habitat for a narrow selection of mobile threatened fauna, in the form of scattered planted trees, occurs across the subject land. Potential habitats for threatened fauna, in terms of 'prescribed impact' features include (i) human-made structures, (ii) non-native vegetation and (iii) the adjacent storm water drain - Lambton Ker-rai Creek.

Mitigation measures have been presented to reduce the potential for indirect impacts on biodiversity values within vegetation (and associated habitats) to be retained on site as well as identified prescribed impacts. Key mitigation measures proposed are:

- Pre-clearing surveys and where necessary wildlife rescue and relocation;
- Clearing works to comply with Australian Standards (AS) 4970-2009, including the implementation of tree protection zones during the construction phase;
- Implementation of speed limits during the construction and operational phases of the proposed development; and
- Hygiene protocols to prevent the spread of weed or pathogens.

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Appendices

Appendix A BDAR Streamlined Assessment Module – Planted Native Vegetation Requirements

Appendix B BDAR Waiver Request - Letter of Refusal

Acronyms and Abbreviations

BAM	Biodiversity Assessment Method
BCS	Biodiversity, Conservation and Science group of the Department of Climate Change, Energy, the Environment and Water.
BC Act	*Biodiversity Conservation Act 2016* (NSW)
BDAR	Biodiversity Development Assessment Report
BOS	Biodiversity Offsets Scheme
DCCEEW	Department of Climate Change, Energy, the Environment and Water
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwlth)
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
IBRA	Interim Biogeographic Regionalisation for Australia
NSW	New South Wales
PCT	plant community type
SEARs	Secretary's Environmental Assessment Requirements
SSD	State Significant Development
TBDC	Threatened Biodiversity Data Collection
TEC	threatened ecological community

Declarations

i. Certification under clause 6.15 *Biodiversity Conservation Act 2016*

I certify that this report has been prepared based on the requirements of, and information provided under, the Biodiversity Assessment Method and Clause 6.15 of the ***BIODIVERSITY CONSERVATION ACT 2016***.

Signature: 

Date: _____12/06/2025 _____

BAM Assessor Accreditation No:____ BAAS17104_____.

This BDAR has been prepared to meet the requirements of BAM 2020. Appendix A provides an assessment of compliance with the minimum information requirements outlined in the BAM.

ii. Details and experience of author/s and contributors

Table DC1: Authors and Contributors

Name	BAM Assessor Accreditation No.	Position/Role	Tasks Performed	Relevant Qualifications
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iii. Conflict of interest

I declare that I have considered the circumstances and there is no actual, perceived or potential conflict of interest. This declaration has been made in the interests of full disclosure to the decision-maker. Full disclosure has also been provided to the client.

Signature: 

Date: _____12/06/2025_____

BAM Assessor Accreditation no: ___ BAAS17104_____

Stage 1: Biodiversity Assessment

1.0 Introduction

1.1 The Proposal

1.1.1 Development Overview

A State Significant Development Application (SSD-65595459) is being prepared for the construction of the Hunter Indoor Sports Centre at 2 Monash Road and 24 Wallarah Road, New Lambton, New South Wales (NSW). The proposed development consists of an indoor sport centre and amenities (car park, paths, landscaping and access road). The legislative pathway for the proposal consists of development that will require consent under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1.2 Location

The proposed development will occur across five lots: Lots 2377-2380 in DP 755247 and Lot 1 in DP 1304081, at 2 Monash Road and 24 Wallarah Road, New Lambton, NSW. The subject land is located within the City of Newcastle Local Government Area (LGA). Site location and landscape context are shown in the Site Map (Figure 1) and Location Map (Figure 2).

1.1.3 Proposed Development and Subject Land

The proposed development will involve:

- Demolition of existing amenities block and flood lighting infrastructure
- Removal of planted trees to facilitate construction
- Site remediation and installation of service infrastructure
- Construction of a complex consisting of 12 courts with amenities that include:
    - Up to 17,700m^2, comprising a ground floor of approximately 15,300m^2 and first floor mezzanine of 2,400m^2
    - Administration spaces and retail tenancy, mezzanine level function rooms
    - Training areas
    - Nine (9) back courts and three (3) courts including a show court with retractable grandstand seating
    - High-performance training facilities (teaching space and gym)
    - Car park with 240 spaces
    - Site landscaping and pedestrian paths
    - New vehicular access and egress point to Turton Road and an internal roadway

Temporary site compounds will be established within the site during the construction phase. The compounds will be located within currently cleared areas and will not require the clearing of any trees.

The proposed development layout is depicted in Figure 3.

The subject land is 7.83ha and is shown in Figure 1. The subject land is located within the Sydney Basin IBRA region and Wyong IBRA subregion (NPWS 2003). The Mitchell landscape relevant to the subject land is Sydney – Newcastle Barriers and Beaches (DECC 2002). The site is relatively flat, sitting at a general 6-10m elevation. The subject land is mapped as occurring on the podosols soil landscape of *The Soil Landscapes of Central and Eastern NSW* (NSW DCCEEW 2024a).

The Lambton Ker-rai Creek is a stormwater drain which abuts the southern boundary of the subject land. Surface water from the subject land drains into this watercourse and then into Styx Creek, then Throsby Creek and eventually the Hunter River.

The subject land has been historically cleared of its original native vegetation and contains an existing playing field, Wallarah Oval. A total of 26 planted native trees are established around the perimeter of the fields. The proposed development will directly impact nine trees, with 20 to be retained, two of which will be monitored post-construction.

1.2 Biodiversity Offsets Scheme Entry

This BDAR supports the Response to Submissions (RTS) and Amendment Report for State Significant Development Application (SSD-65595459) for the proposed Hunter Indoor Sport Centre (HISC) at 2 Monash Road and 24 Wallarah Road, New Lambton, SSD-65595459 sought development consent for an indoor stadium, amenities and associated civil and landscaping works.

The Amendment Report seeks changes to the original development proposal SSD-65595459.

The key project amendments include moving the building footprint and carpark west, adding turfed open space near Turton Road, and shifting the access driveway south. The realigned pedestrian promenade within the carpark includes a bridge over the open space.

The height of the south-eastern corner of the building will be increased to provide flexibility to use the upper level of the building for gymnastics and other activities, there are also minor internal reconfigurations to fit the revised footprint.

Within the public domain works include widening the Turton Road footpath, adding pedestrian safety fencing and retaining the existing cycle/pathway on the south eastern corner of the site. The landscaping and public domain changes mean that four trees on the Turton Road frontage (previously proposed to be removed) can now be retained.

On the southern edge of the site, landscaping elements have been removed. Space is provided for the future expansion of pedestrian/cycleway route along this corridor (works to be delivered by others).

The active recreation area, including a half basketball court, has been deleted from the proposal.

Development consent is sought for the entire proposal, with the flexibility to deliver the project in two construction and operational stages.

1.3 Information Sources

The following key sources and databases have been utilised for the preparation of this report:

- The NSW BioNet (NSW DCCEEW 2024b) and Protected Matters Search Tool (Commonwealth DCCEEW 2024a) for previous records of threatened species,

populations, and ecological communities within a 10km radius centred on the centre of the subject land

- The NSW BioNet 'Threatened Biodiversity Data Collection' (NSW DCCEEW 2024b), Final Determinations (TSC 2024) and Species Profile and Threats Database (Commonwealth DCCEEW 2024b) for information on threatened species, populations and ecological communities
- The preliminary ecological assessment (TBE 2023) and BioNet Vegetation Classification (NSW DCCEEW 2024c) for information on the Plant Community Type (PCT)
- Biodiversity Values Mapping (NSW DCCEEW 2024d)
- Arboricultural Impact Assessment (Bark Trees & Landscapes 2025)
- Terras Landscape Plan - Hunter Indoor Sport Centre (Terras 2024).

HUNTER INDOOR SPORTS CENTRE BDAR

SITE MAP

FIGURE 1

LEGEND

- Subject Land
- Development Footprint
- Cadastre
- Watercourse
- Contour (mAHD)

Data Sources:
NSW SS
Aerial imagery: Nearmap (June 2024)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

0 25 50 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:2,000 at A4
Project Number:	630.031388
Date Drawn:	09-Aug-2024
Drawn by:	JH

SLR

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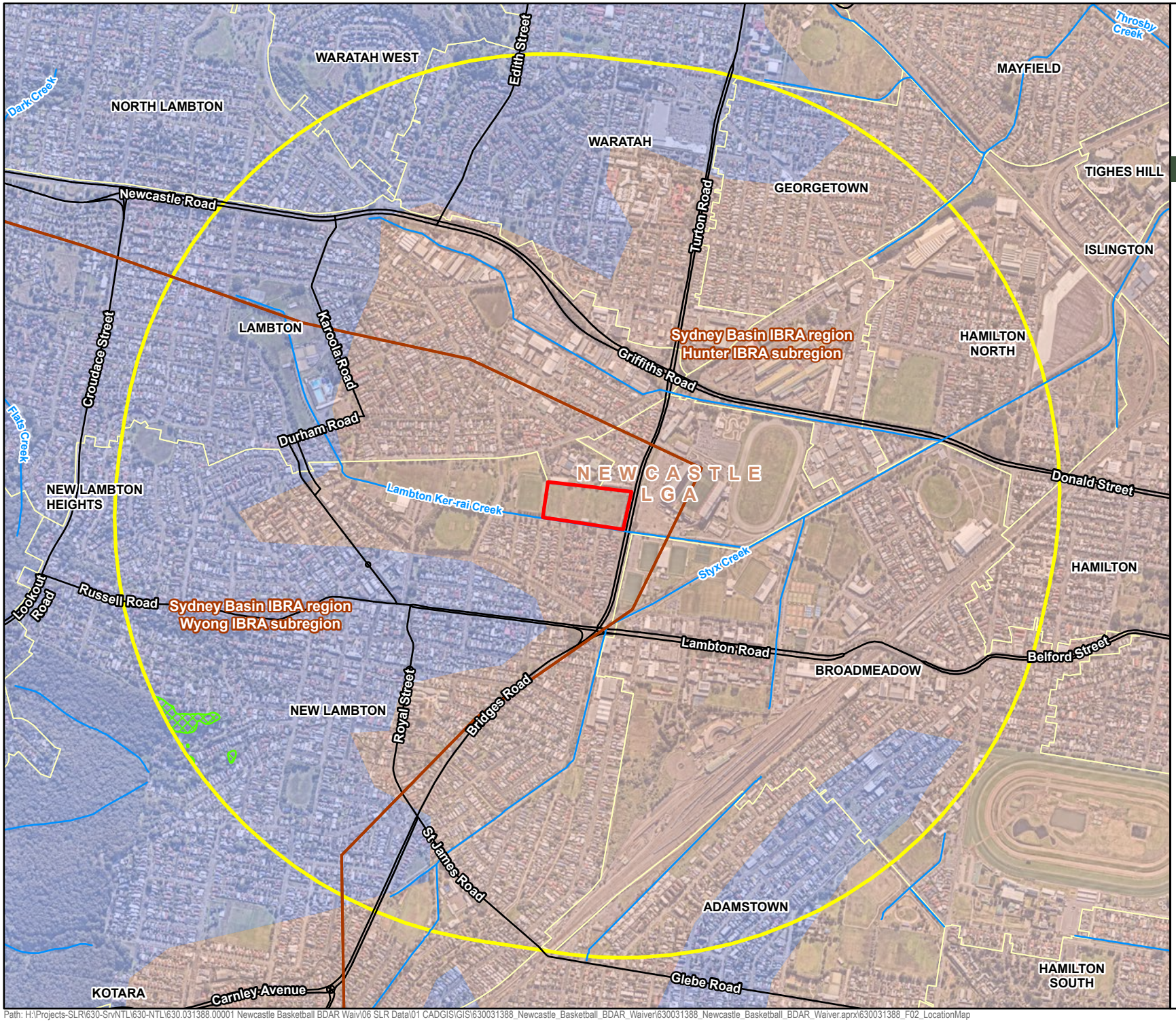

NEWCASTLE BASKETBALL BDAR WAIVER

LOCATION MAP

FIGURE 2

LEGEND

- Subject Land
- 1500m Buffer (836.01 ha)
- Native Vegetation (1.23 ha)
- IBRA Region/Subregion
- Suburb
- Local Government Area
- Major Road
- Watercourse

Mitchell Landscape

- Gcs - Gosford - Cooranbong Coastal Slopes
- Snb - Sydney - Newcastle Barriers and Beaches

Data Sources:
NSW SS
Aerial imagery: Nearmap (June 2024)
Native vegetation: NSW State Vegetation Type Mapping (Version C2.0.M2.0, NSW DPE 2023)
Mitchell Landscapes: Version 3.1, NSW DPE (2017)
IBRA Regions: Version 7, Commonwealth DCCEEW (2012)

0 250 500 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:18,000 at A4
Project Number:	630.031388
Date Drawn:	09-Aug-2024
Drawn by:	JH

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HUNTER INDOOR SPORTS CENTRE BDAR

FINAL PROPOSAL FOOTPRINT

FIGURE 3

LEGEND

- Subject Land
- Development Footprint
- Watercourse

Tree Status

- To be removed
- To be retained
- To be retained (hollow-bearing)
- Tree to be monitored during and post construction

Data Sources:
NSW SS
Aerial imagery: Nearmap (May 2025)

0 25 50 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:2,000 at A4
Project Number:	630.031388
Date Drawn:	12-Jun-2025
Drawn by:	JH

SLR

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2.0 Planted Native Vegetation

2.1 Decision-making Key

Assessment of whether the vegetation constitutes 'planted native vegetation' under the BAM (DPIE 2020a) is provided in Table 1.

Table 1: D1 Decision-making Key

No.	Framework	Key	Justification
1.0	Does the planted native vegetation occur within an area that contains a mosaic of planted and remnant native vegetation and which can be reasonably assigned to a PCT known to occur in the same IBRA subregion as the proposal?	☐ Yes - The planted native vegetation must be allocated to the best-fit PCT, and the BAM must be applied. ☒ No - Go to 2.	The planted native vegetation does not constitute a PCT. The sparse canopy trees exist with most other native strata absent and line the perimeter of the sports field. The potential for passive regeneration is considered highly unlikely.
2.0	Is the planted native vegetation: a) planted for the purpose of environmental rehabilitation or restoration under an existing conservation obligation listed in BAM Section 11.9(2.), and b) the primary objective was to replace or regenerate a plant community type or a threatened plant species population or its habitat?	☐ Yes - The planted native vegetation must be assessed in accordance with Chapters 4 and 5 of the BAM. ii. ☒ No - Go to 3.	Not applicable to the proposed development and subject land.
3.0	Is the planted/translocated native vegetation individuals of a threatened species or other native species planted/translocated for the purpose of providing threatened species habitat under one of the following: a) a species recovery project b) Saving our Species project c) other types of government funded restoration project d) condition of consent for a development approval that required those species to be planted or translocated for the purpose of providing threatened species habitat e) legal obligation as part of a condition or ruling of court. This includes regulatory directed or ordered remedial plantings (e.g. Remediation Order for clearing without consent issued under the BC Act or the Native Vegetation Act) f) ecological rehabilitation to re-establish a PCT or TEC that was, or is carried out under a mine operations plan, or approved vegetation management plan (e.g. as required as part of a Controlled Activity Approval for works on waterfront land under the *NSW Water Management Act 2000*)?	☐ Yes - The planted native vegetation must be assessed in accordance with Chapters 4 and 5 of the BAM. ☒ No - Go to 4.	Not applicable to the proposed development and subject land.

No.	Framework	Key	Justification
4.0	Was the planted native vegetation (including individuals of a threatened flora species) undertaken voluntarily for revegetation, environmental rehabilitation or restoration without a legal obligation to secure or provide for management of the native vegetation?	☐ Yes - Go to D.2 Assessment of planted native vegetation for threatened species habitat (the use of Chapters 4 and 5 of the BAM are not required to be applied). ☒ No -Go to 5.	Not applicable to the proposed development and subject land.
5.0	Is the native vegetation (including individuals of a threatened flora species) planted for functional, aesthetic, horticultural or plantation forestry purposes? This includes examples such as: windbreaks in agricultural landscapes, roadside plantings (including street trees, median strips, roadside batters), landscaping in parks, gardens and sport fields/complexes, macadamia plantations or teatree farms?	☒ Yes - Go to D.2 Assessment of planted native vegetation for threatened species habitat (the use of Chapters 4 and 5 of the BAM are not required to be applied). ☐ No -Go to 6.	The planted native vegetation constitutes native vegetation planted for functional and aesthetic purposes. The planted trees line the perimeter of Wallarah Oval. Evidence and justification is provided below.

2.2 Evidence and Justification

A site inspection was undertaken on 18 July 2024 and 20 May 2025 by suitably qualified Ecologists. Details of the weather during the site inspection are included in Table 2. Survey effort included tree inspections and a habitat suitability assessment. Data collected includes records of tree species, threatened species habitat suitability, and presence of the following habitat features:

- Hollows
- Nest boxes
- Fissures
- Stags
- Hollow logs
- Foraging resources
- Leaf litter.

Observations regarding ecological condition of the vegetation was also recorded. Field notes and geotagged photos were collected to support the overall site characterisation and its condition.

Table 2: Weather Conditions During Site Inspection

Field Survey Dates	Temperature (°C)	Rainfall (mm)
18/07/2024	9.6 – 18.4	1.4
20/05/2025	14.5 – 20.0	18.8

Field Survey Dates	Temperature (ºC)	Rainfall (mm)
Weather station: Newcastle Nobbys Signal Station AWS (BoM 2024)		

3.0 Landscape Context

3.1 Assessment Area

The assessment area is the area of land within the 1,500m buffer zone surrounding the subject land and is presented in Figure 2. The assessment area covers a total of 836ha.

3.2 Landscape Features

Landscape features identified within the subject land and assessment area are shown on Figure 1 and Figure 2, respectively. A discussion of relevant landscape features is provided below.

3.2.1 General Description

A general description of subject land topographic and hydrological setting, geology and soil landscapes is provided in Section 1.1.3.

3.2.2 Existing Vegetation

The vegetation canopy within the subject land is a mix of planted native vegetation (i.e. native to NSW) and planted non-native vegetation (i.e. exotic or non-native to NSW). Groundcover vegetation (including beneath the native trees) within the subject land includes large swards of exotic mown grasses over the sporting field, with no notable native species or weed infestations.

A selection of trees occurs along and just beyond the boundary of the site. The trees within and adjacent to the subject land have been mapped and assessed as part of the accompanying Arboricultural Impact Assessment (Bark, 2025).

3.2.3 IBRA Bioregions and IBRA Subregions

The subject land lies within the Sydney Basin IBRA Region and Hunter IBRA subregion on the central east coast of NSW. The Sydney Basin region occupies 4.35% of NSW and extends from just north of Batemans Bay to Nelson Bay and almost as far west as Mudgee (NPWS 2003). The region is dominated by temperate climate characterised by warm summers with no dry season.

The subject land lies wholly within the Hunter IBRA Subregion. The subregion is characterised by rolling hills and wide valleys, with a meandering river system on a wide flood plain. The geology of this subregion includes Permian shales, sandstones, conglomerates, volcanics and coal measures. Soils are a variety of harsh texture contrast soils on slopes, deep sandy loam alluvium on valley floors, deep sands on dune and organic muds in estuaries (NPWS 2003). According to NPWS (2003), the vegetation is typically composed of patches of rainforest brush in the lower valleys, mixed forest/open woodland (White Box/Forest Red Gum/Narrow-leaved Ironbark/Spotted Gum/Rough-barked Apple) in upper reaches and foothills, River Oak/River Red Gum along streams, healthy Blackbutt/Apple/Mahogany on coastal dunes and Mangrove/Saltmarsh and Freshwater Wetland in estuaries.

3.3 Native Vegetation Cover

Native vegetation cover for the assessment area has been mapped using regional vegetation mapping (NSW DCCEEW 2022) and review of aerial imagery (Nearmap 2024).

Table 3 summarises the extent of native vegetation cover within the assessment area. Figure 2 shows native vegetation cover within the assessment area.

Table 3: Native vegetation cover in the assessment area

Assessment area (ha)	836
Total area of native vegetation cover (ha)	1.23
Percentage of native vegetation cover (%)	0.15%
Class (0-10, >10-30, >30-70 or >70%)	0-10

4.0 Threatened Species Habitat (Planted Native Vegetation)

4.1 Habitat Suitability

Incidental fauna observations were recorded and are listed in Table 4. Introduced species, the Common Starling (*Sturnus vulgaris*) was observed flying over the subject land in a group of approximately 25 individuals. Details of the site inspection and survey effort are included in Section 2.2.

The planted native vegetation within the subject land was assessed for habitat features suitable to support threatened species (Photo 1). Details regarding the presence of hollows, nests, other evidence of other habitat features and/or evidence of usage are summarised in Table 5. A hollow bearing tree (Tree 15) was observed on the southern section of the site, adjacent to Monash Road (Table 5; Photo 2). Tree's 16 and 22 contain decay with a hollow potentially forming, but lacking a visible cavity (Photo 3). No signs of occupancy were detected in the hollow bearing trees during the time of the survey.

The planted native vegetation within the subject land provides potential foraging and shelter habitat for native mammal species. No evidence of breeding was recorded. Local threatened species such a Grey-headed Flying-foxes (*Pteropus poliocephalus*) and some threatened birds are known to forage on the nectar, pollen and fruits of native trees, in particular *Eucalyptus*, *Corymbia* and *Melaleuca* which are present within the subject land. The subject land also includes *Casuarina* species which are known foraging resource for the South-Eastern Glossy Black Cockatoo (*Calyptorhynchus lathami lathami*).

Other habitat features included the potential roosting habitat for microbat species in human-made structures including the buildings and storage containers located in the southern section of the subject land (Photo 5). No evidence of microbat utilisation was observed.

A stormwater drain (Lambton Ker-rai Creek) is located outside of the southern boundary of the subject land and constitutes potential aquatic habitat in close proximity (Photo 6). The drain infrastructure is highly modified and includes concrete bed and banks. Due to the lack of native vegetation or substrate in the channel, this habitat feature is unlikely to be utilised as breeding habitat for aquatic dependant threatened species but may constitute low quality foraging habitat for local birds, such as the Australian White Ibis (*Threskiornis moluccus*).

The overall condition of available habitat was low due to fragmentation, lack of habitat connectivity into and across the subject land, absence of native low strata cover, and frequent anthropogenic disturbance. The adjacent main road, Turton Road, exhibits frequent high intensity traffic. Fauna movement to and from the habitat within the subject land would be at high risk of vehicle strikes. The subject land contains habitat of low condition and low potential for threatened species. No evidence of threatened species was recorded.

Table 4: Incidental Fauna Observations

Common Name	Scientific Name	Date Observed
Australian White Ibis	*Threskiornis moluccus*	18/07/2024, 2:00 pm – 5:00 pm
Masked Lapwing	*Vanellus miles*	18/07/2024, 2:00 pm – 5:00 pm
Welcome Swallow	*Hirundo neoxena*	18/07/2024, 2:00 pm – 5:00 pm
Australian Magpie	*Gymnorhina tibicen*	18/07/2024, 2:00 pm – 5:00 pm
Magpie Lark	*Grallina cyanoleuca*	18/07/2024, 2:00 pm – 5:00 pm
Common Starling*	*Sturnus vulgaris*	18/07/2024, 2:00 pm – 5:00 pm
Rainbow Lorikeet	*Trichoglossus moluccanus*	20/05/2025, 11:30 am-2:30 pm
Sulphur-crested Cockatoo	*Cacatua galerita*	20/05/2025, 11:30 am-2:30 pm
Straw-necked Ibis	*Threskiornis spinicollis*	20/05/2025, 11:30 am-2:30 pm
Australian Wood Duck	*Chenonetta jubata*	20/05/2025, 11:30 am-2:30 pm
White-faced Heron	*Egretta novaehollandiae*	20/05/2025, 11:30 am-2:30 pm

*Introduced species

Photo 1: Subject land from Monash Road (Image source: Google Streetview 2024)

Table 5: Habitat Assessment of Planted Native and Exotic Vegetation

Tree number	Tree Species	Native species in NSW (BAM 2020) (Yes/No)	Latitude	Longitude	Hollows	Nests	Other habitat features	Removal status
1	*Ficus microcarpa var. hillii*	Yes	32°55'8.00"S	151°43'26.57"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be removed
2	*Ficus microcarpa var. hillii*	Yes	32°55'8.57"S	151°43'26.40"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be removed
3	*Ficus microcarpa var. hillii*	Yes	32°55'8.79"S	151°43'26.35"E	Nil	Nil	Potential shelter and foraging habitat tree	To be retained
4	*Lophostemon confertus*	Yes	32°55'9.10"S	151°43'26.32"E	Nil	Nil	Potential foraging habitat.	To be retained
5	*Ficus microcarpa var. hillii*	Yes	32°55'9.31"S	151°43'26.20"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be retained
6	*Melaleuca quinquenervia*	Yes	32°55'9.57"S	151°43'26.16"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be retained
7	*Ficus microcarpa var. hillii*	Yes	32°55'10.17"S	151°43'25.98"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be retained
8	*Ficus microcarpa var. hillii*	Yes	32°55'10.45"S	151°43'25.89"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be retained
9	*Ficus microcarpa var. hillii*	Yes	32°55'10.84"S	151°43'25.86"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be retained
10	*Corymbia citriodora*	Yes	32°55'10.84"S	151°43'25.86"E	Nil	Nil	Scratches on base of tree indicates infrequent usage by arboreal species.	To be retained
11	*Ficus microcarpa var. hillii*	Yes	32°55'11.33"S	151°43'25.67"E	Nil	Nil	Potential shelter and foraging habitat tree.	To be retained
12	*Callistemon viminalis*	Yes	32°55'11.28"S	151°43'25.51"E	Nil	Nil	Potential foraging habitat.	To be retained

Tree number	Tree Species	Native species in NSW (BAM 2020) (Yes/No)	Latitude	Longitude	Hollows	Nests	Other habitat features	Removal status
13	*Casuarina cunninghamiana*	Yes	32°55'11.35"S	151°43'22.06"E	Nil	Nil	Potential foraging habitat.	To be retained
14	*Casuarina cunninghamiana*	Yes	32°55'11.31"S	151°43'21.79"E	Nil	Nil	Potential foraging habitat.	To be retained
15	*Casuarina cunninghamiana*	Yes	32°55'11.32"S	151°43'21.61"E	Yes	Nil	Medium sized hollow with visible cavity (Photo 1).	To be retained
16	*Casuarina glauca*	Yes	32°55'11.31"S	151°43'21.25"E	Yes	Nil	Hollow forming (Photo 2) with very shallow cavities.	To be removed
17	*Melaleuca quinquenervia*	Yes	32°55'11.12"S	151°43'21.25"E	Nil	Nil	Potential foraging habitat.	To be removed
18	*Casuarina cunninghamiana*	Yes	32°55'11.22"S	151°43'21.01"E	Nil	Nil	Potential foraging habitat.	To be removed
19	*Melaleuca quinquenervia*	Yes	32°55'10.94"S	151°43'18.16"E	Nil	Nil	Potential foraging habitat.	To be removed
20	*Casuarina cunninghamiana*	Yes			Nil	Nil	Potential foraging habitat.	To be removed
21	*Callistemon salignus*	Yes			Nil	Nil	Potential foraging habitat.	To be removed
22	*Corymbia citriodora*	Yes			Nil	Nil	Potential foraging habitat.	To be retained
23	*Melaleuca quinquenervia*	Yes			Yes	Nil	Potential foraging habitat.	To be retained
24	*Corymbia citriodora*	Yes			Nil	Nil	Potential foraging habitat.	To be removed
A*	*Liquidambar formosana*	No	32°55'7.57"S	151°43'26.65"E	Nil	Nil	Potential foraging habitat.	To be retained
B*	*Callistemon viminalis*	Yes	32°55'7.40"S	151°43'24.96"E	Nil	Nil	Potential foraging habitat.	To be retained
C*	*Callistemon viminalis*	Yes	32°55'7.42"S	151°43'23.94"E	Nil	Nil	Potential foraging habitat.	To be retained
D*	*Populus nigra* 'Italica'	No	32°55'7.33"S	151°43'23.28"E	Nil	Nil	Introduced species. Potential foraging habitat.	To be retained

Tree number	Tree Species	Native species in NSW (BAM 2020) (Yes/No)	Latitude	Longitude	Hollows	Nests	Other habitat features	Removal status
E*	*Populus nigra* 'Italica'	No	32°55'7.34"S	151°43'23.18"E	Nil	Nil	Introduced species. Potential foraging habitat.	To be retained
F*	*Melaleuca quinquenervia*	Yes	32°55'7.20"S	151°43'22.04"E	Nil	Nil	Potential shelter and foraging habitat tree.	Tree to be monitored during and post construction.
G*	*Eucalyptus robusta*	Yes	32°55'6.90"S	151°43'20.20"E	Nil	Nil	Potential shelter and foraging habitat tree.	Tree to be monitored during and post construction.

Photo 2: Tree 15 with Hollow

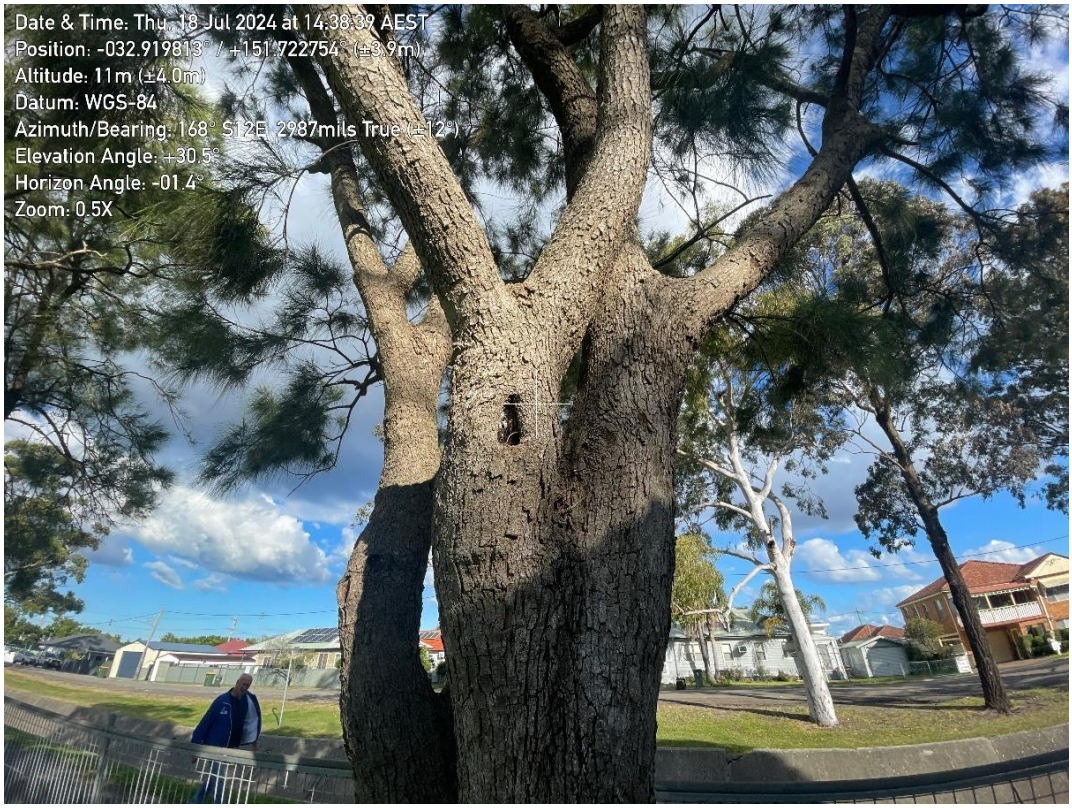

Photo 3: Tree 16 with Forming Hollow

Photo 4: Tree 23 Forming Hollow

Photo 5: Human-made buildings in Subject land (Southern boundary on Monash Road)

Photo 6: Lambton Ker-rai Creek (Adjacent to southern boundary of the Subject land) (Image source: Google Streetview 2024)

5.0 Identifying Prescribed Impacts

Prescribed impact features are identified in Table 6 and depicted on Figure 4.

Table 6: Prescribed Impacts Identified

Feature	Present	Description of Feature Characteristics and Location	Threatened Entities That Use, Are Likely to Use, or are Part of the Habitat Feature. Where Relevant, Threatened Species or Fauna That Are Part of A TEC Or EC, That Are at Risk of Vehicle Strike
Karst, caves, crevices, cliffs, rocks or other geological features of significance	☐Yes / ☒No	Not applicable	Not applicable
Human-made structures	☒Yes / ☐No	Existing amenities block and storage containers	Threatened microbat species may utilise human-made structures for roosting.
Non-native vegetation	☒Yes / ☐No	Mown parklands (Wallarah Oval)	The area of mown parklands within the subject land does not constitute threatened species habitat.
Habitat connectivity	☐Yes / ☒No	n/a	n/a
Waterbodies, water quality and hydrological processes	☒Yes / ☐No	Storm water drain - Lambton Ker-rai Creek adjacent to southern edge of site	Threatened bird and aquatic species may utilise this modified waterbody as foraging and/or aquatic habitat. This feature is location outside of the subject land boundary.
Wind turbine strikes (wind farm development only)	☐Yes / ☒No	n/a	n/a
Vehicle strikes	☒Yes / ☐No	The proposed development will increase traffic within the subject land.	The risk of vehicle strikes within the subject land may increase for mobile threatened species as a result of the proposed development.

The considered threatened entities were generated based on site survey, habitat assessment and consideration of the habitats described for each species in the Threatened Biodiversity Data Collection (TBDC). Whilst there is currently no evidence of microbats using the human-made structures on the subject land, according to the TBDC it is possible that they could utilise buildings and structures for roosting and breeding from time to time (although caves are their primary breeding habitat).

The subject land does include mown parklands which constitutes non-native vegetation but is unlikely that these features represent habitat for threatened species. There are no ponds, dams, or other non-natural water bodies within the subject land. There is, however, a stormwater drain system (i.e. Lambton Ker-rai Creek along the southern boundary) located externally to the site boundary. Based on the concrete bed and bank and lack of native vegetation or substrate in the channel, this stormwater drain would be of low ecological value to any locally occurring individuals of threatened fauna species. Hence, the proposed development will not impact on threatened species habitat associated with non-natural water bodies.

Increased vehicular traffic within the site during construction and operation could result in increased risk of vehicle strike for fauna utilising the planted native vegetation. Given the

isolated position in an urban setting and its fragmented state through nearby main roads, it is unlikely that the vegetation supports a diverse or abundant native fauna assemblage. Common mammals and birds, such as Common Ringtail Possum (*Pseudocheirus peregrinus),* Common Brushtail Possum (*Trichosurus vulpecula*), and the Australian White Ibis, would be at risk of vehicle strike, where present. Threatened fauna are not likely to be present (due to a lack of suitable habitat) and mobile bird and bat species of potential relevance to the subject land, such as Grey-headed Flying Fox and microbats, are not at risk of vehicle strike, mainly because they are nocturnal and are unlikely to dwell at ground level. Hence, vehicle strike of threatened fauna or common fauna species using the planted native vegetation is not a high risk for this site or the proposed development.

HUNTER INDOOR SPORTS CENTRE BDAR

PRESCRIBED FEATURES

FIGURE 4

LEGEND

- Subject Land
- Development Footprint
- Watercourse

Prescribed Feature

- Human-made Structure
- Non-native Vegetation
- Waterbodies, Water Quality and Hydrological Processes

Data Sources:
NSW SS
Aerial imagery: Nearmap (June 2024)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

0 25 50 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:2,000 at A4
Project Number:	630.031388
Date Drawn:	09-Aug-2024
Drawn by:	JH

SLR

Path: H:\Projects-SLR\630-SrvNTL\630-NTL\630.031388.00001 Newcastle Basketball BDAR Waiv\06 SLR Data\01 CADGIS\GIS\630031388_Newcastle_Basketball_BDAR_Waiver\630031388_Newcastle_Basketball_BDAR_Waiver.aprx\630031388_F04_PrescribedFeatures

Stage 2: Impact Assessment (Biodiversity Values and Prescribed Impacts)

6.0 Avoid and Minimise Impacts

6.1 Avoid and Minimise Direct and Indirect Impacts

6.1.1 Project Location

The proposed development includes the construction and development of the Hunter Indoor Sports Centre at 2 Monash Road and 24 Wallarah Road, New Lambton. The current use of the subject land is as an existing sports field. The subject land is devoid of native plant community types, primarily consisting of mown exotic grass (parklands) and isolated planted native trees. The placement of the proposed development avoids areas with native vegetation communities, threatened ecological communities, mapped biodiversity values, and known threatened species habitat. The proposed project location is associated with low impact to biodiversity values. No other locations are available for consideration as part of the proposed development.

6.1.2 Project Design

The proposed project design avoids clearing of native plant communities. The subject land has been historically cleared of its original native vegetation and contains an existing playing field, Wallarah Oval. A total of 31 planted native trees are established around the perimeter of the fields. The design of the proposed development will directly impact nine trees, with 22 to be retained, of which two are to be monitored post-construction to help ensure their survival.

6.2 Avoid and Minimise Prescribed Impacts

6.2.1 Project Location and Design

According to Section 7.2 of BAM 2020, all efforts to avoid prescribed impacts when choosing the proposal's location must be documented in the BDAR. When locating a proposal, the following needs to be analysed and justification should be provided for each alternative selected:

- alternative modes or technologies that would avoid or minimise prescribed impacts
- alternative routes that would avoid or minimise prescribed impacts
- alternative locations that would avoid or minimise prescribed impacts
- alternative sites within a property on which the proposal is located that would avoid or minimise prescribed impacts.

Prescribed biodiversity impacts that are potentially relevant the subject land (Figure 4) are summarised in Section 5.0 of this BDAR and as follows:

- Human made structures
- Non-native vegetation
- Waterbodies, water quality and hydrological processes
- Vehicle Strikes

Measures included in the location and design of the proposed development that contribute to the avoidance of prescribed impacts are addressed in Table 7 below.

Table 7: Avoidance Measures for Prescribed Impacts

Prescribed Impact	Threatened Entity	Avoidance Measure
Human-made structures	Threatened Microbats	A preclearance assessment for the presence of threatened microbats and/or their habitats must be conducted no more than two days prior to the demolition of the buildings on site. Demolition of buildings identified as potential microbat habitat shall be supervised by a qualified ecologist.
Non-native vegetation	Not applicable	Not applicable
Waterbodies, water quality and hydrological processes	Threatened birds and aquatic species	Erosion and sediment controls should be implemented where necessary on the southern boundary of the subject land (adjacent to Monash Road). Controls to include sediment fencing, marked stabilised site access areas, and marked stockpiling areas away from Storm water drain - Lambton Ker-rai Creek.
Vehicle Strikes	Mobile threatened fauna	The risk of vehicular collisions with fauna on site is considered low as habitat and planted vegetation to be retained on site is not likely to support a diverse or abundant fauna assemblage (due to its quality, small size and isolation). However, if ground dwelling mammals and birds are present on site, vehicle movements during construction and operation could result in increased risk of vehicle strike for fauna utilising the planted vegetation on the site. Imposing speed limits to 20 km/hr within the site during construction and operation will limit the risk of vehicle strike on native fauna.

6.3 Other Measures Considered

There are no other measures evaluated but not selected for implementation.

7.0 Impact Assessment

7.1 Direct Impacts

The subject land does not contain any known populations of threatened species or threatened ecological communities. No suitable habitats for threatened plants exist on the subject land. Marginal to negligible foraging habitat for a narrow selection of mobile threatened fauna, in the form of scattered planted trees, occurs across the subject land. Potential habitats for threatened fauna, in terms of 'prescribed impact' features include (i) human-made structures, (ii) non-native vegetation, (iii) the adjacent storm water drain - Lambton Ker-rai Creek (iv) ground-based habitats with respect to vehicle strikes.

The potential for microbats to use the existing buildings and structures for roosting is low and there was no evidence found during the inspection of bat roosting behaviour (e.g. droppings, urine stains or live bats) therefore the impact of the demolition of the existing structures is unlikely to have any impact on threatened species.

The non-native vegetation features of the subject land are unlikely to provide any important habitat for any threatened species of fauna potentially using the subject land. The exotic grass within Wallarah Oval is subject to frequent maintenance and disturbance including mowing, and anthropogenic recreational utilisation. Due to the lack of evidence of utilisation by threatened species, and the low potential for breeding, foraging and shelter habitat, it is unlikely that the removal of this feature will impact local threatened species.

The stormwater drain (Lambton Ker-rai Creek) is located outside of the southern boundary of the subject land. As this feature is position outside of the proposed development footprint, it will not be directly impacted by the proposed development.

No threatened species of flora were detected during the ecological site inspection and the subject land does not represent a suitable habitat for threatened flora due to a lack of native vegetation and lack of suitable ground conditions. The subject land does not contain patches of native vegetation (excluding a selection of planted native trees from seven different species), threatened flora habitats or threatened ecological communities.

The proposed development will potentially increase noise, and light during the operational phase, given the proposal includes night lighting (mainly of car parking areas) and patronage during nighttime hours. However, these indirect impacts on retained vegetation and habitat (and future planted vegetation in landscaped areas) are currently active on the subject land (it is floodlit at night for soccer training sessions). In terms of potential impacts on threatened species, individuals of the Grey-headed Flying Fox could forage on the subject land during the operational phase and foraging activities could be affected by night-time use of the proposed facility. However, the subject land does represent an area of regional foraging habitat for the local population of this species. No other threatened species are likely to be adversely affected by noise and light during operation of the proposed facility.

The subject land does not contain populations of threatened species and provides only marginal foraging habitat for highly mobile birds and bats. For nomadic and migratory species, the planted trees on the subject land would represent only a minor or negligible proportion of the available foraging and shelter habitat within the locality and the wider Hunter Valley Region.

The proposed development does not involve the removal of areas of native vegetation but does involve the selective removal of nine planted trees that would represent only a very marginal foraging habitat for mobile threatened species, such as birds and bats.

Concerning remaining impacts:

- Due to the close vicinity of the subject land to two busy main roads (Monash Road and Turton Road), there is a potential for vehicle strikes of fauna; however, the lack of native vegetation and canopy cover across the subject land means this risk is considered to be low.
- The potential for locally occurring individuals of threatened fauna species to use the exotic grass landscaped areas (incorporating 'non-native vegetation') within the subject land is considered low. Therefore, the risk of threatened species being adversely affected by the removal of planted native and non-native vegetation from within the landscaped areas is likely to be negligible.
- Temporary site compounds will be established within currently cleared areas and will not require the clearing of any trees.

7.2 Indirect Impacts

Table 8 documents the residual indirect impacts likely to occur on native vegetation, threatened entities, and their habitats beyond the development footprint.

Table 8: Summary of Residual Indirect Impacts

Indirect Impact	Impacted Entities	Extent (ha)	Frequency	Duration (Long-Term/ Short-Term/ Medium-Term)	Project Phase/ Timing of Impact	Likelihood and Consequences
2a. Inadvertent impacts on adjacent habitat or vegetation	Adjacent planted native vegetation and threatened species habitat (i.e. storm water drain)	Immediately adjacent to subject land.	Daily for the duration of construction (6 months to 2 years). Sporadically during operation.	Long-term	Construction and operation	Low likelihood. Could result in reduced vegetation and habitat condition.
2b. Reduced viability of adjacent habitat due to edge effects	n/a	n/a	n/a	n/a	n/a	n/a
2c. Reduced viability of adjacent habitat due to noise, dust or light spill	n/a	n/a	n/a	n/a	n/a	n/a
2d. Transportation of weeds and pathogens from the site to adjacent vegetation	Native vegetation and associated general fauna habitats	Areas immediately adjacent to the subject land	Monthly	Long-term	Construction and operation	Low likelihood
2e. Increased risk of	n/a	n/a	n/a	n/a	n/a	n/a

Indirect Impact	Impacted Entities	Extent (ha)	Frequency	Duration (Long-Term/ Short-Term/ Medium-Term)	Project Phase/ Timing of Impact	Likelihood and Consequences
starvation or exposure, and loss of shade or shelter						
2f. Loss of breeding habitat	n/a	n/a	n/a	n/a	n/a	n/a
2g. Trampling of threatened flora species	n/a	n/a	n/a	n/a	n/a	n/a
2h. Inhibition of nitrogen fixation and increased soil salinity	n/a	n/a	n/a	n/a	n/a	n/a
2i. Fertiliser drift	n/a	n/a	n/a	n/a	n/a	n/a
2j. Rubbish dumping	Native vegetation and associated general fauna habitats	Subject land and adjacent areas	Potentially daily or weekly	Long term	Construction and operation	Low likelihood. Could result in reduced vegetation and habitat condition. Risk of rubbish dumping higher during construction.
2k. Wood collection	n/a	n/a	n/a	n/a	n/a	n/a
2l. Removal and disturbance of rocks, including bush rock	n/a	n/a	n/a	n/a	n/a	n/a
2m. Increase in predators	n/a	n/a	n/a	n/a	n/a	n/a
2n. Increase in pest animal populations	n/a	n/a	n/a	n/a	n/a	n/a
2o. Changed fire regimes	n/a	n/a	n/a	n/a	n/a	n/a
2p. Disturbance to specialist breeding and foraging habitat (e.g. beach nesting for shorebirds).	n/a	n/a	n/a	n/a	n/a	n/a

7.3 Prescribed Impacts

7.3.1 Human-Made Structures

- Nature: Removal of building and storage containers within the proposed development footprint could affect threatened microbats if present.
- Extent: Human-made structures including the temporary storage containers within the development footprint.
- Duration: Short-term loss of potential bat roosting habitat. It is not expected that a long-term impact would occur unless a microbat was harmed or injured in removal. There is no evidence of active bat roosting in the structures.
- Consequences: Potential injury or harm to microbat species if found to be present.

7.3.2 Non-Native Vegetation

- Nature: Removal of a large area of exotic grass (parklands) currently utilised as a sports oval.
- Extent: Exotic grass within the development footprint.
- Duration: Permanent removal of this prescribed feature.
- Consequences: The impact of the removal of this non-native vegetation is not considered relevant to threatened species and/or their habitat.

7.3.3 Waterbodies, Water Quality and Hydrological Processes

- Nature: Impacts to nearby storm water drain (Lambton Ker-rai Creek). No waterbodies exist within the subject land.
- Extent: Lambton Ker-rai Creek adjacent to southern boundary of the development footprint.
- Duration: Short term impacts from construction phase of the proposed development.
- Consequences: Potential for erosion, sediments and pollutants to enter the waterway during the construction phase.

7.3.4 Vehicle Strikes

- Nature: Impact of Vehicle strikes to local fauna moving in and out of the subject land.
- Extent: Adjacent roads including Turton Road and Monash Road and proposed internal roads and carpark at the proposed development site.
- Duration: Long term impacts during construction and operational phases.
- Consequences: Potential road mortality and injury to local fauna.

7.4 Mitigating Residual Impacts – Management Measures and Implementation

Recommended measures to mitigate or manage impacts on biodiversity values are listed in BAM Sections 8.4 and 8.5. Table 9 presents these measures as relevant to mitigating impacts on native vegetation, threatened species, TECs and their habitat and identifies where these are applicable to the proposed development in accordance with Section 8.4.1 of BAM 2020.

Table 9: Summary of Proposed Mitigation and Management Measures for Residual Impacts (Direct, Indirect and Prescribed)

Mitigation Measure (specify if none proposed and ensure an adaptive management strategy is developed and addressed in Section 1.1)	Method	Timing	Frequency	Responsibility	Likely Efficacy (including risk of failure)	MNES (when relevant)
Fauna displacement (BAM 8.4.1, 2)						
2a. Timing works to avoid critical life cycle events, such as breeding or nursing	N/A	N/A	N/A	N/A	N/A	N/A
2b. Instigating clearing protocols, including pre-clearing surveys, daily surveys and staged clearing, and using a trained ecologist or licensed wildlife handler during clearing events	Pre-clear surveys to detect bat roosting in human-made structures (i.e. buildings in southern section of the subject land) and breeding threatened species in trees to be removed. No clearing of vegetation is to occur after dusk and prior to dawn.	Hollow bearing trees or structures with potential to support roosting or breeding habitat for threatened species should be checked no more than 24 hours prior to demolition and clearing works, during daylight hours to check for roosting fauna.	Pre-construction works only.	Proponent, Construction contractor.	High efficacy and low risk of failure.	N/A
2c. Relocating habitat features (eg fallen timber, hollow logs) from the development or clearing site, to adjacent retained vegetation	N/A	N/A	N/A	N/A	N/A	N/A
Indirect impacts on native vegetation and habitats (BAM 8.4.1, 3)						
3a. Adoption of clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance; for example, a chainsaw is preferable to heavy machinery to remove native vegetation for partial clearing	Clearing works to comply with Australian Standards (AS) 4970-2009 Protection of trees on development sites	Prior and during clearing works.	As required.	Proponent, Construction contractor, Arborist.	High efficacy and low risk of failure.	N/A

Mitigation Measure (specify if none proposed and ensure an adaptive management strategy is developed and addressed in Section 1.1)	Method	Timing	Frequency	Responsibility	Likely Efficacy (including risk of failure)	MNES (when relevant)
3b. Using noise barriers, or daily/seasonal timing of construction and operational activities to reduce impacts of noise	N/A	N/A	N/A	N/A	N/A	N/A
3c. Using light shields, or daily/seasonal timing of construction and operational activities to reduce impacts of light spill	N/A	N/A	N/A	N/A	N/A	N/A
3d. Using adaptive dust management and monitoring programs to control air quality	N/A	N/A	N/A	N/A	N/A	N/A
3e. Scheduling the timing of construction activities to avoid impacts (e.g. timing the construction for when migratory species are not at the site, or when particular species known to, or likely to use the habitat on the site, are not breeding or nesting)	N/A	N/A	N/A	N/A	N/A	N/A
3f. Erecting temporary fencing to protect significant environmental features, such as riparian zones	Temporary tree protection zone fencing to be implemented around retained trees and comply with AS 4970-2009.	During and post clearing and constructions works.	Initial implementation and maintenance as required.	Proponent, Construction contractor, Arborist.	High efficacy and low risk of failure.	N/A
3g. Using hygiene protocols to prevent the spread of weeds or pathogens between infected and uninfected areas	Works to comply with '*Arrive Clean, Leave Clean -Guidelines to help prevent the spread of invasive plant diseases and weeds threatening our native plants, animals and ecosystems'* (DCCEEW 2015).	Prior, during and post works.	As required.	Proponent, Construction contractor.	High efficacy and low risk of failure.	N/A

Mitigation Measure (specify if none proposed and ensure an adaptive management strategy is developed and addressed in Section 1.1)	Method	Timing	Frequency	Responsibility	Likely Efficacy (including risk of failure)	MNES (when relevant)
3h. Training staff and conducting site briefings to communicate environmental features to be protected and measures to be implemented	N/A	N/A	N/A	N/A	N/A	N/A
3i. Preparing a vegetation management plan to regulate activity in vegetation and habitats adjacent to residential developments. The plan may include controls on pet ownership, rubbish disposal, wood collection, fire management, and disturbance to nests and other niche habitats	N/A	N/A	N/A	N/A	N/A	N/A
3j. Providing for the ecological restoration, rehabilitation and/or ongoing maintenance of retained native vegetation habitat on, or adjacent to, the development or clearing site	N/A	N/A	N/A	N/A	N/A	N/A
Prescribed Impacts (BAM 8.4.2, 1)						
1a. Scheduling the timing of construction activities to avoid critical life cycle events (e.g. timing construction activities to avoid migratory species on site, or using the site)	N/A	N/A	N/A	N/A	N/A	N/A
1b. Instigating clearing protocols, including pre-clearing surveys, daily surveys and staged clearing, and using a trained ecologist or licensed wildlife handler during clearing, construction and maintenance activities for human-made structures and non-native vegetation	Animal rescue (WIRES or equivalent) to be notified in the event where wildlife is injured or impacted during the removal of vegetation and/or human-made structures.	Prior and during clearing works.	One off and as required during works.	Proponent, Construction team.	High efficacy and low risk of failure.	N/A

Mitigation Measure (specify if none proposed and ensure an adaptive management strategy is developed and addressed in Section 1.1)	Method	Timing	Frequency	Responsibility	Likely Efficacy (including risk of failure)	MNES (when relevant)
1c. Retaining habitat features (e.g. fallen timber, hollow logs, rocks) within the subject land, or relocating them to adjacent retained remnant vegetation	N/A	N/A	N/A	N/A	N/A	N/A
1d. Installing artificial connectivity measures (e.g. glider poles, rope crossings, habitat bridges) to re-establish connections between habitat and favoured transport corridors	N/A	N/A	N/A	N/A	N/A	N/A
1e. Erecting temporary fencing to protect significant environmental features, such as karst, caves, rock outcrops and water bodies	N/A	N/A	N/A	N/A	N/A	N/A
1f. Replacing habitat provided by human-made structures and non-native vegetation with alternative habitat	N/A	N/A	N/A	N/A	N/A	N/A
1g. Using sediment barriers or sedimentation ponds to control the quality of water released from the site into the receiving environment	Sediment barriers to be implemented on areas of Lambton Ker-rai Creek near works areas.	During and post clearing and constructions works.	Initial implementation and maintenance as required.	Proponent, Construction Contractor.	High efficacy and low risk of failure.	N/A
1h. Training staff and conducting site briefings to communicate environmental features to be protected and the measures implemented to protect them	N/A	N/A	N/A	N/A	N/A	N/A
1i. Ecological restoration, rehabilitation actions and/or maintenance of retained native vegetation on, or adjacent to, the subject land	N/A	N/A	N/A	N/A	N/A	N/A
1j. Development control measures that regulate the types of activities that can	N/A	N/A	N/A	N/A	N/A	N/A

Mitigation Measure (specify if none proposed and ensure an adaptive management strategy is developed and addressed in Section 1.1)	Method	Timing	Frequency	Responsibility	Likely Efficacy (including risk of failure)	MNES (when relevant)
occur in native vegetation and habitat adjacent to residential development, including prohibiting the collection of bush rocks						

7.5 Adaptive Management Strategy for Uncertain Impacts

An adaptive management plan can be used to address impacts that are infrequent or difficult to measure. These include indirect or prescribed impacts, or other remaining biodiversity impacts. The proponent must develop an adaptive management plan to address any remaining impacts where mitigation measures have not been proposed. This BDAR demonstrates that all indirect, prescribed, or other residual biodiversity impacts associated with the proposed development are minor in nature and/or will be sufficiently mitigated and managed by implementing measures outlined in Section 7.0 of this BDAR. As such, an adaptive management plan is not proposed.

8.0 References

Bark Trees & Landscaping 2025, "*Arboricultural Impact Assessment for Hunter Indoor Sports Centre (HISC)*".

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Appendix A BDAR Streamlined Assessment Module – Planted Native Vegetation Requirements

Biodiversity Development Assessment Report

SSD-65595459 Hunter Indoor Sports Centre
24 Wallarah Road and 2 Monash Road, New Lambton

EJE Architecture

SLR Project No.: 630.031388.00004

13 June 2025

Table A-1: Minimum information requirements for the Biodiversity Development Assessment Report: Streamlined assessment module – Planted native vegetation

Report section	BAM ref.	Information	Maps & tables (in document)	Data (to be supplied)	Reference
Introduction	Chapters 2 and 3	**INFORMATION** Introduction to the biodiversity assessment including: • brief description of proposed development • identification of subject land[4] boundary, including: • operational footprint • construction footprint indicating clearing associated with temporary/ancillary construction facilities and infrastructure • general description of the subject land • sources of information used in the assessment, including reports and spatial data			1.0
		MAPS and TABLES (in document) – N/A			-
		DATA (to be supplied) – N/A			-
Planted native vegetation	Appendix D, D.1	**INFORMATION** Determination of which subsection of the decision-making key (D.1) applies to the native vegetation to be cleared or impacted by the proposal Justification and evidence for the above determination (e.g. photos, management plans/agreements, etc.)			2.1 Photo 1
		MAPS and TABLES (in document) Map of the subject land boundary showing the final proposal footprint, including the construction footprint for any clearing associated with temporary/ancillary construction facilities and infrastructure (if BDAR)			Figure 1
		DATA (to be supplied) – N/A			-
Landscape context	Sections 3.1 and 3.2, Appendix E	**INFORMATION** Identification of site context components and landscape features at the proposed site, including: • general description of subject land topographic and hydrological setting, geology and soils • IBRA bioregions and subregions (as described in BAM Subsection 3.1.3(2.))			3.0 1.1.3
		MAPS AND TABLES (in document) Site Map • Boundary of subject land • Cadastre of subject land Location Map • Digital aerial photography at 1:1,000 scale or finer) • Boundary of subject land			Figure 1 Figure 2

Report section	BAM ref.	Information	Maps & tables (in document)	Data (to be supplied)	Reference
		DATA (to be supplied) All report maps as separate jpeg files Individual digital shape files of: subject land boundary assessment area (i.e. buffer area) boundary cadastral boundary of subject land			-
Native vegetation	Chapter 4, Appendix A and Appendix H	**INFORMATION** Note: If D.1(2.i.) or D.1(3.i.) of the decision-making key in Appendix D apply, Chapter 4 is not required. If D.1(1.i.) or D.1(4.i.) apply, Chapter 4 is required – refer to the minimum information requirements for a BDAR or BCAR in Appendix K.			-
		MAPS and TABLES (in document) – N/A			-
		DATA (to be supplied) – N/A			-
Threatened species habitat (planted native vegetation)	Appendix D, D.2 (and Chapter 5 of the BAM)	**INFORMATION** Note: If D.1(2.i.) or D.1(3.i.) of the decision-making key in Appendix D apply, Chapter 5 is not required and the assessment of planted native vegetation for threatened species habitat must be conducted in accordance with D.2. If D.1(1.i.) or D.1(4.i.) apply, Chapter 5 is required – refer to the minimum information requirements for a BDAR or BCAR in Appendix K. Describe the review of existing information and assessment of the suitability of the planted native vegetation for use by threatened species Record any incidental sightings or evidence (e.g. scats) of threatened species credit species (flora and fauna) found to be using, inhabiting or part of the planted native vegetation			3.2.2 4.0
		MAPS and TABLES (in document) Field data sheet including records of any incidental sightings or evidence of threatened species credit species as outlined above			Table 4 Table 5
		Table detailing the threatened species credit species found to be using, inhabiting or part of the planted native vegetation Map of threatened species credit species found to be using, inhabiting or part of the planted native vegetation			-
		DATA (to be supplied) – N/A			-
Prescribed impacts	Chapter 6	**INFORMATION** Any prescribed impacts from the planted native vegetation proposal must be set out in the BDAR consistent with Appendix K			5.0 Table 6
		MAPS and TABLES (in document) If relevant, map showing location of any prescribed impact features (i.e. karst, caves, crevices, cliffs, rocks, human- made structures, etc.)			Figure 4
		DATA (to be supplied) Digital shape files of prescribed impact feature locations Prescribed impact features map in jpeg format			-

Report section	BAM ref.	Information	Maps & tables (in document)	Data (to be supplied)	Reference
Avoid and minimise impacts	Chapter 7	**INFORMATION** Demonstration of efforts to avoid and minimise impacts on biodiversity values (including prescribed impacts) associated with the proposal location in accordance with Chapter 7 Describe efforts to avoid and minimise impacts (including prescribed impacts) to biodiversity values through proposal design (as described in BAM Subsection 7.2.2) Identification of any other site constraints that the proponent has considered in determining the location and design of the proposal (as described in BAM Subsection 7.2.1(3.))			6.0
		MAPS and TABLES (in document) Table of measures to be implemented before, during and after construction to avoid and minimise the impacts of the proposal, including action, outcome, timing and responsibility Map of final proposal footprint, including construction and operation Maps demonstrating indirect impact zones where applicable			Table 9 Figure 3
		DATA (to be supplied) Digital shape files of: final proposal footprint direct and indirect impact zones Maps in jpeg format			-
Assessment of Impacts	Chapter 8, Sections 8.1 and 8.2	**INFORMATION** Determine the impacts on threatened species habitat, including: • description of impacts of clearing of threatened species habitat (as described in BAM Sections 8.1) • description of the nature, extent, frequency, duration and timing of indirect impacts of the proposal (as described in BAM Section 8.2 Any prescribed impacts from the planted native vegetation proposal must be set out in the BDAR consistent with Appendix K			7.0
		MAPS and TABLES (in document) – N/A			-
		DATA (to be supplied) – N/A			-
Mitigation and Management of Impacts	Chapter 8, Sections 8.4 and 8.5	**INFORMATION** Identification of measures to mitigate or manage impacts in accordance with the recommendations in BAM Section 8.4 including (as described in BAM Subsection 8.4.1(2.)): • techniques, timing, frequency and responsibility • identify measures for which there is risk of failure • evaluate the risk and consequence of any residual impacts • document any adaptive management strategy proposed • Identification of measures for mitigating impacts related to: • displacement of resident fauna (as described in BAM Subsection 8.4.1(2.)) • indirect impacts on threatened species habitat (as described in BAM Subsection 8.4.1(3.))			7.4

Report section	BAM ref.	Information	Maps & tables (in document)	Data (to be supplied)	Reference
		MAPS and TABLES (in document) Table of measures to be implemented before, during and after construction to mitigate and manage impacts of the proposal, including action, outcome, timing and responsibility			Table 8 Table 9
		DATA (to be supplied) – N/A			-
Impact summary	Appendix D, D.2	**INFORMATION** Note: If D.1(2.i) or D.1(3.i.) of the decision-making key in Appendix D apply, Chapter 9 is not required and the assessment of planted native vegetation for threatened species must be conducted in accordance with D.2 of the BAM. If D.1(1.i.) applies, refer to the minimum information requirements for a Biodiversity Development Assessment Report in Appendix K.			7.0
		MAPS and TABLES (in document) – N/A			-
		DATA (to be supplied) Maps in jpeg format			-

Appendix B BDAR Waiver Request - Letter of Refusal

Biodiversity Development Assessment Report

SSD-65595459 Hunter Indoor Sports Centre
24 Wallarah Road and 2 Monash Road, New Lambton

EJE Architecture

SLR Project No.: 630.031388.00004

13 June 2025

Department of Planning, Housing and Infrastructure

Our ref: Hunter Indoor Sports Centre (SSD-65595459)

Ms Rosie Sutcliffe
Associate Director

Urbis

Angel Place, Level 8, 123 Pitt Street

Sydney NSW 2000

19 June 2024

Subject: Request to waive the need for a Biodiversity Development Assessment Report under the *Biodiversity Conservation Act 2016*

Dear Ms Sutcliffe

I refer to your correspondence dated 27 May 2024, requesting the issue of a waiver from the requirement for a Biodiversity Development Assessment Report (BDAR) to be submitted as part of the State significant development (SSD) application for the Hunter Indoor Sports Centre (SSD-65595459).

Section 7.9(2) of the Biodiversity Conservation Act 2016 (BC Act) provides the following in relation to an application for SSD:

> *"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 significant impact on biodiversity values."*

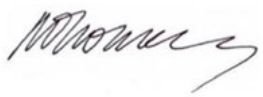
The Biodiversity, Conservation and Science (BCS) group of the Secretary of the Department of Climate Change, Energy, the Environment and Water (DCCEEW) has considered the waiver request and is not satisfied the proposed development is not likely to have any significant impact on biodiversity values, due to the presence of planted native vegetation. Appendix D of the Biodiversity Assessment Method (BAM) provides a decision key for the assessment of planted native vegetation. Application of the key (specifically Question 5) applies to the planted native vegetation present on site. As such BCS have determined that a BDAR should be prepared in accordance with the streamlined assessment module for planted native vegetation of the BAM. Accordingly, the delegate has not granted a waiver.

As delegate of the Planning Secretary of the Department of Planning, Housing and Infrastructure, I have considered the waiver request and determination of BCS and determined that it cannot be

concluded whether the proposed development as described above, is not likely to have any significant impacts on biodiversity values, due to the presence of planted native vegetation.

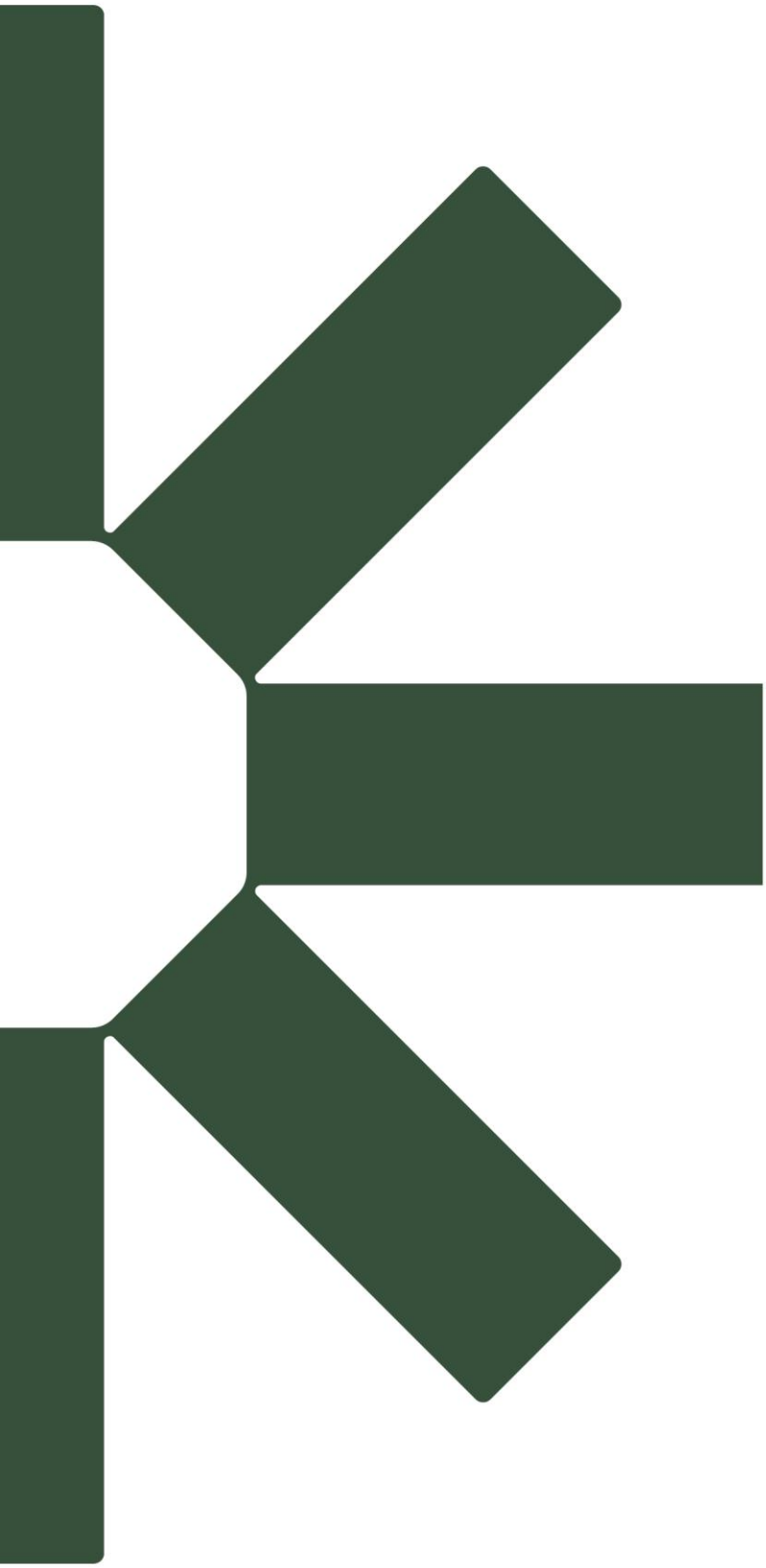
Should you have any enquiries regarding the above matter, please contact Bethany Lane on 02 9585 6775 or via email at bethany.lane@dpie.nsw.gov.au.

Yours sincerely,



Madeline Thomas
Team Leader
Social Infrastructure Assessments

as delegate of the Planning Secretary



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