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8 February 2022

Our ref: SYD-18781

SJB Planning
Level 2,
490 Crown Street
Surry Hills, NSW 2010

Attention: Michael Baker

Dear Michael,

Re: Lilyfield Skate Plaza Biodiversity Assessment

Eco Logical Australia Pty Ltd (ELA) was engaged by SJB Planning to undertake a Biodiversity Assessment to support the REF for Lilyfield Skate Plaza. ELA's role was to assess native vegetation on the site, assign the best fit Plant Community Types and provide a brief assessment of potential impacts of the proposed development. A field assessment was conducted by two ELA ecologists, to determine the extent and quality of native vegetation, identify any threatened species/populations and any other potential ecological values. The purpose of this Biodiversity Assessment is to support the REF for Lilyfield Skate Plaza.

Within the surveyed area of Lilyfield Skate Plaza habitat features, vegetation, threatened species, PCTS and fauna species were identified and assessed. The vegetation present is not representative of a threatened ecological community and no threatened flora or fauna species nor any habitat was identified during the survey. The proposed works are not considered to likely have a significant impact on the ecology of the broader landscape. The Below letter details the results of the Biodiversity assessment provided by ELA as well as recommendations for mitigation measures.

If you have any questions, I can be contacted on the number above or at leura.kowald@ecoaus.com.au

Regards,

Leura Kowald
Ecologist

1. Background information

The proposed project site (study area) is located at 70 Mary Street Lilyfield, NSW 2040, within Leichhardt Park (Lot 6643 DP 1137663). The study area is bounded by Maliyawul Street to the west running alongside the harbour edge while the southern boundary adjoins a small carpark. Prior to becoming a public park, the site was previously used for industrial purposes and contained no vegetation, the soils are highly modified possibly containing inverted soils, fill material and general waste. The proposal consists of the construction of a skate plaza within the study area (Figure 1).

1.1. Literature and database review

A brief desktop review of relevant background literature and databases was undertaken to identify ecological values including threatened flora and fauna, threatened populations, endangered ecological communities and migratory species under the *Biodiversity Conservation Act 2016* (BC Act), the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Fisheries Management Act 1994* (FM Act). These include:

- BioNet (Wildlife Atlas) Database search (5 kilometres) accessed 06/05/2021
- Protected Matters Search tool (5 kilometres) accessed 06/05/2021
- FM Act threatened species, population and communities list accessed 13/05/2021
- SEED Database accessed 06/05/2021
- Aerial mapping (Nearmap) imagery: 10/04/2021
- Vegetation mapping: The Native Vegetation of the Sydney Metropolitan Area – Version 3.1 (OEH 2016)
- Arboriculture Development Assessment Report Leichardt Oval 3 (2019) Moore Trees
- Relevant State Environmental Planning Policies (SEPPs).

1.2. Field survey methodology

A field survey was undertaken by two ELA ecologists on 12 May 2021 to ascertain if any threatened flora, fauna and ecological communities listed under the BC Act and the EPBC Act are likely to have habitat on site. During the field survey the ecologists

- Undertook vegetation validation to ground truth the extent and quality of the native vegetation of previous mapping
- Identify the potential presence of threatened species, populations, and communities or if their habitat occurs within the study area
- Assessed the subject site for any other potential ecological values.

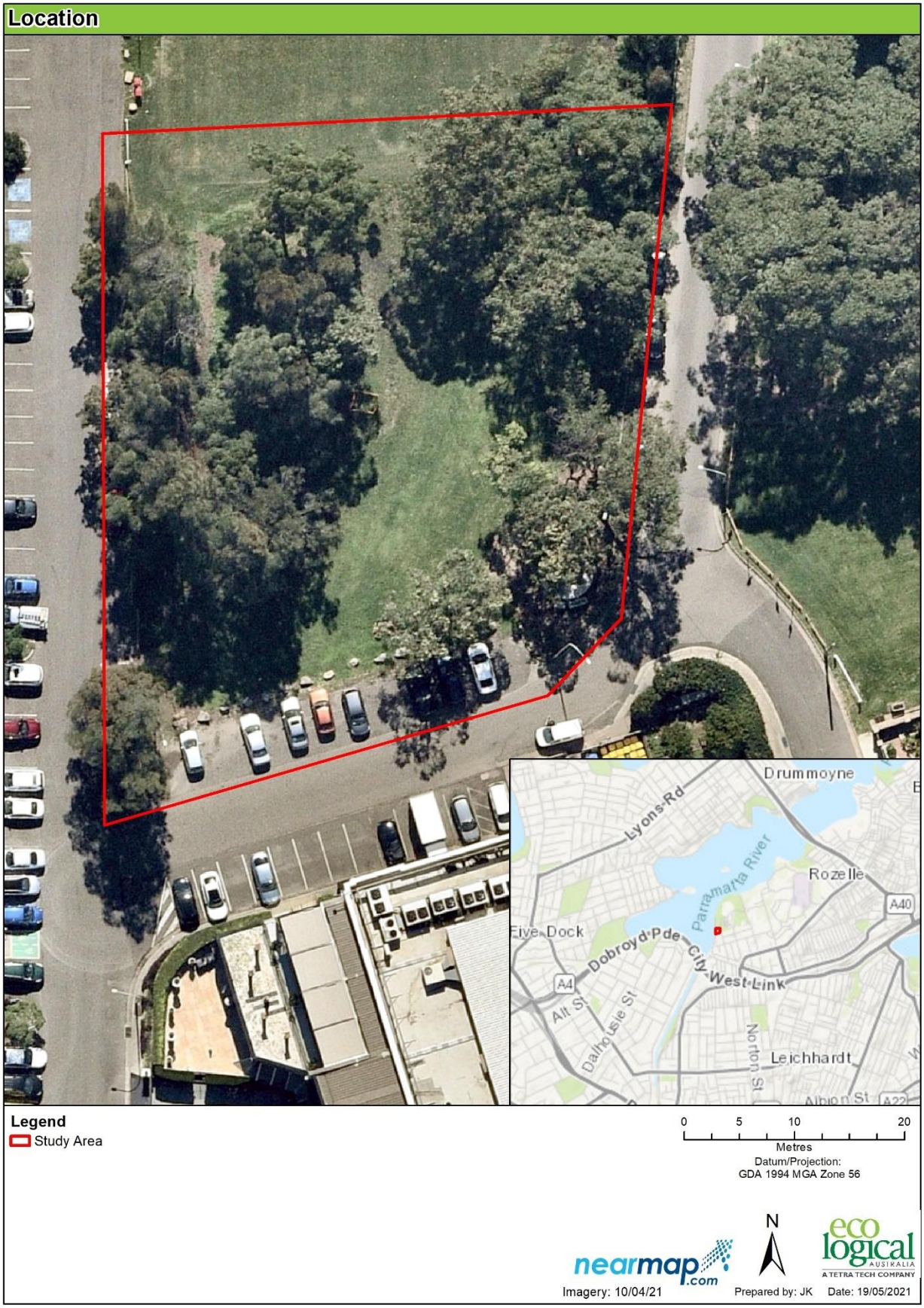

Figure 1: Location of study in relation to broader locality

2. Legislative Context

Table 1: Legislation relevant to the proposed works

Name	Relevance to the project
Commonwealth	
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	The EPBC Act aims to protect Matters of National Environmental Significance (MNES) including wetlands of international importance, threatened species and communities, and listed migratory species. An action that may or is likely to have a significant impact on MNES should be referred to the Commonwealth to determine whether it is a Controlled Action that requires approval from the Commonwealth. Assessment of potential impacts to MNES have been assessed in this report. MNES have been identified within the study area. MNES within the study area are considered unlikely to be significantly affected by the proposed works.
State	
Environmental Planning and Assessment Act 1979 (EP&A Act)	The EP&A Act is the principal planning legislation for NSW. It provides a framework for the overall environmental planning and assessment of development proposals. The proposed development is to be assessed under Part 5 of the EP&A Act and requires approval from Council, which is the determining authority.
Biodiversity Conservation Act 2016 (BC Act)	The *Biodiversity Conservation Act 2016* outlines the assessment requirements to determine whether a proposed activity (Part 5 of the EP&A Act) is likely to significantly affect threatened species or ecological communities, or their habitats under section 7.3. Under Part 5 of the EP&A Act, if an activity is likely to significantly affect threatened species, then it must be accompanied by a species impact statement, or if the proponent so elects—a biodiversity development assessment report. The BC Act also outlines that an activity is likely to significantly affect threatened species if it is carried out in a declared area of outstanding biodiversity value. Assessments of significance for the impact to threatened species and endangered ecological communities in accordance with s7.3 of the Act have been undertaken for the proposed works and concluded that a significant impact is not likely to result from the activity. and an assessment under the BOS is not required. The activity is not located on a declared area of outstanding biodiversity value.
Biosecurity Act 2015 (BS Act)	Under the Biosecurity Act, priority weeds have been identified for local government areas and assigned strategies to contain, remove or manage. Occupiers of land (this includes owners of land) have responsibility for taking appropriate action for priority weeds on the land they occupy. No priority weeds listed under the Greater Sydney Regional Strategic Weed Management Plan 2017 - 2022 (updated 2019) occur within the subject site.
Fisheries Management Act 1994 (FM Act)	The objectives of the FM Act are to conserve, develop and share the fishery resources of the State for the benefits of present and future generations. The Act provides protection and approval processes for activities which may impact on threatened species, protected marine vegetation, or involve dredging, reclamation, or obstruction of fish passage. The development does not involve harm to mangroves or other protected marine vegetation, dredging, reclamation or blocking of fish passage and therefore a permit under s205 the FM Act is not required.
Water Management Act 2000 (WM Act) and *Water Management (General) Regulation 2018*	The WM Act 2000 aims to provide for the sustainable and integrated management of the state's water for the benefit for both present and future generations. If a local development is proposed on 'waterfront land' (within 40 m of the top of bank), it is considered a Controlled Activity and requires a Controlled Activity Approval (CAA) approval under s91 of the WM Act. Although the

Name	Relevance to the project
	site is within 40 m of waterfront land, works by or on behalf of a local council is exempt from a controlled activity approval under Clause 41 of the *Water Management (General) Regulation 2018*
Planning Instruments	
State Environmental Planning Policy (Coastal Management) 2018 (Coastal Management SEPP).	Policy aims to promote a coordinated approach to managing coastal areas by managing development in the coastal zone. The site falls within the area mapped as Coastal Environment Area and Coastal Use Area under the Coastal Management SEPP. The Coastal Management SEPP has requirements for development consent for land falling within a Coastal Environment Area and a Coastal Use Area, however these requirements do not apply because the activity will be assessed under Part 5 of the EP&A Act.
Leichhardt Local Environment Plan (LEP) 2013	The study area is zoned RE1 (Public Recreation) under the Leichhardt LEP. The objectives of the zone include: • To enable land to be used for public open space or recreational purposes. • To provide a range of recreational settings and activities and compatible land uses. The land use table has requirements for development consent however the activity is being determined under Part 5 of the EP&A Act. The LEP 2013 contains a clause (3.3) pertaining to environmentally sensitive land. The proposed works do not impact upon any mapped areas of environmentally sensitive land within the study area under this LEP. The LEP 2013 contains a clause (6.1) pertaining to Acid sulfate soils. The land is classed as class 2 which says development consent is required for: • Works below the natural ground surface. • Works by which the watertable is likely to be lowered.
Leichhardt Development Control Plan (DCP) 2013	C1.14 Tree Management has a requirement to obtain authorisation to remove a tree, where an application must be submitted to council, which is the determining authority. This does not apply because the approval is being considered under Part 5 of the EP&A Act.
Sydney Regional Environmental Plan Sydney Harbour Catchment (2005)	This plan has the following aims with respect to the Sydney Harbour Catchment— (a) to ensure that the catchment, foreshores, waterways and islands of Sydney Harbour are recognised, protected, enhanced and maintained— (i) as an outstanding natural asset, and (ii) as a public asset of national and heritage significance, for existing and future generations, (b) to ensure a healthy, sustainable environment on land and water, (c) to achieve a high quality and ecologically sustainable urban environment, (d) to ensure a prosperous working harbour and an effective transport corridor, (e) to encourage a culturally rich and vibrant place for people, (f) to ensure accessibility to and along Sydney Harbour and its foreshores, (g) to ensure the protection, maintenance and rehabilitation of watercourses, wetlands, riparian lands, remnant vegetation and ecological connectivity, (h) to provide a consolidated, simplified and updated legislative framework for future planning. The proposed development does not impact upon the objectives of this SEPP.
State Environmental Planning Policy (infrastructure) 2017 (ISEPP)	The ISEPP simplifies the process for providing essential infrastructures such as schools, hospitals, roads, railways, sewer, water supply and electricity delivery by providing specific planning provisions and development controls. It specifies when development is exempt from further assessment, is permissible without consent, requires consent or is prohibited.

Name	Relevance to the project
	Reserves: under clause 65(3) the proposal would be permissible without consent (and therefore assessed under Part 5 of the EP&A Act) as the land is a public reserve under the control of or vested in the council.
State Environmental Planning Policy (SEPP) (Vegetation in Non-Rural Areas) 2017	The Vegetation SEPP will ensure the biodiversity offset scheme (established under the Land Management and Biodiversity reforms) will apply to all clearing of native vegetation that exceeds the offset thresholds in urban areas and environmental conservation zones that does not require development consent. The Vegetation SEPP applies to the subject site as it is Zoned RE1 and within the Inner West Local Government Area. However, the SEPP is not relevant to this project as the activity is to be assessed under Part 5 of the EP&A Act.
State Environmental Planning Policy (SEPP) No 19 – Bushland in Urban Areas (1986 EPI 14)	The general aim of this Policy is to protect and preserve bushland within the urban areas. The proposed development does not impact upon bushland because the vegetation is not a remainder of the natural vegetation of the land or is representative of the structure and floristics of the natural vegetation.

3. Results

3.1. Literature and database review

3.1.1. Previous vegetation mapping

Prior to field validation, previous vegetation mapping undertaken by Office of Environment and Heritage (OEH) 2016 was reviewed. Several trees within the study area were mapped but were not assigned to any vegetation community (Figure 2). The cleared area was not assigned to any vegetation community.

3.1.2. Threatened Ecological Communities, Flora, Fauna and Migratory species records

A review of the BioNet Atlas and EPBC Act protected matters search tool to within 5km of the development site identified 7 threatened ecological communities, 23 threatened flora and 71 threatened fauna either known or considered to potentially occur in the development area. The BioNet Atlas search identifies species previously positively recorded while the protected matters search identifies species that have potential to exist in the area.

No threatened flora or fauna species BioNet records are located within the study area (Figure 6). However, there are records for the highly mobile *Pteropus poliocephalus* (Grey-headed Flying-Fox) located within close proximity to the study area. No TECs were previously mapped within the study area.

3.2. Field results

3.2.1. Vegetation mapping: Planted native/exotic

The study area primarily consisted of parkland and planted trees. No remnant native vegetation was present in the study area. Planted native species present in the study area include *Eucalyptus robusta* (Swamp Mahogany), *Eucalyptus botryoides* (Bangalay), *Casuarina glauca* (Swamp Oak) and several native forbs and grasses including *Commelina cyanea* (Scurvy weed) and *Dichondra repens* (Kidney Weed. The native groundcover was present only in small, isolated portions within the park.

A number of exotic grasses and opportunistic weeds dominated the understorey. Species present included *Cynodon dactylon* (Common Couch), *Pennisetum clandestinum* (Kikuyu Grass), *Poa annua* (Winter grass), *Poa pratensis* (Kentucky bluegrass), *Chloris virgata* (Feathertop), *Conyza bonariensis* (Flax-leaf Fleabane), *Sonchus oleraceus* (Common Sowthistle) and *Bidens pilosa* (Farmer's friends).

The vegetation identified within the subject site was not representative of any native PCT, nor is it consistent with any threatened ecological community (TEC). As the vegetation is dominated by *Casuarina glauca*, it needs to be assessed for potential as EPBC Act listed ecological community *Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland*. The vegetation does not meet even the lowest condition class for this community as it does not contain quality native understorey and is not contiguous with another area of native vegetation. A map of vegetation within the development site is shown in Figure 3. Photos of the vegetation within the subject site is provided in Figure 4 and Figure 5.

Figure 2: Validated vegetation within the study area

Figure 3: Validated vegetation within the study area

Figure 4: Vegetation facing south through site

Figure 5: ***Eucalyptus botryoides*** **and** ***Eucalyptus robusta*** **in NE corner of study area.**

3.2.2. Threatened species

3.2.2.1. Flora

No threatened flora species were identified within the study area. The vegetation within the study area was not considered suitable habitat for threatened flora species; this was determined due to the absence of remnant native vegetation within the subject site, and highly modified nature of the site (i.e. mown, regularly maintained grassland).

3.2.2.2. Fauna

No threatened fauna species were identified during the field survey. No habitat features, such as built structures, buildings, culverts and bridges where threatened microbats can potentially occur were identified within the subject site.

Vegetation within the study area was not connected to any larger areas of quality habitat. The highly fragmented canopy within the subject site provides potential foraging habitat for highly mobile species such as birds and Grey-headed Flying-fox.

Several peri-urban avian species were identified during the field survey, including *Cracticus tibicen* (Australian Magpie), *Trichoglossus moluccanus* (Rainbow Lorikeet) and *Manorina melanocephala* (Noisy Miner).

Due to the fragmented nature of habitat within the urban landscape the fauna that are likely to utilise the vegetation within the subject site is restricted to highly mobile, urbanised fauna species which are likely to occasionally forage within this vegetation intermittently.

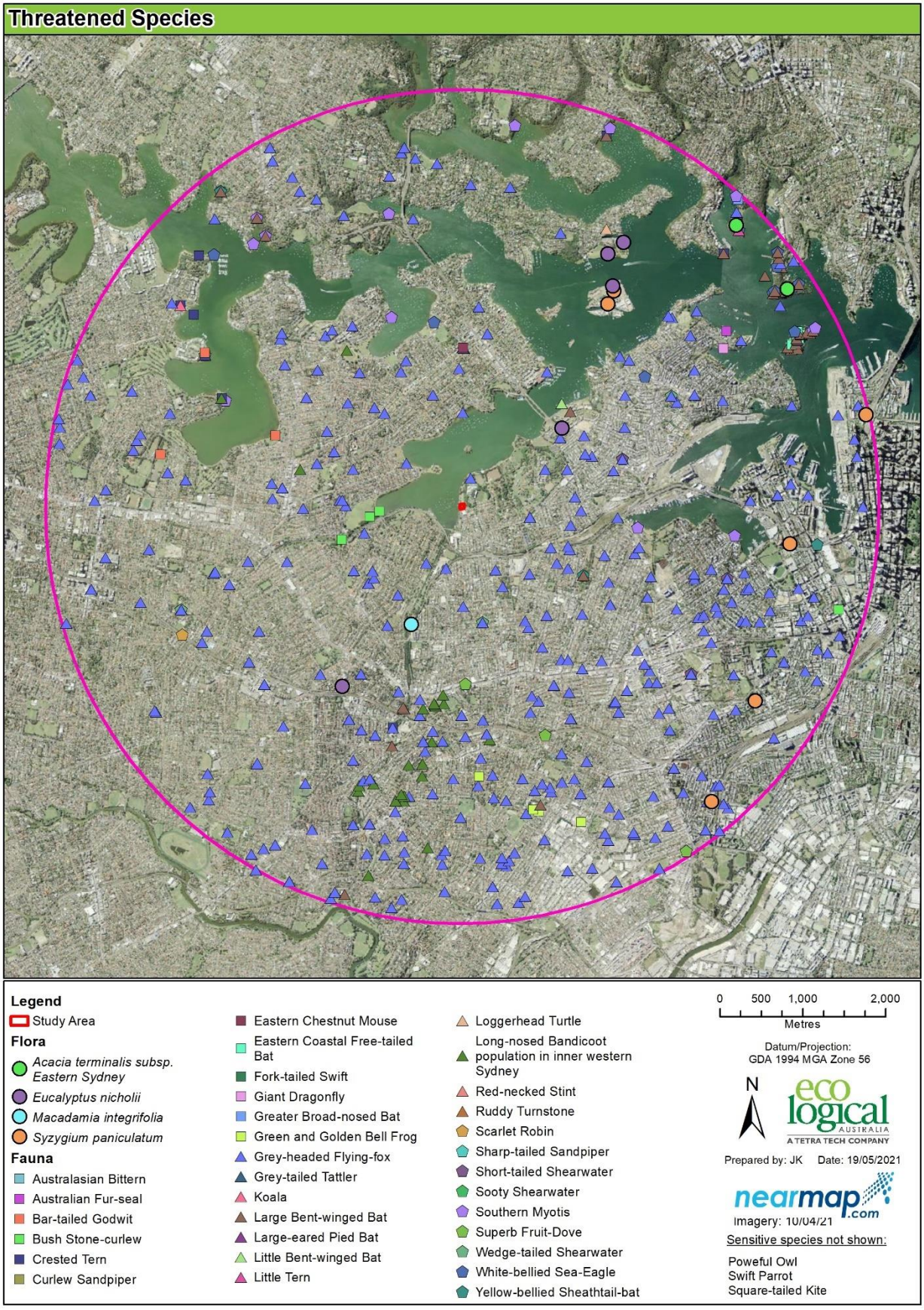

Figure 6: Threatened species recorded within 5km of study area

4. Impacts

4.1. Direct impacts

The proposed works will result in the removal of approximately forty-two planted native trees and the retention of twenty-four. These trees do not constitute a Plant Community Type or Threatened Ecological Community.

No other vegetation consisting of a native PCTs or TECs will be directly or indirectly impacted by the proposed works. No threatened flora will be directly impacted by the proposed works.

4.2. Indirect impacts

Indirect impacts as a result of the proposed works may include:

- Rubbish dumping.
- Noise and vibration that may affect local fauna
- Surface and stormwater runoff from increased impervious areas associated with construction and any associated landscaped areas.

Pathogens such as Phytophthora and Myrtle Rust causing dieback to retained vegetation. Caused through transportation of soil, water or plant materials. These indirect impacts will be reduced through the mitigation measures and recommendations provided in Section 5.

4.3. Test of Significance

The test of significance (under s.7.3 of the BC Act) determines whether the proposed activity is likely to significantly affect threatened species or ecological communities, or their habitats.

If the activity is likely to have a significant impact, or will be carried out in a declared Area of Outstanding Biodiversity Value (AOBV), the proponent must either apply the Biodiversity Offsets Scheme or prepare a species impact statement (SIS).

A likelihood of occurrence assessment (Appendix A) has been completed and determined that no remnant native vegetation and the low habitat quality of the existing vegetation, the proposed activity is unlikely to have a significant impact on threatened species or ecological communities, or their habitats.

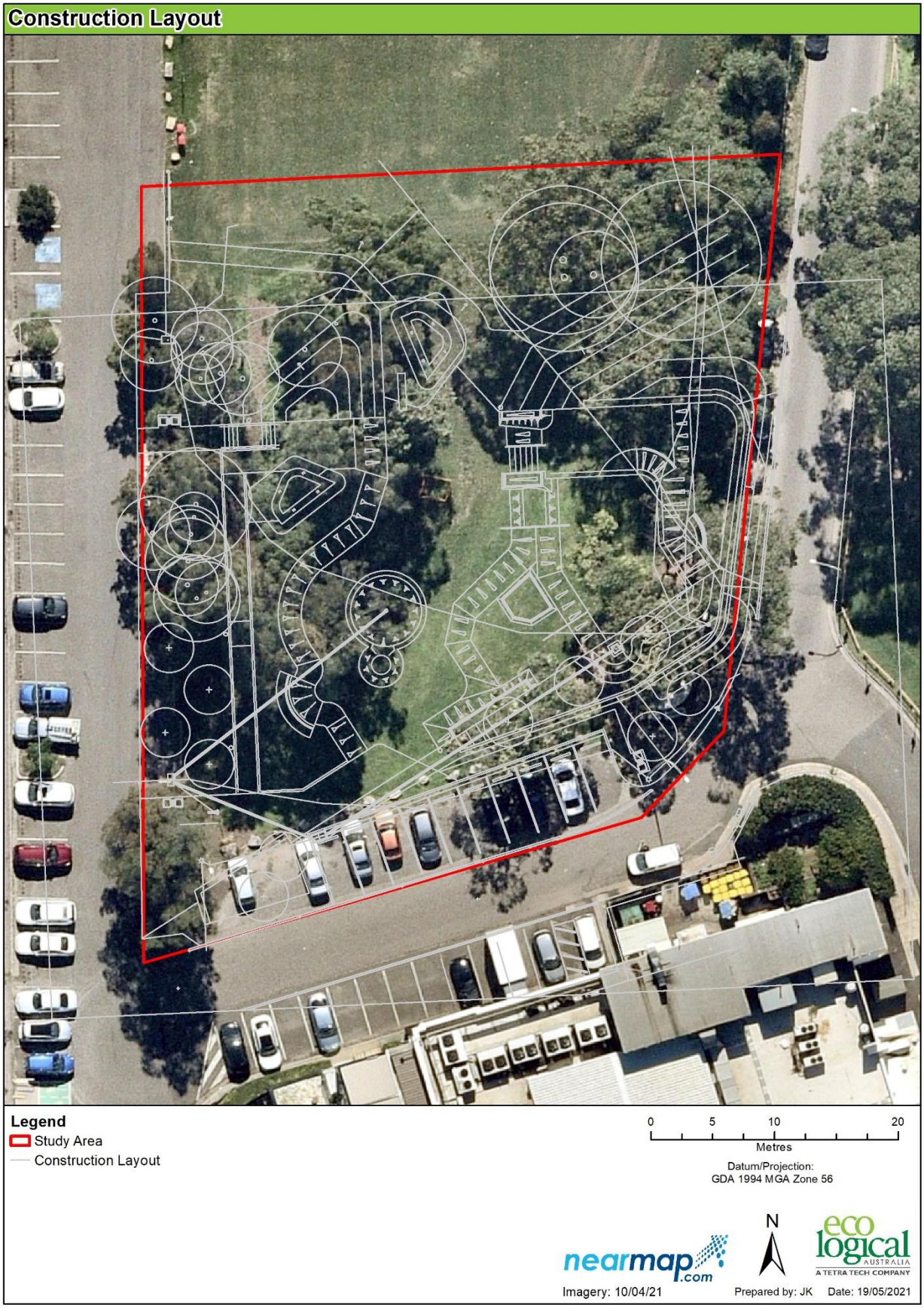

Figure 7: Proposed construction layout

5. Recommendations

A number of general mitigation measures will be implemented which will reduce the potential impact on biodiversity values. Specific mitigation measures that relate to specific sensitive areas, threatened species and threatened ecological communities are outlined below in this section.

The following mitigation measures are recommended to reduce the ecological impacts associated with the proposed works within the subject site:

- Protective barrier fencing should be erected pre-construction and during construction to ensure that related impacts are contained within the work areas and trees to be retained are not impacted.
- Erosion/sediment controls should be implemented during any excavation or construction works to avoid offsite impacts or areas of vegetation being retained.
- Establish clearly defined boundaries as the work area and any 'no-go' areas adjacent to the boundaries of the work should not be disturbed or damaged, such as vegetation to be retained. Fencing must be erected prior to works to prevent access to 'no-go' areas.
- A sufficient number of waste receptacles for general waste and recyclable materials are to be provided for disposal of waste on site. The site must be kept free of general litter.
- Equipment must not be used if there are any signs of fuel, oil or hydraulic leaks. Leaks must be repaired immediately, or the equipment must be removed from the site until it is repaired or replaced with a leak-free item.
- Reschedule works during and after periods of heavy rainfall.
- Chemicals and rubbish must not be stockpiled near native vegetation or the waterways.
- No vegetation with signs of disease, pathogens or fungus should be planted on site.
- Any fill brought on to site must be from a reputable supplier and be certified fill.
- Do not allow dirty vehicles to enter the site, ensure vehicles are clean and all mud, dirt or soil is removed before entering the site.

6. Conclusion

The proposed activity is not considered likely to have significant direct or indirect impacts on the flora and fauna in and adjacent to the study area. This is subject to all recommended mitigation measure being implement through the construction of the proposal. Furthermore, a formal assessment of any TECs or threatened species in the form of a Referral under the EPBC Act is not required for this proposal.

7. References

Cropper, S.C. 1993. Management of Endangered Plants. CSIRO Australia, Melbourne.

DAWE 2020a. Protected Matters Search Tool [online]. Available: http://www.environment.gov.au/epbc/protect/index.html (Accessed: August 2020).

DAWE 2020b. Species Profile and Threats Database. Available http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.

DPIE 2019. Guidance to assist a decision-maker to determine a serious and irreversible impact. State of NSW and Department of Planning, Industry and Environment.

DPIE 2020a. 'Threatened Species Database (5 km radius search). OEH Sydney, NSW. (Data viewed August 2020)'.

DPIE 2020b. Threatened Species Profiles. Available: http://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?

Department of Environment and Conservation (DEC), 2004, Threatened Species Survey and Assessment: Guidelines for developments and activities (working draft), New South Wales Department of Environment and Conservation, Hurstville, NSW.

Inner West Council 2013. Leichhardt Local Environmental Plan.

Inner West Council 2013. Leichhardt Development Control Plan.

Moore Trees 2019. Arboriculture Development Assessment Report Leichardt Oval 3

OEH 2016. 'The Native Vegetation of the Sydney Metropolitan Area'.

Preliminary draft conservation advice (incorporating listing advice) of the Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community

Appendix A

An assessment of likelihood of occurrence was made for threatened and migratory species identified from the database search. Five terms for the likelihood of occurrence of species are used in this report. This assessment was based on database or other records, presence or absence of suitable habitat, features of the proposal site, results of the field survey and professional judgement. The terms for likelihood of occurrence are defined below:

- "yes" = the species was or has been observed on the site
- "likely" = a medium to high probability that a species uses the site
- "potential" = suitable habitat for a species occurs on the site, but there is insufficient information to categorise the species as likely to occur, or unlikely to occur
- "unlikely" = a very low to low probability that a species uses the study area, and
- "no" = habitat on site and in the vicinity is unsuitable for the species.

An assessment of Significance was conducted for threatened species or ecological communities that were recorded within the study area or had a higher likelihood of occurring and were not recorded during the site visit. It is noted that some threatened fauna species that are highly mobile, wide ranging and vagrant may use portions of the study area intermittently for foraging. For these fauna species, the habitat present and likely to be impacted is not considered to be important to the threatened species, particularly in relation to the amount of similar good quality habitat remaining in the surrounding landscape. As such, an assessment of significance in reference to State or Commonwealth legislation was not considered necessary.

Likelihood of occurrence for threatened ecological communities recorded or likely to occur within 5 km of the study area, and requirement of impact assessment

Scientific Name	BC Act Status	EPBC Act Status	Distribution and Habitat	Likelihood of Occurrence	Impact Assessment Required
Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion	V / CE	E	Sydney Basin Bioregion, mostly in the Cumberland IBRA sub-region, with small occurrences in the Sydney Cataract, Wollemi and Burragorang sub-regions. It occurs primarily in the Castlereagh area in the north-west of the Cumberland Plain with other known occurrences near Holsworthy, Kemps Creek and Longneck Lagoon. Occurs primarily on Tertiary sands and gravels of the Hawkesbury-Nepean river system. At Agnes Banks it primarily occurs on aeolian (wind-blown) sands overlying Tertiary alluvium. Found on flat or gently undulating terrain in rain shadow areas typically receiving 700–900mm annual rainfall. The ecological community occurs primarily at low elevations up to 80m above sea level (ASL), including old ridges, dunes and terraces.	No – not identified during survey	No
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community		E	From Curtis Island (Gureng Gureng country) in Queensland to near Bermagui (Yuin Nation), in southern New South Wales.	No – not identified during survey.	No
Coastal Upland Swamps in the Sydney Basin Bioregion	E	E	Endemic to NSW and confined to the Sydney Basin Bioregion. It occurs in the eastern Sydney Basin from the Somersby district in the north (Somersby-Hornsby plateaux) to the Robertson district in the south (n the Woronora plateau). Occur primarily on impermeable sandstone plateaux with shallow groundwater aquifers in the headwaters and impeded drainage lines of streams, and on sandstone benches with abundant seepage moisture. Generally associated with acidic soils.	No – not identified during survey	No
Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion	E	CE	Occurs in western Sydney, with the most extensive stands occurring in the Castlereagh and Holsworthy areas. Smaller remnants occur in the Kemps Creek area and in the eastern section of the Cumberland Plain. Mainly occurs on clay soils derived from the deposits of ancient river systems (alluvium), or on shale soils of the Wianamatta Shales.	No – not identified during survey	No
River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin		CE	Given its habitat, the community has an important role in maintaining river ecosystems and riverbank stability. Associated with silts, clay-loams and sandy loams, on periodically inundated alluvial flats, drainage lines and river terraces associated with coastal floodplains. Generally occurs below 50 m elevation, but may occur on localised river flats up to 250 m above sea level. The structure of the community may vary from tall open	No – not identified during survey	No

Scientific Name	BC Act Status	EPBC Act Status	Distribution and Habitat	Likelihood of Occurrence	Impact Assessment Required
and South East Corner Bioregions			forests to woodlands, although partial clearing may have reduced the canopy to scattered trees. Typically form mosaics with other floodplain forest communities and treeless wetlands, and often fringe treeless floodplain lagoons or wetlands with semi-permanent standing water.		
Shale Sandstone Transition Forest of the Sydney Basin Bioregion	CE	CE	Occurs at the edges of the Cumberland Plain in western Sydney, most now occurs in the Hawkesbury, Baulkham Hills, Liverpool, Parramatta, Penrith, Campbelltown and Wollondilly local government areas. Intergrade between clay soils from the shale rock and earthy and sandy soils from sandstone, or where shale caps overlay sandstone.	No – not identified during survey	No
Western Sydney Dry Rainforest and Moist Woodland on Shale	E	CE	Cumberland Plain Sub-region of the Sydney Basin Bioregion. It generally occurs in rugged terrain and other patches may occur on undulating terrain, with dry rainforest patches typically occupying steep lower slopes and gullies, and moist woodland patches typically occupying upper sections of the slope. Occurs almost exclusively on clay soils derived from Wiannamatta Group shales.	No – not identified during survey	No

EPBC Act: CE = Critically Endangered, E = Endangered, V = Vulnerable

Likelihood of occurrence for threatened species recorded or likely to occur within 5 km of the study area, and requirement of impact assessment

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and Habitat	Number of records within 5km	Likelihood of occurrence on site	Impact Assessment Required
				FAUNA			
Apus pacificus	Fork-tailed Swift		M	Recorded in all regions of NSW. Riparian woodland., swamps, low scrub, heathland, saltmarsh, grassland, Spinifex sandplains, open farmland and inland and coastal sand-dunes.	1	Unlikely – a migratory species breeding in Asia so no breeding habitat. It also spends the majority of its time in flight feeding, so unlikely to land in study area.	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and Habitat	Number of records within 5km	Likelihood of occurrence on site	Impact Assessment Required
Ardenna grisea	Sooty Shearwater		M	Breeds on islands off NSW from Montague Island to Broughton Island. Present off eastern NSW mainly October-February. Islands, offshore.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Ardenna pacifica	Wedge-tailed Shearwater		M	Throughout the tropical Pacific and Indian Ocean roughly between latitudes 35°N and 35°S. Nearly always found over pelagic waters, except when at colonies. They feed on fish, cephalopods, crustaceans and insects.	3	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Ardenna tenuirostris	Short-tailed Shearwater		M	Breeds on islands north to Broughton Island off NSW. Commonly observed south of coastal northern NSW during summer. Islands, offshore.	3	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Arenaria interpres	Ruddy Turnstone		M	Summer migrant to most coastal regions, with occasional records inland, including in NSW. Tidal reefs and pools; pebbly, shelly and sandy shores; mudflats; inland shallow waters; sewage ponds, saltfields; ploughed ground.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Botaurus poiciloptilus	Australasian Bittern		E	Found over most of NSW except for the far north-west. Permanent freshwater wetlands with tall, dense vegetation, particularly *Typha* spp. (bullrushes) and *Eleocharis* spp. (spikerushes).	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Burhinus grallarius	Bush Stone-curlew	E1		In NSW, found sporadically in coastal areas, and west of the divide throughout the sheep-wheat belt. In NSW, it occurs in lowland grassy woodland and open forest.	4	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Calidris acuminata	Sharp-tailed Sandpiper		M	Summer migrant. Widespread in most regions of NSW, especially in coastal areas, but sparse in the south-central Western Plain and east Lower Western Regions. Shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation.	2	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution and Habitat	Number of records within 5km	Likelihood of occurrence on site	Impact Assessment Required
Calidris ferruginea	Curlew Sandpiper		CE, M	Occurs along the entire coast of NSW, and sometimes in freshwater wetlands in the Murray-Darling Basin. Littoral and estuarine habitats, including intertidal mudflats, non-tidal swamps, lakes and lagoons on the coast and sometimes inland.	5	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Calidris ruficollis	Red-necked Stint		M	Summer migrant to Australia, widespread coastal and inland NSW. Tidal mudflats, saltmarshes, sandy and shelly beaches, saline and freshwater wetlands, saltfields, sewage ponds.	2	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Chalinolobus dwyeri	Large-eared Pied Bat		V	Recorded from Rockhampton in Qld south to Ulladulla in NSW. Largest concentrations of populations occur in the sandstone escarpments of the Sydney basin and the NSW north-west slopes. Wet and dry sclerophyll forests, Cyprus Pine dominated forest, woodland, sub-alpine woodland, edges of rainforests and sandstone outcrop country.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Haliaeetus leucogaster	White-bellied Sea-Eagle	V		Distributed along the coastline of mainland Australia and Tasmania, extending inland along some of the larger waterways, especially in eastern Australia. Freshwater swamps, rivers, lakes, reservoirs, billabongs, saltmarsh and sewage ponds and coastal waters. Terrestrial habitats include coastal dunes, tidal flats, grassland, heathland, woodland, forest and urban areas.	16	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Lathamus discolor	Swift Parrot		CE	Migrates from Tasmania to mainland in Autumn-Winter. In NSW, the species mostly occurs on the coast and south west slopes. Box-ironbark forests and woodlands.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Limosa lapponica	Bar-tailed Godwit		M	Summer migrant to Australia. Widespread along the coast of NSW, including the offshore islands. Also numerous scattered inland records. Intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons,	14	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No

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				bays, seagrass beds, saltmarsh, sewage farms and saltworks, saltlakes and brackish wetlands near coasts, sandy ocean beaches, rock platforms, and coral reef-flats. Rarely inland wetlands, paddocks and airstrips.			
Litoria aurea	Green and Golden Bell Frog		V	Since 1990, recorded from ~50 scattered sites within its former range in NSW, from the north coast near Brunswick Heads, south along the coast to Victoria. Records exist west to Bathurst, Tumut and the ACT region. Marshes, dams and stream-sides, particularly those containing *Typha* spp. (bullrushes) or *Eleocharis* spp. (spikerushes). Some populations occur in highly disturbed areas.	5	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Lophoictinia isura	Square-tailed Kite	V		In NSW, it is a regular resident in the north, north-east and along the major west-flowing river systems. It is a summer breeding migrant to the south-east, including the NSW south coast. Timbered habitats including dry woodlands and open forests, particularly timbered watercourses.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	V		Found along the east coast from south Qld to southern NSW.	10	Unlikely – suitable foraging and roosting habitat, in the form of hollows, was not identified within the study area.	No
Miniopterus australis	Little Bentwing-bat	V		Moist eucalypt forest, rainforest, vine thicket, wet and dry sclerophyll forest, Melaleuca swamps, dense coastal forests and banksia scrub. East coast and ranges south to Wollongong in NSW.	3	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Miniopterus orianae oceanensis	Large Bent-winged Bat	V		Rainforest, wet and dry sclerophyll forest, monsoon forest, open woodland, paperbark forests and open grassland.	49	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No

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Myotis macropus	Southern Myotis	V		Foraging habitat is waterbodies (including streams, or lakes or reservoirs) and fringing areas of vegetation up to 20m.	17	Potential – suitable foraging habitat identified within study area.	No – no roosting habitat identified within the study area and more suitable foraging habitat within greater locality.
Ninox strenua	Powerful Owl	V		Woodland, open sclerophyll forest, tall open wet forest and rainforest. In NSW, it is widely distributed throughout the eastern forests from the coast inland to tablelands, with scattered records on the western slopes and plains.	2570	Unlikely – suitable roosting habitat not identified within the study area.	No
Perameles nasuta	Long-nosed Bandicoot	E2		Occupies a variety of habitats including backyards and parklands. A population exists on North Head as well an area not yet defined that includes the local government areas (LGA) of Marrickville and Canada Bay as well as Canterbury, Ashfield and Leichhardt.	26	Unlikely – site is highly fragmented such that the species is unlikely to utilise the site for breeding and no signs of foraging identified during survey.	No
Petalura gigantea	Giant Dragonfly	E1		Found along the east coast of NSW from the Victorian border to northern NSW. Not found west of the Great Dividing Range. Permanent swamps and bogs with some free water and open vegetation.	1	Unlikely – suitable habitat not identified within site.	No
Petroica boodang	Scarlet Robin	V		Dry eucalypt forests and woodlands, and occasionally in mallee, wet forest, wetlands and tea-tree swamps. In NSW, it occurs from the coast to the inland slopes.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Phascolarctos cinereus	Koala		V	In NSW it mainly occurs on the central and north coasts with some populations in the west of the Great Dividing Range. There are sparse and possibly disjunct populations	3	Unlikely - habitat present is highly fragmented such that this species is unlikely to utilise the site for foraging or breeding.	No

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				in the Bega District, and at several sites on the southern tablelands. Eucalypt woodlands and forests.			
Pseudomys gracilicaudatus	Eastern Chestnut Mouse	V		In NSW, it mainly occurs north from the Hawkesbury River area along the coast and eastern edge of the Great Dividing Range. There are however isolated records in the Jervis bay area. In NSW mostly found in dense, wet heathland and swamps.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Pteropus poliocephalus	Grey-headed Flying-fox		V	Along the eastern coast of Australia, from Bundaberg in Qld to Melbourne in Victoria. Subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops.	736	Likely – a highly mobile species with seasonal foraging habitat available within the study area and a high number of records near site. No camps identified within study area.	Yes
Ptilinopus superbus	Superb Fruit-Dove	V		Principally from north-eastern Qld to north-eastern NSW. Further south, it is confined to pockets of suitable habitat, and occurs as far south as Moruya. Rainforest and closed forests. May also forage in eucalypt or acacia woodland where there are fruit-bearing trees.	3	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V		Almost all habitats, including wet and dry sclerophyll forest, open woodland, open country, mallee, rainforests, heathland and waterbodies. There are scattered records of this species across the New England Tablelands and North West Slopes. Rare visitor in late summer and autumn to south-western NSW.	4	Potential – suitable foraging habitat identified within study area.	No – no roosting habitat and more suitable foraging habitat within locality.
Scoteanax rueppellii	Greater Broad-nosed Bat	V		Woodland, moist and dry eucalypt forest and rainforest. Both sides of the great divide, from the Atherton Tableland in Qld to north-eastern Victoria, mainly along river systems and gullies. In NSW it is widespread on the New England Tablelands.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No

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Sternula albifrons	Little Tern		M	In NSW, it arrives from September to November, occurring mainly north of Sydney, with smaller numbers found south to Victoria. Sheltered coastal environments, harbours, inlets and rivers.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Thalasseus bergii	Crested Tern		M	Identified as a conservation value in the Temperate East and North marine regions. Coastal seas, continental shelf.	13	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
Tringa brevipes	Grey-tailed Tattler		M	Summer migrant to Australia. In NSW, distributed along most of the coast from the Qld border, south to Tilba Lake. More heavily distributed along coastal regions north of Sydney. Sheltered coasts with reefs and rock platforms or intertidal mudflats; intertidal rocky, coral or stony reefs; shores of rock, shingle, gravel or shells; embayments, estuaries and coastal lagoons; lagoons and lakes; and ponds in sewage farms and saltworks.	1	Unlikely – suitable foraging and roosting habitat for this species was not identified within the study area.	No
				FLORA			
Acacia terminalis subsp. terminalis	Sunshine Wattle	E1	E	Limited mainly to near-coastal areas from the northern shores of Sydney Harbour south to Botany Bay. Coastal scrub and dry sclerophyll woodland on sandy soils.	2	Unlikely - the presence of this species was not identified (conspicuous species) and the study area is not within the species' distribution.	No
Eucalyptus nicholii	Narrow-leaved Black Peppermint	V	V	New England Tablelands from Nundle to north of Tenterfield. Dry grassy woodland, on shallow soils of slopes and ridges.	6	Unlikely - the presence of this species was not identified (conspicuous species) and the study area is not within the species' distribution.	No
Macadamia integrifolia	Macadamia Nut	P	V	Not known to occur naturally in the wild in NSW; recorded from Camden Haven but it is not known if the tree was	1	Unlikely - the presence of this species was not identified (conspicuous species) and the	No

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				cultivated or growing naturally. Drier subtropical rainforest.		study area is not within the species' distribution.	
Syzygium paniculatum	Magenta Lilly Pilly		V	Only in NSW, in a narrow, linear coastal strip from Upper Lansdowne to Conjola State Forest. Subtropical and littoral rainforest on gravels, sands, silts and clays.	10	Unlikely - the presence of this species was not identified (conspicuous species) and the study area is not within the species' distribution.	No

EPBC Act: CE = Critically Endangered, E = Endangered, M = Migratory, V = Vulnerable
BC Act: E1 = Endangered, E2 = Endangered Population, P = Protected, V = Vulnerable