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Pre-Clearing Survey Report

Randwick Hospital

Report prepared by Narla Environmental Pty Ltd

for Lendlease

March 2020



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environmental

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Report Certification

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1. Introduction

1.1 Background

Narla Environmental Pty Ltd (Narla) were engaged by Lendlease (the Proponent) to conduct a pre-clearing survey for the Randwick Hospital Project (hereafter 'the Project Area'). (Figure 1-1).

The pre-clearing survey was undertaken by experienced and qualified Ecologists who targeted all habitat features within the Project Area. The process was conducted in accordance with the "Biodiversity Guidelines" (RTA 2011) which are considered as 'best practice'.

1.2 Desktop Study

A literature review of local information relevant to the Project Area was conducted. Online databases (OEH 2020) were utilised to obtain threatened species and biodiversity data recorded from or modelled within the Project Area and surrounds to an area of approximately 10 km².

Narla conducted a review of all relevant project documents to identify any previously identified habitat including:

- Integrated Acute Services Building Addition – Aborigicultural Impact Assessment (Ecological Australia 2019);
- Randwick Campus Redevelopment – SSDA Landscape Design Report (Aspect Studios 2019).

1.3 Scope of assessment

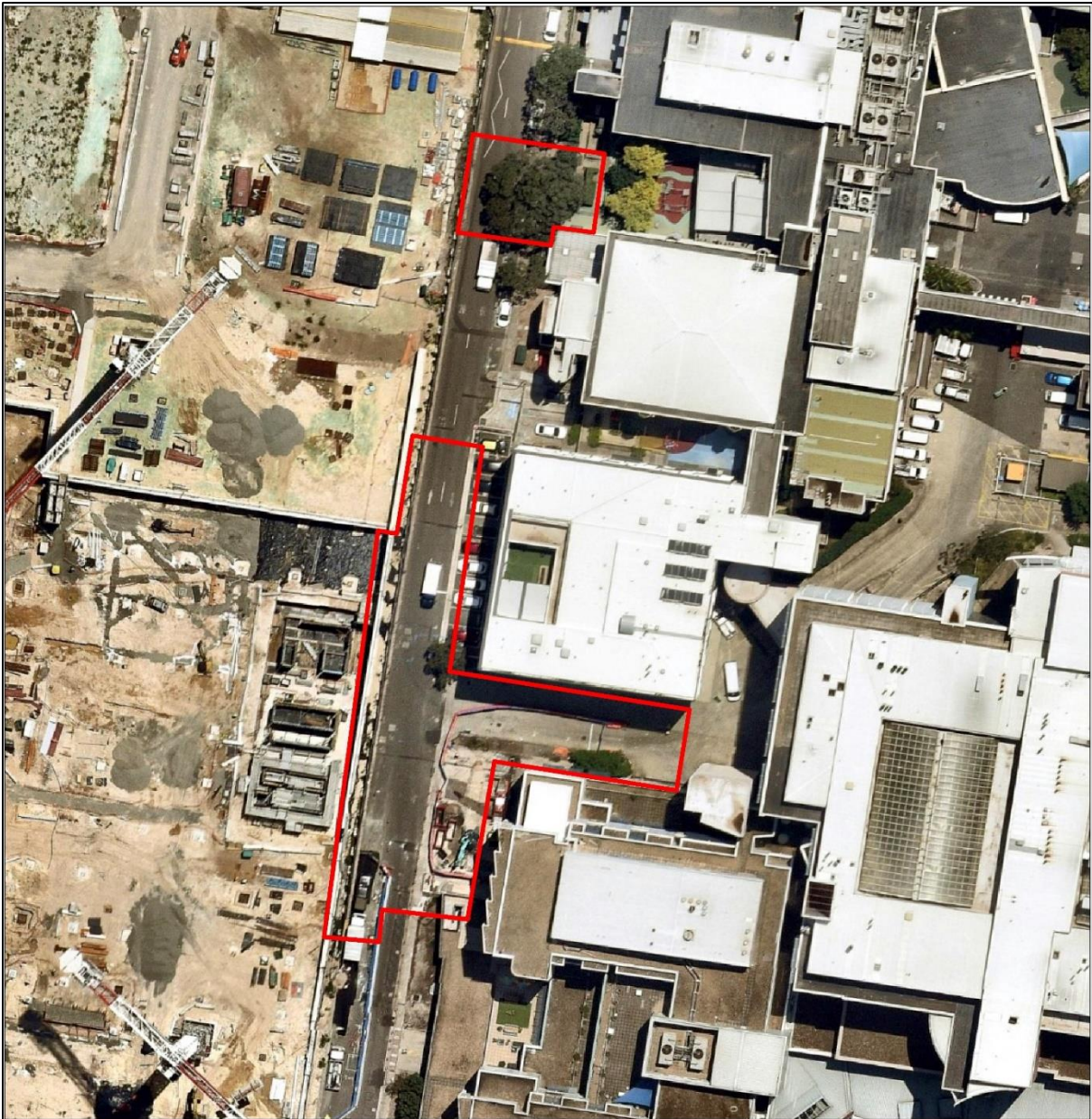
The objective of this pre-clearing survey was to identify and demarcate all fauna habitat, including to:

- Identify and record occurrences of threatened species within the Project Area;
- Demarcate, photograph and map all habitat features within the Project Area;
- Demarcate and map the occurrence and extent of weeds listed as Priority under the Biosecurity Act 2015 within the Project Area;
- Identify suitable areas for fauna to be relocated to in the event of fauna capture during clearing; and
- Identify any preferential microhabitat (large course woody debris, logs and bush rock) to be relocated outside the Project Area and potential relocation sites.

1.4 Study Limitations

This pre-clearing survey for the Project Area was restricted to what was observed on the survey date conducted on the 27th of February 2020.

The timing of the survey may not have coincided with emergence times of some flora (e.g. threatened orchids) and activity of some fauna (e.g. nesting birds). A follow-up, rapid survey should be conducted immediately prior to vegetation clearing in order to identify any new habitat features that could not be accounted for during this pre-clearing survey.



Legend

 Project Area

0 5 10 20 30 40 Metres



Date: 2/03/2020
Imagery: © Nearmaps 2019
Coordinate System: GDA 1994 MGA Zone 56

Figure 1-1. Project Area

2. Methodology

2.1 Site Assessment

The pre-clearing inspection was conducted on the 27th February 2020 by experienced Narla Ecologist Angus McClelland.

During the assessment the Narla Ecologists surveyed all areas within the Project Area for significant biodiversity features including but not limited to:

- Habitat of all fauna (particularly threatened fauna) including:
 - Habitat Trees including hollow-bearing trees, decorticating bark, and bird nests (that could provide habitat for birds, frogs, reptiles, small mammals and microbats);
 - Artificial structures, bridges, caves, crevices and culverts (habitat for frogs, reptiles, small mammals and microbats);
 - Wetlands and drainage lines (habitat for fish, frogs and water birds);
 - Trees and shrubs supporting nest structures (habitat for birds and arboreal mammals);
 - Locations of any suitable threatened fauna; and
 - Any other habitat features that may support fauna species;
- Locations of any threatened flora species;
- Locations of all weeds listed as *Priority*;
- Opportunistic sightings of fauna utilising habitat within the Project Area; and
- Locations of nearby habitat (outside the Project Area) suitable for the release of fauna that may be encountered during clearing.

2.2 Habitat Demarcation and Photographs

2.2.1 Habitat Trees

A habitat tree is defined as any tree which may feasibly conceal protected fauna. Habitat trees may contain hollows, nests, decorticating bark and/or nest boxes.

Tree hollows were only recorded if:

- The entrance could be seen from the ground;
- The hollow appeared to have depth (>5cm);
- The hollow was at least 1.5 metres above the ground (basal hollows were only recorded if they continued up into the tree above 1 metre).

During the pre-clearing survey, the Ecologist demarcated each habitat tree using the following method:

- Wrapping white-and-red flagging tape around each tree trunk;
- Writing a tree identification number on a tag attached to each tree, to be referenced in the pre-clearing survey report and post-clearing report; and
- Spray paint a circle inclosing a 'H' for 'habitat' on three sides of each confirmed habitat tree.

Each tree was photographed twice from a distance to enable view of the whole tree, and up close to enable view of the tree identification number.

2.2.2 Microhabitat

During the pre-clearing survey, the Ecologists demarcated course woody debris, bush rock and other habitat using the following method:

- Wrapping white-and-red hazard tape around course woody debris or bush rock item;
- Writing an identification number on a tag attached to the piece of microhabitat, to be referenced in the pre-clearing survey report and post-clearing report; and
- Spray paint a circle inclosing a 'H' for 'habitat' on three sides of each confirmed microhabitat item.

2.3 Targeted Threatened Flora Surveys

Targeted surveys were undertaken to identify locations of the threatened flora species known or predicted to occur within the locality (within 10km of the Survey Area). Narla Environmental undertook targeted survey for all threatened flora with potential to occur, with effort focused on the flora listed in **Table 2-1**:

Table 2-1. Optimal survey periods for the threatened flora species targeted (OEH 2012-2017)

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<i>Acacia terminalis</i> subsp. <i>terminalis</i>		✓										
<i>Syzygium paniculatum</i>		✓										
KEY		Flowering Period						Sporadic Flowering/Identifiable from Other Features				

Targeted surveys were undertaken in accordance with the 'NSW Guide to Surveying Threatened Plants' (OEH 2016). Any tentative threatened species found were photographed and specimens taken for identification utilising formal keys. Where necessary this involved the use of a microscope. Any confirmed or plausible specimens identified were GPS tagged, for future reference. Where identification of plausible specimens could not be made with absolute confidence by Narla Ecologists, specimens were collected and sent to the National Herbarium for expert identification.

2.4 Targeted Threatened Fauna Surveys

Targeted surveys were undertaken to identify the locations of threatened fauna species known or predicted to occur within the locality (within 10km of the Project Area), with particular effort focused on those species known or more likely to occur within the Project Area.

2.5 Priority Weeds

All Priority weeds found by the Ecologists were flagged with blue flagging tape. The location of weeds was recorded with a handheld GPS (Garmin 64s) and the following details recorded:

- Weed species; and
- Approximate area of infestation;

These weeds must be handled in accordance with the Biosecurity Act 2015.

These weeds must not be chipped/mulched with native vegetation or mixed with mulch mixes that are intended for use in onsite landscaping works. All priority weeds must be removed from site and disposed of at a licenced waste disposal facility.

2.6 Weather Conditions during Site Assessment

A summary of the prevailing weather conditions during the Subject Site survey and the lead-up to the survey is presented (Table 2-2). This data was collected from the nearest weather station 'Sydney Airport' (BOM 2020)

Table 2-2. Weather conditions taken from the nearest weather station (Sydney Airport) in the lead up to and during the field survey (BOM 2020) (Survey dates in bold).

Survey date	Minimum Temp. °C	Maximum Temp. °C	Rainfall (mm)
21/2/2020	20.1	25.3	0
22/2/2020	18.7	23.6	0
23/2/2020	19.5	25.4	0
24/2/2020	19.4	28.0	0.6
25/2/2020	20.4	28.4	0
26/2/2020	22.0	33.0	0
27/2/2020	20.2	25.8	0.2

3. Results

3.1 Habitat Trees

No habitat trees were identified within the Project Area during the pre-clearing survey.

3.2 Other Habitat Features

No other habitat features (e.g. bridges, culverts, burrows and coarse woody debris) were identified within the Project Area during the pre-clearing survey.

3.3 Threatened Flora

No threatened flora was identified within the Project Area during the pre-clearing survey.

3.4 Threatened Fauna

No threatened fauna was identified within the Project Area during the pre-clearing survey.

3.5 Priority Weeds

No Priority Weeds were identified within the Project Area during the pre-clearing survey.

4. Recommendations

4.1 Vegetation Clearing

No hollow bearing trees or habitat features were identified during the pre-clearing survey.

Where no areas of habitat have been identified to be cleared, clearing can be undertaken in a single-stage process, which includes the under-scrubbing of non-habitat trees, shrubs and other vegetation.

If any additional habitat features (i.e. nesting structures) are identified, a suitably qualified ecologist will be engaged to capture and relocate fauna, and vegetation clearing must incorporate a 'two stage' habitat removal process.

Following clearing supervision, the Project Ecologist will record the type of habitat feature and species of occupying fauna in a 'Post-clearing Report' that will be provided to the Proponent.

5. References

Aspect Studios (2019) Randwick Campus Redevelopment – SSDA Landscape Design Report

Bureau of Meteorology (2020) Sydney Airport (February 2020)
<http://www.bom.gov.au/climate/dwo/202002/html/IDCJDW2124.202002.shtml>

Ecological Australia (2014) Integrated Acute Services Building Addition – Aboricultural Impact Assessment

New South Wales Department of Primary Industries (2015) Biosecurity Act

Office of Environment and Heritage (OEH) (2016) NSW Guide to Surveying Threatened Plants

Office of Environment and Heritage (OEH) (2020) NSW Bionet. The website of the Atlas of NSW Wildlife.
<http://www.bionet.nsw.gov.au/>

Roads and Traffic Authority (2011) RTA Biodiversity Guidelines Guide 1: Pre-Clearing Process



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