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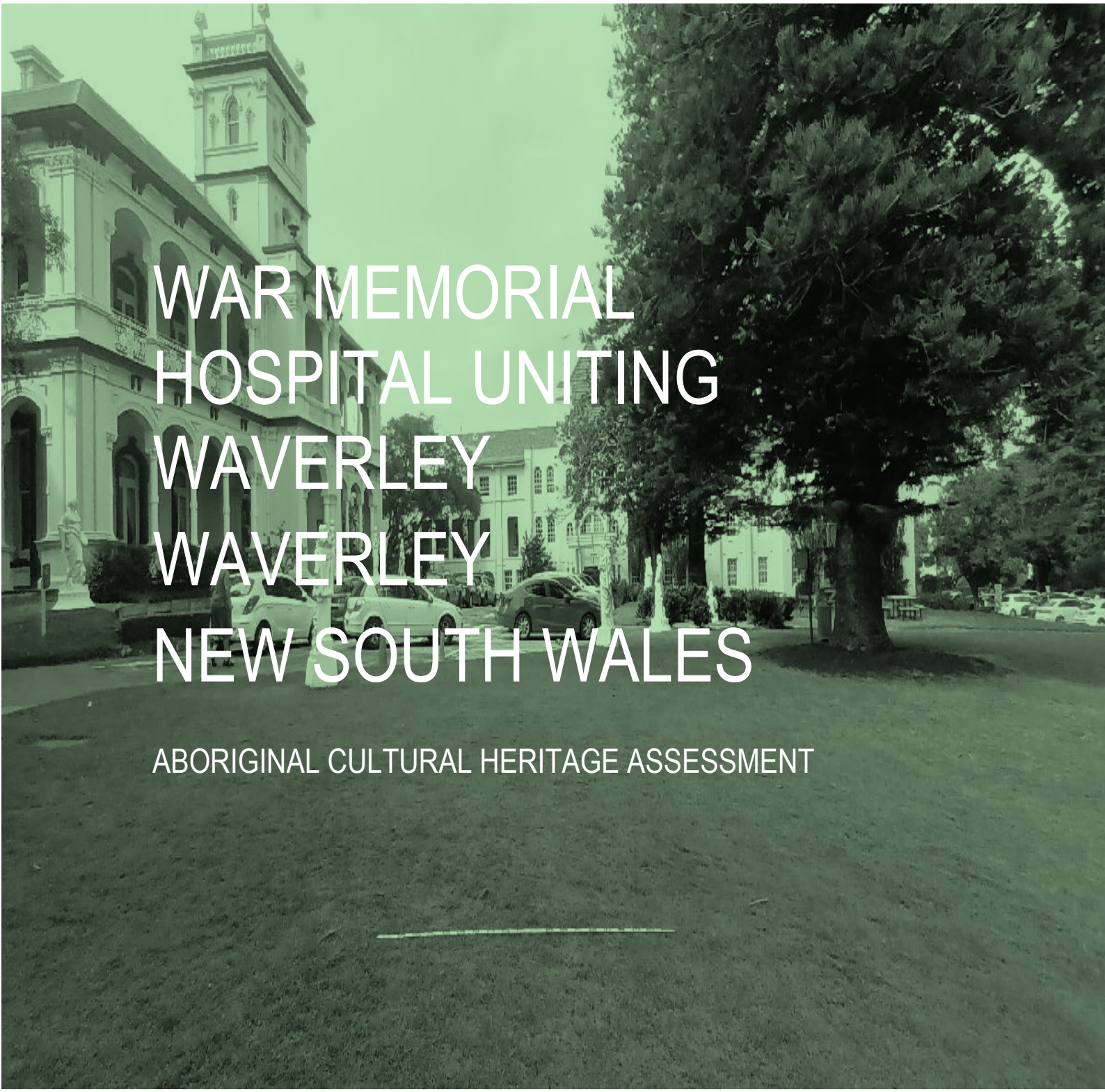

WAR MEMORIAL HOSPITAL UNITING WAVERLEY WAVERLEY NEW SOUTH WALES

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

FINAL REPORT

PREPARED FOR UNITING (NSW.ACT)

10 June 2025

Uniting

DOCUMENT INFORMATION

Project:	Uniting Waverley
Services required:	Aboriginal Cultural Heritage Assessment
Client:	Uniting (NSW.ACT)
Prepared by:	Taylor Foster, Danielle Bainbridge, Brody Saccoccia
Project number:	22082

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4	7	10/6/2025	Registered Aboriginal Parties
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EXECUTIVE SUMMARY

This report has been prepared for Uniting (NSW.ACT) (the Proponent) and details the Aboriginal Cultural Heritage Assessment (ACHA) of land situated at 125 Birrell St, Waverley, New South Wales (NSW) [the study area], within the Waverley Local Government Areas (LGAs), and the parish of Alexandria in the county of Cumberland.

The study area is a 3.4-hectare portion of land that consists of 29 allotments located in the suburb of Waverley, 5.2 kilometres from Sydney Central Business District.

The proposed development comprises a Residential Aged Care Facility (RACF), Independent Living Units (ILUs), Community and Ancillary Land Uses at the Uniting War Memorial Hospital Site. The proposed development is for the purposes of Seniors Housing which seeks to create a unique and special place that supports older people and the wider community. It will offer contemporary housing, aged care and health and wellness services within a welcoming urban oasis that promotes social connection, communal spaces and landscaped areas within the Subject Site.

The proposal involves the construction and operation of Seniors Housing at the Uniting War Memorial Hospital Site (Uniting Waverley), comprising:

- Earthworks involving cut and fill
- Tree removal
- Demolition of existing structures on the northern and western portions of the Subject Site
- Demolition of Cadi Cottage
- Adaptive Reuse of 3 heritage buildings (Ellerslie, Banksia and Wych Hazel, and Church St Cottages
- Augmentation of existing services and infrastructure such as water, power, and sewer
- Construction of a basement car park comprising 478 parking spaces
- Construction of a 6-storey Residential Aged Care Facility (RACF), including:
- 105 beds
- Consulting rooms and staff administration areas
- Ancillary land uses including a salon, cafe, chapel
- Community facilities including a seniors' gym.
- Construction of 4-7-storey Independent Living Unit (ILU) buildings, including:
- 231 units (including Affordable Rental Housing units)
- Construction of proposed driveway on Bronte Road and secondary driveways on Birrell St; and
- Provision of associated landscaping.

This ACHA was undertaken to assess the archaeological potential for Aboriginal material as part of a State Significant Development Application being prepared under Part 4 of the *Environmental Planning and Assessment Act 1979* before the proposed redevelopment of the study area. The ACHA has been undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a).

A search of the Heritage NSW Aboriginal Heritage Information Management System (AHIMS) database was undertaken on 2 August 2022 (Client Service ID 705036; GDA 2020 Lat, Long from: -33.937654, 151.186177 Lat, Long to: -33.857654, 151.286177). The results of the AHIMS search identified 112 previously recorded sites within a 10-kilometre radius of the study area. The search indicated that potential archaeological deposits (51.8%), art sites (17.9%), and artefact sites (13.4%) are the predominant site types in the area. The vast majority of sites are located close to

Sydney Harbour or coastline bordering the Tasman Sea within flat or sloping landforms. It should be noted that there are no listed Aboriginal sites within 400 metres of the study area.

A second search of the Heritage NSW AHIMS database was undertaken on 30 October 2024 (Client Service ID 944993). The results from the AHIMS search identified 117 previously recorded sites within a 7-kilometre search area centred on the study area. The search indicates that PADs are the predominant site type with over 48.74% of known sites belonging to this category (Table 4.3 and Figure 4.1).

A search of the Waverley Local Environmental Plan 2012 has also identified that there are 3 local historic heritage items listed within the study area: the "War Memorial Hospital, Late Victorian buildings and former stables" (I449), "War Memorial Hospital landscape" (I519) and the "Federation style detached residences" (1473) (State Heritage Inventory n.d.), (NSW Government NSW Legislation 2012). There are no National or State Heritage-listed items within the study area.

The survey was conducted on 22 March 2023 by Taylor Foster (Senior Archaeologist, Austral) with assistance from Shane Ingrey, a member of the La Perouse Local Aboriginal Land Council. Carolyne Yeow from Savills Project Management (now Uniting) was also present. Based on these results, the archaeological survey identified limited Aboriginal archaeological potential. The levels of disturbance present have resulted in the identification of no sites during the survey.

ABORIGINAL COMMUNITY CONSULTATION

Consultation with Aboriginal stakeholders has been completed in accordance with the Consultation Requirements (DECCW 2010b). A summary of this process is included below.

Stage	Component	Commenced	Completed
Stage 1	Letters to agencies	12/10/2022	N/A
	Registration of stakeholders	30/11/2022	28/12/2022
Stage 2	Project information	02/02/2023	N/A
Stage 3	Review of project methodology	02/02/2023	02/03/2023
Stage 4	Review of ACHA by Aboriginal stakeholders	09/08/2023	06/09/2023
-	6 Month Update (Round 1)	07/03/2024	N/A
-	6 Month Update (Round 2)	21/10/2024	NA

Further information on the consultation completed for the project can be found in Section 2 and Volume 2 of this report.

IMPACT ASSESSMENT

This ACHA has included a programme of investigations that have determined that Aboriginal heritage values are unlikely to be harmed by the proposed development:

RECOMMENDATIONS

The following recommendations are derived from the findings described in this ACHA. The recommendations have been developed after considering the detailed survey with La Perouse LALC, archaeological context, environmental information, consultation with the local Aboriginal community and the predicted impact of the planning proposal on archaeological resources.

It is recommended that:

1. No further assessment or works are required to be undertaken for the study area.
2. An Aboriginal cultural heritage induction should be completed for all workers before construction begins.
3. Areas of caution surrounding the 19th century infrastructure should be noted on site plans.
4. In the event that unexpected finds occur during any activity within the study area, all works must in the vicinity must cease immediately. The find must be left in place and protected from any further harm. A qualified heritage specialist should be contacted to confirm the nature of the find. Depending on the nature of the find, the following processes must be followed:

a) If, while undertaking the activity, an Aboriginal object is identified, it is a legal requirement under Section 89A of the Environmental Planning and Assessment Act 1979to notify Heritage NSW as soon as possible. Further investigations and an Aboriginal Heritage Impact Permit (AHIP) may be required prior to certain activities recommencing.

b) If human skeletal remains are encountered, all work must cease immediately and NSW Police must be contacted, they will then notify the Coroner's Office. Following this, if the remains are believed to be of Aboriginal origin, then the Aboriginal stakeholders and Heritage NSW must be notified.

5. It is recommended that Uniting (NSW.ACT) continues to inform the Aboriginal stakeholders about the management of Aboriginal cultural heritage within the study area throughout the completion of the project. The consultation outlined as part of this ACHA is valid for 6 months and must be maintained by the proponent for it to remain continuous. If a gap of more than 6 months occurs, then the consultation will not be suitable to support an AHIP for the project.
6. A copy of this report should be forwarded to all Aboriginal stakeholder groups who have registered an interest in the project.

CONTENTS

FIGURES

TABLES

1 INTRODUCTION

Austral Archaeology Pty Ltd (Austral) has been commissioned by Uniting (NSW.ACT) (the Proponent) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for Waverley Memorial Hospital (Uniting Waverley), Waverley, New South Wales (NSW) [the study area]. The location of the study area is shown in Figure 1.1 and Figure 1.2.

1.1 THE STUDY AREA

The study area consists of a 3.4-hectare portion of land that encompasses 29 allotments (Table 1.1) located within the township of Waverley, within the Waverley Local Government Areas (LGA) and the parish of Alexandria in the county of Cumberland. It is also within the boundaries of the La Perouse Local Aboriginal Council (LPLALC). It is bounded to the north by Birrell Street, to the east by Carrington Road, to the south by Church Street and to the west by Bronte Road.

Table 1.1 Study area parcels

Lot and DP Numbers		
Lot 2 DP166786	Lot 2 DP515904	Lot A DP948186
Lot 1 DP167332	Lot 3 DP520982	Lot 2 DP961790
Lot 1 DP172133	Lot B DP520982	Lot 1 DP1061548
Lot 1 DP212655	Lot 1 DP567694	Lot 4 DP1061548
Lot 1 DP212655	Lot 3 DP593710	Lot 3 DP1061588
Lot 1 DP312247	Lot 4 DP593710	Lot 1 DP1098550
Lot 1 DP317831	Lot 1 DP630460	Lot 2 DP1098550
Lot 7 DP317831	Lot 2 DP630460	Lot A DP1098550
Lot 11 DP437866	Lot 2 DP667554	Lot 1 DP1115332
Lot B DP437866	Lot 1 DP667555	Lot 3 DP1115332
Lot 1 DP515904	Lot 1 DP948185	Lot 1 DP1115706

The location of the study area is shown in Figure 1.1 and Figure 1.2.

1.2 PURPOSE OF THE ACHA

This ACHA was undertaken to assess the potential harm that may occur to Aboriginal cultural heritage values as part of a State Significant Development Application (SSDA) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for the redevelopment of the study area.

The proposed development comprises a Residential Aged Care Facility (RACF), Independent Living Units (ILUs), Community and Ancillary Land Uses at the Uniting War Memorial Hospital Site. The proposed development is for the purposes of Seniors Housing which seeks to create a unique and special place that supports older people and the wider community. It will offer contemporary housing, aged care and health and wellness services within a welcoming urban oasis that promotes social connection, communal spaces and landscaped areas within the Subject Site.

The proposal involves the construction and operation of Seniors Housing at the Uniting War Memorial Hospital Site (Uniting Waverley), comprising:

- Earthworks involving cut and fill
- Tree removal
- Demolition of existing structures on the northern and western portion of the Subject Site
- Demolition of Cadi Cottage

- Adaptive Reuse of 3 heritage buildings (Ellerslie, Banksia and Wych Hazel, and Church St Cottages)
- Augmentation of existing services and infrastructure such as water, power, and sewer
- Construction of a basement car park comprising 478 car parking spaces
- Construction of a 6-storey Residential Aged Care Facility (RACF), including:
    - 105 beds
    - Consulting rooms and staff administration areas
    - Ancillary land uses including a salon, cafe, chapel
    - Community facilities including a seniors' gym
- Construction of 4-7-storey Independent Living Unit (ILU) buildings, including
    - 231 units (including Affordable Rental Housing units)
- Construction of proposed driveway on Bronte Road and secondary driveways on Birrell St; and
- Provision of associated landscaping

This ACHA is being developed as part of the request for site-specific Secretary Environmental Assessment Requirements (SEARs) and to support an Environmental Impact Statement (EIS). This will also allow for a detailed design phase and appropriate mitigation measures to be enacted.

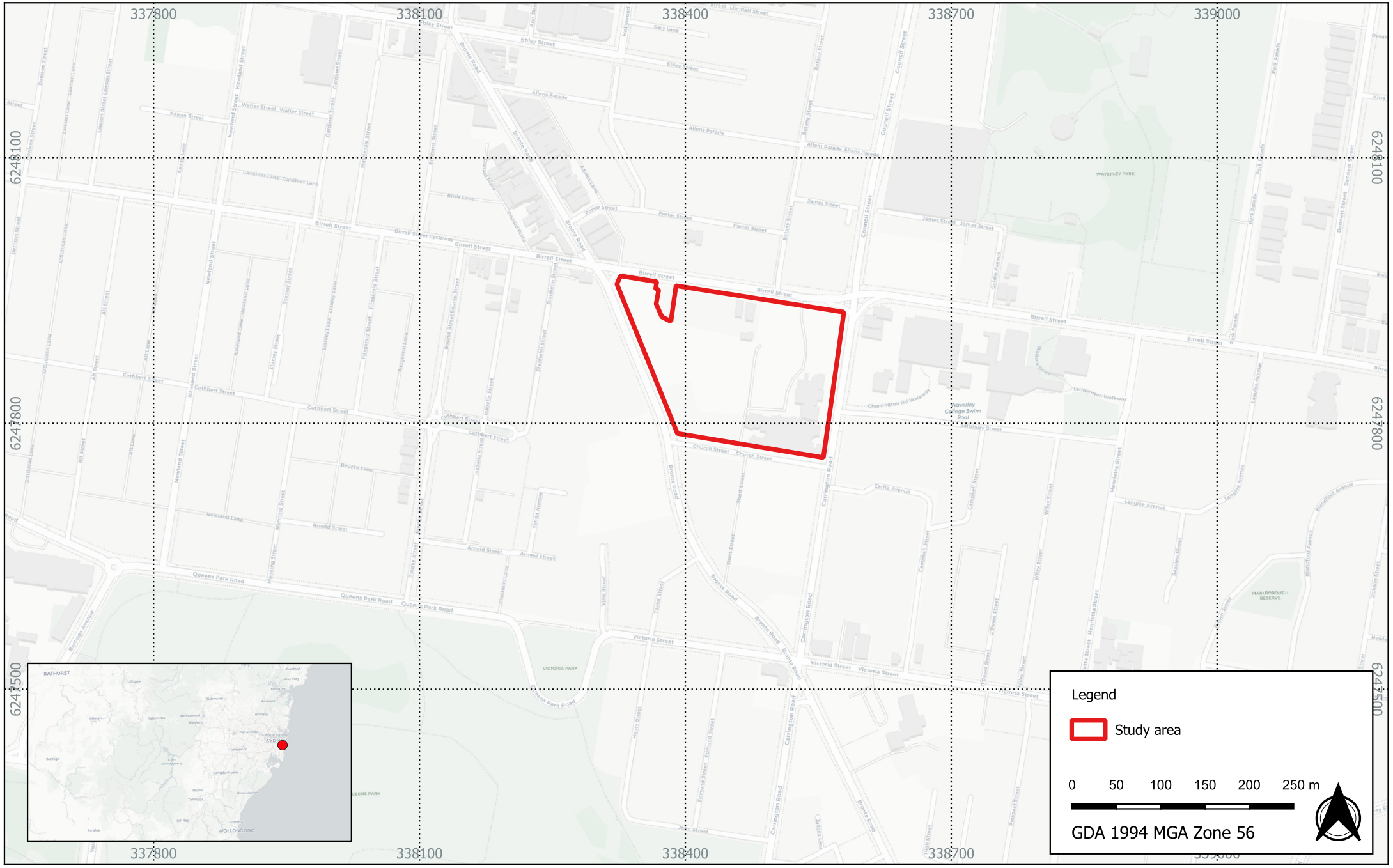

Figure 1.1 - Location of the study area

22082 - 125 Birrell Street, Waverly - ACHDDA

Source: NSW LPI Basemap, CartoDB Positron

Drawn by: ARH Date: 2025-05-01

AUSTRAL ARCHAEOLOGY

Figure 1.2 - Detailed aerial of the study area

22082 - 125 Birrell Street, Waverly - ACHDDA

Source: NSW LPI Aerial, CartoDB Positron

Drawn by: ARH Date: 2025-05-01

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1.3 ASSESSMENT OBJECTIVES

The scope of this ACHA report is based on the legal requirements, guidelines and policies of Heritage NSW, formerly the Office of Environment and Heritage (OEH), formerly, the Department of Environment, Climate Change and Water (DECCW), Department of Environment and Climate Change (DECC) and Department of Environment and Climate (DEC).

The guiding document for this assessment is the *Code of Practice for the Investigation of Aboriginal Objects in NSW* (DECCW 2010a) [Code of Practice].

Information provided in this assessment includes, but is not limited to:

- A literary review of available data, including previous studies/investigations from within and adjacent to the study area.
- The results of an archaeological fieldwork including a pedestrian survey of the study area.
- A description of the Aboriginal cultural heritage values identified as being within the study area and its significance.
- An assessment of harm posed to Aboriginal objects, places or values as part of the project.
- A description of practical measures that have been used to protect, conserve, avoid or mitigate harm to Aboriginal objects, places and values.
- Documentation of how the Consultation Requirements have been met (specifically Section 60 of the National Parks and Wildlife Regulation 2019 [NPW Regulations]).
- The views of Aboriginal people regarding the likely impact of the proposed activity on their cultural heritage, including evidence of their submissions and how these have been addressed.
- A survey of the study area with La Perouse LALC.
- Adequate documentation to accompany an Aboriginal Heritage Impact Permit (AHIP) application.

1.4 SUMMARY OF LEGISLATIVE PROCESS

Aboriginal archaeological and cultural heritage assessments in NSW are carried out under the auspices of a range of State and Federal Acts, Regulations and Guidelines. The Acts and Regulations allow for the management and protection of Aboriginal places and objects, and the Guidelines set out best practice for community consultation in accordance with the requirements of the Acts.

This section outlines the Australian acts and guidelines that are applicable or have the potential to be triggered with regards to the proposed development are detailed in Table 1.2 to Table 1.5.

Table 1.2 Federal acts

Federal Acts	Applicability and implications
Environment Protection and Biodiversity Conservation Act 1999	This act has not been triggered and so does not apply, as: • No sites listed on the National Heritage List (NHL) are present or in close proximity to the study area. • No sites listed on the Commonwealth Heritage List (CHL) are present or in close proximity to the study area.
Aboriginal and Torres Strait Islander Heritage Protection Amendment Act 1987	Applies, due to: This Act provides blanket protection for Aboriginal heritage in circumstances where such protection is not available at the state level. This Act may also override state and territory provisions.

Table 1.3 State acts

State Acts	Applicability and implications
National Parks and Wildlife Act 1974 (NP&W Act 1974)	Applies, due to: • Section 86 – Prohibits both knowingly and unknowingly, causing harm or desecration to any Aboriginal object or place without either an AHIP or other suitable defence from the Act. • Section 87 – Allows for activities carried out under an AHIP or following due diligence to be a defence against the harm of an Aboriginal object. • Section 89A – Requires that Heritage NSW must be notified of any Aboriginal objects discovered, within a reasonable time. • Section 90 – Requires an application for an AHIP in the case of destruction of a site through development or relocation.
NP&W Regulation 2019	Applies, due to: • Section 57 – States minimum standards of due diligence to have been carried out • Section 60 – Requires Aboriginal community consultation process to be undertaken before applying for an AHIP. • Section 61 – Requires production of a cultural heritage assessment report to accompany AHIP applications.
The Environmental Planning and Assessment Act 1979 (EP&A Act 1979)	Applies, due to: • This project is being assessed under Part 4 of the EP&A Act 1979. • Sections 86, 87, 89A and 90 of the NP&W Act 1974 will apply. • The Part 5 Guidelines will not apply.
NSW Heritage Act 1977	There are no sites listed on the State Heritage Register associated with the study area, and therefore Section 57 of this act does not apply.

Table 1.4 State and local planning instruments

Planning Instruments	Applicability and implications
Local Environmental Plans (LEP)	The following LEP is applicable: • *Waverley Local Environmental Plan 2012* (Waverley LEP) Aboriginal cultural material is discussed in Part 5 of the Waverley LEP, which requires consent be granted for any works which may impact Aboriginal cultural material.
Development Control Plans (DCP)	The following DCP is applicable: • *Waverley Development Control Plan 2012* (Waverley DCP)

Table 1.5 Aboriginal community consultation guidelines

Guidelines	Applicability and implications
Consultation Requirements	The development is to be conducted in accordance with Part 4 of the EP&A Act. As the project is to be assessed under Part 6 of the NP&W Act, approvals under Section 90 of the NP&W Act 1974 as amended 2010 will be required, S89A of the Act will apply, and the Part 4 Guidelines will apply.

1.5 PROJECT TEAM AND QUALIFICATIONS

The personnel responsible for the preparation of this report are detailed in Table 1.6.

Table 1.6 Personnel involved in the preparation of this ACHA

Name	Qualifications	Title	Responsibilities
Amanda Hansford	BA. Archaeology/Paleoanthropology, GD. Archaeology	Director	Technical review
Lindsay Costigan	BS Anthropology and Sociology	Senior Archaeologist	Review
Taylor Foster	BA Archaeology (Hons) and English	Senior Archaeologist	Project manager, primary author, survey
Brody Saccoccia	BA (Hons) Archaeology	Graduate Archaeologist	Background research, report writing
Carmen Baulch	Studying Bachelor of Arts/Bachelor of Science (Archaeology and Zoology)	Undergraduate Archaeologist	Background research, report writing
Crystal Wooding	BA Archaeology GD. Archaeology and Heritage Management	Archaeologist	Report writing
Adam Hansford	-	GIS operator	Mapping

1.6 ABBREVIATIONS

The following are common abbreviations that are used within this report:

ACHA	Aboriginal Cultural Heritage Assessment
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
Austral	Austral Archaeology Pty Ltd
Burra Charter	*Burra Charter: Australia ICOMOS Charter for Places of Cultural Significance 2013*
CBD	Central Business District
CHL	Commonwealth Heritage List
Code of Practice	*Code of Practice for the Investigation of Aboriginal Objects in NSW*
DCP	Development Control Plan
DEC	Department of Environment and Climate
DECC	Department of Environment and Climate Change
DECCW	Department of Environment, Climate Change, and Water
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPBC Act	*Environmental Protection and Biodiversity Act 1999*
EPI	Environmental Planning Instrument
FGS	Fine-grained silicious
GSV	Ground surface visibility
Heritage Act	*NSW Heritage Act 1977*
ICOMOS	International Council on Monuments and Sites
IHO	Interim Heritage Order
LEP	Local Environmental Plan
LGA	Local Government Area
LPLALC	La Perouse Local Aboriginal Land Council
MLALC	Metropolitan Local Aboriginal Land Council
NHL	National Heritage List
NP&W Act	*National Parks and Wildlife Act 1974*
OEH	Office of Environment and Heritage
PAD	Potential archaeological deposit
The Proponent	Savills Australia on behalf of Uniting
RNE	Register of the National Estate
SEARs	Secretary Environmental Assessment Requirements
SHFA	Sydney Harbour Foreshore Authority
SSDA	State Significant Development Application
Study Area	125 Birrell Street, Waverley
Waverley DCP	Waverley Development Control Plan 2012
Waverley LEP	Waverley Local Environmental Plan 2012

2 CONSULTATION PROCESS

This section outlines the consultation process that has been followed as part of the preparation of this ACHA.

2.1 INTRODUCTION

Stakeholder consultation for this project commenced in line with the Consultation Requirements (DECCW 2010b). Heritage NSW (2010b, p.iii) recognises that:

- Aboriginal people should have the right to maintain their culture.
- Aboriginal people should have the right to participate in matters that may affect their heritage directly.
- Aboriginal people are the primary determinants of the cultural significance of their heritage.

The Consultation Requirements outline a four-stage consultation process which includes:

- Stage 1 – Notification of the project proposal and registration of interest.
- Stage 2 – Presentation of information about the proposed project.
- Stage 3 – Gathering information about cultural significance.
- Stage 4 – Review of the draft cultural heritage assessment report.

Volume 2 of this ACHA contains a consultation log and evidence of all correspondences that were sent and received as part of the consultation process.

2.2 STAGE 1: NOTIFICATION AND REGISTRATION OF INTEREST

The following section outlines the tasks that were undertaken as part of Stage 1 of the Consultation Requirements.

2.2.1 IDENTIFICATION OF RELEVANT ABORIGINAL STAKEHOLDERS

In accordance with the Consultation Requirements the following bodies listed in Table 2.1 were notified as part of the project proposal.

Table 2.1 List of Agency bodies

Organisation	Notified	Response	Response Received
LPLALC	12/10/2022	No response – registered automatically	No response received, but included for transparency
Heritage NSW	12/10/2022	List of stakeholders	19/10/2022
National Native Tribal Tribunal (NNTT)	12/10/2022	None recorded	12/10/2022
Greater Sydney Local Land Services	12/10/2022	No known groups	12/10/2022
NTSCorp	12/10/2022	None recorded	N/A
Office of the Registrar	12/10/2022	List of stakeholders	12/10/2022
Waverley Council	12/10/2022	No response	N/A

A search conducted by the Office of the Registrar, *Aboriginal Land Rights Act 1983* (NSW) listed 37 Aboriginal stakeholders for the land within the study area. A copy of these letters and searches are included in Volume 2 of this ACHA.

2.2.2 PUBLIC NOTICE

An advert was placed in the Wentworth Courier, to run on 30 November 2022, requesting the registration of cultural knowledge holders relevant to the project area. A copy of this advert is included in Volume 2 of this ACHA.

2.2.3 INVITATION TO REGISTER

Letters were also written to the relevant agencies suggested in Section 4.1.2 of the Consultation Requirements (DECCW 2010b) on 12 October 2022, and a search was made of the NNTT on the same day.

As a result of the consultation procedure, the following groups shown in Table 2.2 registered as Aboriginal stakeholders with an interest in this project:

Table 2.2 Registered Aboriginal stakeholders

Organisation	Contact person
La Perouse LALC	Jade Goode
A1 Indigenous Services	Carolyn Hickey
Butucarbin Heritage	Jennifer Beale
Didge Ngunawal Clan	Lillie Carroll, Paul Boyd
Kamilaroi Yankuntjatjara Working Group	Phil Khan
Mura Indigenous Corporation	Phillip Carroll
Wailwan Aboriginal Group	Phil Boney
Wori Wooilywa	Daniel Chalker

2.3 STAGE 2: PRESENTATION OF INFORMATION

All registered Aboriginal stakeholders were provided with information outlining the proposed works, including information relating to proposed impacts as well as the project's methodology on 2 February 2023.

No responses were received for Stage 2.

Copies of all correspondence relating to the provision of project information to registered Aboriginal stakeholders are included in Volume 2 of this report.

2.4 STAGE 3: GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE

2.4.1 REVIEW OF DRAFT METHODOLOGY

On 2 February 2023, Austral provided each registered Aboriginal stakeholder with a copy of the project methodology. The methodology outlined the proposed assessment process that would be used in the completion of the project. Aboriginal stakeholders were provided with 28 days to review and provide feedback on the methodology.

Table 2.3 contains the comments received from RAPs following Stage 3.

Table 2.3 Comments received from RAPs following Stage 3

Organisation	Response
Wori Wooilywa	Agreed with methodology and asked to partake in fieldwork.
A1 Indigenous Services	Asked to partake in fieldwork.

Copies of all correspondence relating to the draft methodology from Aboriginal stakeholders are included in Volume 2 of this ACHA.

2.4.2 INFORMATION GATHERED DURING FIELDWORK

A survey was undertaken on 23 March 2023 with a member of the LPLALC, Shane Ingrey, in attendance. The following comments were made by the LPLALC representative during the survey:

- There may be the potential for subsurface values in the areas under the historic buildings, fences and retaining walls constructed in the 1800s, as there was often no subsurface infrastructure implemented during that time. These buildings are locally listed historic heritage sites.
- It was noted that these areas of concern (associated with 19th century infrastructure) are not in the current impact footprint. Areas within the impact footprint have low potential. It was discussed that areas of concern should be marked on plans. It was suggested an induction be implemented before works begin and an unexpected finds protocol be put in place for when the development phase begins.

2.5 STAGE 4: REVIEW OF DRAFT ACHA REPORT

The draft ACHA was provided to registered Aboriginal stakeholders on 9th August 2023 for their review and comment. Aboriginal stakeholders were given 28 days to review the ACHA, with a single response received from Kamilaroi Yankuntjatjara Working Group who agreed and supported our recommendations.

Copies of all correspondence relating to the review of the draft ACHA are included in Volume 2 of this report.

To comply with Section 4.4.5 of the Consultation Requirements (DECCW 2010b, p. 14), a copy of the final ACHA is to be provided to all registered Aboriginal stakeholders and LPLALC following its completion.

2.6 EVIDENCE OF CONTINUAL CONSULTATION

As part of the AHIP application process, it is necessary to demonstrate that consultation with Aboriginal stakeholders has remained continuous from project commencement through to AHIP determination. Heritage NSW guidelines state that, as a general rule, gaps in the consultation process of 6 months or more will not constitute a continuous consultation process (Office of Environment and Heritage NSW 2011, p. 11). Updates were sent to the Aboriginal stakeholders on (Table):

- Thursday, 7 March 2024.
- Monday, 21 October 2024.
- Wednesday, 16 April 2025.

Table 2.4 Record of consultation tasks completed to date.

Stage	Component	Commenced	Completed
Stage 1	Letters to agencies	12/10/2022	N/A
	Registration of stakeholders	30/11/2022	28/12/2022
Stage 2	Project information	02/02/2023	N/A
Stage 3	Review of project methodology	02/02/2023	02/03/2023
Stage 4	Review of ACHA by Aboriginal stakeholders	09/08/2023	06/09/2023
-	6 Month Update (Round 1)	07/03/2024	07/03/2024
-	6 Month Update (Round 2)	21/10/2024	N21/10/2024
-	6 Month Update (Round 3)	16/04/2025	16/04/2025

Copies of all correspondence relating to the review of the draft ACHA are included in Volume 2 of this report.

3 LANDSCAPE CONTEXT

The following section defines the study area and its environmental and cultural contexts.

3.1 ENVIRONMENTAL CONTEXT

The following section discusses the study area in relation to its landscape and environmental and Aboriginal landscape resources. This environmental context has been prepared in accordance with Requirement 2 of The Code of Practice (DECCW 2011, pp.8–9) and should be read in conjunction with the corresponding components of Section 5 of this ACHA.

The study area is located within the Sydney Basin Bioregion, located on the east coast of NSW between Nelson Bay and Pebbly Beach, reaching just north of Scone and inland just east of Dunedoo. It covers approximately 3,624,008 hectares (4.53%) of the state and includes subregions such as Pittwater, Cumberland, Moss Vale and Illawarra (NSW Department of Planning, Industry and Environment 2021). The formation of the Sydney Basin Bioregion began when the crust of the Earth expanded and filled with sediment from the Late Carboniferous to Middle Triassic ages. A majority of the of the landscape has been formed as an elevated sandstone plateau also subject to volcanic activity and small basalt flows (NSW Department of Planning, Industry and Environment 2021, pp. 186).

The study area is located within the Pittwater subregion, which makes up 148,400 hectares (5.4%) of the bioregion (Bioregional Assessments 2019). This subregion contains occasional shale caps, “small beach, dune and lagoon barrier systems” as well as “steep coastal cliffs and rock platforms.” Vegetation within this subregion include tall forests of diverse tree species with waterbodies such as freshwater lakes and swamps, mangroves and estuaries (NSW Department of Planning, Industry and Environment 2021, pp. 193). The diverse microenvironments present throughout the subregion contribute to abundant and varied resources for the occupation of past Aboriginal peoples.

3.1.1 TOPOGRAPHY AND HYDROLOGY

The study area is located within a sloping landform slanted towards Bronte Road within the Port Jackson Basin (*Poj)* Mitchell Landscape (Mitchell 2002). The landscape description as taken from Mitchell (2002) can be seen in Table 3.1

Table 3.1 Mitchell Landscape identified as being within study area

Mitchell Landscape	Description
Port Jackson Basin (*Poj*)	*Deep elongated harbour with steep cliffed margins on horizontal Triassic quartz sandstone. Small pocket beaches and more extensive Quaternary estuary fill of muddy sand at the head of most tributary streams. General elevation 0 to 80m, local relief 10 to 50m. Sandstone slopes and cliffs have patches of uniform or gradational sandy soil on narrow benches and within joint crevices that support forest and woodland of Sydney peppermint (Eucalyptus piperita), smooth-barked apple (Angophora costata), red bloodwood (Corymbia gummifera) and blackbutt (Eucalyptus pilularis). Sheltered gullies contain some turpentine (Syncarpia glomulifera), coachwood (Ceratopetalum apetalum) and water gum (Tristaniopsis laurina). Estuarine sands were originally dominated by saltmarsh but have been taken over by grey mangrove (Avicennia marina) in the past century* (Mitchell 2002).

The majority of sites within the local Aboriginal Heritage Information Management System (AHIMS) search area are located within sloping (35.7%) or flat (30.4%) landforms associated with ridges and crests. While steeply sloping landforms are not conducive to artefact retention, slopes with a gradient of less than 15 degrees can facilitate artefact retention. Due to the proximity of the study area to the coast, the data represents a tendency for Aboriginal groups to remain in occupiable landforms in proximity to both fresh and saltwater sources rather than higher-elevation areas at greater distances. The landform units identified within the study area are identified in Figure 3.1.

Figure 3.1 - Landform units identified within the study area

22082 - 125 Birrell Street, Waverly - ACHA

Source: NSW LPI Aerial

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The study area is located approximately 1 kilometre from the closest water source, which is a group of ponds south-west of the study area in Centennial Parklands. Originally a swamp, the ponds have been heavily manipulated and were utilised as dams in the early 20th century. However, prior to manipulation, they would have been used as a resource gathering area for past Aboriginal people and habitat site for local flora and fauna. Fresh water may have also been sourced from the group of ponds. In addition, the study area is located close to Tamarama Bay, which would have been utilised for resource gathering, particularly of aquatic species. Because it is a saltwater source, other sources would have been required for the acquisition of fresh water.

The hydrological systems identified within and in the locality of the study area are identified in Figure 3.2.

3.1.2 GEOLOGY AND SOILS

The geological formations and soils within an area have a major impact on the availability of resources such as drinking water, food and raw stone materials. Examining the geological context of the study area is therefore important as it assists us in assessing the potential past Aboriginal land use practices and/or predicting the types of sites and the ways they are distributed across the landscape. The information provided below is applicable for the assessment of the Waverley study area.

The study area is situated within the Hawkesbury Sandstone geological unit. The unit is formed on Triassic sediments formed from quartz-rich sandstone with interbedded shale (Australian Museum 2018). As a result, there is a prominence of natural quartz and silicified materials in this geological unit. Where outcrops of these stones are available, they are utilized by previous Aboriginal people for stone tool manufacturing. The natural sandstone bedrock also allows for outcrops suitable for grinding grooves, rock shelters and art sites. This is reflected in the local AHIMS data, which shows that most sites (61.8%) are within this geological unit. While most local site types can be identified within this geological unit, the most prominent site types are areas of potential archaeological deposits (PADs) (55.9%), artefact sites (14.7%), art sites (22.1%) and shell (8.8%) sites. It should be noted that art sites are commonly associated with rock shelters, and these too have been identified in the local search area.

The geological units identified within the study area are identified in Figure 3.2.

An understanding of the soil landscapes is critical to interpreting the archaeological landforms and their uses by the traditional communities occupying the region. Soil landscapes can have a major impact on the preservation of many Aboriginal artefacts and may determine if the landscape has high archaeological potential or not.

The study area is entirely located in the Newport soil landscape which is seen in ‘crests and gently sloping side slopes’ and ‘lower slopes, deep side slopes and depressions’ (Chapman & Murphy 1989, pp. 111). Such soil patterns are often associated with the presence of site types such as Aboriginal burial sites as well as hearth and/or long-term occupation sites due to the availability of permanent water sources. This landscape, however, is noted to have significant soil erosion, which can possibly impact both surface and subsurface Aboriginal cultural heritage (Chapman & Murphy 1989, pp. 108).

The soil landscapes identified within the study area are identified in Table 3.2 and Figure 3.3.

Table 3.2 Soil landscapes identified as being within study area

Soil landscape	Description
Newport *(9130np)*	The *9130np* soil landscape occurs on the Erina Hills and the Botany Lowlands near marine sands and Hawkesbury alluvial landscapes. These occur on gently undulating plains to rolling rises. This consists of a variety of sediments comprised of shallow, well-sorted siliceous sands overlying yellow Podzolic soils and Podzols (Chapman & Murphy 1989, pp. 108 - 112).

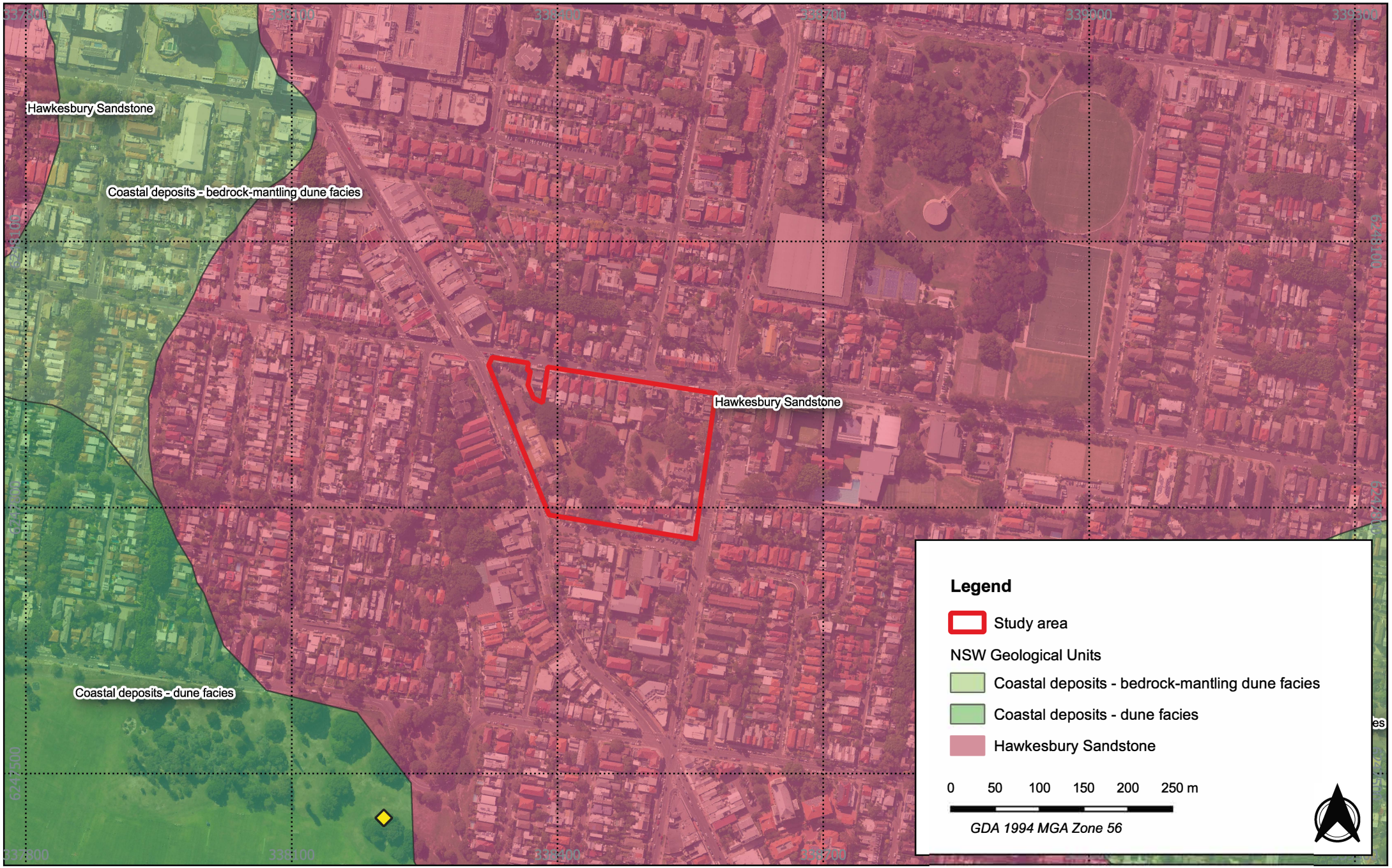

Figure 3.2 - Geology and hydrology of the study area

22082 - 125 Birrell Street, Waverly - ACHA

Source: NSW LPI Aerial

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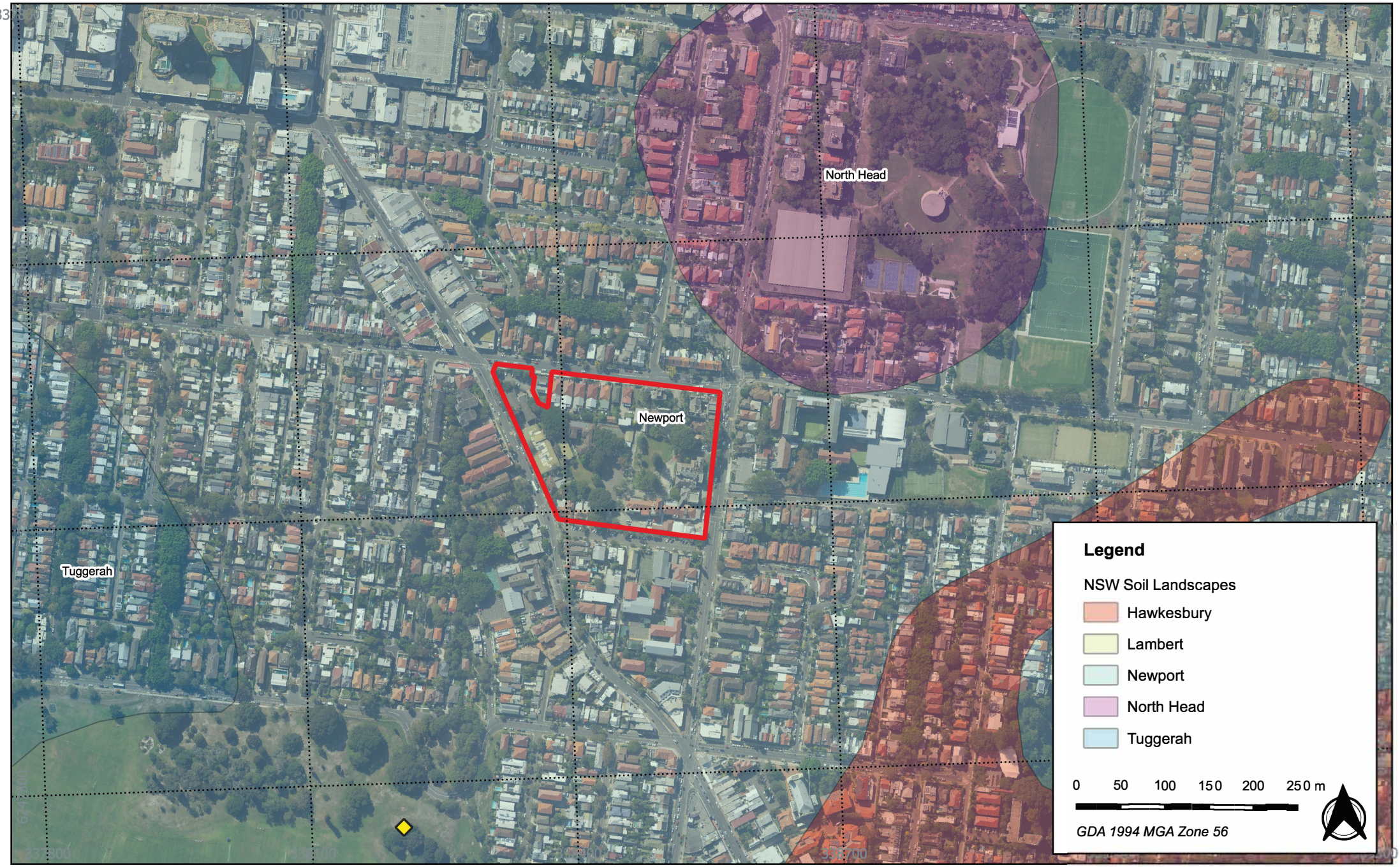

Figure 3.3 - Soil landscapes identified within the study area

22082 - 125 Birrell Street, Waverly - ACHA

Source: NSW LPI Aerial, NSW Soils Landscape

Drawn by: ARH Date: 2023-08-02

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3.1.3 CLIMATE AND VEGETATION

The climate of the Sydney Basin is mostly temperate with warm summers and no dry season, with areas on the coast being warmer than the higher plateau and western edge. Sydney has a mean maximum annual temperature of 21.8 degrees Celsius and a mean minimum annual temperature of 13.8 degrees with an average annual rainfall of 1,213 milimetres (Bureau of Meteorology 2023). The temperate climate and abundance of fresh water allows for year-round occupation with consistent food resources available. The climate facilitates flora communities that include Sydney peppermint (*Eucalyptus piperita*), smooth-barked apple (*Angophora costata*), red bloodwood (*Corymbia gummifera*) and blackbutt (*Eucalyptus pilularis*). Sheltered gullies contain some turpentine (*Syncarpia glomulifera*), coachwood (*Ceratopetalum apetalum*) and water gum (*Tristaniopsis laurina*). Moreover, estuarine sands were originally dominated by saltmarsh but have been taken over by grey mangrove (*Avicennia marina*) in the past century (Mitchell 2002). The bark of Casuarina and Eucalypt varieties were often relied upon for the building of canoes, shields and vessels, cut using ground-edged hatchets, stone wedges and mallets. Fishing lines were crafted from the bark of plants, and fishing spears were formed from hardwood, bone and shell and bound together with plant fibre or twine crafted from local flora and coated in resin (Australian Museum 2023). The vegetation of the Sydney Harbour supported a vast variety of resources for Aboriginal occupation.

3.1.4 LANDSCAPE RESOURCES

Aboriginal people of the coastal region of Sydney relied heavily on marine resources that could be gathered from either the coastal Tasman Sea or the sheltered Sydney Harbour. Marine mammals such as seals, dugongs, dolphins and whales, as well as sea birds and possibly turtles, were all prominent food resources for the coastal Aboriginal groups of the Sydney region (Australian Museum 2023). Coastal middens around the Sydney Harbour have identified dugong, seal and turtle bones, as well as bones from birds likes mutton birds and petrels.

Moreover, the archaeological record and early historical observations indicate shellfish were collected and eaten by local Aboriginal people of the Sydney region. Shellfish were often hand-collected from rock platforms and intertidal shorelines of the coast and estuaries, and historical records state this was also done from canoe. Oysters, mussels, cockles and limpets have been identified as local food resources (Australian Museum 2023). During analysis of shell species identified in excavated shell middens around Sydney Harbour, the Port Jackson Archaeology project (Australian Museum 2023) identified that the most commonly consumed shell species included rock oysters (*Saccostrea glomerata*), hairy mussels (*Trichomya hirsute*) and Sydney cockles (*Anadara trapezia*). Mud oysters (*Ostrea angasi*) and Hercules club whelks (*Pyrazus ebeninus)* were also relatively common. Turban shells were also utilized as fishhooks.

Other crustaceans also highly utilized as food resources from the Sydney Harbour include blue swimmer crabs (*Portunus pelagius*), mud crabs (*Scylla serrata*), soldier crabs (*Mictyris longicarpus*), eastern rock lobsters (*Jasus verreauxi*), eastern king prawn (*Penaeus plebejus*), eastern school prawn (*Metapenaeus maclyeayi*) and rock barnacles such as the large “purple plated” *Austrobalanus imperator* (Australian Museum 2023).

3.2 PAST LAND USE PRACTICES

The study area is situated within land that has been utilized by Europeans post-colonization as early as the 1860’s. There are 3 local historic heritage items listed on the Waverley 2012 LEP: the “War Memorial Hospital, Late Victorian buildings and former stables” (I449), “War Memorial Hospital landscape” (I519) and the “Federation style detached residences” (1473) (State Heritage Inventory n.d.). The site complexes are listed over 2 hectares of land within the study area and comprise several buildings and residences. The site was owned by Ebenezer Vickery, a merchant who lived on the property with his family from the 1860s. The property retains three key Victorian buildings constructed for members of the Vickery family. The second ‘Edina’ constructed c1884 (Waterhouse 2022), which replaced the original built in c1861 (Waterhouse 2022). The semidetached residences ”Banksia and Wytch Hazel’,1882 (Sydney Morning Herald 1882) and “Ellersie” c1885 (Waverley Ward, 1886), which incorporated parts of an earlier building, ‘Rockhampton (Sydney Morning Herald 1870) and was the first used for hospital purposes when the family donated the property for a memorial hospital on Anzac Day 1919. The hospital was officially opened in 1921. By 1912 at least 4 Federation style semi-detached residences were

constructed in the study area (“Linaria”, “Pine Hill”, “Nemesia” and “Nolana”) (State Heritage Inventory n.d.). In 1922 the War Memorial Hospital became a private hospital and has been utilized this way since (Figure 3.4). Between the 1960s and 1980s several residential buildings were incorporated into the study area (Figure 3.5). The study area currently comprises residential properties, the War Memorial Hospital, aged care services and a range of health and rehabilitative services (Figure 3.6).

Figure 3.4 - 1955 Aerial of the study area

22082 - 125 Birrell Street, Waverly - ACHA

Source: Spatial services

Drawn by: ARH Date: 2023-08-02

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Figure 3.5 - 1965 Aerial of the study area

22082 - 125 Birrell Street, Waverly - ACHA

Source: Spatial services

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Figure 3.6 - 1994 Aerial of the study area

22082 - 125 Birrell Street, Waverly - ACHA

Source: Spatial services

Drawn by: ARH Date: 2023-08-02

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4 ARCHAEOLOGICAL CONTEXT

The range of environments and landscapes within the Sydney region had a profound influence on the lives of the Aboriginal people who lived there. As hunters and gatherers, Aboriginal people were reliant on their surroundings to provide food. Their transitory lifestyle affected population size, social interactions and degree of mobility, which can be confirmed in the archaeological record.

4.1 POPULATION AND CONTACT HISTORY

Within the Waverley Local Government Area (LGA) there is ongoing debate regarding the language group and cultural affiliations of the traditional owners of the area. This conflict has occurred due to the displacement of Aboriginal people at the time of anthropologic documentation. Before European contact, the Sydney region comprised clan estates, and there were known to be at least 20 different groups among these (Dominic Steele Consulting Archaeology 2009). The Waverley Heritage Study, undertaken in 2009 (Dominic Steele Consulting Archaeology 2009) in consultation with the LPLALC, identifies the Waverley area as being part of the traditional lands of the Cadi-gal clan. This clan was known as Cadi (with Cadi-gal meaning people of Cadi) and in 1788 were likely to number anywhere between 30 and 70 people. Cadi-gal land likely extended along the southern shore of Port Jackson to around Pyrmont and extended as far west as Botany Bay. Neighbouring groups are believed to have included the Wann-gal to the west, the Gamraigal to the north and the Gwea-gal to the south (Attenbrow 2002).

Conflicting information posed by Raymond de Cusack in the 1950s (as referenced by Dominic Steele Consulting Archaeology 2009) claims the Bondi area was within Biddigal country. However, this has been questioned and never verified. Kohen and Lampert (Kohen & Lampert 1987) proposed that the Waverley area is within the country of the Birrabirragal people; however, Kohen later states (Kohen 1993), as does Attenbrow (Attenbrow 2002), that the Birrabirragal people were associated with Sydney Harbour, specifically with Sow and Pigs Reef between South Head and Georges Head (Kohen 1993).

Several languages are spoken in the Sydney area, however the predominant language spoken by the Cadi-gal is also largely debated. There appears to be agreement that the group would have been bi- or multi-lingual. It should be noted that understandings of language boundaries are disconnected at best; however, Dharawal and Durag are common languages believed to be spoken in the local area.

Aboriginal people are understood to have occupied the greater Sydney area for at least 20,000 years (Attenbrow 2002). The earliest Aboriginal sites originate from a time when sea levels were much lower than those of the present day. The current coastline was likely defined by an inland environment drained by streams. A limited number of sites in the Sydney region date to the period of rising sea levels, which altered the landscape and submerged a large portion of land. In turn, coastal groups were forced to move further inland. Approximately 6,000 years ago, the coast and waterways reached the level seen today, and it is likely that clans known to us post-European contact existed in this manner only for several thousand years. Moreover, most archaeological sites in the Sydney region, including rock engravings, date within the last 5,000 years, with most dating between 2,500 and 3,000 years ago. Some local sites are also associated with post-European contact Aboriginal occupation and contain glass and ceramic flakes.

Several archaeological phases have been established to categorize material evidence of Aboriginal occupation. Archaeological phases in south-east Australia include the Capertian and the Early, Middle and Late Bondaian (Attenbrow 2002, Dominic Steele Consulting Archaeology 2009). During the Capertian phase of stone use, tools largely comprised large, heavy stone artefacts. Tool types in this phase included core tools, denticulate stone saws, scrapers, hammer stones, bipolar cores and flakes and burins. The shift from Capertian to Bondaian seems to have taken place around 5,000 years ago and is defined by a shift in stone tool size, raw material uses and in the range of materials utilized. The shifts between Bondaian phases can be seen through the introduction and successive decline of backed stone tools (such as Bondi flakes) and increase in bipolar flaking techniques to manufacture stone artefacts. The Bondaian period also includes the introduction of ground-edge implements around 4,000 years ago and fishhooks in the last 1,000 years.

4.2 PREVIOUS ARCHAEOLOGICAL WORK

The material evidence of Aboriginal land use has been compiled based upon a review of previous archaeological studies at a regional and local level, heritage database searches and field investigations.

4.2.1 REGIONAL ARCHAEOLOGICAL CONTEXT

THE PORT JACKSON ARCHAEOLOGICAL PROJECT REPORT ON STAGE 1

The report by Attenbrow (1991) seeks to provide a balance between historical and archaeological knowledge of the Port Jackson area. The report provides historical accounts of Aboriginal life around Port Jackson at the time of British settlement. The Port Jackson Archaeological Project consisted of two stages: Stage 1, which consisted of reviewing previous archaeological work, conducting surveys, and recording sites. Stage II included site excavation. The report provides the results of Stage 1 (Attenbrow 1991).

During the survey 309 midden sites were identified throughout the Port Jackson area. Sixteen percent (n=58) were recorded as highly disturbed. In contrast, 53% of the sites were identified as *in situ* deposits. The project focused on the extent that middens could provide information on available food resources, raw materials for tools and changes that took place over time. It was deemed that 17% of the sites had excellent research potential to aid in answering the research questions. The research potential for 69 sites could not be determined (Attenbrow 1991).

Attenbrow concluded that numerous middens have survived in the Port Jackson catchment, many of which have good research and excavation potential. It was concluded that Stage 2 of the project will be conducted at the sites with good research potential (Attenbrow 1991).

TECHNICAL WORKING PAPER: ABORIGINAL HERITAGE

NSW Roads and Maritime Services commissioned AECOM (2017) to complete an Aboriginal Heritage Assessment for the proposed WestConnex M4-M5 Link. This project included the construction of a new multi-lane road link between M4 East Motorway at Haberfield and M5 Motorway at St. Peters. An interchange at Anzac Bridge and Victoria Road was also included in the proposed works (AECOM 2017).

For the assessment, a survey was conducted of areas that retained some Aboriginal archaeological potential. The study area was predominantly located on land that was highly disturbed. All sandstone outcrops and mature remnant trees were inspected during the survey. No Aboriginal objects were identified during the survey. Exposed sandstone was identified adjacent to Whites Creek, however no grinding grooves were found. No areas of Aboriginal cultural attachment or intangible cultural heritage values were identified by the Metropolitan Local Aboriginal Land Council (MLALC) representative (AECOM 2017).

WAVERLEY ABORIGINAL CULTURAL HERITAGE STUDY

Dominic Steele Consulting Archaeology completed a cultural heritage study on behalf of Waverley Council in consultation with the LPLALC. The objectives of the study were to identify Aboriginal cultural heritage values within the Waverley LGA. The study identified 11 Aboriginal sites for inclusion in the Waverley LEP 2010. An initial search of the AHIMS database returned 11 registered sites within the Waverley LGA at the time of the assessment, though 2 of these had incorrect coordinates and were actually located outside of the LGA. Of the 9 remaining sites, there were 5 rock engraving sites, 2 shelters with midden material, one shelter with art and one open campsite and burial. The survey for the heritage study placed a greater focus on assessing site condition rather than identifying new sites; 5 of the 9 sites were reassessed, and further details on the condition of the sites were documented. Two previously unrecorded rock shelters with associated archaeological potential were recorded during the survey, and the study revealed 5 areas within the Waverley LGA of possible Aboriginal historical association. These sites as described by the Waverley Aboriginal Cultural Heritage Study described in Table 4.1.

Table 4.1 Areas of known or possible Aboriginal historical association as taken from Waverley Aboriginal Cultural Heritage Study 2009

Name	Description
Bondi Pathway	*Ross (1988) provides a map (based on unspecified sources) of a north-south pathway between Bondi and Vaucluse. The source of the information would need to be found and further details obtained before any public interpretation of the route should be undertaken. If confirmed, it could provide some insight into how people moved to and from important coastal and hinterland resource zones in the past.*
Ben Buckler Fishing Place	*This location is historically described as being an important Aboriginal fishing place. Further details would be required to properly interpret its nature and significance to the public.*
Tamarama Fishing Place	*This location is historically described as being an important Aboriginal fishing place. Further details would be required to properly interpret its nature and significance to the public.*
South Bondi Fishing Place	*This location is historically described as being an important Aboriginal fishing place. Further details would be required to properly interpret its nature and significance to the public. In combination, the three coastal locations bear testimony to the importance fishing (and other resource gathering activities) played in the lives of Aboriginal people in the past*
Bondi Camp	*Aboriginal people reportedly camped at Bondi in the 1870s and through the 1920s at various places from the south to the north. Some individuals are named in the historical records. Further research could be undertaken to develop a more detailed history of this/these camps.*

METRO CITY AND SOUTHWEST CHATSWOOD TO SYDENHAM ABORIGINAL CULTURAL HERITAGE ASSESSMENT.

Artefact Heritage Pty Ltd (2016) completed an ACHA for the proposed Sydenham to Bankstown metro upgrade. The study area covered approximately 15.5 kilometres. The objectives of the study were to identify Aboriginal cultural heritage values within the study area. Only the archaeological potential for surface project sites were assessed during this study, as it was assumed that there would be no archaeological potential for tunnel locations (Artefact Heritage Pty Ltd 2016).

It was determined there would be no impacts to registered AHIMS sites within the project area. Table 4.2 demonstrates the archaeological potential of each site and the assumed impacts if aboriginal objects are found at each site (Artefact Heritage Pty Ltd 2016).

Table 4.2 Impact Assessment (Artefact Heritage Pty Ltd 2016)

Project Site	Potential	Type of Harm	Degree of Harm	Consequence of Harm
Chatswood Dive Site	*Low*	*Direct*	*Total*	*Total loss of value*
Artarmon Substation	*Low*	*Direct*	*Total*	*Total loss of value*
Crows Nest Station	*Low*	*Direct*	*Total*	*Total loss of value*
Victoria Cross Station	*Low*	*Direct*	*Total*	*Total loss of value*
Blues Point Temporary Site	*Moderate*	*Direct*	*Total*	*Total loss of value*
Barangaroo Station	*Moderate to high*	*Direct*	*Total*	*Total loss of value*
Martin Place Station	*Moderate to high*	*Direct*	*Total*	*Total loss of value*
Pitt Street Station	*Moderate to high*	*Direct*	*Total*	*Total loss of value*
Central Station	*Moderate to high*	*Direct*	*Total*	*Total loss of value*
Waterloo Station	*Moderate to high*	*Direct*	*Total*	*Total loss of value*
Marrickville Dive Site	*Moderate to high*	*Direct*	*Total*	*Total loss of value*
Sydney Harbour Tunnel Section	*Moderate to high*	*Direct*	*Partial*	*Partial loss of value*
Power Supply Routes	*Low to high*	*Direct*	*Direct*	*Total loss of value*

4.2.2 HERITAGE DATABASE SEARCH

A search of the Heritage NSW AHIMS database was undertaken on 2 August 2022 (Client Service ID 705036; GDA 2020 Lat, Long from: -33.937654, 151.186177 to -33.857654, 151.286177) [Figure 4.1]. The results from the AHIMS search identified 112 previously recorded sites within a 10-kilometre radius of the study area. The search indicates that PADs (51.8%), art sites (17.9%) and artefact sites (13.4%) are the predominant site types in the area. The vast majority of sites are located close to the Sydney Harbour or the coastline bordering the Tasman Sea within flat or sloping landforms. It should be noted that there are no listed Aboriginal sites within 400 metres of the study area.

A second search of the Heritage NSW AHIMS database was undertaken on 30 October 2024 (Client Service ID 944993). The results from the AHIMS search identified 117 previously recorded sites within a 7 kilometre search area centred on the study area. The search indicates that PADs are the predominant site type with over 48.74% of known sites belonging to this category (Table 4.3 and Figure 4.1).

The vast majority of sites are located close to the Sydney Harbour or the coastline bordering the Tasman Sea within flat or sloping landforms. It should be noted that there are no listed Aboriginal sites within 400 metres of the study area.

A search of the Waverley LEP 2012 has also identified that there are 3 local historic heritage items listed within the study area: the "War Memorial Hospital, Late Victorian buildings and former stables" (I449), "War Memorial Hospital landscape" (I519) and the "Federation style detached residences" (1473) (State Heritage Inventory n.d.). There are no National or State Heritage listed items within the study area.

For the purpose of Table 4.3 and Figure 4.1 it is assumed that the correct coordinate system has been registered for each site.

Table 4.3 Summary of AHIMS site within 7 kilometres of the study area (2024)

Site Type	Total	Percent (%)
Aboriginal Ceremony and Dreaming, Artefact, Shell	1	0.85
Aboriginal Resource and Gathering, Shell	1	0.85
Art (Pigment or Engraved)	21	17.98
Art (Pigment or Engraved), Grinding Groove	1	0.85
Art (Pigment or Engraved), PAD	1	0.85
Artefact	18	15.39
Artefact, Hearth	1	0.85
Artefact, PAD	4	3.41
Burial, Aboriginal Ceremony and Dreaming, Artefact	1	0.85
Grinding Groove	1	0.85
Habitation Structure, PAD	1	0.85
PAD	57	48.74
PAD, Hearth	1	0.85
Shell	1	0.85
Shell, Artefact	5	4.28
Shell, Artefact, Burial, Art (Pigment or Engraved)	1	0.85
Water Hole	1	0.85
Total	**117**	**100**

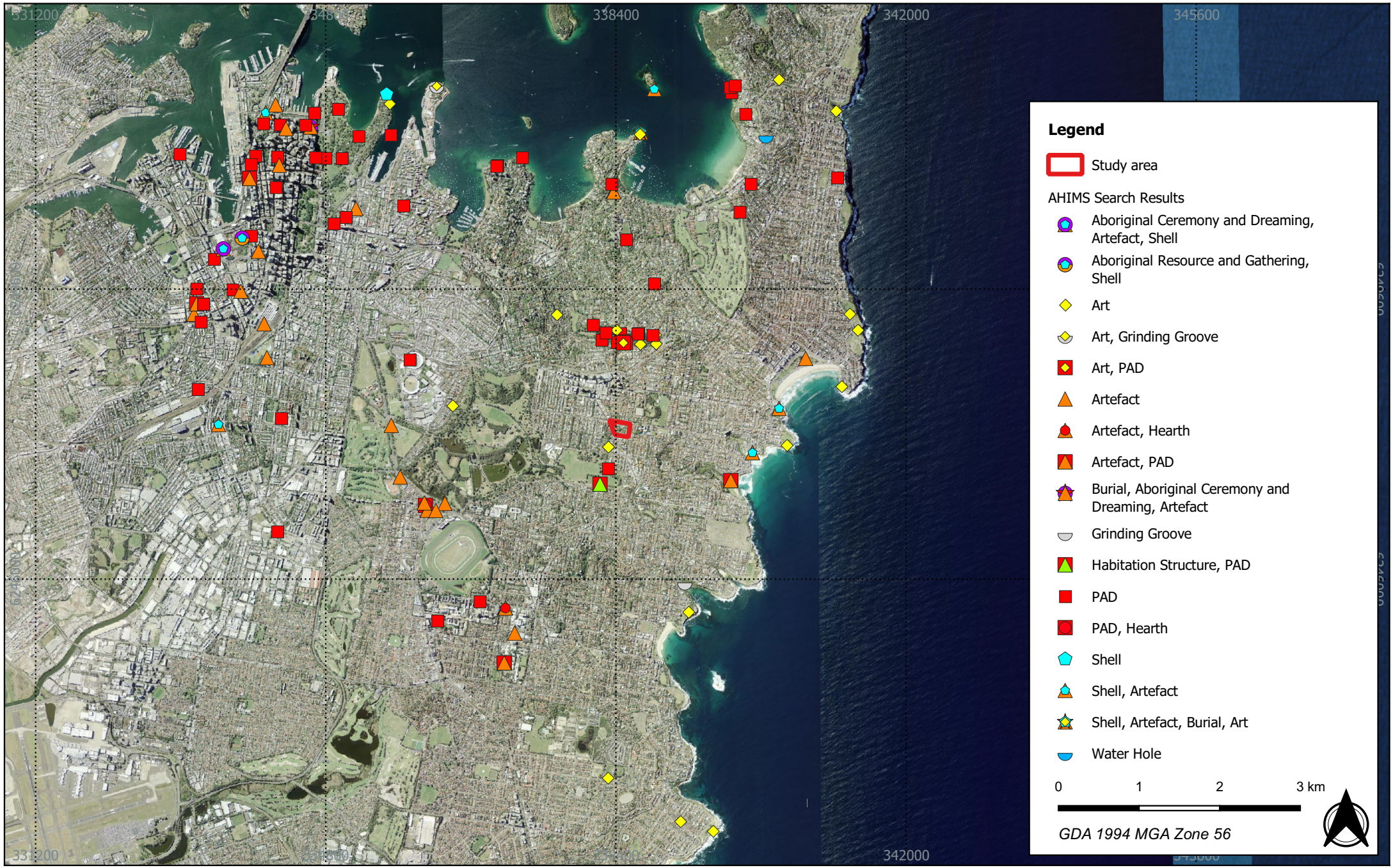


Figure 4.1 - AHIMS search results within 7 kilometres of the study area (2024)

22082 - 125 Birrell Street, Waverly - ACHA

Source: NSW LPI Aerial

Drawn by: FOT Date: 2024-10-31

AUSTRAL ARCHAEOLOGY

4.2.3 LOCAL ARCHAEOLOGICAL CONTEXT

Archaeological investigations of the Sydney region, and in particular the suburb of Waverley, have been conducted in response to the spread of urban development. The limited ethnographic accounts of early settlers and explorers were once considered the primary source for archaeological enquiry. However, with the recent spread of urban development within the Waverley environs, archaeological investigations have increased accordingly.

A multitude of studies have been completed in the region, and this section presents a synopsis of selected archaeological investigations of direct relevance to the study area. These reports have been selected based on their landform context, proximity and, in particular, relationship to the coastline and Sydney Harbour. The reports that have been reviewed are detailed in Table 4.4.

Table 4.4 Reports selected for review as part of local archaeological context

Author	Date	Relevance to Study Area	Type of assessment
Koettig	1986	Assessment of Aboriginal sites near HMAS Watson, South Head, Sydney, NSW. The survey was located within the Hawkesbury Sandstone geological unit, in which the current study area is also located. Located approximately 6.5 kilometres north from current study area.	Survey
Godden Mackay Heritage Consultants	1998	A salvage excavation of an Aboriginal site (NPWS #45-6-2581) located at Angel Place, approximately 5.5 kilometres north-west of the current study area.	Excavation
Dominic Steele Consulting Archaeology	2002	A salvage excavation of a potential Aboriginal archaeological site (NPWS # 45-6-2637) located at 589-593 George Street, Sydney. The block is located approximately 4.7 kilometres north-west from the current study area.	Excavation
Jo McDonald Cultural Heritage Management	2004	Archaeological survey for an Aboriginal heritage assessment of the University of Sydney campus. The survey was conducted within metropolitan Sydney and is located approximately 6 kilometres north-west of the current study area.	Survey
Comber	2008	Aboriginal Archaeological and Cultural Heritage Assessment, Darling Walk, Darling Harbour. The excavation was conducted within the proposed development area of Darling Walk. The excavation was conducted within metropolitan Sydney and is located approximately 6 kilometres north-west from the current study area.	Survey
Jo McDonald Cultural Heritage Management	2010	An archaeological subsurface investigation beneath the clubhouse of the Royal Sydney Gold Club in Rose Bay, located approximately 3 kilometres north of the current study area.	Excavation
Comber	2012	An archaeological subsurface investigation of Darling Quarter (formerly Darling Walk). The excavation was conducted within the proposed development area of Darling Walk within metropolitan Sydney and is located approximately 6 kilometres north-west from the current study area.	Excavation
Godden Mackay Logan Pty Ltd	2012	An Archaeological Management Report for Hyde Park, Sydney, as part of the Hyde Park Masterplan Implementation project, located approximately 4.5 north-west kilometres from the current study area.	Management assessment

Author	Date	Relevance to Study Area	Type of assessment
Biosis Pty Ltd	2018	A due diligence assessment of the Concord Repatriation General Hospital located in Concord West, NSW. The assessment was conducted approximately 16 kilometres north-west from the current study area.	Survey
Comber Consultants	2018	An Aboriginal Archaeological Assessment for the demolition of the existing building on 22 Carrara Road, Vaucluse, approximately 4.5 kilometres north-west from the current study area.	Survey
Extent Heritage Pty Ltd	2019	An Aboriginal Heritage Due Diligence assessment for the redevelopment of the Scots College (Lot 1 DP 929570, Lot 1 DP 663629, Lot 1 DP 1064059) located approximately 2.5 kilometres north of the current study area.	Survey
Urbis	2020	A Due Diligence assessment for 2-26 Lee Street, Haymarket, NSW. The assessment was conducted within metropolitan Sydney and is located approximately 5 kilometres north-west of the current study area.	Survey
Extent Heritage Pty Ltd	2021	An Aboriginal Cultural Heritage Assessment for the development of 31 Cowper Street and 2A-2D Wentworth Park Road, Glebe, NSW. The preliminary assessment was conducted within metropolitan Sydney and is located approximately 6 kilometres north-west of the current study.	Preliminary assessment

ASSESSMENT OF ABORIGINAL SITES IN THE AREA OF HMAS WATSON, SOUTH HEAD, SYDNEY, NEW SOUTH WALES

Koettig (1986) was commissioned to complete an assessment of Aboriginal sites in the area of HMAS Watson, South Head, Sydney, located 6.5 kilometres north from the current study area and within the Hawkesbury Sandstone geological unit. The study aimed to determine whether further work would be necessary for the 4 Aboriginal sites previously identified within the study area by W.D. Campbell and J. Lough. These sites were recorded as Sites B, G, H and L. One of the 2 engraved figures at Site B were identified, although it was partially destroyed. The engravings associated with Site G could not be identified. Site H could not be relocated, as the area has been developed into a car park. Site L could also not be located.

During the survey a new site was identified and labelled T. The site consists of a figure engraving at the southern edge of the sandstone exposure located near the flagpole on St. George Street. It was concluded that the engravings present within the study area were typical of those within the Port Jackson region. Due to the limited number of sites left within metropolitan areas, the sites within the survey area were identified as having a high level of significance. There is a potential for engravings to also be located within the current study area as it is also located within the Hawkesbury Sandstone geological unit (Koettig 1986).

ANGEL PLACE PROJECT 1997 ARCHAEOLOGICAL EXCAVATION

Godden Mackay Heritage Consultants (1998) was commissioned to complete a salvage excavation of an Aboriginal site (NPWS #45-6-2581) located at Angel Place, approximately 5.5 kilometres north-west of the current study area. The salvage area was located within the Lower Tank Stream valley. Due to 2 centuries of development, the study area was severely disturbed; however, an assemblage of 54 flaked stone artifacts was recovered during a salvage that covered approximately 10 metres^2. Materials of the assemblage included silicified tuff, indurated mudstone, silcrete and quartz. Due to the high level of disturbance, the original size of the site could not be determined; however, artifact distribution indicated that the site would have extended farther prior to the disturbance. From an analysis of the assemblage, it was suggested that people were forced to exploit small- to medium-sized river pebbles due to the lack of quality raw materials within the Port Jackson region (Godden Mackay Heritage Consultants 1998).

SALVAGE EXCAVATION OF A POTENTIAL ABORIGINAL SITE 589-593 GEORGE STREET, SYDNEY – DOMINIC STEELE CONSULTING ARCHAEOLOGY 2002

Dominic Steele Consulting Archaeology (2002) was commissioned to conduct a salvage excavation of a potential Aboriginal archaeological site (NPWS #45-6-2637) located at 589-593 George Street, Sydney. The block is located approximately 4.7 kilometres north-west from the current study area.

The methods employed for the salvage included removing the remnant concrete slab and manually excavating the underlying European fill material. The surviving soil profile containing a shell lens was gridded alphanumerically to be excavated in 1-metre by 1-metre squares (Dominic Steele Consulting Archaeology 2002).

The surviving soil profile that contained the shell lens included an isolated patch of moderately- to well-preserved mud oyster (*Ostrea angasi*) and rock oyster (*Saccostrea cucullate*). No Aboriginal artifacts were identified during the salvage, and it was determined that the shell lens was not of Aboriginal origin (Dominic Steele Consulting Archaeology 2002).

ARCHAEOLOGICAL SURVEY FOR AN ABORIGINAL HERITAGE ASSESSMENT

Jo McDonald Cultural Heritage Management (2004) was commissioned to conduct an Aboriginal heritage assessment of the University of Sydney campus. The study area consisted of the Darlington and Camperdown campuses of the University of Sydney. It was identified that the study areas have been subject to significant disturbance since the construction of the university in 1854. The survey consisted of a foot survey over areas that were less developed. During the survey, it was determined that no areas within the study area had a high potential for intact archaeological deposits due to the extent of land disturbance. No Aboriginal objects were identified within the study area. As a result, no design constraints were imposed on the development proposal; however, it was determined that a program of archaeological testing should be conducted during building removal. The survey was conducted within metropolitan Sydney and is located approximately 6 kilometres north-west of the current study area (Jo McDonald Cultural Heritage Management 2004).

ABORIGINAL ARCHAEOLOGICAL AND CULTURAL HERITAGE ASSESSMENT DARLING WALK, DARLING HARBOUR

Comber (2008) was commissioned by Sydney Harbour Foreshore Authority (SHFA) to conduct an archaeological survey and cultural heritage assessment for the proposed redevelopment of Darling Walk. The survey was located within metropolitan Sydney and was conducted in a study area of 60 hectares approximately 6 kilometres north-west from the current study area. The survey was completed by 3 archaeologists, a SHFA representative and a MLALC representative. As the survey was conducted within a developed public space, there was no ground visibility or exposure. No sites were identified during the survey; however, it was concluded that subsurface testing of the area would be required due to its proximity to known sites around the Sydney Harbour foreshore (Comber 2008).

ARCHAEOLOGICAL SUBSURFACE INVESTIGATIONS AT THE ROYAL SYDNEY GOLF CLUB

Jo McDonald Cultural Heritage Management (2010) was commissioned to complete an archaeological subsurface investigation beneath the clubhouse of the Royal Sydney Gold Club in Rose Bay, located approximately 3 kilometres north of the current study area. The study area consisted of the Royal Sydney Golf Club bowling green and the northern lawn, which is located on a modified sand dune formation north of the club house. It was noted that a previous study located within the survey area identified a skeleton of an Aboriginal woman in 2003 (Jo McDonald Cultural Heritage Management 2010).

A ground penetrating radar survey was conducted throughout the survey area to locate possible burial pits that could be targeted by archaeologists during subsurface testing. Subsurface testing was conducted in two stages: the first stage consisted of mechanical excavation to detect buried land surfaces, and the second stage consisted of manual excavation and sieving of deposits (Jo McDonald Cultural Heritage Management 2010).

No Aboriginal cultural materials or skeletal remains were identified during the initial excavation within the bowling green with the exception of a silcrete core located in imported topsoil fill. Further excavation of the bowling green identified a small number of artefacts within a grey sand dune layer. Four features, identified as darker patches of sand within the yellow sand deposit, were hand-excavated in the northern lawn section of the study area. Human bones were identified within Feature 1 and Feature 2; no bones were identified in Feature 3 and Feature 4. The skeletal remains of at least 3 individuals were recovered during the excavation. In total, 5,734 lithics were identified during the subsurface investigations. Quartz was the predominant material, composing 77% of the assemblage, with silcrete and silicified tuff also being present. Flaked debitage made up most of the assemblage; however, bipolar artefacts (14%) were also a significant part of the identified artefacts. It was concluded that it would be extremely unlikely that further intact remains be located within the study area and that a good sample of cultural lithics had been salvaged during the investigation (Jo McDonald Cultural Heritage Management 2010).

DARLING QUARTER (FORMERLY DARLING WALK), DARLING HARBOUR ABORIGINAL ARCHAEOLOGICAL EXCAVATION REPORT

Comber (2012) was commissioned by SHFA to conduct an archaeological survey and cultural heritage assessment for the proposed redevelopment of Darling Walk. The excavation was located within metropolitan Sydney and was conducted in a study area of 60 hectares approximately 6 kilometres north-west from the current study area. During the excavation, a total of 46 trenches were excavated over 3 testing areas (Area 5, 7 and 8). Ten artefacts from these trenches were identified in Area 5 and were associated with a shell deposit. No artefacts were associated with Area 7 or Area 8.

Analysis determined that the middens had been redeposited by tidal movements and disturbed by development of the area. Artefacts found within the midden were identified as possibly being used to open bivalves or gut fish. It was also determined that charcoal within the soils was associated with cooking fires. The assemblage of artefacts was predominantly composed of chert flakes (80%), though silcrete (10%) and quartz (10%) flakes were present within the assemblage. The majority of flakes showed evidence of retouch (60%). The closest source of chert to the excavation area is Plumpton Ridge located 40 kilometres to the north-west, indicating that the Cadi were trading with the people from Plumpton Ridge (Comber 2012). It was concluded that the artefacts should be returned to the MLALC for safekeeping (Comber 2012). The current study area is also located with the Cadi-gal clan land, and chert or similar traded materials may also be present.

HYDE PARK ARCHAEOLOGICAL MANAGEMENT PLAN DRAFT REPORT

Godden Mackay Logan Pty Ltd (2012) was commissioned to complete an Archaeological Management Report for Hyde Park, Sydney, as part of the Hyde Park Masterplan Implementation project. The study area consisted of 16 hectares and was divided into 2 sections by Park Street, forming Hyde Park North and Hyde Park South, located approximately 4.5 kilometres north-west from the current study area (Godden Mackay Logan Pty Ltd 2012).

It was assessed that the potential for Aboriginal cultural objects in Hyde Park is generally low. The north portion of the park was the only area that contained potential remnants of sandy loam topsoil (A Horizon), but it was buried under 400 millimetres of introduced material; therefore, any evidence associated with Aboriginal occupation would be of archaeological significance. It was concluded that a test excavation should be conducted in the area of Hyde Park North, which was designated as retaining low to moderate archaeological potential, to determine the nature and extent of Aboriginal archaeological deposits in the area (Godden Mackay Logan Pty Ltd 2012).

CONCORD HOSPITAL REDEVELOPMENT ABORIGINAL CULTURAL HERITAGE DUE DILIGENCE ASSESSMENT

Biosis Pty Ltd (2018) was commissioned to conduct a due diligence assessment of the Concord Repatriation General Hospital, located in Concord West, NSW. The study area consisted of Lot 20 and Lot 21, DP 1139098, Lot 2 DP535257, a portion of Lot 7310 DP1159928, and a portion of Lot 117 DP752023. The assessment was conducted approximately 16 kilometres north-west from the current study area. The survey was conducted on foot. The visibility and exposure of the study area were low due to significant development within the area associated with the construction of buildings, roads, walkways, and tennis courts as well as sewer, water and electrical services. No Aboriginal sites or areas of archaeological potential were identified during the survey. The results were supported by geotechnical testing of the area that determined the subsurface soils were highly disturbed. Due to the disturbance within the study area, it was determined that there was a low potential for Aboriginal sites to be present within the study area (Biosis Pty Ltd 2018).

22 CARRARA ROAD, VAUCLUSE – ABORIGINAL ARCHAEOLOGICAL ASSESSMENT

Comber Consultants (2018) was commissioned to complete an Aboriginal Archaeological Assessment for the demolition of the existing building on 22 Carrara Road, Vaucluse, approximately 4.5 kilometres north-west from the current study area. A 4-level residence, paths and gardens are located within the study area. An archaeological site inspection was included in this assessment. The survey covered the entire study area and was completed on foot. Areas of the Hermitage Foreshore Reserve were also inspected due to its proximity to the impact of works. No objects or sites were identified during the survey; however, no areas of the ground surface could be observed. Because no artifacts were identified and the high level of disturbance, it was concluded that it is highly unlikely that Aboriginal objects would be located within the study area (Comber Consultants 2018).

THE SCOTS COLLEGE, BELLEVUE HILL, NSW – ABORIGINAL HERITAGE DUE DILIGENCE

Extent Heritage Pty Ltd (2019) has been commissioned to conduct an Aboriginal Heritage Due Diligence assessment for the redevelopment of the Scots College (Lot 1 DP 929570, Lot 1 DP 663629, Lot 1 DP 1064059) located approximately 2.5 kilometres north of the current study area. During the site inspection, a terrace within the study area has been impacted by landscaping and development activities was noted. However, it was believed that the soil material has not been removed but rather redeposited across the site to level the study area. It is also of note that the study area is located on a sand dune system that has potential to retain stratified archaeological deposits and may be associated with Aboriginal burial sites (Extent Heritage Pty Ltd 2019).

Research of the region indicated the most likely evidence to be identified during the survey would include shell and art sites within rock shelters, along foreshores and within areas of outcropping sandstone. However, no outcrops were visible within the study area. Though no Aboriginal objects were identified during the site inspection of the study area, it was assessed that there is potential for Aboriginal objects to be present within the study area (Extent Heritage Pty Ltd 2019).

ABORIGINAL OBJECTS DUE DILIGENCE ASSESSMENT PARCELS POST, HENRY DEANE PLAZA

Urbis (2020) was commissioned to conduct a due diligence assessment for 2-26 Lee Street, Haymarket, NSW. The subject area included the Adina Apartment Hotel and the Henry Deane Plaza covering an area of approximately 5,450 metres^2. The assessment confirmed that no Aboriginal objects or sites were present within the study area as a result of significant disturbance associated with the construction of subterranean facilities. It was, however, assessed that the deeper, undisturbed soils had moderate potential to contain Aboriginal heritage objects. As a result, it was concluded that an ACHA should be carried out. The due diligence assessment was conducted within metropolitan Sydney and is located approximately 5 kilometres north-west of the current study area (Urbis 2020).

GLEBE MID-RISE DEVELOPMENT PRELIMINARY ABORIGINAL CULTURAL HERITAGE ASSESSMENT

Extent Heritage Pty Ltd (2021) was commissioned to conduct an ACHA for the development of 31 Cowper Street and 2A-2D Wentworth Park Road, Glebe. At the time the report was prepared, the study area was covered by a social housing estate, and the required subsurface investigations could not be conducted until demolition was completed. From surface observations, environmental and archaeological context, and historical land use, it was determined that Aboriginal artifacts within the northern half of the study area are likely to have been capped due to disturbance associated with construction. Geotechnical investigations confirmed that the study area was located on natural sandy alluvium and residual soils, and that there was potential for buried Aboriginal archaeological deposits to be located within the study area. The preliminary assessment was conducted within metropolitan Sydney and is located approximately 6 kilometres north-west of the current study area (Extent Heritage Pty Ltd 2021).

5 PREDICTIVE MODEL

Austral has used the information produced as part of the archaeological and environmental context sections to formulate a broad predictive model that identifies the type and character of Aboriginal cultural heritage sites that may be present within the study area.

The predictive model is based upon the analysis of the following key variables:

- Relationship between site types and their spatial distribution within the landscape.
- Raw site types, raw material types and site densities and their relationship to salient environmental features.
- Information in ethnohistorical sources that may indicate important natural resources or landscape features that may have been exploited.
- Potential chronological and spatial relationships between sites.

A predictive model has been developed based on the consideration of the variables outlined above that indicates the lively site types that will be encountered during the archaeological survey and archaeological testing.

5.1 ANALYSIS OF KEY VARIABLES

The AHIMS search completed for this project has identified slightly different trends in Aboriginal site types within the region. Commonly recorded sites types in the wider region include PADs (48.74%), art sites (17.98%) and artefact sites (15.39%). Generally, within the Sydney region, the most commonly recorded site type is artefact sites, however this is not the case for this AHIMS search; PADs are much more common, though testing in these PAD areas is most likely to reveal subsurface artefact sites, compared to other site types, should they be present.

Furthermore, while areas of PAD are listed as Aboriginal sites, this can only be confirmed through archaeological testing, which would prove or disprove the presence of an Aboriginal site. Moreover, when considering site complexes, which include a range of site types, stone artefacts are present at 21.3% of sites, whereas Aboriginal art is present at 18.8% of sites, indicating that artefact sites are the most common confirmed Aboriginal sites in the area.

It should be noted that any analysis using AHIMS data will be prone to biases as it relates to sites that have been recorded over the past 40 years. During this time, varying methodologies have been used to identify sites, and a large portion of the surrounding landscape may have been subject to limited or no assessment. Therefore, site distribution is likely to be reflective of survey methods and patterns and should not be considered a comprehensive list of all Aboriginal sites within a given region.

A summary of Aboriginal heritage sites within 7 kilometres of the study area is included in Table 5.1.

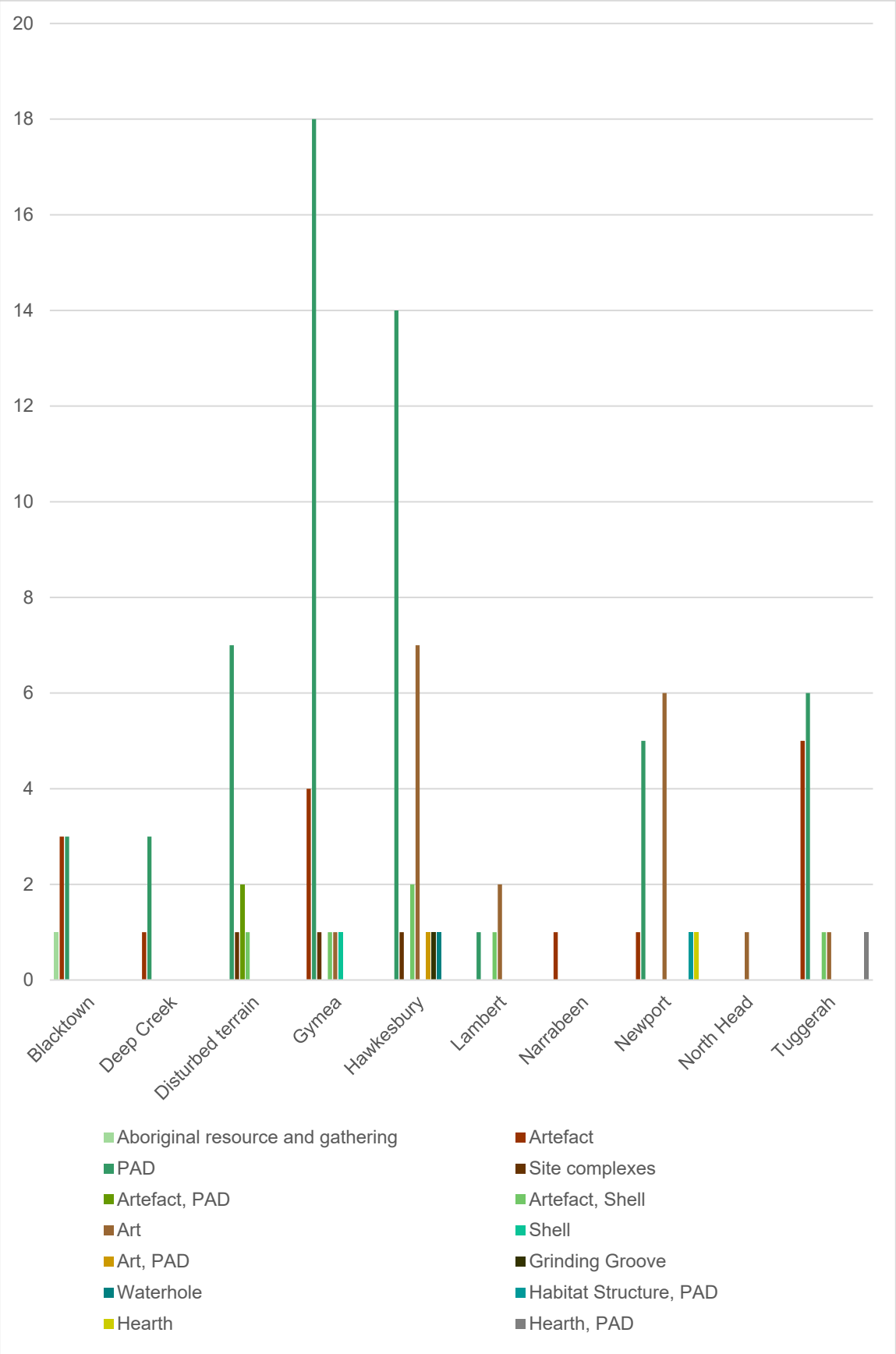
Table 5.1 Summary of sites recorded within a 7 kilometres radius of the study area

Site Type	Total	Percent (%)
Aboriginal Ceremony and Dreaming, Artefact, Shell	1	0.85
Aboriginal Resource and Gathering, Shell	1	0.85
Art (Pigment or Engraved)	21	17.98
Art (Pigment or Engraved), Grinding Groove	1	0.85
Art (Pigment or Engraved), PAD	1	0.85
Artefact	18	15.39
Artefact, Hearth	1	0.85
Artefact, PAD	4	3.41
Burial, Aboriginal Ceremony and Dreaming, Artefact	1	0.85
Grinding Groove	1	0.85
Habitation Structure, PAD	1	0.85
PAD	57	48.74
PAD, Hearth	1	0.85
Shell	1	0.85
Shell, Artefact	5	4.28
Shell, Artefact, Burial, Art (Pigment or Engraved)	1	0.85
Water Hole	1	0.85
Total	**117**	**100**

5.1.1 SOIL LANDSCAPE

The study area is located entirely within the Newport soil landscape. This soil landscape generally comprises moderately deep siliceous sands with high soil erosion. Approximately 12.5% of Aboriginal sites in the local area are within this soil landscape (Chart 5.1). Most sites within this soil landscape are art sites (42.9%) and areas of PAD (35.7%). Artefact sites, habitation structures and hearths have also been identified within this soil landscape, though these site types are comparatively rare and collectively comprise 21.4% of sites in this landscape in the local area. Most sites in the local area are located in Hawkesbury (24.1%) or Gymea (23.2%) soil landscapes. While in proximity to a number of water sources and the coast, the high levels of soil erosion within the current soil landscape may not facilitate artefact retention. This soil information combined with a history of European land clearing and the progressive development of the Sydney area indicate potential sites in the study area and surrounds may have been destroyed or displaced.

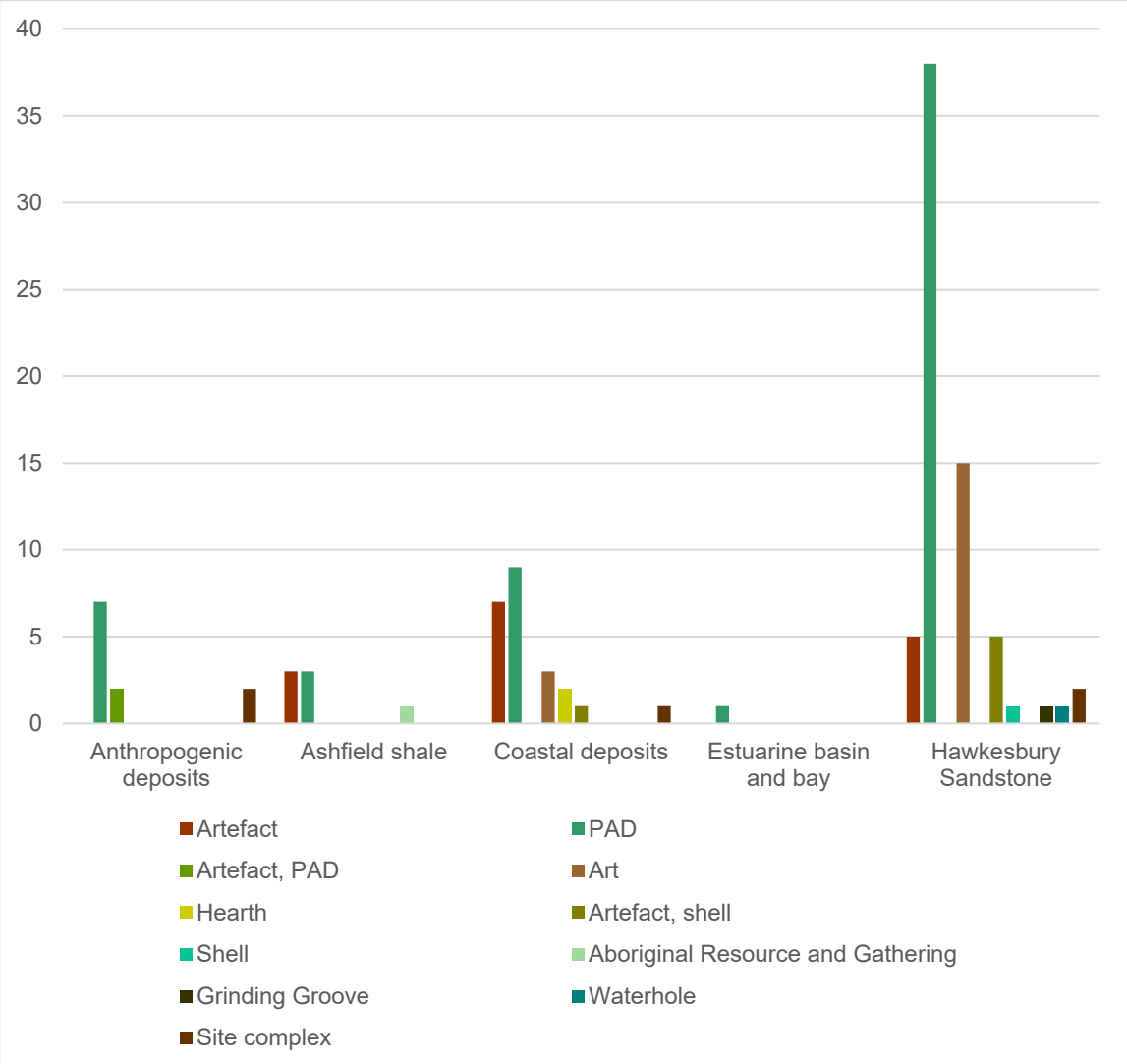
Chart 5-1 Local Aboriginal sites in relation to soil landscapes



5.1.2 GEOLOGY

Within the local search area most sites (61.8%) are within the Hawkesbury Sandstone geological unit, which is the geological unit that the study area is located entirely within (Chart 5.2). This geological unit is comprised of a medium- to coarse-grained quartz sandstone with some shale deposits. In relation to archaeological landforms, this unit facilitates outcrops that are suitable for grinding grooves, rock shelters and art sites, and this is reflected in the local data. While most local site types can be identified within this geological unit, the most prominent site types are areas of PAD (55.9%), artefact sites (14.7%), art sites (22.1%) and shell sites (8.8%).

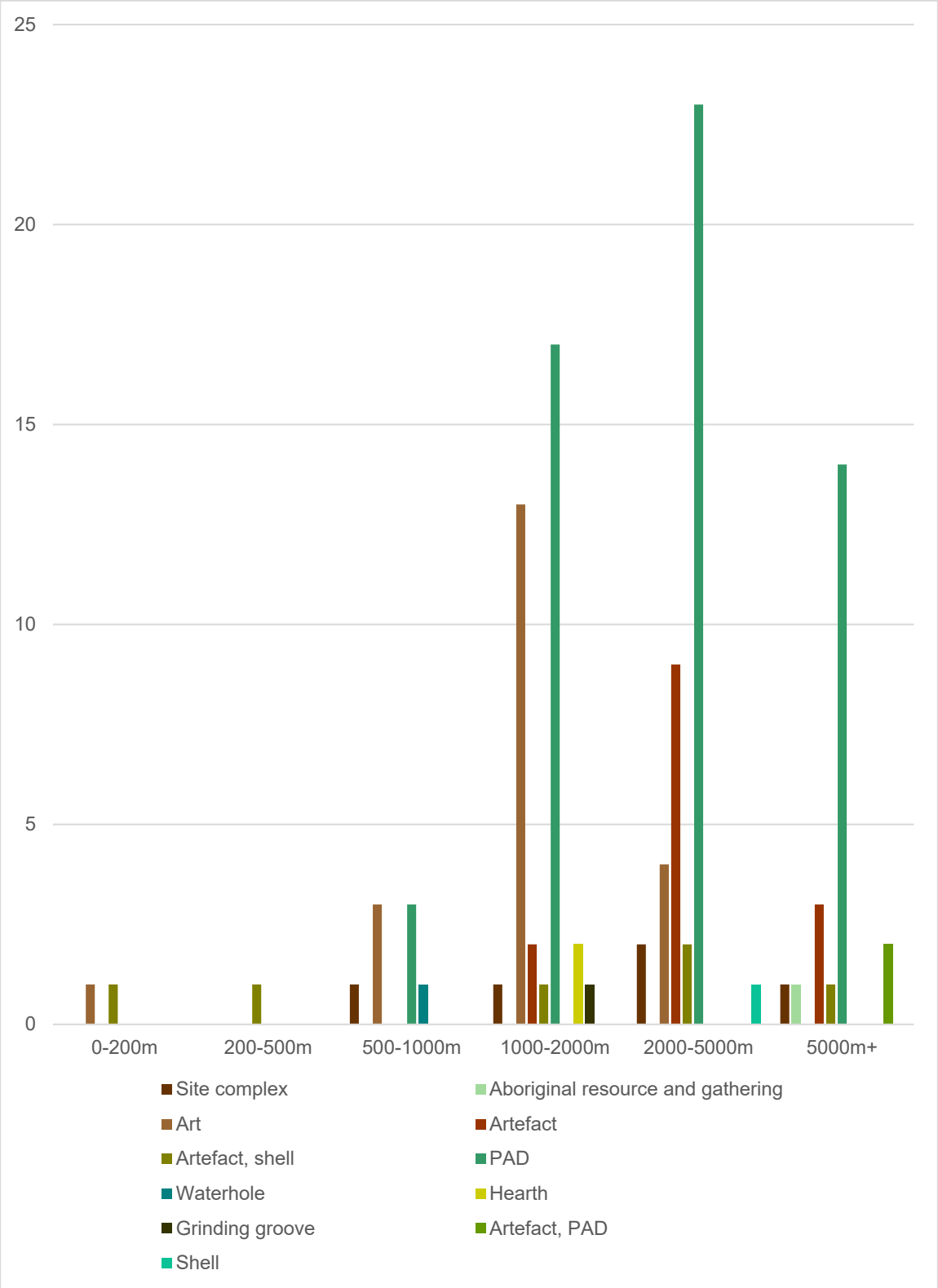
Chart 5-2 Local Aboriginal sites in relation to geological units



5.1.3 HYDROLOGY

The sites that are located in proximity to the study area are all within 5 kilometres of the Sydney Harbour or the Tasman Sea, and many sites are within 2 kilometres of Sydney Harbour (Chart 5.3). Proximity to these saltwater sources would have provided past Aboriginal people a large variety of saltwater aquatic life to utilize as food resources. This would have included, but is not limited to, fish, eels, and turtles as well as crustaceans such as oysters, pippins and lobsters. Despite the availability of such an abundant resource, potable water was still sought after, though data reflects settlements were typically located in closer proximity to large saltwater resources. All sites in the area are within 6 kilometres of a 1st order stream, with the majority of sites being located between 1 and 6 kilometres of 1st order streams. This distance likely reflects the desire to remain in proximity to the more abundant resource. Chart 5-3 identifies proximity of sites to streams in the local area.

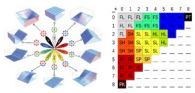
Chart 5-3 Local Aboriginal sites in relation to streams



5.1.4 TOPOGRAPHY

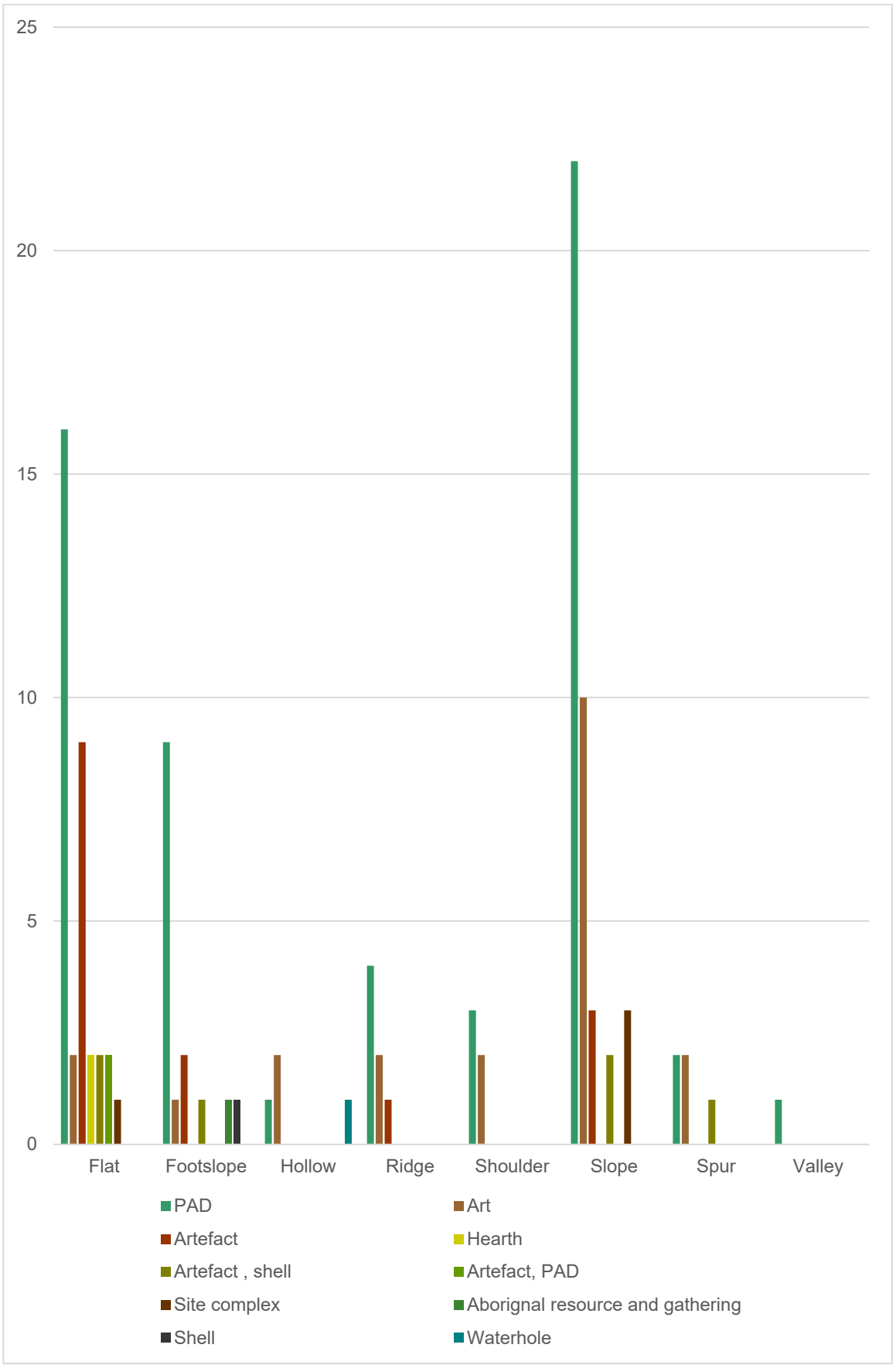
An analysis of the distribution of local sites in comparison to terrain has been undertaken using a spatial tool that classifies landforms using a range of parameters including slope, elevation and form (Stepinski & Jasiewicz 2011, Jasiewicz & Stepinski 2013). An overview of the landform classifications used by the algorithm are detailed in Chart 5.4.

Chart 5-4 Examples of landform definitions by geomorphons



Based on these landform definitions the study area is located within a slope landform unit. The majority of local AHIMS sites are located within sloping (35.7%) or flat landforms (30.4%) (Chart 5.5). While steeply sloping landforms are not conducive to artefact retention, slopes with a gradient of less than 15 degrees can facilitate artefact retention. Contour mapping of the Waverley area indicates that most sites identified in slope landforms are also associated with crests and ridges within proximity to the harbour or ocean. Due to the study area's proximity to the coast, the data represent a tendency of Aboriginal groups to remain in occupiable landforms in proximity to both fresh and saltwater sources rather than in higher elevation areas at greater distances to water.

Chart 5-5 Local Aboriginal sites in relation to topographical units



5.1.5 ANALYSIS OF THE KNOWN SITES IN THE LOCALITY

As most known sites within the locality are PADs, Austral has undertaken an analysis of excavated sites associated with PADs to provide a detailed breakdown of the anticipated density and composition of lithic assemblages in the locality. Given the density of excavations within the vicinity of the study area, sites from within approximately 7.5 kilometres of the study area have been subject to this analysis. This identified 3 sites subject to archaeological excavation.

Details from these excavations are summarised in Table 5.2.

Table 5.2 Composition and density of local lithic assemblages

Site name	No. test pits	Test pits w/ artefacts	Total ex. (m²)	Total artefacts	Max. artefact density	Average artefact density	Raw materials
Angel Place AHIMS #45-6-2581 (Godden Mackay Heritage Consultants 1998)	13	6	10 m^2	54	9 artefacts per test pit	10 artefacts per m^2	Chalky-coloured silicified stone, indurated mudstone, silcrete and quartz
University of Sydney USYD Central Site (Jo McDonald Cultural Heritage Management 2006)	9	1	9 m^2	1	1 artefact per test pit	0.11 artefacts per m^2	Silicified tuff
Northern Lawn, Royal Sydney Golf Club (Jo McDonald Cultural Heritage Management 2010)	49	48	49 m^2	5,734	1,047 artefacts per test pit	117.02 artefacts per m^2	Quartz, silcrete, silicified tuff and fine-grained silicious (FGS)
Area 5, Darling Quarter (Comber 2012)	37	5	37 m^2	10	2 artefacts per test pit	0.27 artefacts per m^2	Chert, silcrete and quartz
EFW South, Eastern Creek (Artefact 2014)	37	9	18.5 m^2	14	4 artefacts per test pit	0.76 artefacts per m^2	Silcrete

Average artefact densities in the area range from 0.27 to 117 artefacts per m^2 with a total average density of 25.6 artefacts per m^2 and median artefact density of 0.76 artefacts per m^2. Materials in the area are dominated by quartz and silcrete assemblages, however chert, tuff, FGS and mudstone have all been identified in the local area.

5.2 PREDICTIVE STATEMENTS

Based on the analysis presented in Section 5.1, the following predictive statements can be made:

- The known sites within the region are dominated by areas of PAD, artefact sites and art sites. Due to the nature of the study area and examination of aerials, it is considered highly unlikely suitable rock outcrops are available for art sites to be present. Therefore, it is considered that the most likely stie type to be located in the study area are artefact and PAD sites.
- The AHIMS data show low frequencies of Aboriginal resource and gathering sites, shell sites, hearths, ceremonial sites, waterholes and grinding grooves in the local area. Although these sites are present it is unlikely they will be encountered in the study area due to past disturbances.
- Most sites are located within 5 kilometres of the Tasman Sea or Sydney Harbour or within 6 kilometres of a 1st order stream, thus increasing the likelihood of sites within the study area.
- Whilst sites may be located in a variety of landform contexts, most sites (66.1%), specifically artefact and PAD sites, are located within slope (35.7%) or flat (30.4%) landform units,
- Maximum artefacts densities of up to 117 artefacts per metre² have been encountered within approximately 10 kilometres of the study area. In general, average densities have been between 0.27 and 117 artefacts per metre². The average artefact density across these sites is 25.6 artefacts per metre².
- Silcrete and quartz are the most common materials present within 10 kilometres of the study area, with silcrete present in 100% of the assemblages and quartz present in 60% of the assemblages reviewed as part of this assessment. Other raw material types likely to be present to varying degrees include chert, tuff, FGS and mudstone.

6 FIELD METHODS

A site specific investigation methodology has been developed for the project that complies with the Requirements of the Code of Practice (DECCW 2011).

6.1 SURVEY METHODOLOGY

The survey was conducted on 22 of March 2023 by Taylor Foster (Senior Archaeologist, Austral) with assistance from Shane Ingrey, a member of the LPLALC. Carolyne Yeow from Savills Project Management (now Uniting) was also present.

6.1.1 SURVEY OBJECTIVES

The objectives of the survey were to:

- Complete a systematic survey that targets areas that have been identified as having the potential to contain Aboriginal heritage values.
- Identify and record Aboriginal archaeological sites visible on the ground surface and areas of PAD.

6.1.2 SAMPLING STRATEGY

The survey methodology was designed to optimise the investigation of areas where archaeological materials may be present and visible, as well as investigation of the broader archaeological potential of all landform elements present within the study area. The study area was dominated by a slope landform with a varying gradient.

The specific survey methodology developed for this assessment was guided by the survey requirements as set out in Requirement 5 to 10 of the Code of Practice (DECCW 2011) and based upon consideration of the overall landform pattern within the study area, known landform elements (after Speight 2009) and levels of historic disturbance. The survey concentrated on confirming the current disturbance across the site, which has been in use since the 19th century.

6.1.3 SURVEY METHODS

The archaeological survey consisted of pedestrian traverses completed by 2 team members. Key survey variables include ground visibility, which considers the amount of ground surface not covered by any vegetation, and exposure, which defines areas where dispersed surface soils and vegetative matter afford a clear assessment of the ground; both were assessed across the study area and within each landform element. Overall survey coverage and calculated survey effectiveness were recorded. Note that the effectiveness of the field survey was largely dependent on the degree of ground surface visibility. Where surface visibility was restricted by dense vegetation cover, the potential for PADs was assessed, particularly in association with those landforms identified within the predictive model as more likely to contain Aboriginal archaeological sites. The potential of these areas and all landform elements within the study area was considered against available evidence of land disturbance.

Photographs were taken of all survey units and landforms as well as representative surface visibility and, where present, surface exposures, soil profiles and disturbances relevant to the interpretation of the stratigraphic conditions and archaeological potential within each survey unit.

6.2 TEST EXCAVATION METHODOLOGY

The archaeological survey determined that no test excavations were required.

7 ARCHAEOLOGICAL RESULTS

The following section outlines the results of the archaeological investigations conducted within the study area.

7.1 ARCHAEOLOGICAL SURVEY RESULTS

7.1.1 VISIBILITY

In most archaeological reports and guidelines, visibility refers to ground surface visibility (GSV) and is usually a percentage estimate of the ground surface that is visible and allowing for the detection of (usually stone) artefacts that may be present on the ground surface (DECCW 2011). GSV within the study area was low with approximately 20% of the ground surface visible in areas of erosion and in sand and soil exposures (mostly around garden beds and paths). Most of the study area has been modified for the development of the War Memorial Hospital, residential buildings and associated infrastructure.

7.1.2 EXPOSURE

Exposure refers to those parts of the surveyed landforms where topsoil has visibly been removed due to naturally occurring erosion or man-made disturbances. Usually expressed as a percentage of the total land surface, it is a theory predicting the nature of geomorphological change (DECCW 2011). Exposures within the visible sections of the ground surface account for approximately 5% of the study area.

7.1.3 DISCUSSION OF RESULTS

The most significant disturbance in the study area relates to the residential buildings constructed in the late 20th century. The ground has been incised and levelled for construction of these buildings, and underground plumbing and amenities have also been installed. Large portions of the study area have been moderately disturbed by the installation of buildings, fences, paths and gardens in the 19th century, however these early buildings are not associated with ground levelling and the installation of underground plumbing (Figure 7.1, Figure 7.2, Figure 7.3, Figure 7.4). Plumbing was in the 20th century and was placed adjacent to the buildings. A cellar associated with the War Memorial Hospital is the deepest ground disturbance from this era. Rather than ground levelling, buildings were developed on relatively high points of the slope with lower gradients, and retaining walls were installed to stabilise the soils. In these areas, deeper soil deposits have the potential to remain intact, however these areas are not anticipated to be impacted by the current proposed works. Green areas with limited disturbance are present within the study area and are associated with the current gardens and historic-period fig trees. These areas are being retained as gardens and green spaces; proposed vegetation planting is not anticipated to impact these areas.

The study area is situated entirely within a slope landform. Some artificial ground leveling has occurred in the latter half of the 20th century and is associated with more modern residential buildings. The survey was conducted on foot with the surveyors traversing the undisturbed portions of the study area between the buildings. Due to the level of development within the study area, the survey unit area comprised only 30% of the landform area, as the remainder was within areas that could not be surveyed.

A description of these results, as they relate to the survey units and observed landforms within the study area, can be seen in Table 7.1 and Table 7.2.

Table 7.1 Survey coverage

Survey unit	Landform	Survey unit area (m²)	Visibility (%)	Exposure (%)	Effective coverage area (m²)	Effective coverage (%)
1	Slope	~9000	20	5	90	1

Table 7.2 Landform summary

Landform	Landform area (m²)	Area effectively surveyed (m²)	% of landform effectively surveyed	No. sites	No. artefacts / features
Slope	~30000	90	0.3	0	0

Based on these results, the archaeological survey identified limited Aboriginal archaeological potential, and no sites were identified during the survey due to previous disturbance. Discussions with the LPLALC indicate that areas of residual, largely undisturbed soils may exist within the portions of the study area developed in the 1800s. These areas are located outside of the impact footprint within locally listed heritage areas and within one of the associated garden areas being retained by the proposed works as a recreation space. Areas developed in the 19th century are often not associated with deep ground disturbance, and residual soil deposits may still be intact in these areas under buildings and fences. However, due to the greater distance of the study area to the sea and harbour and its situation mid-slope away from crest, ridge and lower slope formations, any artefacts present within these areas are predicted to be isolated or low-density deposits; such deposits could be encountered within any landform of limited disturbance throughout NSW. While caution has been advised by the LALC, it is also expected that heritage inductions and unexpected finds procedures are adequate mitigation measures when working in proximity to these areas. Areas within the impact footprint of the study area are considered to be of low archaeological potential (Figure 7.1 to Figure 7.4). Results from the archaeological survey can be viewed in Figure 7.5.

Figure 7.1 View south to the War Memorial

Figure 7.2 View south to 20th century buildings

Figure 7.3 View north showing car park

Figure 7.4 View south showing 20th century building adjacent to 19th century builings

Figure 7.5 - Results of the archaeological survey

22082 - 125 Birrell Street, Waverly - ACHDDA

Source: NSW LPI Aerial, CartoDB Positron

Drawn by: TF Date: 2025-05-01

AUSTRAL ARCHAEOLOGY

8 ANALYSIS AND DISCUSSION

8.1 ARCHAEOLOGICAL ANALYSIS AND DISCUSSION

The archaeological survey determined the proposed works are occurring in areas of limited Aboriginal archaeological potential based on high levels of disturbance, shallow soil deposits and low-potential landforms.

Based on the results of the archaeological survey, the following statements can be made about the areas of archaeological sensitivity identified during the archaeological survey:

- Residual intact soil deposits beneath 19th century infrastructure does allow for unexpected finds to be encountered within these areas.

A reassessment of archaeological sensitivity is outlined in Figure 8.1.

8.2 SUBSURFACE ARCHAEOLOGICAL POTENTIAL

The subsurface archaeological potential within the study area has been assessed as low primarily due to the significant level of historic disturbances. These historic disturbances include the construction of numerous buildings, and associated infrastructure, as well as landscaping, with heavy vehicle machinery disturbance in the late 1980s and early 1990s (as seen in Figure 3.6). This is from an additional building that was constructed in the central portion of the study area. It is important to note that whilst the geotechnical investigation report (Douglas Partners 2024) that accompanied the EIS for this project, determined that there is a sandy deposit to approximately 600 millimetres to 1.7metres depth across the study area, it classifies this deposit as fill. This fill deposit contained glass fragments, which is indicative of historic disturbance to a depth of 1.7 metres within the study area. This historic subsurface disturbance is noted in Section 3.2, as European settlement and construction is evident from the 1860s through the presence of multiple buildings. Over the next 100 years, the study area continued to experience further disturbance to the subsurface soil deposits through the construction of the War Memorial Hospital, residential buildings, and various Victorian and Federation style buildings, resulting in the assessment that the study area has low potential for subsurface Aboriginal material.

Figure 8.1 - Revised archaeological sensitivity mapping

22082 - 125 Birrell Street, Waverly - ACHA

Source: NSW LPI Aerial, CartoDB Positron

Drawn by: TF Date: 2025-05-01

AUSTRAL ARCHAEOLOGY

9 CULTURAL HERITAGE VALUES

An assessment of significance seeks to determine and establish the importance or value that a place, site or item may have to the community at large. The concept of cultural significance is intrinsically connected to the physical fabric of the item or place, its location, setting and relationship with other items in its surrounds. The assessment of cultural significance is ideally a holistic approach that draws upon the response these factors evoke from the community.

9.1 BASIS FOR THE ASSESSMENT

The significance values provided in the Australia ICOMOS *Charter for the Conservation of Places of Cultural Significance* (the Burra Charter) are considered to be the best practice heritage management guidelines in Australia (Australia ICOMOS 2013a). The Burra Charter defines cultural significance as:

> *"…aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups." (Australia ICOMOS 2013a, p.2)*

The Burra Charter significance values outlined in Table 9.1; these are frequently adopted by cultural heritage managers and government agencies as a framework for a more holistic assessment of significance.

Table 9.1 Definitions of Burra Charter significance values (Australia ICOMOS 2013b)

Value	Definition
Aesthetic	Refers to the sensory and perceptual experience of a place. That is how a person responds to visual and non-visual aspects such as sounds, smells and other factors having a strong impact on human thoughts, feelings and attitudes. Aesthetic qualities may include the concept of beauty and formal aesthetic ideals. Expressions of aesthetics are culturally influenced.
Historic	Refers to all aspects of history. For example, the history of aesthetics, art and architecture, science, spirituality and society. It therefore often underlies other values. A place may have historic value because it has influenced, or has been influenced by, an historic event, phase, movement or activity, person or group of people. It may be the site of an important event. For any place the significance will be greater where the evidence of the association or event survives at the place, or where the setting is substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of such change or absence of evidence.
Scientific	Refers to the information content of a place and its ability to reveal more about an aspect of the past through examination or investigation of the place, including the use of archaeological techniques. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and its potential to contribute further important information about the place itself or a type or class of place or to address important research questions.
Social	Refers to the associations that a place has for a particular community or cultural group and the social or cultural meanings that it holds for them.
Spiritual	Refers to the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations and be expressed through cultural practices and related places. The qualities of the place may inspire a strong and/or spontaneous emotional or metaphysical response in people, expanding their understanding of their place, purpose and obligations in the world, particularly in relation to the spiritual realm. The term spiritual value was recognised as a separate value in the Burra Charter, 1999. It is still included in the definition of social value in the Commonwealth and most state jurisdictions. Spiritual values may be interdependent on the social values and physical properties of a place.

In addition to the Burra Charter significance values, other criteria and guidelines have been formulated by other government agencies and bodies in NSW to assess the significance of heritage places in NSW. Of particular relevance to this assessment are the guidelines prepared by the Australian Heritage Council and the Department of the Environment, Water, Heritage and the Arts (DEWHA), and Heritage NSW (Australian Heritage Council & DEWHA 2009, DECCW 2011, OEH 2011, NSW Heritage Office 2001).

The Guide (OEH 2011, p.10) states that the following criteria from the NSW Heritage Office (2001, p.9) should be considered:

- **Social value:** Does the subject area have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons?
- **Historic value:** Is the subject area important to the cultural or natural history of the local area and/or region and/or state?
- **Scientific value:** Does the subject area have potential to yield information that will contribute to an understanding of the cultural or natural history of the local area and/or region and/or state?
- **Aesthetic value:** Is the subject area important in demonstrating aesthetic characteristics in the local area and/or region and/or state?

OEH (2011, p.10) states that when considering the Burra Charter criteria, a grading system must be employed. Austral will use the following grading system to assess the cultural values of the study area and its constituent features. These are outlined in Table 9.2.

Table 9.2 Gradings used to assess the cultural values of the study area

Grading	Definition
Exceptional	The study area is considered to have rare or outstanding significance values against this criterion. The significance values are likely to be relevant at a state or national level.
High	The study area is considered to possess considerable significant values against this criterion. The significance values are likely to be very important at a local or state level.
Moderate	The study area is considered to have significance values against this criterion; these are likely to have limited heritage value but may contribute to broader significance values at a local or State level.
Little	The study area is considered to have little or no significance values against this criterion.

9.2 ASSESSMENT OF SIGNIFICANCE

The following section addresses the Burra Charter significance values with reference to the overall study area.

9.2.1 AESTHETIC SIGNIFICANCE VALUES

Aesthetic values refer to the sensory, scenic, architectural and creative aspects of the place. These values may be related to the landscape and are often closely associated with social and cultural values.

The study area is currently a developed block of land with no associated aesthetic values.

Based on this assessment, the study area is considered to have **little** aesthetic significance values.

9.2.2 HISTORIC SIGNIFICANCE VALUES

The assessment of historic values refers to associations with particular places associated with Aboriginal history. Historic values may not be limited to physical values, but may relate to intangible elements that relate to memories, stories or experiences.

The study area is currently a developed block of land with sites of European significance. However, the study area has no known historic values that are associated with Aboriginal heritage values.

Based on this assessment, the study area is considered to have **little** historic significance values associated with Aboriginal history.

9.2.3 SCIENTIFIC SIGNIFICANCE VALUES

Scientific significance generally relates to the ability of archaeological objects or sites to answer research questions that are important to the understanding of the past lifeways of Aboriginal people. Australia ICOMOS (2013b, p.5) suggests that to appreciate scientific value, that the following question is asked: "*Would further investigation of the place have the potential to reveal substantial new information and new understandings about people, places, processes or practices which are not available from other sources?*".

In addition to the above criteria, The Guide (OEH 2011, p.10) also suggests that consideration is given to the Australian Heritage Council and DEWHA (2009) criteria, which are particularly useful when considering scientific potential:

- **Research potential:** does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
- **Representativeness:** how much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?
- **Rarity:** is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- **Education potential:** does the subject area contain teaching sites or sites that might have teaching potential?

The study area is currently a developed block of land with no associated scientific values.

Based on this assessment, the study area is considered to have **little** scientific significance values.

9.2.4 SOCIAL AND SPIRITUAL SIGNIFICANCE VALUES

As social and spiritual significance are interdependent, Austral has undertaken a combined assessment of these values. The Consultation Requirements specify that the social or cultural values of a place can only be identified through consultation with Aboriginal people.

No comments were received from the RAPs regarding the social or significant value of the study area.

Based on this assessment, the study area is considered to have **little** social and spiritual significance values.

9.3 STATEMENT OF SIGNIFICANCE

Heritage NSW specifies the importance of considering cultural landscapes when determining and assessing Aboriginal cultural values. The principle behind this is that '*For Aboriginal people, the significance of individual features is derived from their inter-relatedness within the cultural landscape. This means features cannot be assessed in isolation and any assessment must consider the feature and its associations in a holistic manner"* (DECCW 2010c).

The study area is considered to be of low archaeological significance, due to the highly disturbed nature of the land and the lack of Aboriginal values present.

10 IMPACT ASSESSMENT

This section outlines, according to Heritage NSW guidelines, the potential harm that the proposed activity may have on identified Aboriginal objects and places within the study area (DECCW 2011, OEH 2011).

10.1 LAND USE HISTORY

The study area is found within an area under constant artificial change. Early development of the site began in the 1860s and continued through to the latter half of the 20th century. Development is associated with the hospital and associated surrounds, residential development and public spaces.

Table 10.1 Summary of past land use within the study area, and the potential impacts on archaeological resources

Past land uses	Potential impacts on archaeological resources
19th Century Infrastructure	Early infrastructure has disturbed surface soil deposits in the study area. Subsurface soils are likely to have been subject to more limited impacts due to the lack of ground-disturbing works required. Most buildings would not have required incising of the land and would have followed natural landforms. The lack of plumbing at the time of development would have resulted in the building footings being the cause of the most significant disturbance in these areas.
20th Century Residential Development	The development of 20th century residential buildings has likely removed archaeological potential at these locations through incising the ground surface and the installation of plumbing and associated amenities. The ground has been incised and natural deposits have been removed up to at least 1.5 metres at the locations of these earlier buildings.

10.2 PROPOSED ACTIVITY

The proposed development comprises a Residential Aged Care Facility (RACF), Independent Living Units (ILUs), Community and Ancillary Land Uses at the Uniting War Memorial Hospital Site. The proposed development is for the purposes of Seniors Housing which seeks to create a unique and special place that supports older people and the wider community. It will offer contemporary housing, aged care and health and wellness services within a welcoming urban oasis that promotes social connection, communal spaces and landscaped areas within the Subject Site.

The proposal involves the construction and operation of Seniors Housing at the Uniting War Memorial Hospital Site (Uniting Waverley), comprising:

- Earthworks involving cut and fill
- Tree removal
- Demolition of existing structures on the northern and western portion of the Subject Site
- Demolition of Cadi Cottage
- Adaptive Reuse of 3 heritage buildings (Ellerslie, Banksia and Wych Hazel, and Church St Cottages
- Augmentation of existing services and infrastructure such as water, power, and sewer
- Construction of a basement car park comprising 478 parking spaces
- Construction of a 6-storey Residential Aged Care Facility (RACF), including:
- 105 beds
- Consulting rooms and staff administration areas
- Ancillary land uses including a salon, cafe, chapel
- Community facilities including a seniors' gym.

- Construction of 4-7-storey Independent Living Unit (ILU) buildings, including:
- 231 units (including Affordable Rental Housing units)
- Construction of proposed driveway on Bronte Road and secondary driveways on Birrell St; and
- Provision of associated landscaping.

The proposed works are detailed in Figure 10.1.

10.3 ASSESING HARM

This section outlines the assessment process for addressing potential harm to Aboriginal objects and/or places within the study area, as outlined by Heritage NSW (OEH 2011, p.12).

10.3.1 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

An objective of the NP&W Act, under Section 2A(1)(b)(i) is to conserve "*places, objects and features of significance to Aboriginal people*" through applying the principles of ecologically sustainable development (ESD) (Section 2A(2)). ESD is defined in Section 6(2) of the *Protection of the Environment Administration Act 1991* (NSW) as "…*the effective integration of social, economic and environmental considerations in decision-making processes".* ESD can be achieved with regards to Aboriginal cultural heritage, by applying principle of inter-generational equity, and the precautionary principle to the nature of the proposed activity, with the aim of achieving beneficial outcomes for both the development, and Aboriginal cultural heritage.

INTERGENERATIONAL EQUITY

The principle of intergenerational equity is where the present generation ensure the health, diversity and productivity of the environment for the benefit of future generations. The Department of Environment and Climate Change (DECC), now Heritage NSW, states that in terms of Aboriginal cultural heritage "*intergenerational equity can be considered in terms of the cumulative impacts to Aboriginal objects and places in a region. If few Aboriginal objects and places remain in a region (for example, because of impacts under previous AHIPs), fewer opportunities remain for future generations of Aboriginal people to enjoy the cultural benefits of those Aboriginal objects and places.*" (DECC 2009, p.26).

The assessment of intergenerational equity and understanding of cumulative impacts should consider information about the integrity, rarity or representativeness of the Aboriginal objects and/or places that may be harmed and how they illustrate the occupation and use of the land by Aboriginal people across the locality (DECC 2009, p.26).

Where there is uncertainty over whether the principle of intergenerational equity can be followed, the precautionary principle should be applied.

PRECAUTIONARY PRINCIPLE

Heritage NSW defines the Precautionary Principle as "*if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation*" (DECC 2009, p.26).

The application of the precautionary principle should be guided through:

- A careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment.
- An assessment of the risk—weighted consequences of various options.

DECC (2009, p.26) states that the precautionary principle is relevant to the consideration of potential impacts to Aboriginal cultural heritage, where:

- The proposal involves a risk of serious or irreversible damage to Aboriginal objects and/or places or to the value of those objects and/or places.
- There is uncertainty about the Aboriginal cultural heritage values, scientific, or archaeological values, including in relation to the integrity, rarity or representativeness of the Aboriginal objects or places proposed to be impacted.

Where either of the above is likely, a precautionary approach should be taken and all effective measures implemented to prevent or reduce harm to Aboriginal cultural heritage values.

10.3.2 TYPES OF HARM

When considering the nature of harm to Aboriginal objects and/or places, it is necessary to quantify direct and indirect harm. The types of harm, as defined in the Guide (OEH 2011, p.12), and are summarised in Table 10.2. These definitions will be used to quantify the nature of harm to identified Aboriginal objects and/or places that have been identified as part of this assessment. The Code states that the degree of harm can be either total or partial (DECCW 2010a, p.21).

Table 10.2 Definition of types of harm

Type of harm	Definition
Direct harm	May occur as the result of any activity which disturbs the ground including, but not limited to, site preparation activities, installation of services and infrastructure, roadworks, excavating detention ponds and other drainage or flood mitigation measures, and changes in water flows affecting the value of a cultural site.
Indirect harm	May affect sites or features located immediately beyond, or within, the area of the proposed activity. Examples of indirect impacts include, but are not limited to, increased impact on art in a shelter site from increased visitation, destruction from increased erosion and changes in access to wild food resources.

10.4 IMPACT ASSESSMENT

This ACHA has included a programme of investigations that have determined that Aboriginal heritage values are unlikely to be harmed by the proposed development. As no sites have been identified within the study area, no known sites will be subject to direct or indirect harms.

Figure 10.1 - Proposed works within the study area

22082 - 125 Birrell Street, Waverly - ACHDDA

Source: NSW LPI Aerial

Drawn by: ARH Date: 2024-12-06

AUSTRAL ARCHAEOLOGY

11 AVOIDING AND MINIMISING HARM

The Burra Charter, advocates a cautious approach to change: "*do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained*" (Australia ICOMOS 2013a, p.1). Based on this principle, this section identifies the measures that have been taken to avoid harm and what conservation outcomes have been achieved through the preparation of this ACHA.

11.1 DEVELOPMENT OF PRACTICAL MEASURES TO AVOID HARM

The study area is within an area of high industrial development in inner Sydney. As such, most of the ground surface has been severely disturbed by previous works. The proposed works will involve the restoration and redevelopment of some of the buildings within the study area, including the development of around 220 senior living apartments, a new 120 bed aged care facility, extensive seniors club and recreational facilities, an extension to the existing hospital (increasing capacity from 35 beds to 105) and the restoration of several heritage-listed buildings. This will result in disturbance or the ground surface, however, it is anticipated that this will have a limited effect on cultural values due to the levels of previous disturbance.

11.2 APPLICATION OF PRINCIPLES OF ESD AND CUMULATIVE IMPACTS

The Guide to Reporting requires this ACHA to consider the effects of cumulative impacts under the principles of ESD. In essence, this requires the acknowledgement that while a single development might have a minimal impact, it forms part of a slow urbanisation process which results in the widespread loss of environmental and cultural resources.

Sydney is a region subject to progressive urbanisation and industrialisation, and this will place pressure on the archaeological resources within the region. To assess whether the proposed impacts from the project will have a broader impact on the cultural resources of the region, Austral has undertaken an analysis of AHIMS sites associated with a current or previous AHIP based on the results of the 10-kilometre extensive AHIMS search completed for this project.

The results demonstrate that 92.6% of sites within the designated search area have not been subject to AHIPs. Within the subsets of site types, (Table 11.1). Approximately 26.7% of the artefact sites in the designated search area have one or more AHIP listed against them; this does not include site complexes in which artefacts have been identified with various site types. In this scenario, only 16.7% of artefact sites have AHIPS issued against them. Approximately 7.1% of PADS have been destroyed through test excavations and subsequent salvage. However, this has assisted in providing information on the assemblages present and resulted in 3 areas of PAD being discounted as archaeological sites. No AHIPs have been listed against other site types present within the designated search radius, indicating most site types, excluding artefact sites and areas of PAD, have not been subject to cumulative impacts from successive approvals. This analysis also appears to indicate that locally, a higher proportion of AHIMS sites, specifically artefact sites (83.3%), are being conserved rather than destroyed. This data can be viewed in Table 11.1.

Table 11.1 Analysis of AHIMS sites with AHIPs issued

Site types	No. Sites	No. sites with AHIPs	% Sites with AHIPS
Aboriginal ceremony and dreaming	1	0	0
Aboriginal resource and gathering	1	0	0
Art (pigment or engraved)	21	0	0
Art (pigment or engraved), PAD	1	0	0
Artefact	15	4	26.7
Artefact, PAD	2	0	0
Burial, Aboriginal ceremony and dreaming artefact	1	0	0
Grinding groove	1	0	0
Habitation structure, PAD	1	0	0
PAD	56	4	7.1
Shell, artefact	5	0	0
Shell, artefact, burial, art (pigment or engraved)	1	0	0
Shell	1	0	0
Waterhole	1	0	0
Total	**108**	**8**	**7.4**

*3 PADs and 1 “artefact, shell” site were identified as not being sites during testing programs and have been removed from the data set.

To qualify whether the proposed impacts from the project will have a broader impact on the cultural resources of the region, Austral has also undertaken an analysis of AHIMS sites in relation to their current or future zoned use. The purpose behind this analysis is to determine the volume of AHIMS sites that are located within zonings that have or are likely to be subject to progressive development. This assumes that sites that are located within land zoned for residential (R1 - R5), business (B1 – B5) and industrial (IN1 – IN4) purposes are more likely to have been harmed or may be under thread of harm. Conversely, sites that are zoned for environmental conservation (C1 – C5), recreational (RE1 – RE2) and rural (RU1 – RU6) purposes are more likely to be subject to conservation (Table 11.2).

Table 11.2 Local AHIMS sites in relation to current land zoning

Land Zone Classification	No. Sites by Zone	% Sites by Zone
Business zone – mixed use	1	0.9
Commercial core	1	0.9
Deferred matter	11	9.7
General residential	3	2.7
Infrastructure	11	9.7
Low density residential	14	12.4
Medium density residential	5	4.4
Metropolitan centre	15	13.3
Mixed use	11	9.7
National parks and nature reserves	4	3.5
Neighbourhood centre	1	0.9
Private recreation	1	0.9
Public recreation	33	29.2
Special activities	1	0.9
Total	**113**	**100**

This analysis indicates that 44.2% of sites zoned under the Waverley LEP 2012 are located within zonings likely to facilitate conservation outcomes and minimal threat to archaeological site conservation. In comparison, 55.8% of AHIMS sites are in zonings that are likely to be subject to harm through progressive urbanisation and other developments. Unsurprisingly, the greatest threat to Aboriginal sites is residential development.

However, as no Aboriginal heritage values have been identified on site, in conjunction with the high likelihood that values that may have been present have been destroyed by previous development, the cumulative impacts of the proposed works on Aboriginal cultural heritage values are considered to be low.

11.3 STRATEGIES TO MINIMISE HARM

An ACHA has determined that the likelihood of Aboriginal heritage values being present in the study area is low. However, caution should be taken around areas of 19th century infrastructure due to the potential for residual soil deposits. A heritage induction should be implemented before undertaking any ground disturbing works and an unexpected finds protocol be instigated. Following the aforementioned tactics, it is considered that appropriate strategies to minimize harm to Aboriginal values have been implemented.

12 RECOMMENDATIONS

The following recommendations are derived from the findings described in this ACHA. The recommendations have been developed after considering the archaeological context, environmental information, consultation with the local Aboriginal community and the predicted impact of the planning proposal on archaeological resources.

It is recommended that:

1. No further assessment or works are required to be undertaken for the study area.
2. An Aboriginal cultural heritage induction should be completed for all workers before construction begins.
3. Areas of caution surrounding the 19th century infrastructure should be noted on site plans.
4. In the event that unexpected finds occur during any activity within the study area, all works in the vicinity must cease immediately. The find must be left in place and protected from any further harm. A qualified heritage specialist should be contacted to confirm the nature of the find. Depending on the nature of the find, the following processes must be followed:
    a) If, while undertaking the activity, an Aboriginal object is identified, it is a legal requirement under Section 89A of the NP&W Act to notify Heritage NSW as soon as possible. Further investigations and an AHIP may be required prior to certain activities recommencing.
    b) If human skeletal remains are encountered, all work must cease immediately, and NSW Police must be contacted; the police will then notify the Coroner's Office. Following this, if the remains are believed to be of Aboriginal origin, then the Aboriginal stakeholders and Heritage NSW must be notified.
5. It is recommended that Uniting (NSW.ACT) continues to inform the Aboriginal stakeholders about the management of Aboriginal cultural heritage within the study area throughout the completion of the project. The consultation outlined as part of this ACHA is valid for 6 months and must be maintained by the proponent for it to remain continuous. If a gap of more than 6 months occurs, then the consultation will not be suitable to support an AHIP for the project.
6. A copy of this report should be forwarded to all Aboriginal stakeholder groups who have registered an interest in the project.

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14 APPENDICES

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