



WENTWORTH MULTI-STOREY WAREHOUSE

**130 WENTWORTH AVENUE,
BANKSMEADOW, NEW SOUTH WALES**

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

Prepared for ESR Developments (Australia) Pty Ltd

13 November 2024

Final

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ACKNOWLEDGEMENT OF COUNTRY

We respect and acknowledge the First Nations Peoples of the lands and waterways on which we live and work, their rich cultural heritage, and their deep connection to Country, and we acknowledge their Elders past and present.

CULTURAL WARNING

Aboriginal and Torres Strait Islander readers are advised that this report may contain images or names of First Nations people who have passed away.



AUSTRAL
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EXECUTIVE SUMMARY

This report has been prepared for ESR Developments (Australia) Pty Ltd (formerly Logos Group Pty Ltd) and details the results of an Aboriginal Cultural Heritage Assessment prepared for land situated at 130 Wentworth Avenue, Banksmeadow, New South Wales (NSW) [the study area]. The property is located within the Bayside Local Government Area, and the Parish of Botany within the County of Cumberland. It is also within the boundaries of the La Pouse Local Aboriginal Council (LPLALC).

The study area consists of the entirety of land within Lot 11, DP701187, located approximately 8.2 kilometres from the Sydney CBD.

This Aboriginal Cultural Heritage Assessment (ACHA) was undertaken as part of an application to have the project assessed as a State Significant Development, under Part 5 of the *Environmental Planning and Assessment Act 1979*. The proposed works comprise a two-storey, multi-unit warehouse and distribution centre. The ACHA has been undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a), the *Guide to Investigating, assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage 2011) and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010b) [Consultation Requirements].

A search of the Aboriginal Heritage Information Management System (AHIMS) identified no sites within the study area. The archaeological survey of the study area confirmed no areas of potential for Aboriginal cultural material, and no sites were identified. Based on the outcome of the survey, no archaeological testing is proposed for the study area.

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 in the table below:

Stage	Component	Commenced	Completed
Stage 1	Letters to agencies	10 July 2024	N/A
	Registration of stakeholders	30 July 2024	13 August 2024
Stage 2	Project information	21 August 2024	N/A
Stage 3	Review of project methodology	21 August 2024	18 September 2024
Stage 4	Review of ACHA by Aboriginal stakeholders	7 October 2024	11 November 2024

Kadibulla Khan from Kamilaroi Yankuntjatjara Working Group commented on the significance of the land in which the study area is situated, noting that the area is known to their organisation and is highly sensitive as Ancestors have walked this land previously. Further, it is noted that the Country is highly likely to be used for its natural environment, even if disturbed.

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

IMPACT ASSESSMENT

This ACHA has included a programme of investigations that have characterised the nature, extent and significance of Aboriginal sites within the study area.

No Aboriginal heritage sites, objects, or places were identified during the investigation. Consequently, no Aboriginal heritage values will be impacted by the proposed works.

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, the findings of the pedestrian survey 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 with regards to Aboriginal cultural material.
2. 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. 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 NPW 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, 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.
3. It is recommended that ESR Developments (Australia) Pty Ltd 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 a period of 6 months and must be maintained after this by the proponent for it to remain continuous.
 - a. If a gap of more than 6 months occurs, then the consultation will not be suitable to support an AHIP for the project.
4. 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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1. INTRODUCTION

Austral Archaeology Pty Ltd (Austral) has been commissioned by ESR Developments (Australia) Pty Ltd (formerly Logos Group Pty Ltd) [the proponent] to prepare an Aboriginal Cultural Heritage Assessment (ACHA) for the property of 130 Wentworth Avenue, Banksmeadow, New South Wales (NSW) [the study area]. The site is located within the Bayside Local Government Area, and the Parish of Botany within the County of Cumberland. It is also within the boundaries of the La Perouse Local Aboriginal Council (LPLALC).

1.1. THE STUDY AREA

The study area consists of the entirety of land within Lot 11, DP701187, located approximately 8.2 kilometres from the Sydney CBD. It is also within the boundaries of the La Perouse Local Aboriginal Council (LPLALC). It is bounded to the north by Wentworth Avenue, to the east by commercial buildings, to the south by Moore Street and to the west by commercial buildings.

The location of the study area is shown on Figure 1.1 and Figure 1.2. The proposed development is shown in Figure 1.3.

1.2. PURPOSE OF THE ACHA

The ACHA was undertaken to assess the potential harm that may occur to Aboriginal cultural heritage values as part of a State Significant Development (SSD) under Part 5 of the *Environmental Planning and Assessment Act 1979* (EPA Act). The proposed SSDA seeks approval for the following:

- Demolition of the existing buildings and hardstand;
- Site preparation works, including earthworks;
- Associated landscaping and tree removal;
- Construction of a multi-level car park;
- Construction and operation of warehouse and distribution centre within a two-storey building including ancillary office space;
- Business identification signage and wayfinding signage.

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), and prior to that, the Department of Environment, Climate Change and Water (DECCW), Department of Environment and Climate Change (DECC) and Department of Environment and Climate (DEC). Note that applicable documents have been published under the name of all these Government departments.

The ACHA has been undertaken in accordance with:

- The *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a) [The Code];
- The *Guide to Investigating, assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage 2011) [The Guide]; and
- The *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010b) [Consultation Requirements].

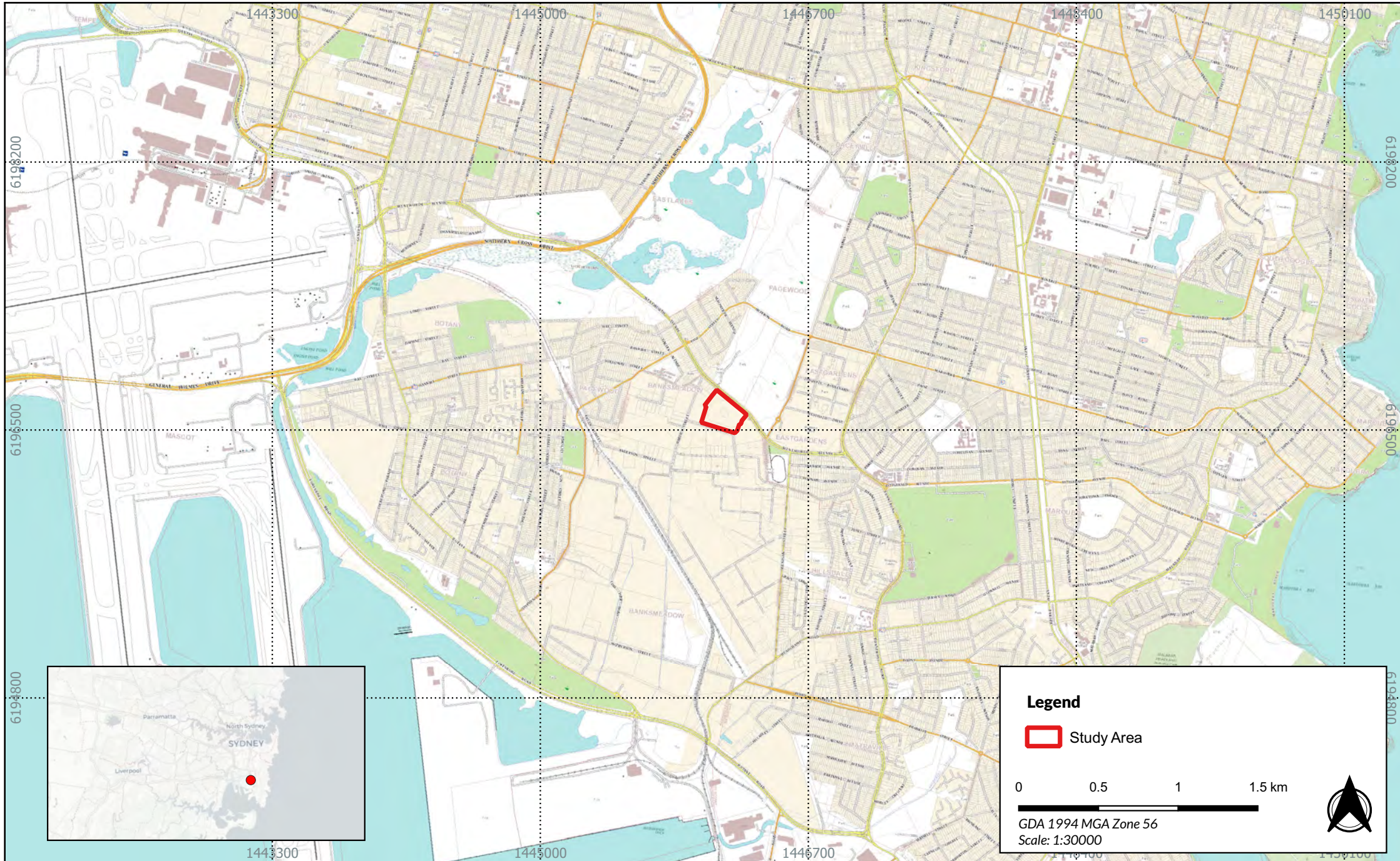


Figure 1.1 - Location of the study area

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: NSW LPI Basemap, CartoDB Positron

Drawn by: ARH Date: 2024-08-16

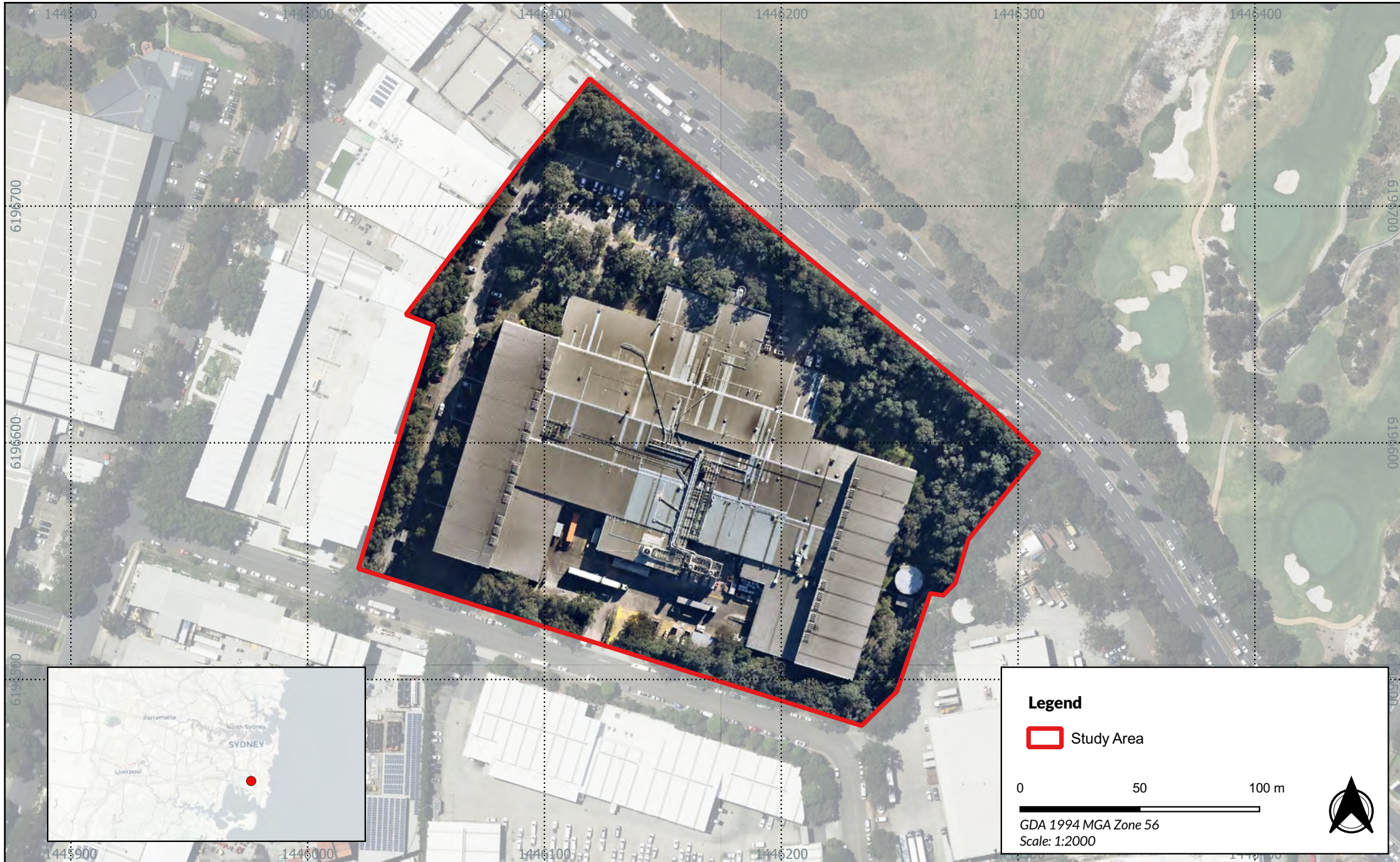


Figure 1.2 - Detailed aerial of the study area
 24048 - 130 Wentworth Avenue, Banksmeadow, NSW
 Source: Nearmap, NSW LPI Aerial, CartoDB Positron

Drawn by: ARH Date: 2024-08-16

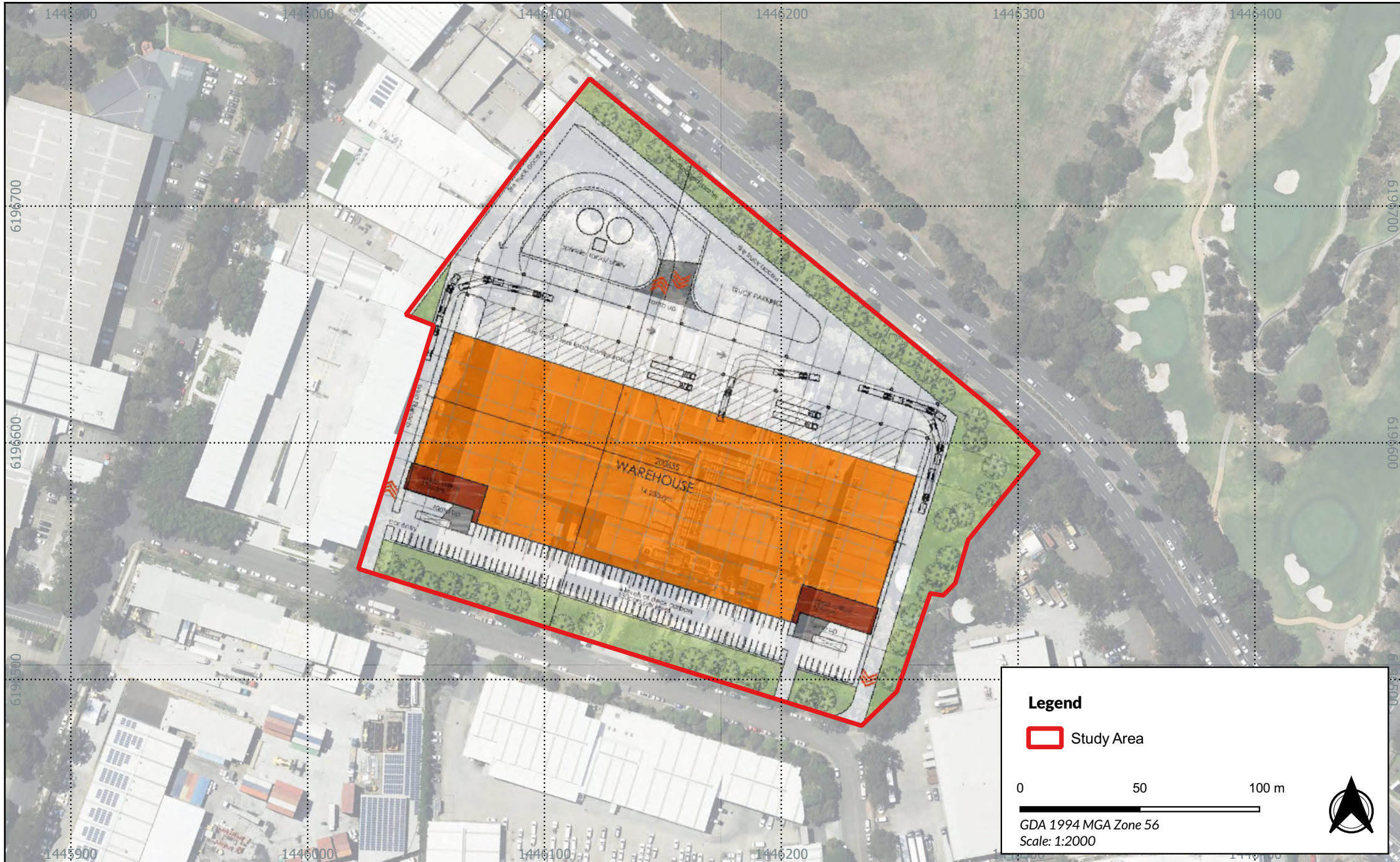


Figure 1.3 - Proposed development

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: Nearmap, NSW LPI Aerial

Drawn by: ARH Date: 2024-08-16

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 program including a pedestrian survey of the study area.
- 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 Regulation]).
- 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.
- 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 acts and guidelines that are applicable or have the potential to be triggered with regard to the proposed development and are detailed in Table 1.1 to Table 1.4.

Table 1.1 Federal acts.

Federal Acts	Applicability and Implications
<i>Environment Protection & Biodiversity Conservation Act 1999</i>	This Act has not been triggered and so does not apply on the basis that: • No sites listed on the National Heritage List are present or in close proximity to the study area. • No sites listed on the Commonwealth Heritage List are present or in close proximity to the study area.
<i>Aboriginal & Torres Strait Islander Heritage Protection Amendment Act 1987</i>	Applies. 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 legislation.

Table 1.2 State acts.

State Acts	Applicability and Implications
<i>National Parks and Wildlife Act 1974</i> (NPW Act)	The Act is triggered by the potential presence of Aboriginal cultural material and offers the following protection: - 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.
NPW Regulation	The Regulation serves to support the implementation of the NPW Act in the following ways: - Section 57 – States minimum standards for due diligence to have been carried out. - Section 60 – Requires documented Aboriginal community consultation to be undertaken before applying for an AHIP. - Section 61 – Requires production of a cultural heritage assessment report to accompany AHIP applications.
EPA Act	Applies to the wider project and governs the approval pathway required: - The project is being assessed under Part 5 of the EPA Act. - This ACHA is required to support a State Significant Development Application. - As such, sections 86, 87, 89A and 90 of the NPW Act do not apply to this project.
<i>NSW Heritage Act 1977</i>	There are no sites listed on the State Heritage Inventory associated with the study area, and therefore this Act does not apply.

Table 1.3 State and local planning instruments.

State Acts	Applicability and Implications
<i>Local Environmental Plan (LEP)</i>	The following LEP is applicable to the study area: <i>Bayside Local Environmental Plan 2021</i> (Bayside LEP) Aboriginal cultural material is discussed in Part 5, Section 10 of the LEP, which requires consent be granted for any works which may impact Aboriginal cultural material.
<i>Development Control Plan (DCP)</i>	The following DCP applies to the study area: <i>Bayside Development Control Plan 2022</i> (Bayside DCP) Aboriginal cultural material is discussed in Part 3.4, Section 3.4.2 of the DCP, which requires developmental consent for an activity that will impact Aboriginal objects or places. The DCP also requires an Aboriginal heritage assessment report to be submitted alongside any development applications.

State Acts	Applicability and Implications
<i>Planning Secretary's Environmental Assessment Requirements (SEARs)</i>	The following SEARs guidelines are applicable to the study area and associated development proposal: Warehouses and distribution centres Clause 18 of that document requires an ACHA report be prepared as a component of SSD applications. This ACHA is intended to function as the said report.

Table 1.4 Aboriginal community consultation requirements.

State Acts	Applicability and Implications
Consultation Requirements	The development is to proceed in accordance with Part 5 of the EPA Act. This means that the requirements of Part 6 of the NPW Act will apply, including the need to obtain approval prior to impacting Aboriginal objects in accordance with Section 90 of the NPW Act, and that it will be necessary to prepare an ACHA in accordance with Section 61 of the NPW Regulations. As such, consultation with Aboriginal stakeholders on this project will follow the Consultation Requirements.

1.5. PROJECT TEAM AND QUALIFICATIONS

The following personnel have been involved in the preparation of this ACHA.

LINDSAY COSTIGAN (B. SCIENCE, ANTHROPOLOGY AND SOCIOLOGY [ARCHAEOLOGY])

Lindsay is a Senior Archaeologist at Austral with 8 years' experience. She began her career in the USA – graduating top of her class from Eastern Oregon University – and has carried out numerous projects in Washington, Oregon, and Idaho. Lindsay's experience includes project management, mapping and GIS, the designing of field methodologies, carrying out of survey and excavations, report writing and review, analysis of a wide variety of artefact types, and artefact curation.

For this project, Lindsay has reviewed the ACHA to ensure technical adequacy.

JAKE ALLEN (GRAD DIP. ARCHAEOLOGY AND HERITAGE MANAGEMENT, MASTER OF MARITIME ARCHAEOLOGY [IN PROGRESS], BCMS, BA.)

Jake is an archaeologist with Austral specialising in maritime and historical cultural heritage. He has carried out several projects across NSW, Victoria, South Australia, and the Australian Capital Territory and has undertaken assessments on internationally significant monuments and sites. Jake's experience includes project management, report writing, producing predictive models, and carrying out archaeological surveys and excavations.

ZOE BOSEVSKI (B. ARCHAEOLOGY)

Zoe is a graduate archaeologist at Austral and has experience in consultation, report writing and fieldwork for Aboriginal cultural heritage projects. She has completed consultation and report writing for ACHAs and has authored Aboriginal Cultural Heritage Due Diligence Assessments. She also has experience with Aboriginal artefact analysis and data entry for reports and has contributed to background research and report writing for this ACHA.

Amanda has reviewed this report for quality assurance and technical adequacy and had input into the management recommendations.

CRYSTAL WOODING (GRAD DIP. ARCHAEOLOGY AND HERITAGE MANAGEMENT, B. ARCHAEOLOGY)

Crystal is a graduate archaeologist at Austral and has experience in consultation, background research, and artefact analysis for Aboriginal cultural heritage projects. For this project, she has assisted with the undertaking of background research.

1.6. ABBREVIATIONS

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

ACHA	Aboriginal Cultural Heritage Assessment
ACHDDA	Aboriginal Cultural Heritage Due Diligence Assessment
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
Austral	Austral Archaeology Pty Ltd
Bayside DCP	<i>Bayside Development Control Plan 2022</i>
Bayside LEP	<i>Bayside Local Environmental Plan 2021</i>
BP	Before Present
Burra Charter	<i>Burra Charter: Australia ICOMOS Charter for Places of Cultural Significance 2013</i>
Code, the	<i>Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW</i>
Consultation Requirements	<i>Aboriginal Cultural Heritage Consultation Requirements for Proponents</i>
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
DEWHA	Department of the Environment, Water, Heritage and the Arts
EPA Act	<i>Environmental Planning and Assessment Act 1979</i>
ESD	Ecologically sustainable development
Guide, the	<i>Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW</i>
GSV	Ground Surface Visibility
ICOMOS	International Council on Monuments and Sites
LEP	Local Environmental Plan
LGA	Local Government Area
LPLALC	La Perouse Local Aboriginal Land Council
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPW Regulation	<i>National Parks and Wildlife Regulation 2019</i>
NSW	New South Wales
OEH	Office of Environment and Heritage

ACHA	Aboriginal Cultural Heritage Assessment
PAD	Potential Archaeological Deposit
Proponent, the	ESR Developments (Australia) Pty Ltd (formerly Logos Group Pty Ltd)
SEARs	Planning Secretary's Environmental Assessment Requirements
Study Area	130 Wentworth Avenue, Banksmeadow, New South Wales

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 recognises that (DECCW 2010b, p. iii):

- 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.

A copy of the consultation log and evidence of all correspondences that were sent and received as part of the consultation process is included in Volume 2, Appendix A of this ACHA.

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, Austral notified the bodies and organisations listed in Section 4.1.2 (DECCW 2010b, p. 10) with the following responses:

- Heritage NSW – responded with a list of stakeholders who may have an interest in the proposed development.
- LPLALC did not respond.
- Office of the Registrar, *Aboriginal Land Rights Act 1983* – Conducted a search and suggested Register of Aboriginal Owners for Kamay Botany Bay National Park and Towra Nature Reserve. However, no Traditional Owners have registered and no Registered Aboriginal Owners for land within the study area are known.
- National Native Title Tribunal – responded that they had no list of stakeholders who may have an interest in the proposed development. A search of their registries was also undertaken.
- Native Title Services Corporation Limited – responded that there was no list of Aboriginal stakeholders in the study area.
- Bayside Council – responded that the Gujaga Foundation be contacted on behalf of the LPLALC.
- Local Land Services (the relevant catchment management authority) – responded that they are not the primary source of contact. Suggested to contact Heritage NSW.

A copy of these letters, searches and responses are included in Volume 2 of this ACHA.

2.2.2. INVITATION TO REGISTER

Letters were written to the Aboriginal stakeholders identified through notifying the various agencies suggested in Section 4.1.2 of the Consultation Requirements (DECCW 2010b, p. 10). Aboriginal stakeholders were provided with a 14 day period to register an interest in the project.

A copy of outgoing letters and responses is included in Volume 2 of this ACHA.

As a result of the consultation procedure, the groups shown in Table 2.1 registered as Aboriginal stakeholders with an interest in this project. It is noted that Kaarina Slater of Ngambaa Cultural Connections was a late registration; however, they were supplied relevant letters on 30 September 2024.

Table 2.1 List of Registered Aboriginal stakeholders.

Organisation	Contact Person
Didge Ngunawal Clan	Lillie Carroll & Paul Boyd
La Perouse Local Aboriginal Land Council	Steven Ella
A1 Indigenous Services	Carolyn Hickey
Kamilaroi Yankuntjatjara Working Group	Phil Khan
Butucarbin Aboriginal Corporation	Jennifer Beale
Ngambaa Cultural Connections	Kaarina Slater

2.2.3. PUBLIC NOTICE

An advert was placed in the *Wentworth Courier* to run on 7 August 2024, requesting the registration of individuals or organisations who hold cultural knowledge relevant to the project area. A copy of this advert is included in Volume 2 of this ACHA.

2.2.4. SUBMISSION OF RECORDED STAKEHOLDERS

In accordance with Section 4.1.6 of the Consultation Requirements (DECCW 2010b, p. 11), Austral provided details of all registered Aboriginal stakeholders to Heritage NSW and LPLALC on 21 August 2024.

A copy of this letter is included in Volume 2 of this ACHA.

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 21 August 2024. Ngambaa Cultural Connections was a late registration and received this information on 30 September 2024.

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

2.4. STAGE 3: GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE

This section details information relating to cultural significance provided by Aboriginal stakeholders through the formalised process of Stage 3 of the Consultation Requirements and any additional information which may have been provided during fieldwork.

2.4.1. REVIEW OF PROJECT METHODOLOGY

Austral provided each Aboriginal stakeholder with a copy of the project methodology on 21 August 2024. Ngambaa Cultural Connections was a late registration and received this information on 30 September 2024. The methodology outlined the proposed assessment process that would be used in the completion of the ACHA. Aboriginal stakeholders were provided with 28 days to review and provide feedback on the methodology.

The following comments were received from Aboriginal stakeholders:

- Lilly Carroll of Didge Ngunawal Clan expressed confusion about only requiring one RAP for this project.
- Carolyn Hickey of A1 Indigenous Services confirmed support of the project methodology.

Copies of all correspondence relating to the draft methodology are included in Appendix A.7, Volume 2 of this ACHA.

2.4.2. INFORMATION GATHERED DURING FIELDWORK

The following information was provided by Aboriginal stakeholders during the fieldwork component for this project:

- During the survey, the RAP on site noted one tree to be similar to a local site of significance; however, no associated significance with the current on-site vegetation was identified.

2.5. STAGE 4: REVIEW OF DRAFT ACHA

The draft ACHA was provided to Aboriginal stakeholders on 7 October 2024 for their review and comment. Aboriginal stakeholders were given 28 days to review the ACHA.

A total of one RAP provided comments and feedback during the review period. The feedback is noted below. Kadibulla Khan from Kamilaroi Yankuntjatjara Working Group stated:

“the area is known to us here at KYWG and to our people and is highly sensitive as ancestors walked this land before us and practiced law had a kinship, caring and managed the land to provide an abundance of resources to thrive off. With this in mind the thousands of years of occupation by the Aboriginal people for tens of thousands of years. The County is highly likely to be utilised for its natural environment. Even if it's disturbed we have intangible aspects that we relate to. Our people would have travelled along this country there is nearby water ways our people could have camped. Of course, where there is the living there is the dead, burials are all over and can be found anywhere. We recommend Connecting with Country on this project.”

Following Stage 4 comments provided by Kamilaroi Yankuntjatjara Working Group, the client provided the following response:

“The SEARs issued by DPHI for this project identifies a requirement to address the “Better Placed” design principles of the Government Architect. Within these requirements the development will consider the Recognising Country framework and be addressed in the design report and EIS.

In addition, we note there is no formal requirement that mandates such requirements be addressed. The site is an infill industrial site and we consider this approach sufficient and consistent with DPHI requirements based on similar projects.”

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

2.6. PROVISION OF FINAL ACHA

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. In accordance with that guideline, this was undertaken on 13 November 2024.

2.7. 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).

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 context.

3.1. ENVIRONMENTAL CONTEXT

The following section discusses the study area in relation to its landscape, environmental and Aboriginal landscape resources. This environmental context has been prepared in accordance with Requirement 2 of The Code (DECCW 2011a, pp. 8–9).

The study area is located within the Cumberland subregion of the Sydney Basin. This subregion makes up approximately 275,700 hectares (11.2%) of the total Sydney Basin Bioregion (Bioregional Assessments 2019). This subregion is known for Triassic Wianamatta shale and sandstone, defined by both low rolling hills and wide valleys, swamps and lagoons on the floodplains of the Nepean. The vegetation typical of this subregion includes grey box eucalypt (*Eucalyptus macrocarpa*), river red gum (*E. camaldulensis*), narrow-leaved ironbark (*E. crebra*) across the hills and valleys, and Parramatta red gum (*E. parramattensis*), tall spike-rush (*Eleocharis sphacelate*), and rushes (*Juncus* spp.) in the swamps and lagoons (NSW National Parks and Wildlife Services 2003, NSW Department of Planning, Industry and Environment 2021). The diverse microenvironments throughout the subregion would have provided abundant and varied resources to facilitate the occupation by past Aboriginal peoples.

3.1.1. TOPOGRAPHY

The study area is located within a heavily modified landscape resulting from the continuous industrial development in the Banksmeadow region. Before its modification, the study area was likely to have been occupied by sloping landforms associated with the undulating coastal dune fields of the Tuggerah soil landscape (Department of Environment, Climate Change and Water NSW 2010). The landforms within the study area are modified flat, slope, hillock and depression. These landforms are subject to geomorphological processes including aggradation, deposition, weathering and erosion, which may impact any archaeological material, if present (Department of Environment, Climate Change and Water NSW 2010). The landform units identified within the study area are identified in Figure 3.1.

3.1.2. GEOLOGY AND HYDROLOGY

The given geological unit within an area determines the availability of raw materials, as well as the suitability of the area for occupation and artefact manufacture activities. As such, geological units are used to predict the presence and/or absence of certain Aboriginal site types, including rock shelters and quarries; moreover, they provide insight into the range of raw materials that would have been available for knapping — the process by which stone was worked in order to manufacture tools (Holdaway and Stern 2011, p. 9).

The study area is located within the coastal deposits – dune facies geological unit. This geological unit is characterised by sand dunes that are deposited via marine forces, but altered by aeolian (i.e. wind) processes (Colquhoun et al. 2020). This landscape is noted to contain sedimentary stones — such as sandstone, siltstone, and mudstone; which could have been used for grinding activities — and large outcrops, which would exhibit potential to contain rock shelters. By contrast, the landscape would also have contained chert and silcrete, which are known to have been common materials used in the stone working processes detailed above (Holdaway and Stern 2011, p. 4).

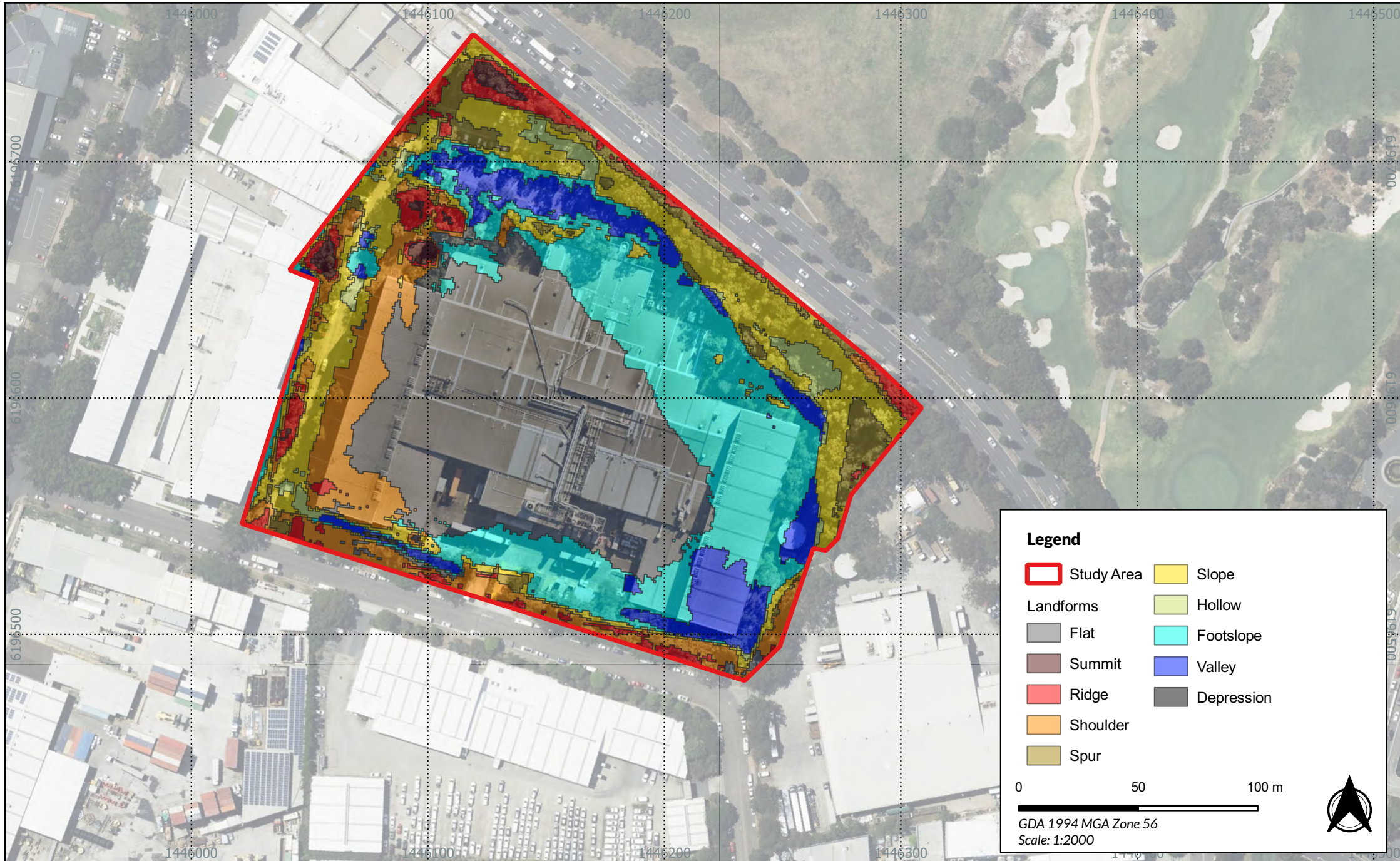


Figure 3.1 - DEM Geomorphon landforms of the study area

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: Nearmap, NSW LPI Aerial

Drawn by: ARH Date: 2024-08-16

The study area itself does not contain any hydrological features. The nearest water source is Botany Dams, approximately 1.5 kilometres northwest of the study area. The study area is also located near Botany Bay (3 kilometres to the south) and the coast of the Tasman Sea (4 kilometres to the west). Many Aboriginal sites have been identified along Botany Bay and the Tasman Sea, including shell middens and campsites (AECOM Australia Pty Ltd 2019).

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

3.1.3. SOILS

The study area is located within the Tuggerah soil landscape. This soil landscape contains grey-brown sands to brown-black sandy loams.

The soil profile of the study area cannot be fully determined through soil classifications; however, the descriptions provide information on the survivability of cultural material. Acidic materials reduce the survivability of bones and shell deposits, though other organic materials, such as charcoal, are more likely to survive, though not in good condition. Lithic material, being stone, survives in most soil conditions. The variety of soil landscapes within the Tuggerah landscape is detailed in Table 3.1 and Figure 3.3.

Table 3.1 Soil landscapes identified as being within study area.

Soil landscape	Description
Tuggerah (tg)	Tg1 – Loose speckled grey-brown loamy sand - Topsoil consists of grey-brown speckled sand to loamy sand, with apedal single-grained porous sandy fabric. Consists of quartz sand grains and dark organic fragments, with colours ranging from brownish grey (10YR 4/1) to brownish black (10YR 2/3). pH is between acidic (6.0) and neutral (7.0). Inclusions include roots and charcoal. Tg 2 – Bleached loose sand - Subsoil consists of loose and non-cohesive material. Colours range from light grey (7.5 8/1) and greyish-yellow (2.5YR 7/2) to dull yellow-orange (10YR 7/4). Ph ranges from moderately acid (5.5) to neutral (7.0). Inclusions are rare. Tg 3 – Grey-brown mottled sand - Subsoil consists of mottled or loamy sand with apedal single-grained structure, occurring in areas of poor drainage. Colours range from brownish grey (10YR 6/1) to greyish brown (7.5YR 4/2). pH ranges from moderately acidic (5.5) to neutral (7.0). Inclusions are rare. Tg 4 – Black soft sandy organic pan - Subsoil consists of soft, organic stained sand to loamy sand with earthy fabric. Colours range from black (10YR 1.7/1) to brownish black (10YR 3/1). pH ranges from moderately acidic (5.5) to neutral (7.0). Inclusions are rare. Tg 5 – Brown soft sandy iron pan - Subsoil consists of soft iron-stained sand to loamy sand with earthy fabric, generally occurring as coffee rock. Colours range from yellowish brown (10YR 7/6) to brown (10YR 4/6). Brown and orange mottles are common. pH ranges from moderately acidic (5.5) to neutral (7.0). Inclusions are rare. Tg 6 – Yellow massive sand - Deep subsoil consists of sand to clayey sand with a sandy or earthy fabric. Colours range from light yellow (2.5YR 7/4) to dull yellow-orange (10YR 7/3). pH ranges from strongly acidic (4.5) to neutral (7.0).

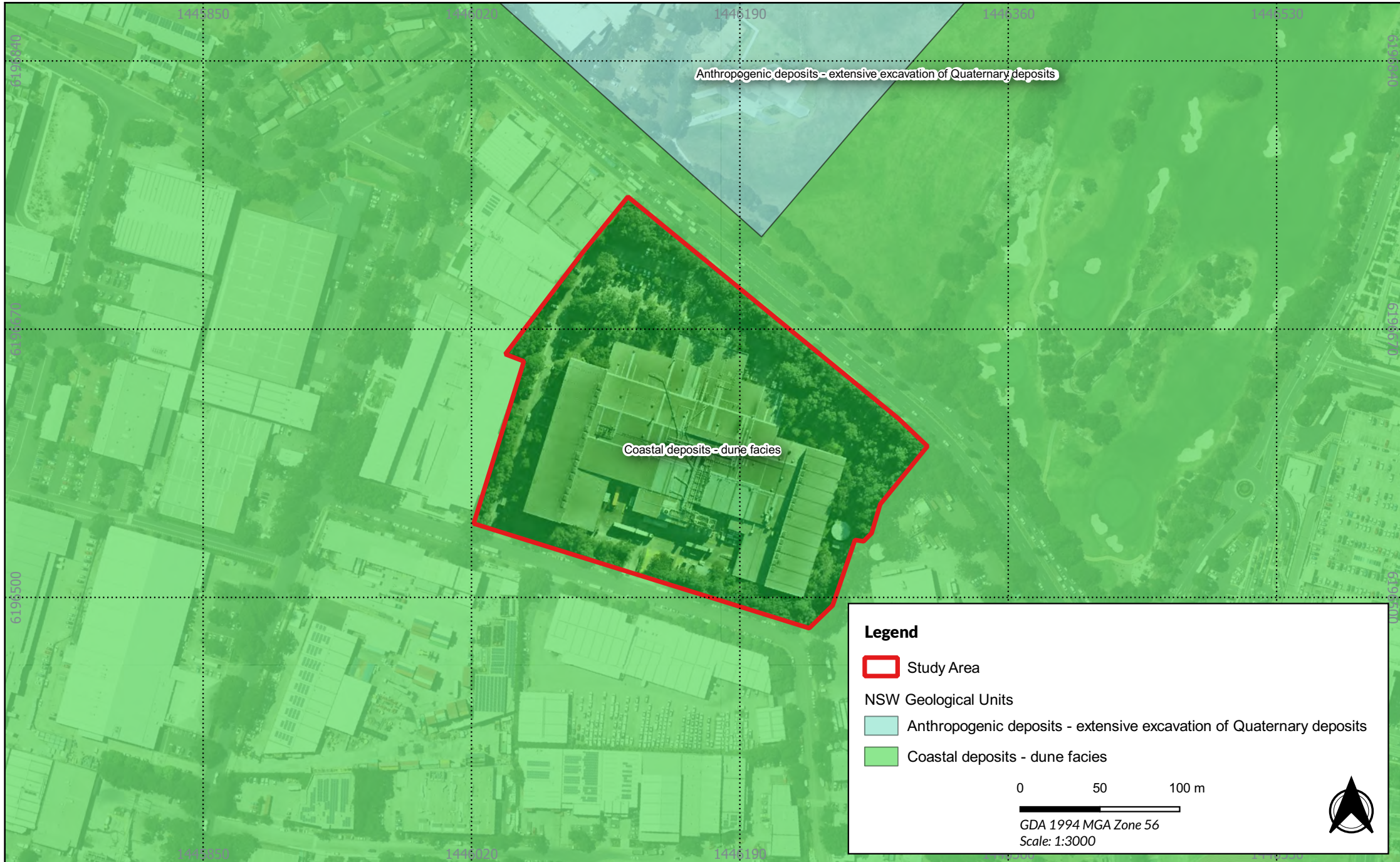


Figure 3.2 - Geology and hydrology of the study area and surrounding landscape

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: Nearmap, NSW LPI Aerial

Drawn by: ARH Date: 2024-08-16

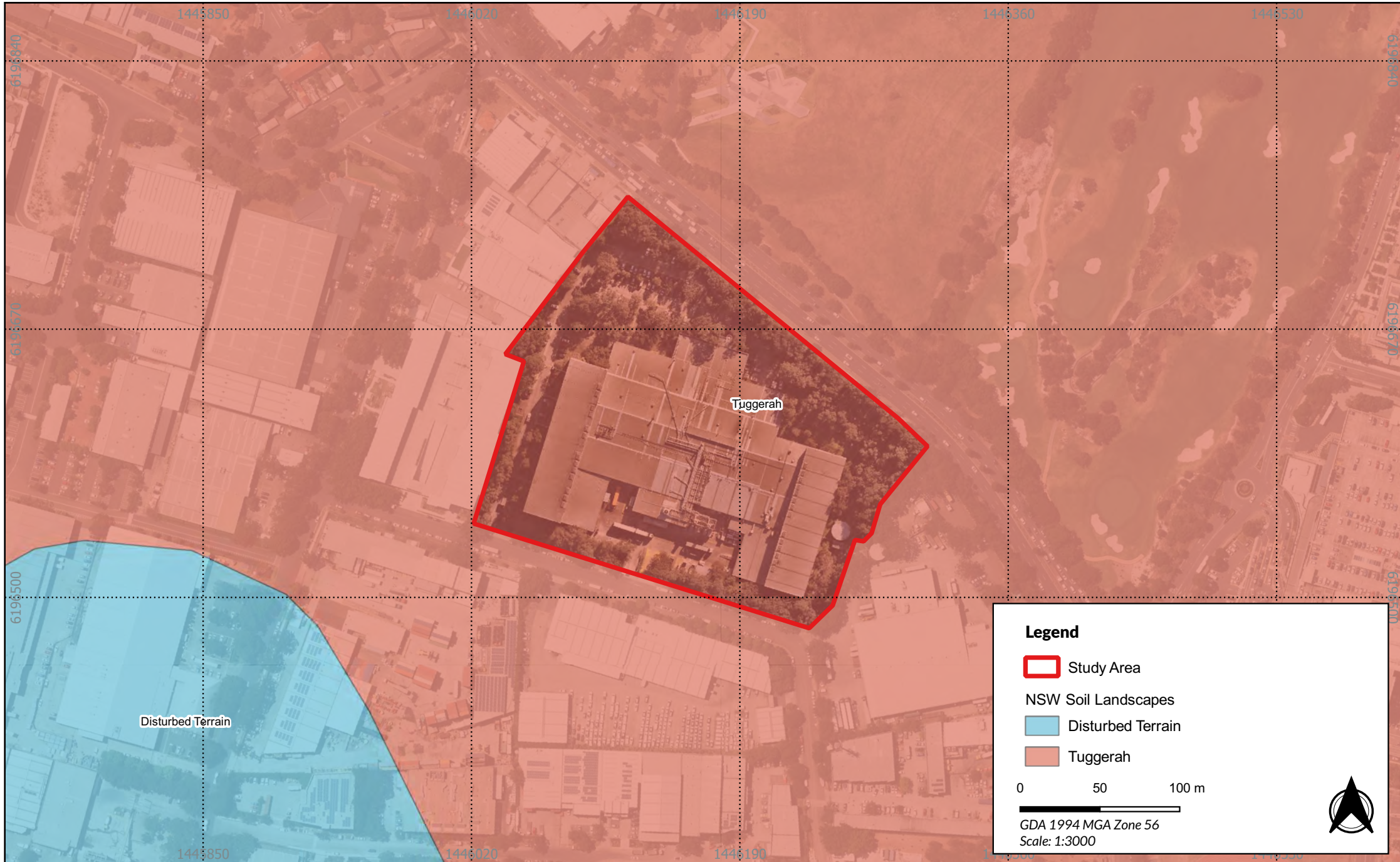


Figure 3.3 - Soil landscapes identified within the study area and surrounds

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: Nearmap, NSW LPI Aerial

Drawn by: ARH Date: 2024-08-16

3.1.4. CLIMATE AND VEGETATION

The climate of Banksmeadow is warm and temperate, experiencing cool to mild winters and warm to hot summers (Bureau of Meteorology 2024). Average temperatures at Waterloo range between 19.2-26.7°C in summer and between 7.4-17.2°C in winter with occasional overnight frosts (Bureau of Meteorology 2024). Rainfall totals are highest in March at an average of 122.9 mm, and lowest in September with an average rainfall of 59.5 mm (Bureau of Meteorology 2024). Rain occurs on an average of 96.1 days per year with an overall rainfall total of approximately 1,091.8 millimetres (Bureau of Meteorology 2024). Due to the temperate climate and moderate average rainfall, the study area and its surroundings would have provided optimum conditions for both temporary and long-term Aboriginal occupation of the area.

3.1.5. LANDSCAPE RESOURCES

The study area has been entirely cleared of its vegetation due to the intense industrial land-use. Originally, the study area would have been predominately comprised of dry sclerophyll and apple woodland, with “smooth-barked apple (*Angophora costata*), Sydney peppermint (*E. piperita*), and old man banksia (*Banksia aemula*)” dominating (Department of Environment, Climate Change and Water NSW 2010, p. 119). Other species of vegetation would have included “bracken (*Pteridium esculentum*), Christmas bush (*Ceratopetalum spp.*), woody pear (*Xylomelum pyriforme*) and prickly moses (*Acacia ulicifolia*) (Department of Environment, Climate Change and Water NSW 2010, p. 119). Eucalyptus trees were a particularly important resource to Aboriginal people; leaves were crushed and soaked for medicinal purposes, bowls, dishes, and canoes were made from the bark, and spears, boomerangs and shields were crafted from the hard wood. Before European settlement and the subsequent clearance of vegetation, the array of plant life would have provided habitats for a variety of animals, as well as potential food and raw material sources for Aboriginal people. Species of bats, birds, frogs, mammals, and reptiles have been found to inhabit the banks which would have acted as a food resource as well as Aboriginal clothing, ornamentation, or other implements. A summary of the faunal resources that would have been utilised by the Eora people within the study area and surrounds is provided in Table 3.2 (NSW National Parks and Wildlife Service 1998, ACS Environmental Pty Ltd 2016).

Table 3.2 A summary of the faunal resources within the study area and surrounds.

Scientific name	Common name
<i>Manorina melanocephala</i>	Noisy miner
<i>Cracticus tibicen</i>	Australian magpie
<i>Corvus coronoides</i>	Australian raven
<i>Dacelo novaeguineae</i>	Laughing kookaburra
<i>Coracina novaehollandiae</i>	Black-faced cuckoo shrike
<i>Vanellus miles</i>	Masked lapwing
<i>Malurus cyaneus</i>	Superb fairy-wren
<i>Pseudocheirus peregrinus</i>	Common ringtail possum
<i>Pseudophryne australis</i>	Red-crowned toadlet
<i>Amalosia lesueurii</i>	Lesueur's gecko
<i>Phascolarctos cinereus</i>	Koala
<i>Petauroides</i> sp.	Greater gliders
<i>Petaurus breviceps</i>	Sugar glider
<i>Chalinolobus dwyeri</i>	Large-eared pied bat
<i>Miniopterus schreibersii</i>	Common bent-wing bat

3.2. PAST LAND USE PRACTICES

An examination of historical aerial photographs demonstrates that the study area has undergone significant artificial change. The earliest available historical aerial is from 1951, and shows extensive land clearing in the southern portion of the lot, as well as an access road running east-west within the study area (Figure 3.4).

When comparing this to the 1974 aerial, the east/west access route seems to have vanished, likely associated with the loss of the access point due to sand quarrying activities in the adjacent eastern lot and formalisation of an access point from Moore Street to the south (Figure 3.5). The new accessway is notably more complex in this iteration, connecting sand deposits in the west and north of the property.

Then, between 1974 and 1991 – as evidenced by historical aerials (c.f. Figure 3.5 and Figure 3.6) – a new accessway system was installed and formalised throughout the property. This is particularly evident throughout west and north-western contexts. Further, the current warehouse complex was installed, and new-growth vegetation planted within its surrounds. In this later aerial, those sand deposits within the study area have notably been covered or removed.

Given these distinct states, it is evident that the study area has been subject to extensive clearing, cultivation, and other related agricultural practices; as well as the residential and industrial development of the property, and subsequent demolition. These activities would have had a profound impact on subsurface archaeological deposits, if present, and contributed to the removal of native vegetation, as well as the introduction of non-native grasses and intrusive weeds. As vegetation clearing is associated with soil disturbance and topsoil movement and has the potential to impact Aboriginal cultural heritage items, this would have exacerbated those impacts detailed above. Consequently, it is likely that any potential Aboriginal sites – surface or subsurface – have been subject to heavy impacts.

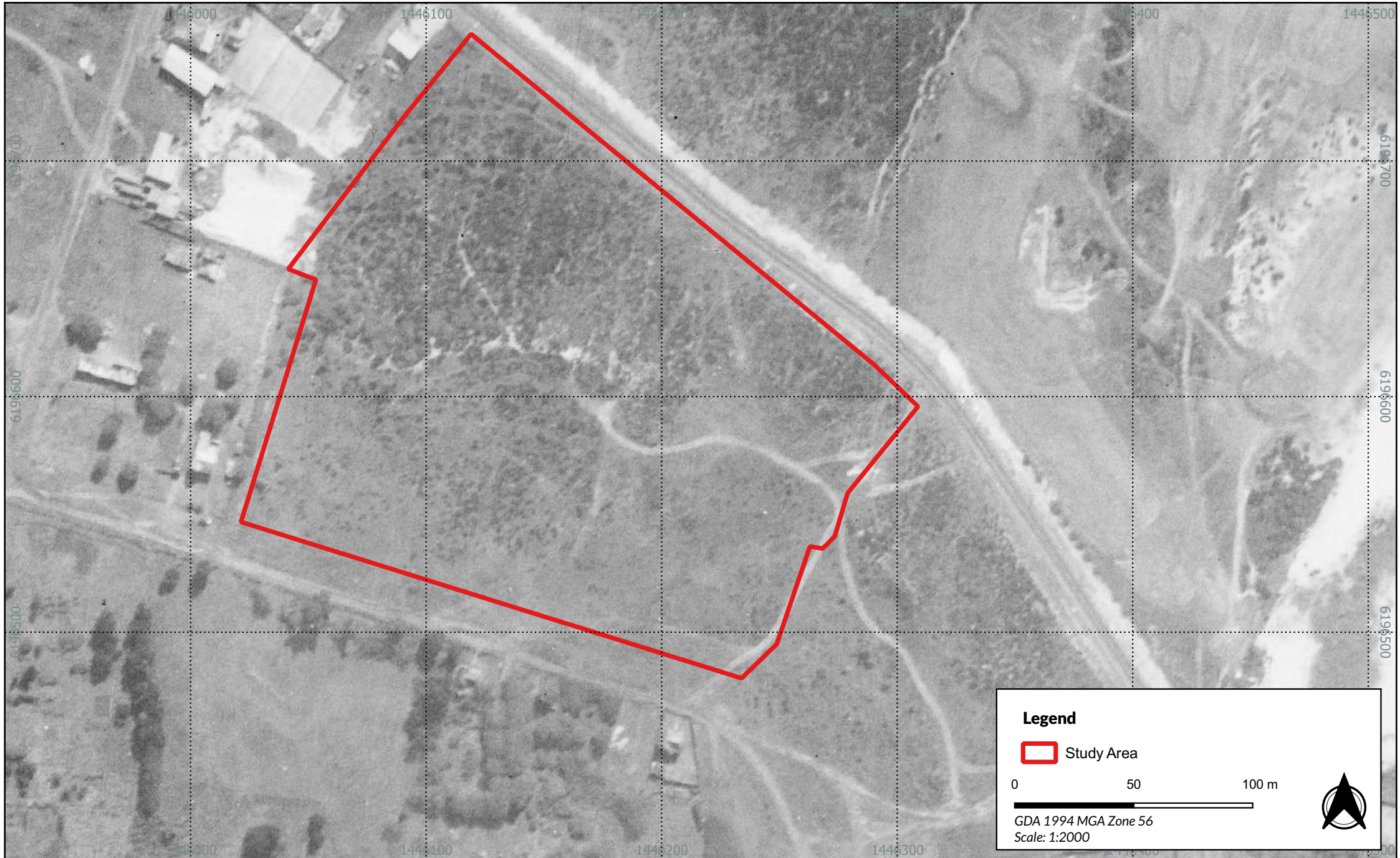


Figure 3.4 - 1951 aerial of the study area

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: NSW Spatial Services

Drawn by: ARH Date: 2024-08-16



Figure 3.5 - 1974 aerial of the study area
24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: NSW Spatial Services

Drawn by: ARH Date: 2024-08-16

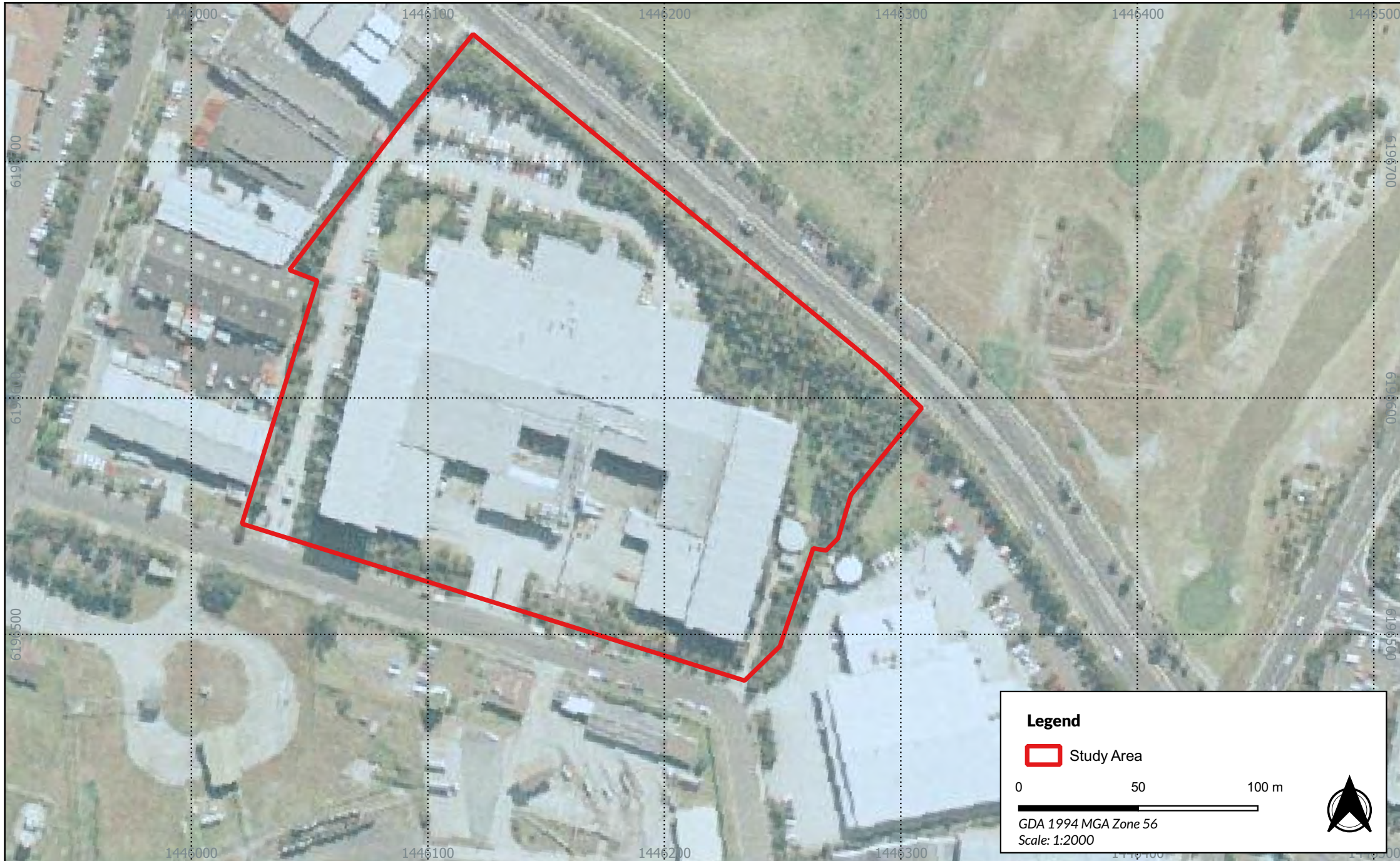


Figure 3.6 - 1991 aerial of the study area

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: NSW Spatial Services

Drawn by: ARH Date: 2024-08-16

4. ARCHAEOLOGICAL CONTEXT

The range of environments and landscapes within the Banksmeadow 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

The Aboriginal people between Botany Bay and Port Jackson are known as the Eora, divided into smaller linguistic groups. The study area is in the Traditional Lands of the Wangal people who spoke a variant of the Dharug language. The Dharug linguistic group occupied 6,000 km² from the NSW coastline to the mouth of the Hawkesbury River and inland to Mount Victoria, Campbelltown, Liverpool. Camden and Penrith (Tindale 1974). Dharug people were often subdivided into several smaller categories referred to as freshwater or saltwater people depending on whether they occupied the coastal regions or inland river valleys.

Aboriginal people formed a dynamic culture that encouraged movement throughout the landscapes. Clans occasionally converge with other tribes to trade, hunt, fight, feast, arrange marriages and resolve disputes. The social structure of the pre-European groups was stratified with elders of the clans holding decision-making capabilities. The spirituality of groups is detailed and explained through an oral tradition of Dreamtime. Early settlers recorded some Aboriginal customs, such as the avulsed teeth and 'scarification' of initiated men, and the kangaroo teeth necklaces, however, due to the nature of ceremonies, there are severe limitations to many recorded accounts. Material culture was sourced from a variety of materials such as bark, resin and bone. The hard stone material that was made into stone tools is the main element of this tool kit to remain in the archaeological record as the organic element has mainly decomposed.

The pre-European environment of the Banksmeadow region provided an extensive resource base associated with a multitude of water sources. These water sources include freshwater creeks and rivers as well as saltwater from the estuary near the mouth of Cooks River. Habitats associated with these water systems supported a wide range of fish, birds, reptiles, and mammals. The pre-European Sydney landscape would have been the setting for a variety of human activities. This human activity would have included camping, hunting, gathering, cooking, ceremonies, and other cultural activities associated with semi-permanent settlement sites in the region.

Early estimates of the number of Aboriginal people in the Sydney harbour suggest around 3,000 individuals inhabited the area. However, the pre-contact population numbers for the study area are not known and, due to smallpox and influenza epidemics preceding the arrival of European settlers into the region (Attenbrow 2010a, p. 21), it is unlikely that the early European explorers were able to successfully grasp the actual population size. Following the arrival of European settlers in Australia, the Aboriginal people were forced from their lands, destroying the vital relationship between country, culture, customs and ceremonies. This threw the indigenous way of life into turmoil and, coupled with the local Aboriginal people avoiding the Europeans, made any estimates of the local population difficult and most likely inaccurate. While Aboriginal people belonged to a clan, in day to day life people lived in small bands with numbers starting from a nuclear family unit, all the way up to groups of 50 people. Gatherings were common but were usually reserved for important business, such as initiations or funerals (Attenbrow 2010b, pp. 28–30).

4.2. PREVIOUS ARCHAEOLOGICAL WORK

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

4.2.1. REGIONAL ARCHAEOLOGICAL CONTEXT

Currently, the oldest date for an archaeological site in the Sydney region is approximately 40,000 years before present (BP), being from an archaeological deposit associated with the Cranebrook Terrace (Attenbrow 2010b). However, most samples dated by geochronology are much more recent – being less than 15,000 years old and concentrated in the last 2,500 years (DECCW 2011b, p. 1). In accordance with this, the vast majority of archaeological sites within the Sydney Basin and surrounds comprise dates between 1,000 and 5,000 years BP (Kelleher Nightingale Consulting Pty Ltd 2017, p. 67).

MATERIAL CULTURE

The material culture of the Aboriginal people of the Sydney region at the time of European contact was diverse, utilising materials derived from a variety of plants, fauna, and stone. Below is only a summary of the types of material known to have been used by the Aboriginal people of the Sydney region.

- Spears in the Sydney region were usually made of a grass tree spike (for the shaft) with a hardwood point. Stone, bone, shell or wood were sometimes used as barbs. Thin and straight spear-throwers were made from wattle, while fishing spears were usually tipped with four hardwood prongs with bone points. Fish were also caught utilising shell or bird talon fish hooks (Attenbrow 2010, p.177).
- Bark of various types was used for making such diverse items as wrappings for newborn babies, shelters, canoes, paddles, shields and torches. Resin from the grass tree was used as an adhesive for tool and weapon production, particularly spears. Similarly, 'Boomerang' is believed to be a Darug word. Various kinds of boomerangs and clubs were made from hardwoods, as were such items as digging sticks (Attenbrow 2010, p.179)
- Stone artefacts are often the only physical indication of Aboriginal use of an area due to their durability and survivability in the archaeological record. The knapping of stone artefacts can indicate one of two things: the knapping of stone to create tools; and the discard of these tools once they have been used, or sometimes both. The knapping of stone creates a large amount of stone debris in very little time. Large knapping events tend to occur in proximity to sources of permanent water (Jo McDonald Cultural Heritage Management. 2005). This is likely due to the availability of resources that made such locations good short-term camping sites. Small-scale knapping events can occur anywhere in the landscape and are associated with the manufacture or maintenance of stone tools as a direct result of a specific need.
 - Stone was commonly used for tools and, apart from the discarded shell in coastal middens, is the most common material found in archaeological sites of the Sydney region. Stone or stone tools were used for axe heads, spear barbs and as woodworking tools, amongst other uses
- Small items such as shellfish and plant foods, such as berries, yams and nectar-bearing blossoms, were collected and carried in net bags or baskets. The principal piece of equipment required for gathering plant food was a wooden digging stick used by women to dig out root vegetables such as fern roots, bulbs from numerous orchid species, and tubers from a variety of vines (Australian Museum Business Services 2005, p. 36).
- Bird feathers, animal teeth, nuts, ochre, animal skins and plant fibres were used to create tools and decorative items including clothing, cloaks and personal ornamentation. Leaves, bark and fibrous stems were used to make nets, bags, traps, baskets, string and rope. In addition, hollow logs were used to construct eel traps around the Parramatta region, but eels were also speared from the shore (Kelleher Nightingale Consulting Pty Ltd 2017, p. 26).

Observations made by Francis Barrallier (1773-1853) in 1802 revealed that the local Aboriginal population in Parramatta and the surrounding districts exhibited customs relating to food and hunting that were similar to those of those practised between Nattai and the lower Wollondilly. It was also noted by Barrallier that the local Aboriginal groups utilised the local environment as a source of raw materials for tool and weapon-making, clothing and shelter (Comber 2014, p. 21).

From about 1,600 years ago, Bondi points and geometric microliths began to drop out of use in the coastal parts of the Sydney region, although the Elouera continued to be used. This is known as the *Late Bondaian* phase. In coastal areas, and possibly throughout the Sydney Basin, both the use of quartz and the use of the bipolar flaking technique increased over time (Attenbrow 2010b).

Recorded items of material culture in the archaeological record within the greater Western Sydney region include hunting and fishing spears, spear-throwers (at least two types), fishing lines and hooks, stone axes and hatchets, digging sticks, clubs, shields, string and net bags, baskets, bark containers and canoes, scrapers, adzes and awls, animal skin cloaks and a variety of stone tools (Attenbrow 2010a, p. 85).

ARCHAEOLOGICAL MODELLING

McDonald has argued that environmental factors, such as stream order, are integral to developing a predictive model for the Sydney Basin (McDonald 1997a). Stream order modelling as a predictive tool can be utilised to anticipate the potential for Aboriginal camp site locations in the landscape based on the order of water permanence. McDonald (McDonald 1997a, 1997b, 1999) in particular, has drawn on stream order modelling to forecast the potential nature and complexity of sites in the Sydney Basin. These models can also be used to predict the possible range of activities carried out at a particular site and the frequency and/or duration of occupation.

Analysing stream order can allow researchers to locate areas of water permanence, which would have been vital for Aboriginal people. Abundant food and other resources are more likely to occur in areas of water permanence, which would in turn attract Aboriginal occupation. McDonald's excavations of open artefact scatter sites at the ADI site in St Marys provided evidence of such a correlation (McDonald 1997b, p.133).

According to McDonald, the range of lithic activities and the complexity of the resulting stone assemblage observed at a location of permanent water also differs depending on stream order. Large knapping events tend to occur in proximity to sources of permanent water (McDonald 2000). This is likely due to the availability of resources that made these good places to camp for short periods. Small-scale knapping events can occur anywhere in the landscape and are usually associated with the manufacture or maintenance of stone tools as a direct result of a specific need. This indicates that knapping sites at locations further away from water courses may be more diffuse.

Overall, artefact scatters in the vicinity of higher order ranking streams reflect a greater range of activities (e.g. tool use, manufacture and maintenance, food processing and quarrying) than those located along lower order streams. Temporary or casual occupation of a site, reflected by an isolated knapping floor or tool discard, is more likely to occur on smaller, more temporary water courses (McDonald 1997a, p.127).

McDonald concludes that stream order modelling could be utilised to make general predictions about the location and nature of Aboriginal sites in the Sydney Basin. Water permanence (i.e. stream order), landscape unit (i.e. hill top, creek flat) and the proximity to artefact raw materials can result in variations in the density and complexity of an Aboriginal archaeological feature (McDonald 1997a, 2000).

Predictions of site location and duration of occupation relate to stream order in the following ways:

- Archaeological evidence will be sparse and represent little more than a background scatter in the headwaters of upper tributaries (i.e. first-order creeks);
- In the middle reaches of minor tributaries (second-order creeks) archaeological evidence will be sparse but indicate focused activity (e.g. one-off camp locations, single episode knapping floors);
- In the lower reaches of tributary creeks (third-order creeks) will be archaeological evidence of more frequent occupation. This will include repeated occupation by small groups, knapping floors (perhaps used and re-used), and evidence of more concentrated activities;
- On major creek lines and rivers (fourth order), archaeological evidence will indicate more permanent or repeated occupation. Sites will be complex, with a range of lithic activities represented, and may even be stratified;
- Creek junctions may provide foci for site activity; the size of the confluence (in terms of stream ranking nodes) could be expected to influence the size of the site; and
- Ridge top locations between drainage lines will usually contain limited archaeological evidence, although isolated knapping floors or other forms of one-off occupation may be in evidence in such a location (McDonald 2000,p.19).

This predictive model has been refined with a focus on the dominant environment and landscape zones of the Cumberland Lowlands, such as the Wianamatta Group Shales, Hawkesbury Sandstone, Quaternary alluvium, Quaternary Aeolian and Tertiary alluvium. Attenbrow (2010) discovered that the Quaternary alluvial deposits had a greater concentration of archaeological sites, which is likely the result of these deposits being located in the vicinity of major creek lines and rivers, such as Eastern Creek, Second Ponds Creek etc. Areas of alluvial deposits were found by Kohen (1993) to contain artefact scatters of a large and complex nature in close proximity to permanent creeks.

Originally excavated and assessed in 1971, the Henry Lawson Drive Rock Shelter (approximately 4.5 kilometres southeast of the study area) was reassessed by Peter Hiscock in 2003 to investigate patterns associated with stone technologies within the Greater Sydney region (Hiscock 2003). The shelter is approximately 16 by 2 metres and is located at the conjunction of Little Salt Pan Creek and the Georges River. 4 square metres of the floor deposit was originally excavated with 5 distinct stratigraphic levels, in the middle of which was a midden deposit containing oyster (*Saccostrea glomerata*), hairy mussel (*Trichomya hirsuta*) and Hercules Club Whelk (*Pyrazus ebeninus*), and animal bones. Radiocarbon dating of the midden deposit yielded an age estimate of 870 ± 95 years BP. Just outside the shelter, however, another deposit containing datable charcoal samples associated with a backed artefact aged 5240 ± 100 years BP. The assemblage within the shelter contained 2000 flakes 16 non-bipolar cores, 29 bipolar cores, 77 backed artefacts, 40 scrapers and two burins, primarily of silcrete but also containing chert, volcanic material, mudstone, quartz and quartzite (Hiscock 2003, p. 66). Hiscock's analysis noted that cores within this shelter were reduced to a significantly smaller scale than what is common throughout eastern New South Wales assemblages. He noted this may be indicative of a "comparatively sedentary residential system" within this portion of the Sydney Basin and that variations in population activities and movements may differ over much smaller distances than originally assumed (Hiscock 2003, p. 74).

4.2.2. HERITAGE DATABASE SEARCH

A search of the Heritage NSW AHIMS database was undertaken on 12 August 2024 (Client Service ID 918875). The results from the AHIMS search identified 103 previously recorded sites within a 6-kilometre radius of the study area. The search indicates that Shell, Artefact are the predominant site type with over 29.41% of known sites belonging to this category.

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

Table 4.1 AHIMS sites identified within 6 kilometres of the study area.

Site Type	Occurrence	Frequency (%)
Artefact, Shell	30	29.41%
Art (Pigment or Engraved)	26	25.49%
Artefact	12	11.76%
Potential Archaeological Deposit (PAD)	12	11.76%
Burial	5	4.90%
Grinding Groove	2	1.96%
Artefact, PAD	2	1.96%
Aboriginal Ceremony and Dreaming, Artefact, Shell	1	0.98%
Aboriginal Ceremony and Dreaming, Burial	1	0.98%
Aboriginal Resource and Gathering, Artefact, Non-Human Bone and Organic Material	1	0.98%
Art (Pigment or Engraved), Grinding Groove	1	0.98%
Art (Pigment or Engraved), Shell	1	0.98%
Artefact, Burial	1	0.98%
Artefact, Burial, Shell	1	0.98%
Artefact, Hearth	1	0.98%
Artefact, Non-Human Bone and Organic Material, Shell	1	0.98%
Habitation Structure, PAD	1	0.98%
Hearth, PAD	1	0.98%
Ochre Quarry	1	0.98%
PAD, Shell	1	0.98%
Total	102	100.00%

It should be noted that 2 Aboriginal Places are located within this search radius, including Coast Hospital Cemetery Resting Place and Former La Perouse Aboriginal Mission. Additionally, 2 restricted AHIMS sites were also noted. When contacting AHIMS, it was confirmed that the proposed development would not impact these sites. No previously recorded AHIMS sites are located within the study area.

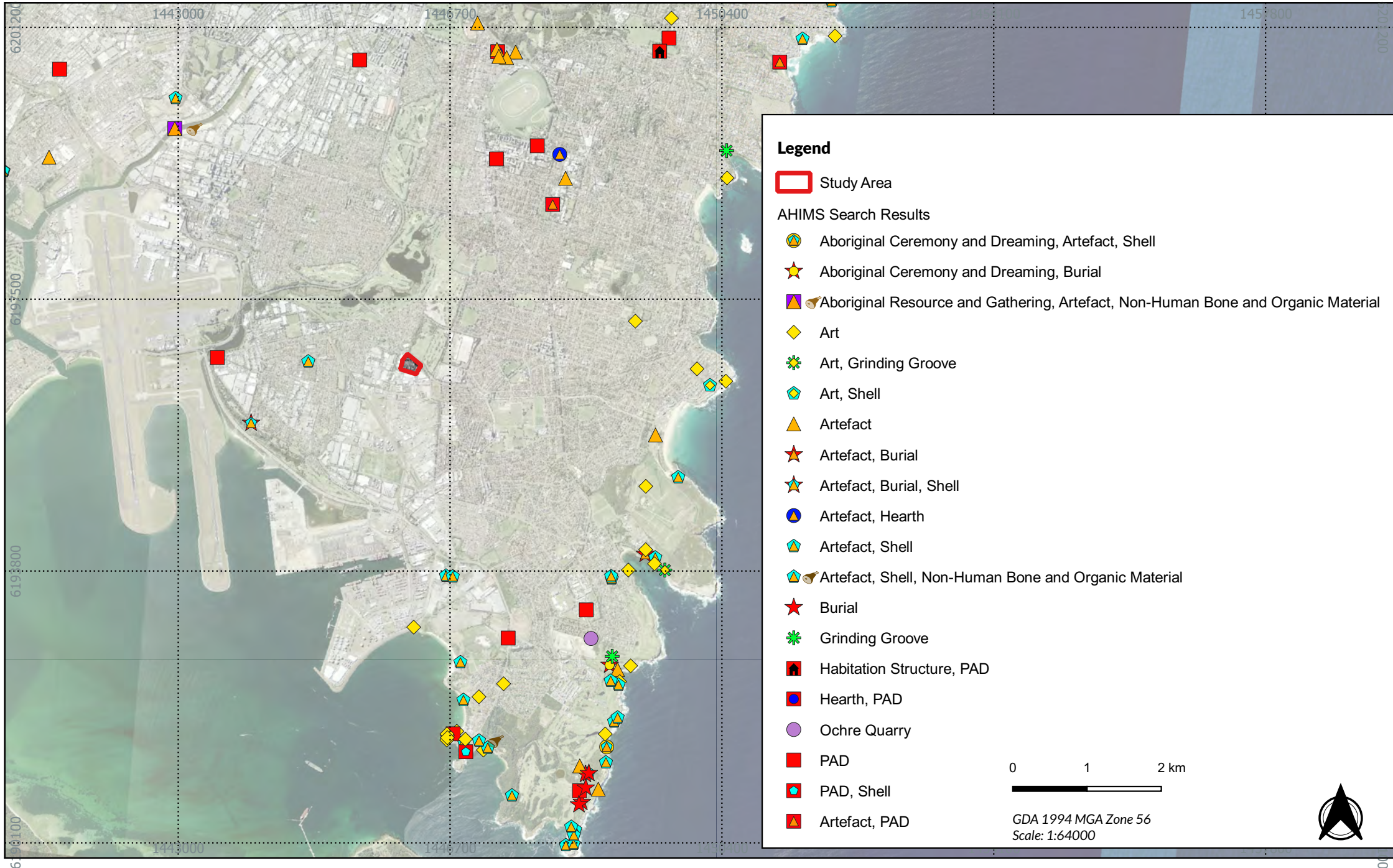


Figure 4.1 - AHIMS sites within 6 km of the study area

24028 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: Nearmap, NSW LPI Aerial

Drawn by: ARH Date: 2024-08-16

4.2.3. LOCAL ARCHAEOLOGICAL CONTEXT

Archaeological investigations of the Sydney region, and in particular the suburb of Banksmeadow, have been conducted in response to the spread of urban development as well as within the framework of academic enquiries. 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 Banksmeadow environs, archaeological investigations have increased accordingly.

A large volume of studies has been completed in the region, as such, 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 nearby waterways. The reports that have been reviewed are detailed in Table 4.2 and their location in relation to the Study Area is provided in Figure 4.2.

Table 4.2 Reports selected for review as part of the local archaeological context.

Author	Date	Relevance to Study Area	Type of assessment
Austral/Godden Mackay Heritage Consultants	1997	Austral and Godden Mackay Consultants conducted a joint archaeological and physical anthropological investigation of the Randwick Destitute Children's Asylum Cemetery, located approximately 3.3 kilometres north-east of the study area.	Archaeological and Physical Anthropological Investigation
Dominic Steele Consulting Archaeology	2002	Dominic Steele Consulting Archaeology completed a report on the salvage excavations conducted at 589-593 George Street, Sydney, approximately 7.3 kilometres north of the study area.	Salvage excavation
Susan McIntyre-Tamwoy Heritage Consultant	2003	Susan McIntyre-Tamwoy conducted a test excavation for the MetroGrid Project at Fraser Park, approximately 6.1 kilometres west of the study area.	Test excavation
Dominic Steele Consulting Archaeology	2003	Dominic Steele Consulting Archaeology conducted an archaeological excavation at 1-81 Little Bay Road, Little Bay located approximately 4.3 kilometres south-east of the study area.	Test excavation
Jo McDonald Cultural Heritage Management Pty Ltd	2005	Jo McDonald Cultural Heritage Management conducted salvage excavations of Discovery Point (AHIMS # 45-6-2737) located approximately 6.1 kilometres west of the study area.	Salvage excavation
Jo McDonald Cultural Heritage Management Pty Ltd	2011	An Aboriginal heritage assessment was conducted at the Discovery Point Precinct, located 6.1 kilometres west of the study area.	Aboriginal heritage assessment
Austral	2021	Austral conducted an Aboriginal Cultural Heritage Assessment for 104-116 Regent Street, Redfern, approximately 5.8 kilometres north-west of the study area.	ACHA
Curio Projects	2023	Curio Projects conducted an Aboriginal Cultural Heritage Due Diligence Assessment for the 'Bangalay' project, situated at 216-220 Wyndham Street Alexandria, approximately 4.9 kilometres north-west of the study area.	ACHDDA



Figure 4.2 - Location of studies undertaken in the vicinity of the study area

24048 - 130 Wentworth Avenue, Banksmeadow, NSW

Source: NSW LPI Aerial, AHIMS

Drawn by: FOT Date: 2024-08-21

POW PROJECT 1995 RANDWICK DESTITUTE CHILDREN'S ASYLUM CEMETERY 1997

Austral and Godden Mackay Consultants conducted a joint archaeological and physical anthropological investigation of the Randwick Destitute Children's Asylum Cemetery, located approximately 3.3 kilometres north-east of the study area. The cemetery was said to contain approximately 175 children's burials, the remains of 65 were recorded as part of the investigation.

The excavations also located an Aboriginal hearth and associated artefacts. Radiocarbon dating determined a dating range of 7,860 +/- 50 BP and 8,400 +/- 800 BP. The hearth was noted to be reconstructed at Yarra Bay House for educational purposes. It was noted that Aboriginal artefacts associated with the hearth were recovered, but their analysis is not included in this report.

SALVAGE EXCAVATIONS OF A POTENTIAL ABORIGINAL SITE – NPWS # 45-6-2637, 589-598 GEORGE STREET, SYDNEY 2002

Dominic Steele Consulting Archaeology was commissioned to conduct salvage excavations at 589-593 George Street, Sydney, located 7.3 kilometres north of the study area. Previously, an isolated shell deposit was identified at 589-593 George Street, Sydney and salvage excavations were to be undertaken to determine if the deposit was cultural or natural, and if they were pre-European or post-European.

The salvage excavations were undertaken in a study area that totalled approximately 1,880 m². One 1 metre x 1 metre test pit and one 1 metre x 0.5 metre test pit were excavated within the study area. A total of 177 fragments of shell, including 33 complete mud oysters (*Ostrea edulis*) and 24 complete rock oysters (*Saccostrea glomerata*) were identified within the shell lens.

After the salvage excavations, it was determined that the shell lens was of European origin and not Aboriginal origin.

METROGRID PROJECT – TEST EXCAVATION OF BURIED SHELL BED AT FRASER PARK, MARRICKVILLE, NSW – A PRELIMINARY REPORT ON THE FINDINGS 2003

Susan McIntyre-Tamwoy Heritage Consultant was commissioned to prepare a preliminary report for the findings of test excavations completed at Fraser Park, Marrickville, NSW, approximately 6.1 kilometres west of the study area. Previously, a shell bed had been identified at Fraser Park during geotechnical testing. Due to the archaeological significance of shell deposits in the Sydney region, archaeological test excavations were to be completed in the vicinity of the shell bed.

Five backhoe test pits were excavated within the shell bed. These test pits measured 1.7 metres long and 1 metre wide. These test pits were excavated to determine the extent of the shell bed and to determine if it was of natural or cultural origin.

All of the contents of the test pits were wet sieved and shell samples were sent off for carbon dating. Each test pit was excavated until a sterile clay base layer was reached. A total of 7,676 grams of shell material was excavated from the test pits.

As the shell bed was identified below the water table and was associated with a silty sand layer, it was concluded that it was of natural origin, and likely formed underneath water.

ABORIGINAL ARCHAEOLOGICAL EXCAVATION REPORT FOR NPWS SITE 45-6-2658 1-81 LITTLE BAY ROAD, LITTLE BAY, NSW 2003

Dominic Steele Consulting Archaeology conducted an archaeological excavation at 1-81 Little Bay Road, Little Bay located approximately 4.3 kilometres south-east of the study area. The test program consisted of the mechanical excavation of 15 test pits targeting the elevated land adjacent to a creek line within the study area of approximately 4.37 hectares of vacant land.

Two Aboriginal artefacts were identified, including a tuff hinged flake and a piece of tuff debitage or indeterminate tool type. No further finds were noted, and no further archaeological work was recommended.

ARCHAEOLOGICAL TESTING AND SALVAGE EXCAVATION AT DISCOVERY POINT, SITE # 45-6-2737 IN THE FORMER GROUNDS OF TEMPE HOUSE, NSW 2005

Jo McDonald Cultural Heritage Management conducted salvage excavations of Discovery Point (AHIMS # 45-6-2737) located approximately 6.1 kilometres west of the study area targeting a designated Zone of Potential Archaeological Sensitivity.

The excavation consisted of three phases of archaeological activities including backhoe testing, controlled hand-excavated test pits, and open-area salvage excavation. The excavation identified 387 Aboriginal artefacts, mainly consisting of flaked debitage pieces of silcrete. The salvage occurred on a westward trending slope, with test pits containing larger densities of artefacts on the upper and mid slopes of the landform. The most common tool type was backed blades, which were identified on the mid to low slopes of the landform. However, these were thought to be relocated into the study area due to the high frequency of small debitage pieces, the presence of heat treatment and no evidence of camping/burnt features.

ABORIGINAL HERITAGE ASSESSMENT – DISCOVERY POINT PRECINCT – STAGE I PROJECT APPLICATION 2011

Jo McDonald Cultural Heritage Management was commissioned to prepare an Aboriginal Heritage Assessment for the proposed development of the Discovery Point precinct, Wolli Creek, located 6.1 kilometres west of the study area.

Previous archaeological studies at Discovery Point had revealed intact archaeological deposits within the precinct. One of these sites, the Discovery Point archaeological site (AHIMS # 45-6-2737), was deemed to have high archaeological and cultural significance. A total of 389 stone artefacts were uncovered during salvage excavations at the site. The majority of these stone artefacts were manufactured from silcrete.

This site yielded a date of 10,700 years and was in a relatively undisturbed context. At the time of discovery, this site was the earliest known date for an Aboriginal occupation site. Jo McDonald Cultural Heritage Management identified four zones of archaeological potential, ranging from no archaeological potential to high archaeological potential.

104-116 REGENT STREET REDFERN NSW: ABORIGINAL CULTURAL HERITAGE ASSESSMENT 2021

Austral Archaeology conducted an Aboriginal Cultural Heritage Assessment for 104-116 Regent Street, Redfern, approximately 5.8 kilometres north-west of the study area. The background research and field survey concluded that the study area was not located within a landscape that could be considered to have been preferable for Aboriginal occupation. Additionally, the study area was found to have not been located within close proximity to water sources and its mid-slope position would not be suitable for occupation.

A field survey inspection identified that the entirety of the study area was covered by a variety of urban materials including concrete resulting in no visibility across the study area. No sites or areas containing potential archaeological material were identified within the study area, and no further works were recommended.

'BANGALAY' 216-220 WYNDHAM STREET ALEXANDRIA, ABORIGINAL OBJECTS DUE DILIGENCE ASSESSMENT 2023

Curio Projects conducted an Aboriginal Cultural Heritage Due Diligence Assessment for the 'Bangalay' project, situated at 216-220 Wyndham Street Alexandria, approximately 4.9 kilometres north-west of the study area. The report found that the study area was heavily disturbed in both the historical research and field survey. However, through the results of soil testing found that natural Tuggerah soils were present below modern fill. The study area was determined to have moderate potential and an ACHA was recommended to be undertaken for the study area.

KAMAY FERRY WHARVES, ABORIGINAL CULTURAL HERITAGE EXCAVATION REPORT

Austral (2024) was engaged by Mott MacDonald Pty Ltd (on behalf of McConnell Dowell) to conduct an Aboriginal cultural heritage salvage excavations at La Perouse, NSW. The excavated area was located on the La Perouse headland, in the suburb of La Perouse.

A total of 8 salvage pits across three transects were excavated. Four salvage pits were excavated till completion, with the remaining four abandoned due to the presence of asbestos. The salvage pits excavated to completion reached depths between 250 and 300 millimetres with a single salvage pit excavated to a depth of 600 millimetres.

No Aboriginal cultural heritage material was recovered during the salvage excavation. As a result of the salvage investigation, the entirety of the study area was reassessed as having a low archaeological potential (Austral Archaeology Pty Ltd 2024).

5. PREDICTIVE MODEL

Austral has recently completed a predictive model within the confines of Waterloo, a Sydney City suburb approximately 5 km to the north of the current study area (Austral 2024). This has been found to be within a similar landscape and historical disturbance context; therefore, the following consolidates data taken from both this report, and the preceding the archaeological and environmental context sections. Subsequently, this has been used 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. This 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 likely site types that will be encountered during the archaeological survey and archaeological testing.

5.1. ANALYSIS OF KEY VARIABLES

The AHIMS search that has been completed for this project has identified several trends in Aboriginal site feature distributions within the region, with recorded sites most commonly noted to contain artefact features (n=50, 49.02%). Further – and where identified – these were regularly composite sites containing shell materials (n=33, 66.0%), rather than in isolation (n=12, 24.0%).

However, 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 6 kilometres of the study area is included in Table 5.1.

Table 5.1 Summary of site features recorded within 6 kilometres of the study area.

Site Type	Occurrence	Frequency (%)
Artefact, Shell	30	29.41%
Art (Pigment or Engraved)	26	25.49%
Artefact	12	11.76%
Potential Archaeological Deposit (PAD)	12	11.76%
Burial	5	4.90%
Grinding Groove	2	1.96%
Artefact, PAD	2	1.96%
Aboriginal Ceremony and Dreaming, Artefact, Shell	1	0.98%

Site Type	Occurrence	Frequency (%)
Aboriginal Ceremony and Dreaming, Burial	1	0.98%
Aboriginal Resource and Gathering, Artefact, Non-Human Bone and Organic Material	1	0.98%
Art (Pigment or Engraved), Grinding Groove	1	0.98%
Art (Pigment or Engraved), Shell	1	0.98%
Artefact, Burial	1	0.98%
Artefact, Burial, Shell	1	0.98%
Artefact, Hearth	1	0.98%
Artefact, Non-Human Bone and Organic Material, Shell	1	0.98%
Habitation Structure, PAD	1	0.98%
Hearth, PAD	1	0.98%
Ochre Quarry	1	0.98%
PAD, Shell	1	0.98%
Total	102	100.00%

5.1.1. SOIL LANDSCAPE

The entirety of the current study area is located within the Tuggerah soil landscape. However, of the identified AHIMS sites, the majority are located within the GyMEA (n=40, 25.48%) and Hawkesbury (n=39, 18.47%) soil landscapes, respectively.

- The GyMEA soil landscape contains a majority of PAD sites (n=18, 11.46%) and artefacts (n=11, 7.01%), along with a small number of site features consisting of shell (n=6, 3.82%), burials (n=2, 1.27%), art (pigment or engraved) [n=1, 0.64%] and Aboriginal ceremony and dreaming (n=1, 0.64%) sites.
- The Hawkesbury soil landscape's AHIMS sites compares to the GyMEA soil landscape as containing a majority of PAD sites (n=11, 7.01%), but contrasts by its remaining sites containing art (pigment or engraved) sites (n=10, 6.37%), artefacts (n=7, 4.46%) and shell (n=6, 3.82%) sites. It also contains a small number of grinding grooves (n=2, 1.27%) and individual sites of Aboriginal resource and gathering sites, burials and water holes (n=1, 0.64% each).
- The Tuggerah landscape, where the study area is located, contains 18 (11.46%) previously recorded AHIMS sites, comprising artefacts (n=9, 5.73%), PADs (n=6, 3.82%) and individual sites of shell, art (pigment or engraved) and hearths (n=1, 0.64% each).

Figure 5.1 depicts the number of known local sites associated with the soil landscapes present in the wider region.

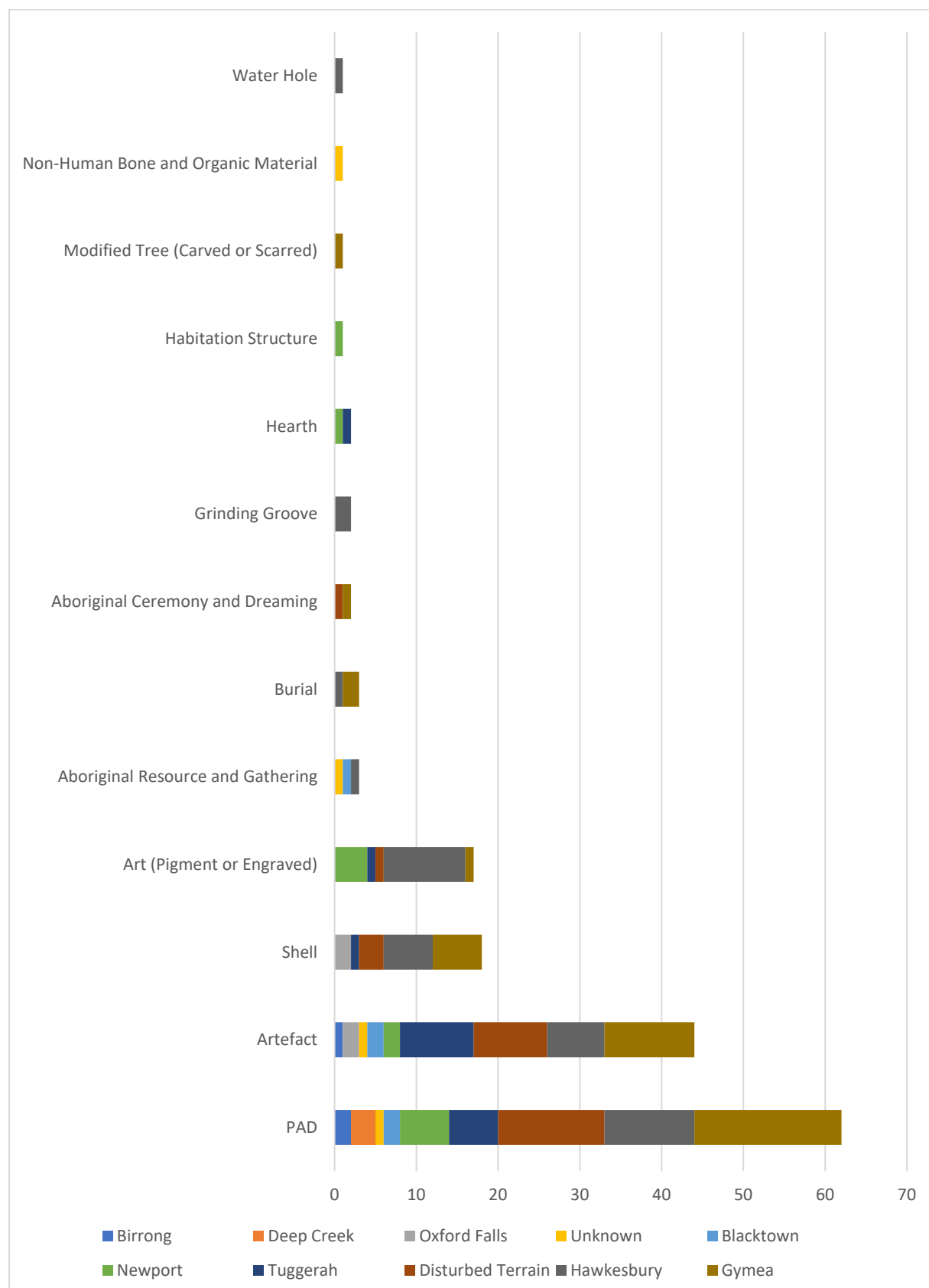


Figure 5.1 AHIMS sites in relation to identified soil landscapes in the region

5.1.2. GEOLOGY

The study area lies within the ‘coastal deposits – dune facies’ geological unit, which contains low levels of AHIMS sites (n=14, 8.92%). This is particularly evident when compared to the main geological unit in the region, being the ‘Hawkesbury Sandstone’ formation (n=94, 58.87%), which contains a majority of PADs (n=36, 22.93%), artefacts (n=21, 13.38%), art (pigment or engraved) [n=15, 9.55%] and shell [n=14, 8.92%] sites, along with a minority of burials (n=2, 1.27%), grinding grooves (n=2, 1.27%), and individual sites comprising of Aboriginal resource and gathering, Aboriginal Ceremony and Dreaming, modified trees and water hole sites (n=1, 0.64% each).

However, it is noted that the ‘coastal deposits – dune facies’ geological unit is shown by the datasets to be the landscape with the second highest recorded site densities, consisting of AHIMS sites such as artefacts (n=7, 4.46%) and PADs (n=5, 3.18%), and individual sites of shell and hearths (n=1, 0.64% each).

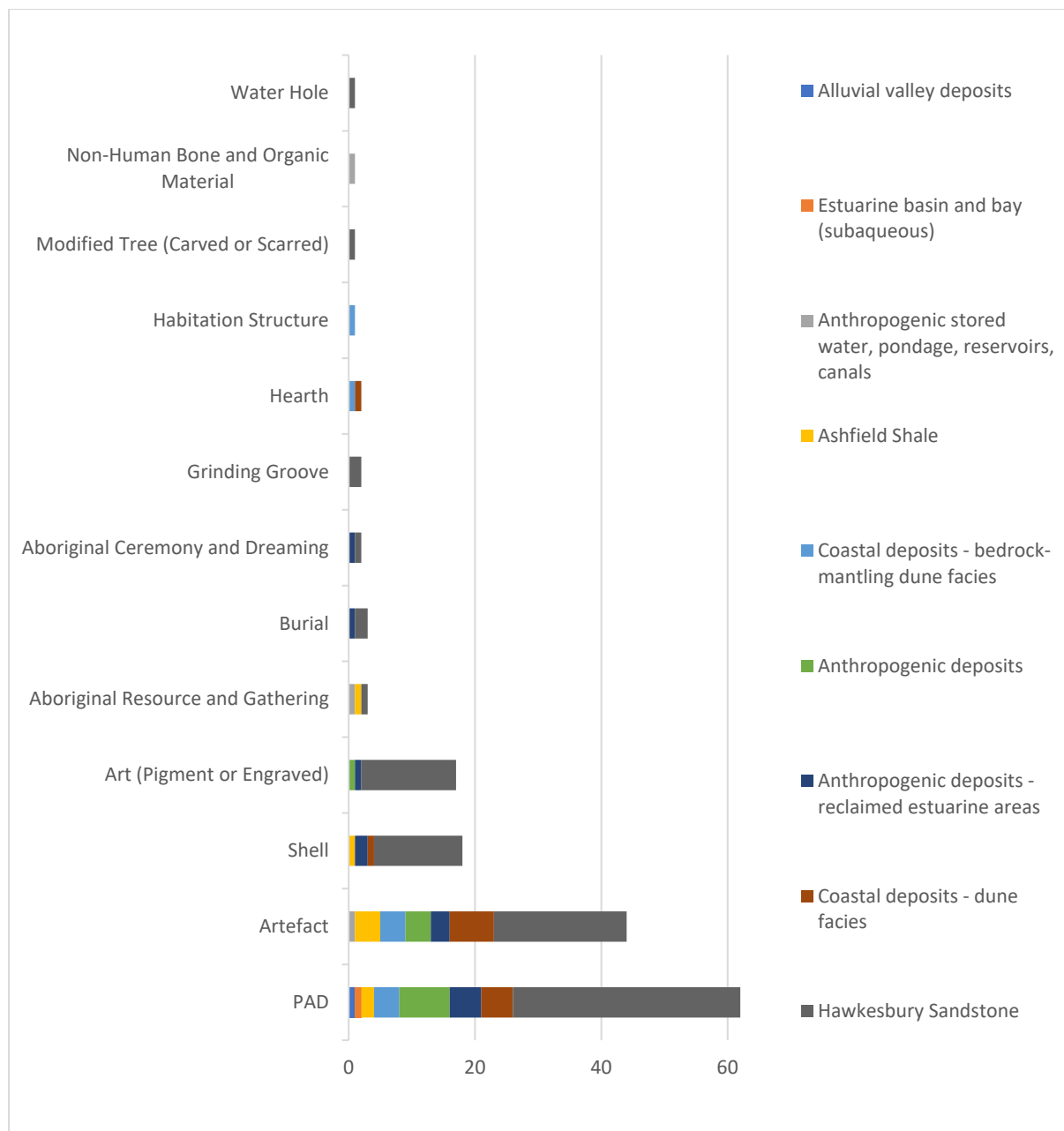


Figure 5.2 AHIMS sites in relation to identified geological units in the region

5.1.3. HYDROLOGY

DISTANCE TO WATER

Although there are limited watercourses adjacent to the study area, there are numerous creek lines and water bodies in the wider region – such as Shea's Creek – as well as various freshwater lagoons and ponds within Centennial Park.

Investigations into sites from the Waterloo dataset showed the highest number of sites are within 500 metres of watercourses and/or waterbodies, accounting for 24.20% (n=38) of registered sites. Although this is consistent throughout most site types, sites containing PADs are identified more frequently between 1,000 to 1,499 metres of water sources (n=14, 8.92%), while art (pigment or engraved) occur mostly between 1,000 to 1,999 metres (n=14, 8.92%). Lesser occurring sites, such as grinding grooves, hearths, habitation structures, modified trees and water holes, are seen to occur within 500 to 999 metres of water sources (Figure 5.4, Table 5.2).

The predictive modelling of the Waterloo, Banksmeadow, and wider Sydney area presents that site complexities and densities are undulating, showing a decrease in site feature compositions between 500 to 1,000 metres, and again following 2,000 metres from nearby water sources. Therefore, sites are more likely to occur between 0 to 499 metres, and between 1,000 and 1,999 metres, of a watercourse and/or waterbody.

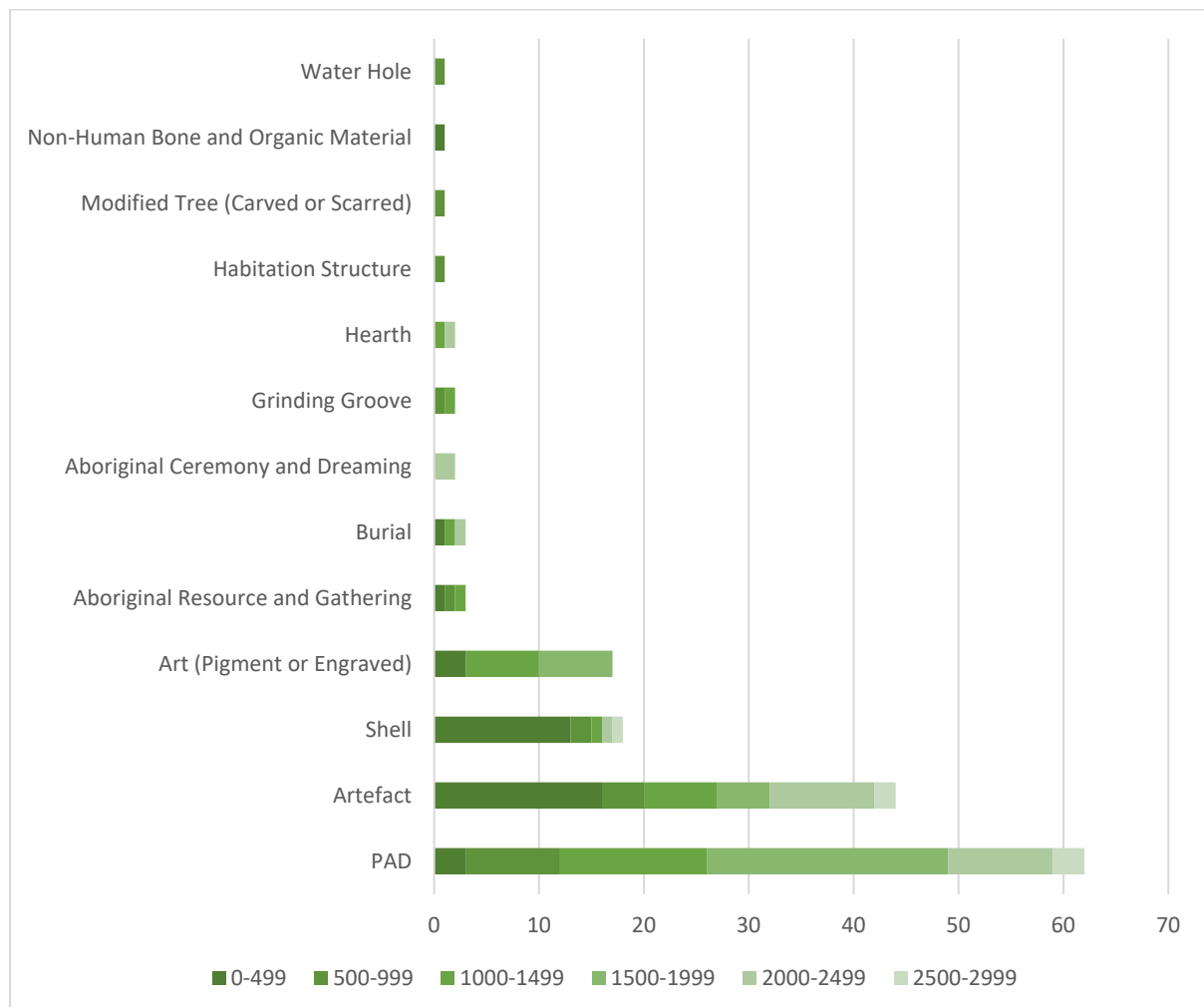


Figure 5.3 AHIMS sites in relation to distance (in metres) from hydrological sources

Table 5.2 Totalling of AHIMS sites in relation to distance (in metres) from hydrological sources

		Distance to Water (m)					
		0-499	500-999	1,000 – 1,499	1,500 – 1,999	2,000 – 2,499	2,500 – 2,999
Site Types	PAD	3	9	14	23	10	3
	Artefact	16	4	7	5	10	2
	Shell	13	2	1	0	1	1
	Art (Pigment or Engraved)	3	0	7	7	0	0
	Aboriginal Resource and Gathering	1	1	1	0	0	0
	Burial	1	0	1	0	1	0
	Aboriginal Ceremony and Dreaming	0	0	0	0	2	0
	Grinding Groove	0	1	1	0	0	0
	Hearth	0	0	1	0	1	0
	Habitation Structure	0	1	0	0	0	0
	Modified Tree (Carved or Scarred)	0	1	0	0	0	0
	Non-Human Bone and Organic Material	1	0	0	0	0	0
	Water Hole	0	1	0	0	0	0
	Total	38	20	33	35	25	6
	Percentage (%)	24.20	12.74	21.02	22.29	15.92	3.82

PERENNIAL AND NON-PERENNIAL STREAMS

A majority of identified AHIMS sites are located within proximity to non-perennial watercourses (n=102, 64.97%). Site features commonly identified within this stream type include PADs (n=54, 34.39%), artefacts (n=26, 16.56%) art (pigment or engraved) [n=9, 5.73%], burials (n=2, 1.27%), Aboriginal Ceremony and Dreaming (n=2, 1.27%), hearths (n=2, 1.27%) and habitation structures (n=1, 0.64%).

The remaining site types are more likely to be found within proximity to perennial streams, comprising shell (n=14, 8.92%), Aboriginal Resource and Gathering (n=2, 1.27%), modified trees (n=1, 0.64%), non-human bone and organic material (n=1, 0.64%) and water holes (n=1, 0.64%). Figure 5.5 depicts the amount of AHIMS site types associated with perennial and non-perennial water sources.

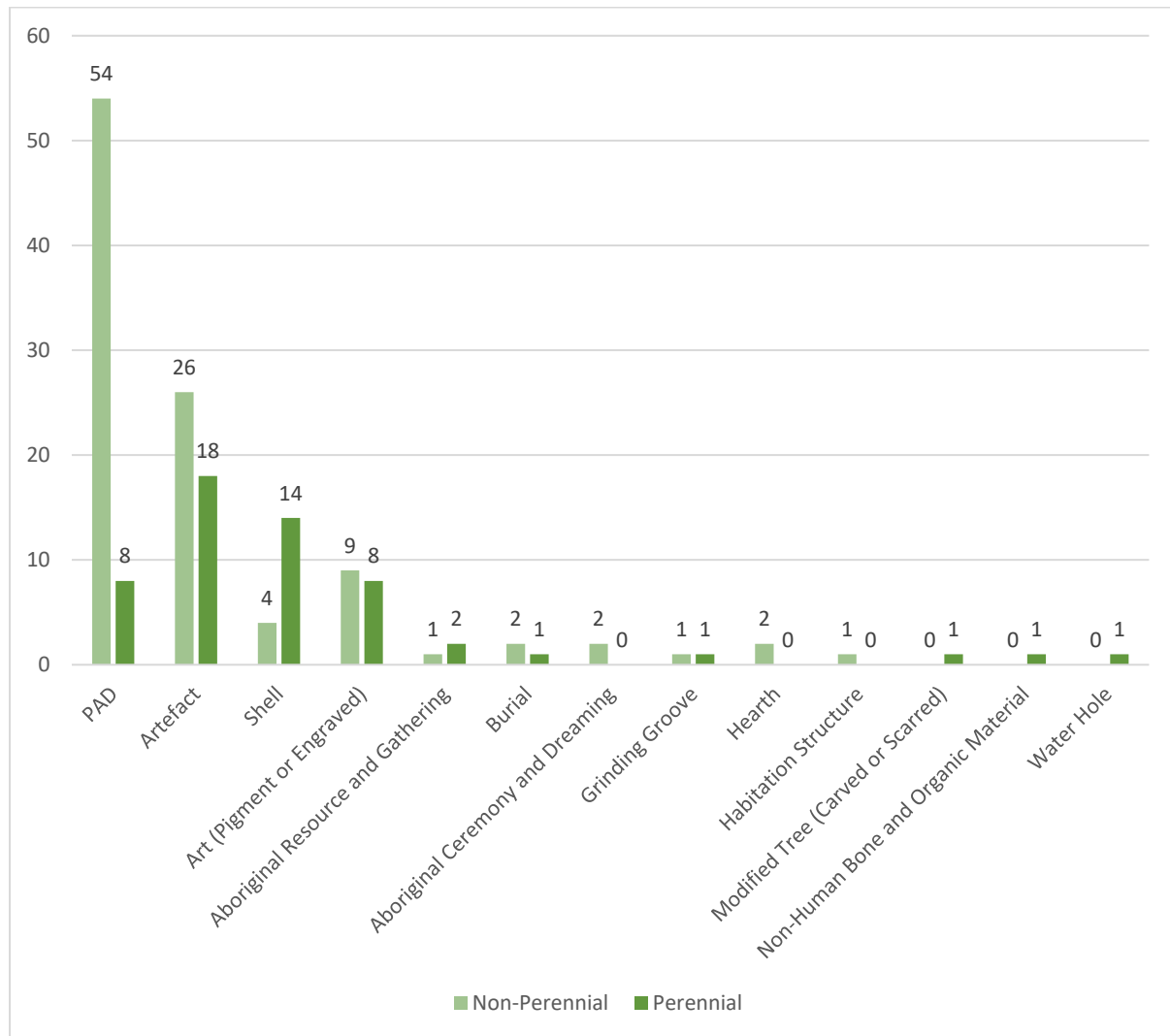


Figure 5.4 AHIMS sites in relation to non-perennial and perennial water sources

STRAHLER'S STREAM ORDER

An analysis of AHIMS sites in relation to Strahler's stream order was undertaken to identify the type of watercourses in proximity to the study area. The definition of each stream order identified within the region of the study area is provided in Table 5.3.

Table 5.3 Description of Strahler's stream order (taken from Water NSW 2023, p.1)

Strahler Stream Order	Description
1st Order Stream	<i>Starting at the top of a catchment, any watercourse that has no other watercourses flowing into it is classed as a first-order stream.</i>
2nd Order Stream	<i>Where two first-order streams join, the stream becomes a second-order stream. If a second-order stream is joined by a first-order watercourse – it remains a second-order stream.</i>
3rd Order Stream	<i>When two or more second-order streams join they form third-order streams.</i>
4th Order Stream	<i>A third-order stream does not become a fourth-order stream until it is joined by another third-order stream.</i>

The analysis identified that a large majority of previously recorded AHIMS sites are located in proximity to first-order streams, comprising 71.97% (n=114) of the total results. Most site features are found along these stream orders, however, site types including shell (n=12, 7.64%), Aboriginal resourcing and gathering (n=2, 1.27%), grinding grooves (n=1, 0.64%), modified trees (n=1, 0.64%), non-human bone and organic material (n=1, 0.64%) and water holes (n=1, 0.64%) are more commonly identified along second-order streams.

With regard to Shea's Creek, and in particular the site types commonly found along this stream order, the Waterloo dataset indicates the following:

- PADs, artefacts, art (pigment or engraved), Aboriginal ceremony and dreaming, burials, hearths and habitation structures are more likely to be identified.

Figure 5.6 depicts the amount of AHIMS site types associated with Strahler's stream order classifications.

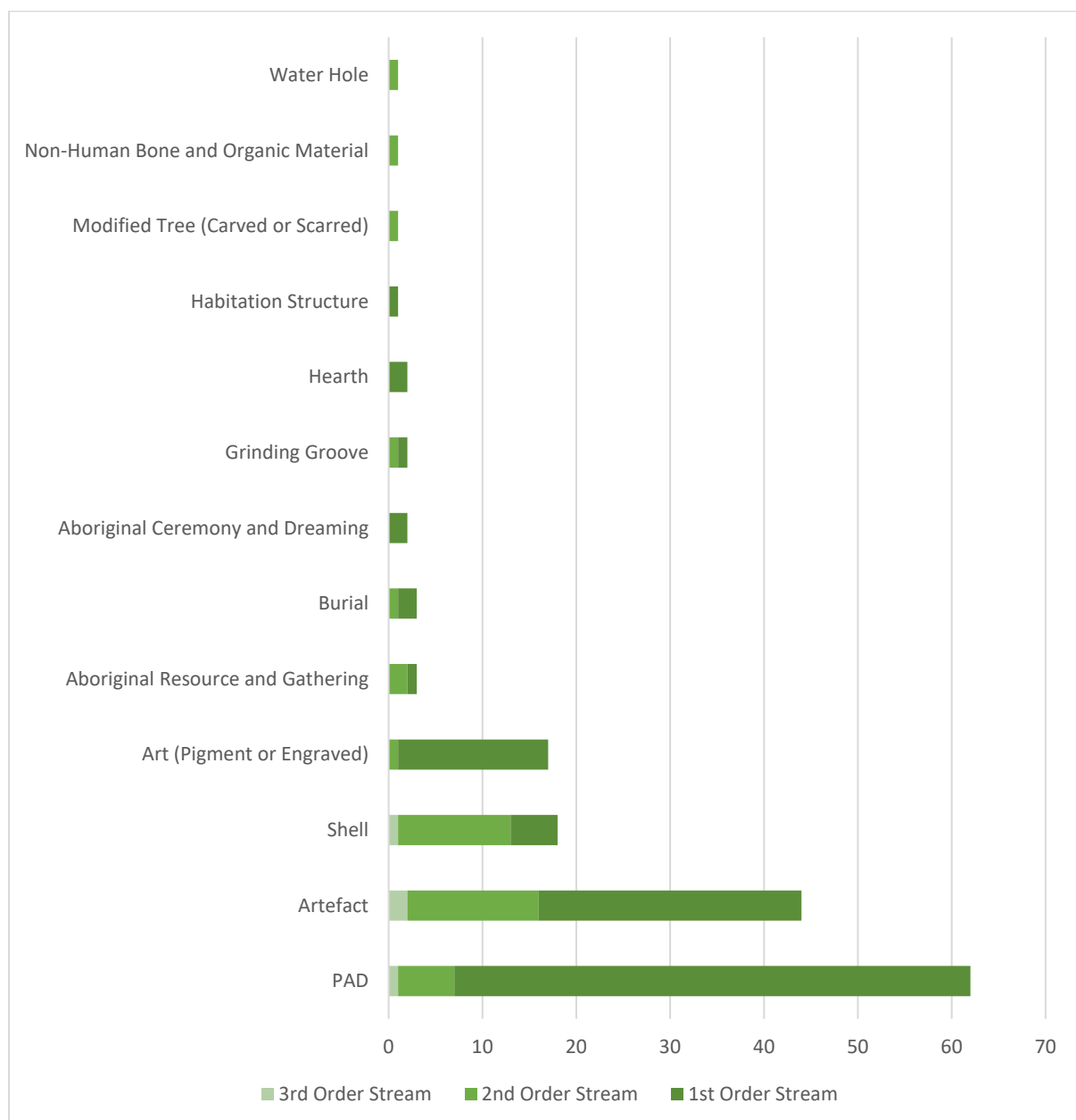


Figure 5.5 AHIMS sites in relation to the proximity of stream orders

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 and Jasiewicz 2011, Jasiewicz and Stepinski 2013). An overview of the landform classifications used by the algorithm is detailed in Figure 5.6.

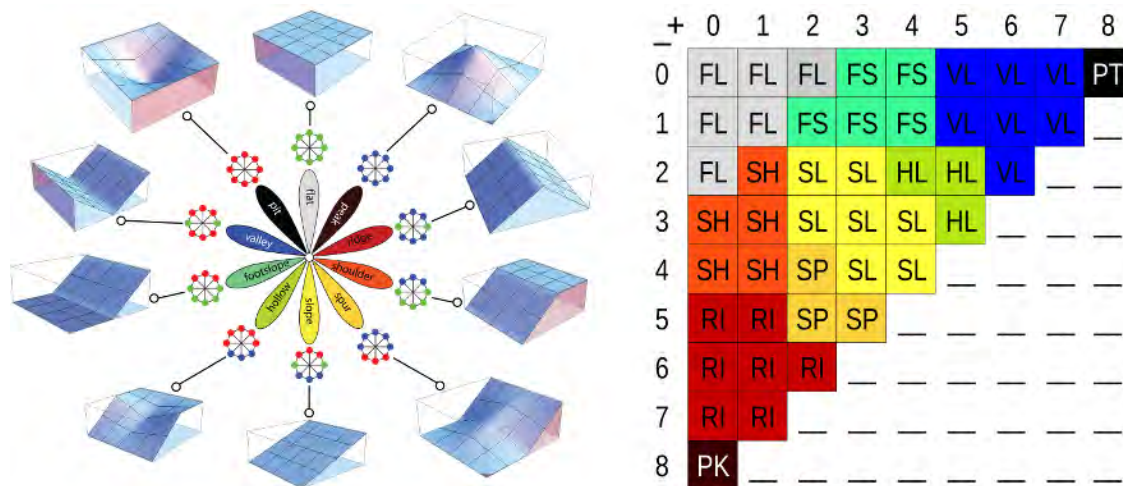


Figure 5.6 Examples of landform definitions by geomorphons

Based on these landform definitions, the majority of sites within the region are located within flat (n=36, 22.93%), footslope (n=35, 22.30%), and valley (n=25, 15.92%) landforms, with the study area containing both flat and footslope landscapes (Figure 3.1). Previously recorded AHIMS site types vary minimally throughout each of the major landform types, with PADs being the most common within valleys (n=15, 9.55%) and footslopes (n=12, 7.64%), while artefacts are the dominant site type in flat landforms (n=15, 9.55%). Figure 5.7 depicts the amount of AHIMS site types associated with landform units within the region.

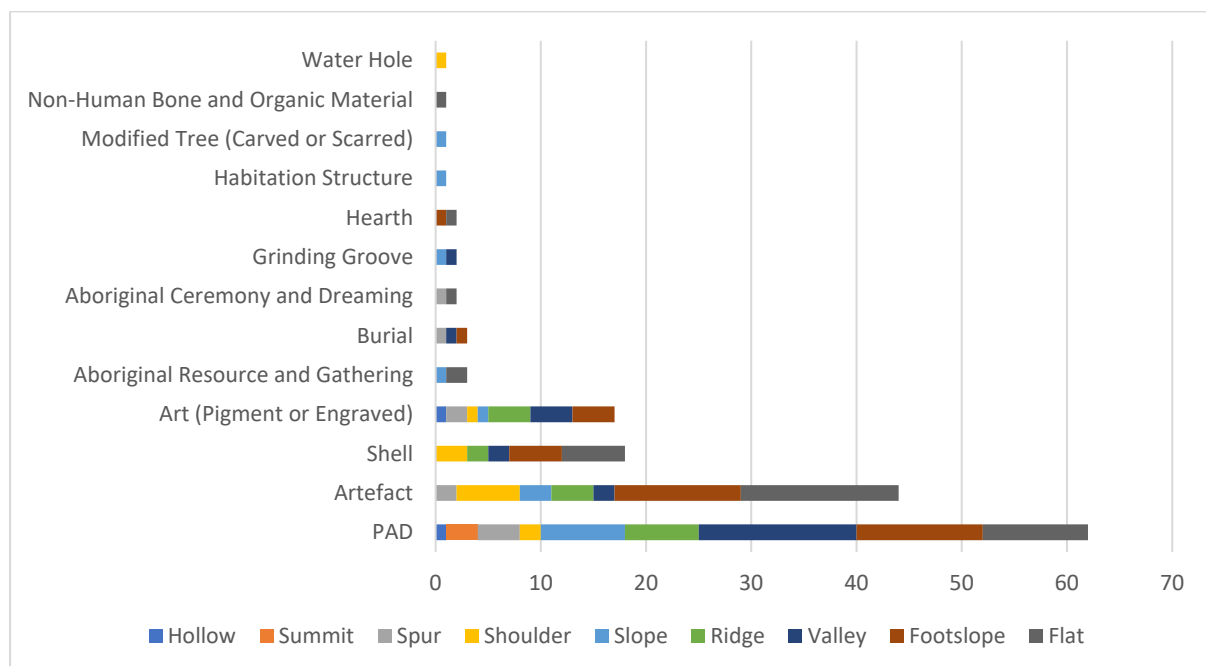


Figure 5.7 AHIMS sites in relation to present landform units

5.1.5. ANALYSIS OF THE KNOWN SITES IN THE LOCALITY

As most known sites within the locality are PADs and artefacts, Austral has undertaken an analysis of excavated sites associated with identified PADs and artefact assemblages to provide a detailed breakdown of the anticipated density and composition of lithic assemblages in the locality. One salvage excavation was undertaken by Jo McDonald Cultural Heritage Management (2005) of Discovery Point (AHIMS # 45-6-2737), located approximately 6.1 kilometres west of the study area. This identified 387 artefacts, mainly consisting of flaked debitage pieces of silcrete (83%) [Jo McDonald Cultural Heritage Management 2005, p. 63]. Details from these excavations are summarised in Table 5.2.

Table 5.4 Composition and density of local lithic assemblages

Site name	No. test pits	Test pits w/ artefacts	Total ex. (m ²)	Total artefacts	Max artefact density	Average artefact density
Discovery Point (AHIMS # 45-6-2737)	40	37	39 m ²	387	57 artefacts/m ²	9 artefacts/m ²

The salvage occurred on a westward trending slope, with test pits containing larger densities of artefacts on the upper and mid slopes of the landform. The most common tool type was backed blades (6.7%), which were identified on the mid to low slopes of the landform, which was a higher frequency when compared to surrounding artefact assemblages in the region (Jo McDonald Cultural Heritage Management 2005, p. 62). However, these were thought to be relocated into the study area due to the high frequency of small debitage pieces, the presence of heat treatment and no evidence of camping/burnt features. A representation of artefact types is contained in Figure 5.8.

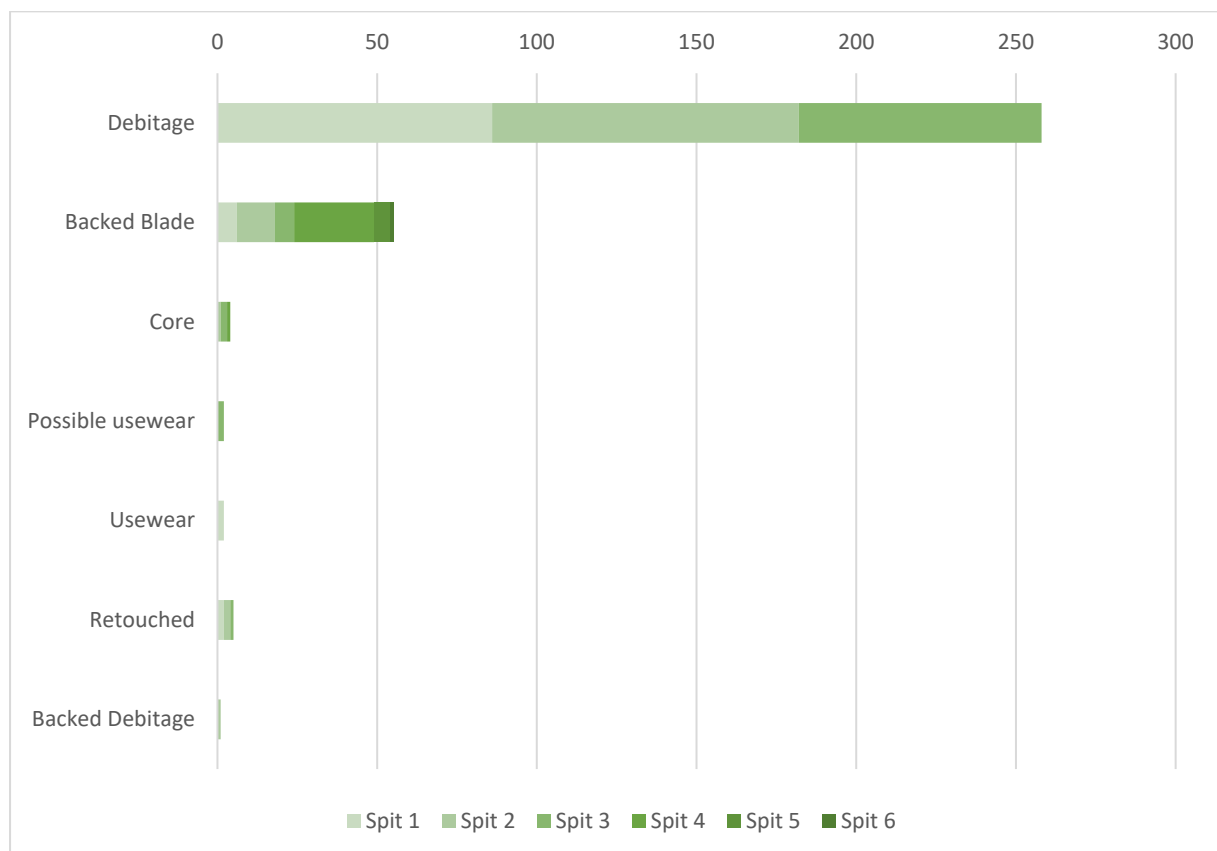


Figure 5.8 Artefact types per spit from Discovery Point (AHIMS # 45-6-2737) salvage.

In terms of raw material types, silcrete is the dominant raw material in the salvaged assemblage (n=265, 68.48%). This was identified mostly within the first 30 centimetres of the salvage excavations. A representation of raw material types is contained within Figure 5.9.

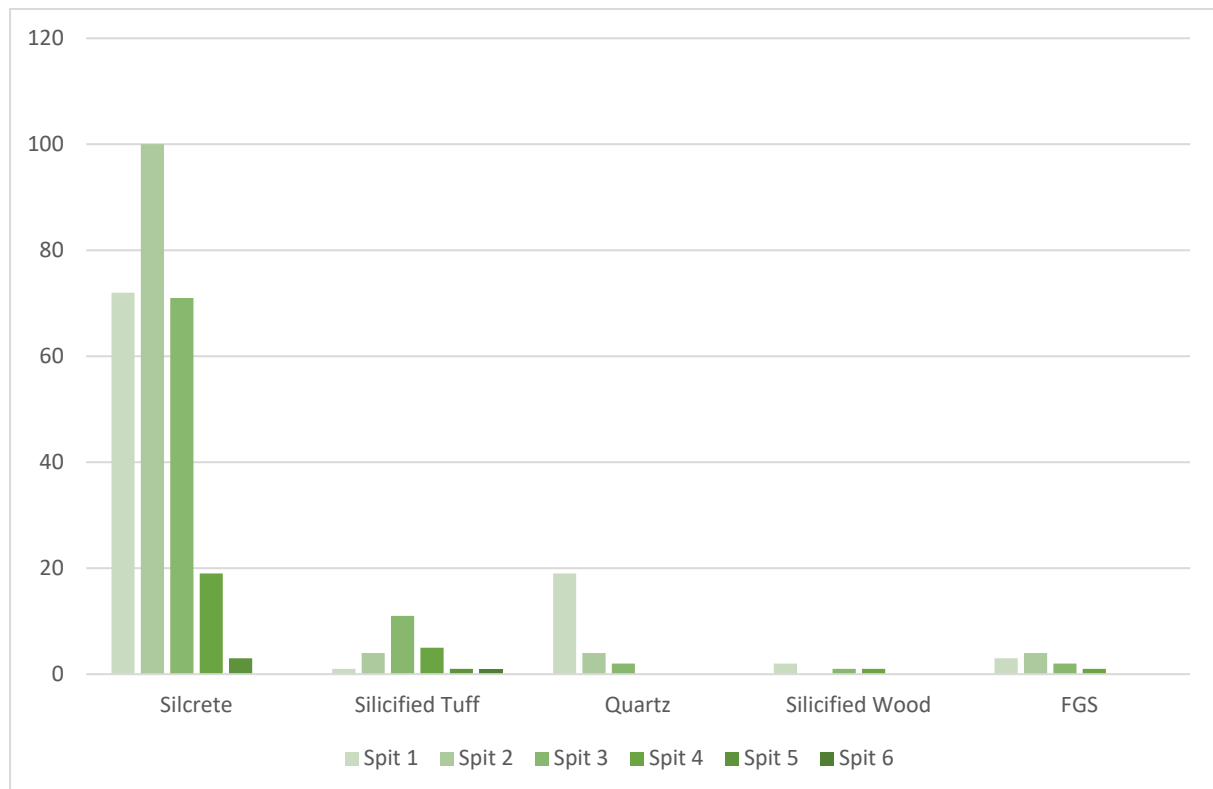


Figure 5.9 Raw material types identified within AHIMS #45-6-2737, categorised by spit.

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 artefact sites, with moderate representations of shell and art (pigment or engraved) site features.
- There are low frequencies of Aboriginal Resource and Gathering, burial, Aboriginal Ceremony and Dreaming, grinding groove, hearth, habitation structure, modified tree (carved or scarred), non-human bone and organic material and water hole sites.
- Most sites are located on first-order, non-perennial streams.
 - Known sites are likely to occur within 500 metres of a watercourse and increase in frequency between 1 to 2 kilometres of watercourses.
- Whilst sites may be located in a variety of landform contexts, most sites are located within flats (n=36, 22.93%), and foot slopes (n=35, 22.29%).
- Maximum artefacts densities of up to 57 artefacts per metre² have been encountered within approximately 6 kilometres of the study area. In general, average densities have been between low, at 7 artefacts per metre².
- The lithic assemblages are likely to be dominated by silcrete, which is the most common material in the salvaged assemblage reviewed as part of this assessment. Other raw material types likely to be present to varying degrees include quartz and fine-grained siliceous (FGS).

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 2011a).

6.1. SURVEY METHODOLOGY

The survey was conducted on 27 August 2024 by Jake Allen (Archaeologist, Austral) with assistance from Steven Ella from the La Perouse Local Aboriginal Land Council. The inspection began in the south-east corner of the property and followed the perimeter in a clockwise manner.

6.1.1. SURVEY OBJECTIVES

The objectives of the survey were to:

- Complete a systematic survey to identify areas of potential to contain Aboriginal heritage values.
- Identify and record Aboriginal archaeological sites visible on the ground surface and areas of PAD if present.

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, which included:

- Modified Flat
- Depression
- Slope
- Hillock

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 2011a) and based upon consideration of the overall landform pattern within the study area, known landform elements (after Speight 2009) and the location of the previously identified sites. The survey targeted portions of the study area.

6.1.3. SURVEY METHODS

The archaeological survey consisted of pedestrian traverses completed by one team member. A key survey variable is ground visibility, which considers the amount of ground surface that is not covered by any vegetation; and exposure, which defines areas where dispersed surface soils and vegetative matter afford a clear assessment of the ground, 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.

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 GSV and is usually a percentage estimate of the ground surface that is visible and allows for the detection of (usually stone) artefacts that may be present on the ground surface (DECCW 2011a). Generally, the study area exhibited 10% GSV in the grassed areas, and 0% along sealed and concreted sections.

7.1.2. EXPOSURE

Exposure refers to those parts of the surveyed landforms whose 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 2011a). Exposure within the study area was limited, with 10% exposure for the majority of the study area including grassed areas. There was 0% exposure in paved areas.

7.1.3. DISCUSSION OF RESULTS

The archaeological survey began in the southeast corner of the property and followed the perimeter in a clockwise manner. The survey began at the entrance of the study area and noted limited GSV due to the concreted road and adjacent car park (Figure 7.1). Also noted in this area were drainage grates, suggesting sub-surface disturbance during the construction of current buildings. The survey noted areas of visible soil in garden beds (Figure 7.2), however, these are modified, and no artefactual material was identified. As the survey continued, further underground amenities were noted associated with the current buildings within the study area (Figure 7.3). Following an area of moderate exposure (Figure 7.4), two juvenile fig trees were identified among floral resources (Figure 7.5). It was concluded that the age of the trees was not sufficient to suggest cultural significance, and no artefactual material was identified in this area.

Continuing in a clockwise direction around the study area, further underground piping and related amenities were noted along with modern fill (Figure 7.6, Figure 7.7, Figure 7.8). Further areas of the modified ground surface were noted, including concreted access roads and minor grass areas that suggested modification in preparation for the construction of current structures (Figure 7.9, Figure 7.10, Figure 7.11).

The southern section of the study area included a slope (Figure 7.12) adjacent to an additional car park and further underground drainage (Figure 7.13 and Figure 7.14). Minor landforms within the study area were identified in this area including hillocks (Figure 7.15) and a nearby area with vegetation (Figure 7.16). The tree noted by the RAP on site during the survey – as detailed in Section 2.4.2 – is shown in Figure 7.17.

It was noted throughout the survey that the study area had been subjected to an extensive history of prior disturbances. This includes the installation of subsurface drainage and utilities, the sealing of areas for car parks and access roads, and natural landform modification. The survey concluded that the study area has low potential, and testing is not recommended.



Figure 7.1 North-east facing view of concreted road and underground drainage (2 m scale).



Figure 7.2 North facing view showing typical GSV in vegetated sections of study area (2 m scale).



Figure 7.3 East-south-east facing view evidencing subsurface utilities and disturbance (1 m scale).



Figure 7.4 South-east facing view detailing area of exposure to north of warehouse (2 m scale).



Figure 7.5 North-west facing view detailing remnant on-site vegetation.



Figure 7.6 North facing view of evidencing subsurface piping and disturbance (2 m scale).



Figure 7.7 North facing view of current infrastructure within study area (2 m scale).



Figure 7.8 East facing view of modern fill in areas of exposure.



Figure 7.9 South facing view of concreted access road (2 m scale).



Figure 7.10 South-east facing view of ground surface visibility adjacent to structures (2 m scale).



Figure 7.11 South facing view of landscaped gardens (2 m scale).



Figure 7.12 North facing view of the slope within study area (2 m scale).



Figure 7.13 East facing view of underground drainage and paved car park (2 m scale).



Figure 7.14 North facing view of concreted car park and access roads (2 m scale).



Figure 7.15 North-east facing view of hillocks within study area (2 m scale).



Figure 7.16 West facing view of grass area and associated vegetation (2 m scale).



Figure 7.17 North-facing view showing tree identified by site officer during survey.

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, Table 7.2, and Figure 7.18.

Table 7.1 Survey coverage

Survey unit	Landform	Survey unit area (m ²)	Visibility (%)	Exposure (%)	Effective coverage area (m ²)	Effective coverage (%)
1	Modified	7,044	10	10	70.44	0.01

Table 7.2 Landform summary

Landform	Landform area (m ²)	Area effectively surveyed (m ²)	% of landform effectively surveyed	No. sites	No. artefacts / features
Hillock	415	2.64	0.64	0	0
Modified flat	37,130	64.86	0.17	0	0
Slope	5,410	2.94	0.05	0	0

7.1.4. LIMITATIONS

No limitations were identified during the archaeological survey.

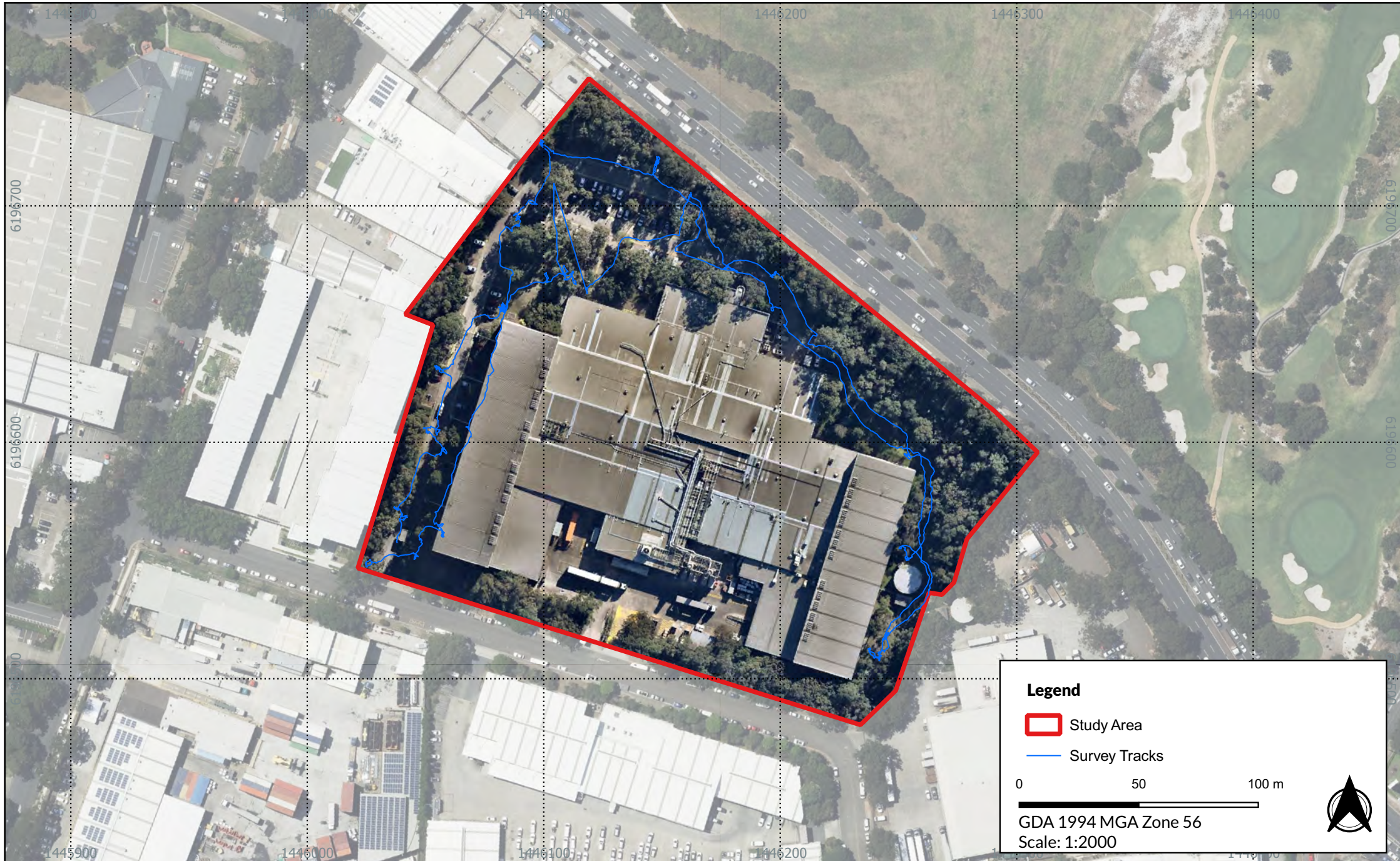


Figure 7.18 - Survey results

24048 - 130 Wentworth Avenue, Banksmeadow - ACHA

Source: Nearmap, NSW LPI Aerial

Drawn by: ARH Date: 2024-09-03

8. 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.

8.1. 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 8.1 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.

Value	Definition
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 criterion 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 (NSW Heritage Office 2001, Australian Heritage Council and DEWHA 2009, DECCW 2011a, OEH 2011).

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 8.2 Gratings 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.

8.2. ASSESSMENT OF SIGNIFICANCE

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

8.2.1. 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 contains a disturbed modified flat due to previous constructions of a warehouse. The remainder of the study area is moderately to highly disturbed by the warehouse's associated facilities such as subsurface utilities and concrete car parks. Any aesthetic values associated with the natural vegetation and original landscape have been removed from the study area.

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

8.2.2. 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.

There are no recorded historical values associated with the local Aboriginal people within the study area.

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

8.2.3. 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 life-ways 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 archaeological review of the property has concluded that the study area generally exhibits low archaeological potential; further, the visual inspection identified no artefact materials.

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

8.2.4. 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.

Kadibulla Khan of Kamilaroi Yankuntjatjara Working Group returned a response stating that the study area:

“...is highly sensitive as ancestors walked this land before us and practiced law had a kinship, caring and managed the land to provide an abundance of resources to thrive off. With this in mind the thousands of years of occupation by the Aboriginal people for tens of thousands of years.

The County is highly likely to be utilised for its natural environment. Even if its disturbed we have intangible aspects that we relate to. Our people would have travel along this country there is nearby water ways our people could have camped. Of course, where there is the living there is the dead burials are all over and can be found anywhere.”

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

8.3. 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).

As no Aboriginal sites nor areas of cultural significance/potential have been identified, the study area is considered to exhibit generally low archaeological significance.

9. 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 2011a, OEH 2011).

9.1. LAND USE HISTORY

The study area is found within an area under constant artificial change. The study area has been subject to extensive clearing, cultivation, and other related agricultural practices, residential and industrial development and subsequent demolition.

Table 9.1 Summary of past land use within the study area.

Past land uses	Potential impacts on archaeological resources
Historical land clearance	The study area has been impacted by a loss of mature native trees, shrubs and grasses which could have led to the loss of scarred trees, increased erosion and potential dispersal and/or disturbance of surface and subsurface artefacts across the landforms.
Construction of warehousing and water storage facilities	The construction, use and maintenance of various buildings and warehouses within the study area would have resulted in severe ground disturbance, as well as installation of the various subsurface utilities such as reticulation. The continued use of this area over much of the 20 th Century can cause surface and subsurface artefacts and archaeological deposits to move from their original contexts.
Demolition activities	The demolition of buildings and warehouses within the study area would have allowed for further disturbance to areas within the study area subject to stockpiling of materials, the use of informal access tracks by heavy machinery and the removal of some subsurface utilities and building footings. These demolition activities can damage and displace artefacts and any other subsurface archaeological deposits.

9.2. PROPOSED ACTIVITY

The proposed SSDA seeks approval for the following:

- Demolition of the existing buildings and hardstand;
- Site preparation works, including earthworks;
- Associated landscaping and tree removal;
- Construction of a multi-level car park;
- Construction and operation of warehouse and distribution centre within a two-storey building including ancillary office space;
- Business identification signage and wayfinding signage.

9.3. ASSESSING 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).

9.3.1. ECOLOGICALLY SUSTAINABLE DEVELOPMENT

An objective of the NPW Act, under Section 2A(1)(b)(i) is to:

“[conserve] places, objects and features of significance to Aboriginal people”

Further to that, the Act states that these objectives are to be carried out 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 that the present generation has a responsibility to ensure the health, diversity and productivity of the environment for the benefit of future generations. The 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.

9.3.2. 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 2010d, p. 21).

Table 9.2 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.

9.4. IMPACT ASSESSMENT

This ACHA has included a programme of investigations that have not identified any Aboriginal sites, or areas of archaeological potential. Therefore, no Aboriginal sites will be impacted by the proposed works, directly or indirectly.

10. AVOIDING AND MINIMISING HARM

“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).

The Burra Charter advocates a cautious approach to change. 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.

10.1. DEVELOPMENT OF PRACTICAL MEASURES TO AVOID HARM

Practical measures are strategies that protect cultural heritage and/or reduce harm to sites that meet the expectations of RAPs within the requirements of the proponent. The impact assessment identified that no Aboriginal sites will be impacted by the proposed works, and therefore, all known sites in the area can be avoided.

10.2. PRINCIPLES OF ESD AND CUMULATIVE IMPACTS

It is a requirement under the Guide (OEH 2011) that an assessment of Aboriginal cultural heritage values considers the cumulative impact of developments associated with the study area and its environs. This must be undertaken in accordance with the principles of ESD.

It is noted that the Sydney landscape has been subject to centuries of urbanisation, which places pressure on the archaeological resources therein. To assess the outcomes and natures of these impacts, Austral has undertaken a review of the AHIMS sites that have been listed in association with a current or former AHIP. This dataset is based on the AHIMS search detailed in Sections 4.2.2 and 5 above (Table 10.1).

Table 10.1 Analysis of AHIMS sites with AHIPs issued.

Site types	No. Sites	No. sites with AHIPs	% Sites with AHIPS
Artefact, Shell	30	7	23.33
Art (Pigment or Engraved)	26	2	7.69
Artefact	12	8	66.67
Potential Archaeological Deposit (PAD)	12	6	50.00
Burial	5	1	20.00
Grinding Groove	2	2	100.00
Artefact, PAD	2	1	50.00
Aboriginal Ceremony and Dreaming, Artefact, Shell	1	0	0.00
Aboriginal Ceremony and Dreaming, Burial	1	0	0.00
Aboriginal Resource and Gathering, Artefact, Non-Human Bone and Organic Material	1	1	100.00
Art (Pigment or Engraved), Grinding Groove	1	1	100.00
Art (Pigment or Engraved), Shell	1	0	0.00

Site types	No. Sites	No. sites with AHIPs	% Sites with AHIPs
Artefact, Burial	1	0	0.00
Artefact, Burial, Shell	1	1	100.00
Artefact, Hearth	1	1	100.00
Artefact, Non-Human Bone and Organic Material, Shell	1	0	0.00
Habitation Structure, PAD	1	1	100.00
Hearth, PAD	1	0	0.00
Ochre Quarry	1	1	100.00
PAD, Shell	1	0	0.00
Total	102	33	32.35

This analysis does indicate that, generally, cumulative impacts on archaeology in the vicinity of the study area trend towards conservation. In total, approximately 32.4% (n=33) of recorded sites are listed in association with an AHIP, indicating that these have been subject to successive approvals. However, this analysis does appear to indicate that – locally – PAD and artefact sites are most at risk, with these features identified as being impacted in 50.0% (n=8) and 38% (n=19), respectively.

In order to expand upon this, the AHIMS sample was additional analysed against the current or proposed zoning of their GPS location. The purpose of this analysis is to determine the volume of sites within land zones that have been, or are likely to be, subject to progressive development. For the purposes of this assessment, it is assumed that zonings for residential use, businesses, and industry are more at risk; while sites zoned for environmental conservation, recreational use, and rural housing are less likely to be harmed (Table 10.2). It is noted that the land zoning associated with 8 sites could not be confirmed, and that these have been omitted.

Table 10.2 Analysis of AHIMS site distributions relative to land zonings.

Land zone classification	No. sites	Frequency (%)
<i>Protected</i>		
Public Recreation	32	34.04
National Parks and Nature Reserves	24	25.53
Special Activities	3	3.19
Environmental Conservation	3	3.19
Private Recreation	2	2.13
Sub total	64	68.09
<i>At Risk</i>		
Medium Density Residential	9	9.57
Low Density Residential	7	7.45
Infrastructure	6	6.38

Land zone classification	No. sites	Frequency (%)
General Industrial	4	4.26
Business Zone – Mixed Use	1	1.06
Deferred Matter	1	1.06
Enterprise Corridor	1	1.06
General Residential	1	1.06
Sub total	30	31.91
TOTAL	94	100.00

Table 10.2 further supports the findings put forward in Table 10.1; that is, that sites in the vicinity of the study area are generally in locations that trend towards conservation – not destruction.

10.3. STRATEGIES TO MINIMISE HARM

As the proposed development will not harm any known Aboriginal sites and the study area is considered to hold low archaeological potential, no strategies to minimize harm are needed.

11. 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 findings of the archaeological survey.

It is recommended that:

1. No further assessment or works are required to be undertaken for the study area with regards to Aboriginal cultural material.
2. 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. 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 NPW 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, 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.
3. It is recommended that ESR Developments (Australia) Pty Ltd 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 a period of 6 months and must be maintained after this by the proponent for it to remain continuous.
 - a. If a gap of more than 6 months occurs, then the consultation will not be suitable to support an AHIP for the project.
4. 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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APPENDICES

APPENDIX A – AHIMS SEARCH RESULTS

Austral Archaeology

148 Tongarra Road

Albion Park New South Wales 2527

Attention: Zoe Bosevski

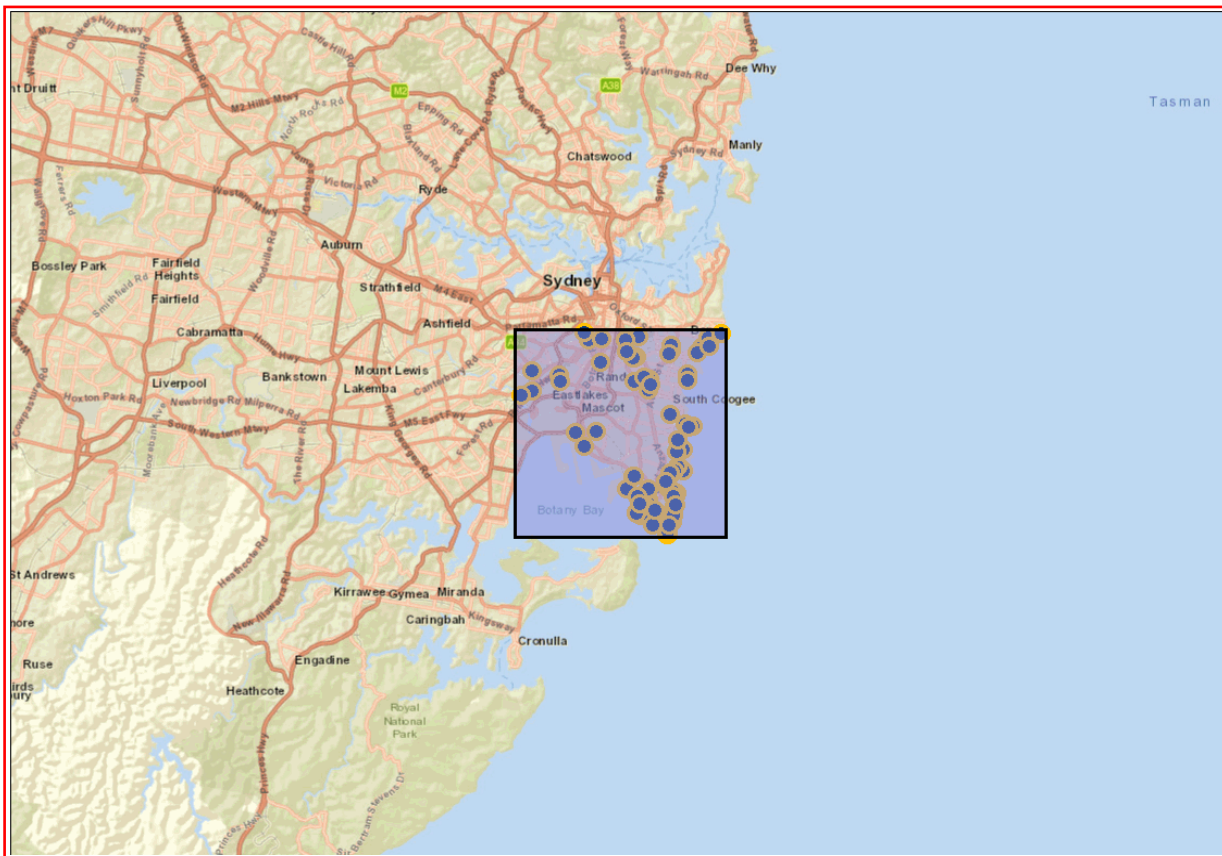
Email: zoeb@australarch.com.au

Date: 12 August 2024

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 329379.0 - 341424.0, Northings : 6236345.0 - 6248455.0 with a Buffer of 0 meters, conducted by Zoe Bosevski on 12 August 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

103	Aboriginal sites are recorded in or near the above location.
2	Aboriginal places have been declared in or near the above location. *

ID	Aboriginal Place Name
130	Coast Hospital Cemetery Resting Place
143	Former La Perouse Aboriginal Mission

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 24048

Client Service ID : 918875

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-6-1947	Tamarama Beach Cave;	AGD	56	339990	6247380	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	
	<u>Contact</u>	<u>Recorders</u>	Michael Guider					<u>Permits</u>		
45-6-1762	Congwong Beach;	AGD	56	336900	6237400	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	Gavin Gatenby					<u>Permits</u>		
45-6-0659	La Pouse	AGD	56	337011	6238281	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	Unknown Author					<u>Permits</u>		
45-6-3812	FZ 23 artefact scatter	GDA	56	336278	6246940	Open site	Destroyed	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Artefact Heritage and Environment - Pyrmont,Artefact Heritage and Environment -							<u>Permits</u>
45-6-2156	Little Bay 4;	AGD	56	338490	6237600	Open site	Valid	Artefact : -, Shell : -, Aboriginal Ceremony and Dreaming : -		102147
	<u>Contact</u>	<u>Recorders</u>	Elizabeth Rich					<u>Permits</u>	3109	
45-6-2060	South Bondi Cave;	AGD	56	340320	6247930	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	1809
	<u>Contact</u>	<u>Recorders</u>	Michael Guider					<u>Permits</u>		
45-6-1144	La Pouse;	AGD	56	336570	6237449	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	ASRSYS					<u>Permits</u>		
45-6-2159	Little Bay 10;	AGD	56	338400	6238700	Open site	Valid	Burial : -, Aboriginal Ceremony and Dreaming : -	Burial/s,Historic Place	102147
	<u>Contact</u>	<u>Recorders</u>	Elizabeth Rich					<u>Permits</u>	3109	
45-6-4017	728-750 Princes Highway Artefact	GDA	56	330202	6244796	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	GML Heritage Pty Ltd - Surry Hills,Ms.Sophie Jennings					<u>Permits</u>	4916	
45-6-2597	Wynyard St Midden	GDA	56	333469	6247920	Open site	Not a Site	Shell : -, Artefact : -	Midden	102494,102763,102765
	<u>Contact</u>	<u>Recorders</u>	Mr.D Coe					<u>Permits</u>		
45-6-3245	Doncaster Ave PAD	GDA	56	336037	6246916	Open site	Valid	Potential Archaeological Deposit (PAD) : -, Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	GML Heritage Pty Ltd - Surry Hills,GML Heritage Pty Ltd - Surry Hills,Doctor.Tim O					<u>Permits</u>	4188	
45-6-3729	UNSW Sand Body Area of Sensitivity	GDA	56	336190	6245480	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Ms.Fenella Atkinson,Coast History & Heritage					<u>Permits</u>	4568	
45-6-3865	La Pouse Midden 19-01	GDA	56	336718	6237502	Open site	Valid	Potential Archaeological Deposit (PAD) : -, Shell : -		

Report generated by AHIMS Web Service on 12/08/2024 for Zoe Bosevski for the following area at Datum :GDA, Zone : 56, Eastings : 329379.0 - 341424.0, Northings : 6236345.0 - 6248455.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 103

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	<u>Contact</u>	<u>Recorders</u>	Extent Heritage Pty Ltd - Pyrmont - Individual users,Artefact Heritage and Environ							
45-6-3899	ES-PAD-2018-01	GDA	56	334251	6247993	Open site	Not a Site	Potential Archaeological Deposit (PAD) : -	Permits	4918
	<u>Contact</u>	<u>Recorders</u>	Extent Heritage Pty Ltd - Pyrmont - Individual users,Exploration Management Serv							
45-6-1059	La Perouse.	GDA	56	338555	6237960	Open site	Valid	Art (Pigment or Engraved) : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	ASRSYS,Coast History & Heritage ,Miss.Gina Basile							
45-6-1062	La Perouse;Cape Banks Cave;	GDA	56	338295	6236557	Closed site	Valid	Shell : -, Artefact : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	ASRSYS,Coast History & Heritage ,Miss.Gina Basile							
45-6-2306	Gordons Bay	GDA	56	339255	6245955	Open site	Valid	Grinding Groove : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Mary Dallas Consulting Archaeologists (MDCA),W Hayes,Ms.Tamika Goward							
45-6-0647	Centennial Park	AGD	56	336273	6247961	Open site	Valid	Art (Pigment or Engraved) : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	ASRSYS							
45-6-1146	Congwong Cave, La Perouse	AGD	56	336846	6237363	Closed site	Valid	Art (Pigment or Engraved) : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Mr.R Taplin							
45-6-0653	La Perouse Site 6	GDA	56	336565	6237762	Closed site	Valid	Art (Pigment or Engraved) : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Unknown Author,Extent Heritage Pty Ltd - Pyrmont - Individual users,Ms.Hannah I							
45-6-2157	Little Bay 6;	AGD	56	338513	6238651	Open site	Partially Destroyed	Artefact : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Elizabeth Rich,GML Heritage Pty Ltd - Surry Hills,Ms.Laura Farquharson							
45-6-4115	Doncaster Reburial Location	GDA	56	336023	6246946	Open site	Valid	Artefact : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Artefact Heritage and Environment - Pyrmont,Mr.Jonathan Bennett							
45-6-1965	Long Bay Cave 3;	AGD	56	338840	6240210	Open site	Valid	Shell : -, Artefact : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Michael Guider							
45-6-2154	Little Bay 2	GDA	56	338389	6237406	Open site	Valid	Artefact : -, Shell : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Elizabeth Rich,Coast History & Heritage ,Miss.Gina Basile							
45-6-0698	Maroubra;Athol Park House;	AGD	56	339100	6242800	Open site	Valid	Art (Pigment or Engraved) : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Ms.Lisa Campbell							
45-6-0701	Mistral Point Maroubra	AGD	56	339505	6242680	Open site	Valid	Art (Pigment or Engraved) : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	Ms.Lisa Campbell							
45-6-0650	La Perouse Site 3	GDA	56	336454	6237672	Open site	Valid	Art (Pigment or Engraved) : -	Permits	4818
	<u>Contact</u>	<u>Recorders</u>	ASRSYS,Extent Heritage Pty Ltd - Pyrmont - Individual users,Ms.Hannah Morris							

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 24048

Client Service ID : 918875

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-6-1145	La Perouse;1	GDA	56	336877	6237671	Open site	Valid	Shell : -, Artefact : -, Non-Human Bone and Organic Material : -	Midden	
	Contact	Recorders	Extent Heritage Pty Ltd - Pyrmont - Individual users,Mr.R Taplin,Ms.Hannah Morris					Permits	4918	
45-6-2670	Little Bay Ochre Site	AGD	56	338109	6239025	Open site	Valid	Ochre Quarry : -		
	Contact	Recorders	Mr.David Ingrey					Permits	1816	
45-6-3993	La Perouse Low Potential PAD	GDA	56	336519	6237722	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Artefact Heritage and Environment - Pyrmont, Miss.Julia McLachlan					Permits		
45-6-3727	POWH-ASB-HTH	GDA	56	337029	6245641	Open site	Valid	Artefact : -, Hearth : -		
	Contact	Recorders	Mary Dallas Consulting Archaeologists (MDCA),Mr.Paul Irish,Ms.Lucinda O'Connor,					Permits		
45-6-4067	Dharawal Resting Place Open Campsite	GDA	56	338549	6237211	Open site	Valid	Artefact : -		
	Contact	Recorders	Coast History & Heritage, Miss.Gina Basile					Permits		
45-6-4098	RSY reburial location	GDA	56	336166	6246852	Open site	Valid	Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills, Doctor.Tim Owen					Permits		
45-6-0682	Long Bay;Malabar; Burial	AGD	56	338700	6240239	Open site	Valid	Artefact : -, Burial : -	Burial/s,Open Camp Site	102147
	Contact	Recorders	Unknown Author					Permits		
45-6-0683	Long Bay;Malabar;	AGD	56	338840	6240125	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	Contact	Recorders	Unknown Author					Permits		
45-6-1056	Maroubra Bay; Midden	AGD	56	339020	6241320	Open site	Valid	Shell : -, Artefact : -	Midden	
	Contact	Recorders	Michael Guider					Permits		
45-6-2752	Restriction applied. Please contact ahims@environment.nsw.gov.au.					Open site	Valid			102147
	Contact	Recorders	Mr.David Ingrey					Permits		
52-3-0698	Boat Harbour 3;BH3;	GDA	56	333993	6242473	Open site	Valid	Shell : -, Artefact : -	Midden	1607,1816
	Contact	Recorders	Elizabeth Rich,Laura-Jane Smith, Miss.Lisa Smith,Mr.Paul Irish,Coast History & Heri					Permits	4586	
45-6-2153	Little Bay 1;	GDA	56	338354	6237390	Open site	Valid	Burial : -	Burial/s	1333,102147
	Contact	Recorders	Elizabeth Rich,Elizabeth Rich,La Perouse Local Aboriginal Land Council,Coast Histo					Permits	3109	
45-6-2155	Little Bay 3;	GDA	56	338264	6237493	Open site	Valid	Artefact : -	Open Camp Site	102147
	Contact	Recorders	Elizabeth Rich,Coast History & Heritage, Miss.Gina Basile					Permits	3109	
45-6-0629	Buoy;Botany Shell Midden;	GDA	56	333325	6241560	Open site	Valid	Artefact : -, Shell : -, Burial : -	Burial/s,Midden,Sh elter with Deposit	
	Contact	Recorders	ASRSYS,Mr.Paul Irish,Coast History & Heritage					Permits		
45-6-1403	La Perouse;2	GDA	56	336692	6237669	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	Contact	Recorders	ASRSYS,Extent Heritage Pty Ltd - Pyrmont - Individual users,Ms.Hannah Morris					Permits		

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 24048

Client Service ID : 918875

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-3-1115	Cape Banks	AGD	56	338100	6236220	Open site	Valid	Shell : -, Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Michael Guider							
45-6-0649	La Perouse Site 2	GDA	56	336446	6237695	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	ASRSYS,Extent Heritage Pty Ltd - Pyrmont - Individual users,Ms.Hannah Morris							
45-6-0680	Little Bay, La Perouse	AGD	56	338682	6238722	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	Denis Byrne							
45-6-3155	Moore Park AS1	GDA	56	335613	6247909	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Artefact Heritage and Environment - Pyrmont,Artefact Heritage and Environment -							
45-6-3728	UNSW B22 Area of Sensitivity	GDA	56	336715	6245720	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Ms.Fenella Atkinson,Coast History & Heritage							
45-6-4097	Bronte SLSC PAD 01	GDA	56	339826	6247223	Open site	Partially Destroyed	Artefact : -, Potential Archaeological Deposit (PAD) : -		105430
	<u>Contact</u>	<u>Recorders</u>	GML Heritage Pty Ltd - Surry Hills,GML Heritage Pty Ltd - Surry Hills,Ms.Fenella Atl							
45-6-4108	Dune Blowout	GDA	56	338350	6237010	Open site	Valid	Burial : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.Paul Irish,Coast History & Heritage							
45-6-1363	Cromwell Park;Long Bay;	AGD	56	338988	6240057	Open site	Valid	Art (Pigment or Engraved) : -, Grinding Groove : -	Axe Grinding Groove,Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	ASRSYS							
45-6-1057	La Perouse	AGD	56	338561	6238494	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	Mr.R Taplin							
45-6-2740	PAD Cape Banks	GDA	56	338300	6237160	Open site	Valid	Potential Archaeological Deposit (PAD) : -		102147
	<u>Contact</u> T Russell	<u>Recorders</u>	Haglund and Associates,Coast History & Heritage ,Miss.Gina Basile							
45-6-2897	Queens Park PAD (duplicate see 45-6-2896)	AGD	56	338203	6247179	Closed site	Valid	Potential Archaeological Deposit (PAD) : 1		
	<u>Contact</u>	<u>Recorders</u>	Mr.Paul Irish							
45-6-2158	Little Bay 7;	AGD	56	338420	6238820	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	102147
	<u>Contact</u>	<u>Recorders</u>	Elizabeth Rich							
45-6-0639	Botany Bay;Bumborah Point;	AGD	56	335719	6238896	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	ASRSYS							

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 24048

Client Service ID : 918875

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-6-0648	La Perouse Site 1	GDA	56	336445	6237629	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	ASRSYS,Extent Heritage Pty Ltd - Pyrmont - Individual users,Ms.Hannah Morris							<u>Permits</u>
45-6-1148	Cape Banks;La Perouse;	AGD	56	338200	6236250	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	Mr.R Taplin							<u>Permits</u>
45-6-0651	La Perouse Site 4	GDA	56	336438	6237710	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	<u>Contact</u>	<u>Recorders</u>	Unknown Author,Extent Heritage Pty Ltd - Pyrmont - Individual users,Ms.Hannah Morris							<u>Permits</u>
45-6-0561	Congwong Beach	AGD	56	336900	6237400	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	Gavin Gatenby							<u>Permits</u>
45-6-3246	RSY 1	GDA	56	336060	6246855	Open site	Partially Destroyed	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	GML Heritage Pty Ltd - Surry Hills,GML Heritage Pty Ltd - Surry Hills,GML Heritage Pty Ltd - Surry Hills							<u>Permits</u> 4188
45-6-3944	New Green Square School	GDA	56	334204	6246587	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u> Metropolitan Local Aboriginal	<u>Recorders</u>	Strata Archaeology,AMAC Group P/L,AMAC Group P/L,Mr.Benjamin Streat							<u>Permits</u> 4809
45-6-1496	Shea's Creek	AGD	56	331697	6245597	Open site	Not a Site	Shell : -, Artefact : -	Midden	30,591,940
	<u>Contact</u>	<u>Recorders</u>	ASRSYS							<u>Permits</u>
45-6-0675	Randwick Queen's Park Waverley	AGD	56	338204	6247450	Closed site	Valid	Art (Pigment or Engraved) : -	Shelter with Art	
	<u>Contact</u>	<u>Recorders</u>	Michael Guider							<u>Permits</u>
45-6-1963	Long Bay Cave 1;	AGD	56	338290	6239860	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	102147
	<u>Contact</u>	<u>Recorders</u>	Michael Guider							<u>Permits</u>
45-6-1058	La Perouse;Little Bay Cave 5;	AGD	56	338550	6238450	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	Mr.R Taplin							<u>Permits</u> 3109
45-6-1061	La Perouse;;	GDA	56	338247	6236664	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	ASRSYS,Coast History & Heritage ,Miss.Gina Basile							<u>Permits</u>
45-6-2896	Queens Park PADs	GDA	56	338203	6247179	Open site	Valid	Habitation Structure : 1, Potential Archaeological Deposit (PAD) : 1		
	<u>Contact</u>	<u>Recorders</u>	Dominic Steele Archaeological Consulting							<u>Permits</u>
45-6-2280	Jensen Place;Lurline Bay South Coogee;	AGD	56	338200	6243340	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	
	<u>Contact</u>	<u>Recorders</u>	J Storey							<u>Permits</u>
45-6-0686	Long Bay;	AGD	56	338700	6240300	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	98691,102147
	<u>Contact</u>	<u>Recorders</u>	Michael Guider							<u>Permits</u>

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 24048

Client Service ID : 918875

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-6-0652	La Perouse Site 5	GDA	56	336449	6237661	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	Contact	Recorders	Unknown Author,Extent Heritage Pty Ltd - Pyrmont - Individual users,Ms.Hannah I Permits							
45-6-2794	PAD 1 Malabar Headland	AGD	56	338500	6240000	Open site	Valid	Art (Pigment or Engraved) : -		102147
	Contact T Russell	Recorders	Mrs.Robynne Mills Permits							
45-6-4050	RNE-PAD01	GDA	56	333218	6248353	Open site	Partially Destroyed	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Artefact Heritage and Environment - Pyrmont,Artefact Heritage and Environment - Permits 5205							
45-6-0873	La Perouse Reserve	AGD	56	336702	6238068	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102147
	Contact	Recorders	W Cook,Mr.Shaun Longbottom Permits							
45-6-2675	JVM 2	AGD	56	339300	6242600	Closed site	Valid	Art (Pigment or Engraved) : 1, Shell : 6		
	Contact	Recorders	Michael Guider Permits							
45-6-2743	Little Bay Coastal Cemetery	GDA	56	338398	6237409	Open site	Valid	Burial : 7		102147
	Contact Mr.David Ingrey	Recorders	Mr.Dean Kelly,Coast History & Heritage ,Miss.Gina Basile Permits							
45-6-3704	Tay Reserve Artefact	GDA	56	335723	6247268	Open site	Destroyed	Artefact : -		
	Contact	Recorders	Artefact Heritage and Environment - Pyrmont,Artefact Heritage and Environment - Permits							
45-6-2583	Minmi Cave;Botany Bay NP;	AGD	56	338200	6236440	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	102147
	Contact	Recorders	Michael Guider Permits							
45-6-0750	Marks Park;Tamarama;Bondi Beach;	AGD	56	340420	6247470	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	
	Contact	Recorders	Mr.Peter Brookhouse Permits							
45-6-1055	Maroubra Bay;	AGD	56	338601	6241147	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	
	Contact	Recorders	ASRSYS Permits							
45-6-2654	Fraser Park PAD	AGD	56	330100	6245800	Open site	Valid	Potential Archaeological Deposit (PAD) : -		98669,104256, 104257
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd Permits 1639							
45-6-3342	Not a site	GDA	56	337014	6244960	Open site	Valid	Potential Archaeological Deposit (PAD) : -, Artefact : -		
	Contact	Recorders	Mary Dallas Consulting Archaeologists (MDCA),GML Heritage Pty Ltd - Surry Hills,1 Permits 4183,5262							
45-6-2495	Prince of Wales Hospital Aboriginal;Hearth;	AGD	56	337040	6245140	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Mary Dallas Consulting Archaeologists (MDCA) Permits 1055,4386							

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Extensive search - Site list report

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-6-0556	La Perouse;BBNP Proposal	AGD	56	337300	6236800	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-1152	Bumbarah Point;	AGD	56	336070	6239635	Open site	Valid	Shell : -, Artefact : -	Midden	102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-2658	Little Bay Road PAD1	AGD	56	337000	6238900	Open site	Valid	Potential Archaeological Deposit (PAD) : -		99792,102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-2894	Maroubra Dunehills	GDA	56	338754	6242040	Open site	Valid	Artefact : -	1684,1734	
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-2243	Little Bay Cave;	AGD	56	338440	6238490	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-2271	Gully Midden 1;	AGD	56	338550	6237950	Open site	Valid	Shell : -, Artefact : -	Midden	1333,102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-4111	2-4 Hale PAD01	GDA	56	332770	6242382	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-4107	Sydney Pistol Club	GDA	56	338380	6237210	Open site	Valid	Burial : -		
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-0720	Bondi Bay;Ben Buckler;	AGD	56	341100	6248200	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-0751	Shea's Creek Dugong	GDA	56	331839	6245378	Open site	Destroyed	Aboriginal Resource and Gathering : -, Non-Human Bone and Organic Material : -, Artefact : -	Open Camp Site	
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-0886	Bare Island;Yarra Bay;	AGD	56	336400	6238500	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-1964	Long Bay Cave 2;	AGD	56	338280	6239890	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-1060	La_Perouse	GDA	56	338609	6237582	Open site	Valid	Shell : -, Artefact : -	Midden	2221,102147
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-6-0976	Botany Bay;	AGD	56	336161	6239636	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	102147

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Extensive search - Site list report

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	<u>Contact</u>	<u>Recorders</u>	Mr.R Taplin					<u>Permits</u>		
45-6-2753	Restriction applied. Please contact ahims@environment.nsw.gov.au.					Open site	Valid			102147
	<u>Contact</u> T Russell	<u>Recorders</u>	Mr.Dean Kelly					<u>Permits</u>		
45-6-2283	Sand Dune Midden;Little Bay;	AGD	56	338590	6238010	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	102147
	<u>Contact</u>	<u>Recorders</u>	Michael Guider					<u>Permits</u>	3109	
45-6-0697	Coogee Bay;Randwick;	AGD	56	339200	6245400	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	
	<u>Contact</u>	<u>Recorders</u>	Ms.Lisa Campbell,W Newell					<u>Permits</u>		
45-6-2198	View Street	AGD	56	329500	6244350	Open site	Valid	Shell : -, Artefact : -	Midden	
	<u>Contact</u>	<u>Recorders</u>	Michael Guider,Michael Guider					<u>Permits</u>	1330,1331	
45-6-2755	Long Bay PAD	AGD	56	338000	6239400	Open site	Valid	Potential Archaeological Deposit (PAD) : -		102147
	<u>Contact</u>	<u>Recorders</u>	Mary Dallas Consulting Archaeologists (MDCA)					<u>Permits</u>	2314	
45-5-2587	Frenchmans Bay Foredune	AGD	56	336500	6238000	Open site	Valid	Shell : -, Artefact : -	Midden	
	<u>Contact</u>	<u>Recorders</u>	Doctor.Susan (left ahms) McIntyre-Tamwoy					<u>Permits</u>		
45-6-4109	Fortifications	GDA	56	338315	6236975	Open site	Valid	Burial : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.Paul Irish,Coast History & Heritage					<u>Permits</u>		

** Site Status

Valid - The site has been recorded and accepted onto the system as valid

Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

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