

HOMEBUSH BATTERY ENERGY STORAGE SYSTEM (BESS)
10 HOMEBUSH BAY DRIVE, HOMEBUSH, NSW

ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

Report to Ausgrid

LGA: Strathfield

May 2025



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Apex Archaeology acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and in whose land this assessment took place, and to the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples.

This report contains confidential information which should not be made publicly available.

DOCUMENT CONTROL

The following register documents the development and issue of the document entitled 'Battery Energy Storage System (BESS) Site, 10 Homebush Bay Drive, Homebush: Aboriginal Cultural Heritage Assessment Report', prepared by Apex Archaeology in accordance with its quality management system.

Revision	Prepared by	Reviewed by	Comment	Issue Date
1 – Draft	Marian Bailey & Leigh Bate	Jenni Bate	Client Review	9 January 2025
2 – Draft	Jenni Bate	Ausgrid	RAP Review	29 January 2025
3 – Final	Marian Bailey	RAPs	Issue of Final	7 March 2025
4 – Final	Jenni Bate	Ausgrid	Minor update	15 April 2025
5 – Final	Jenni Bate	Ausgrid	Minor update	30 May 2025



EXECUTIVE SUMMARY

Apex Archaeology have been engaged by Ausgrid to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for construction of a Battery Energy Storage System (BESS) site within 10 Homebush Bay Drive, Homebush, NSW. The Project comprises the area of ground disturbing works within the site at Lot 1 DP1218218, which is located within the Strathfield Local Government Area (LGA), approximately 11 km northwest of Sydney (defined as the Study Area for the purposes of this report).

As the project will be determined as part of a State Significant Development Application (SSDA), preparation of an ACHA is required to inform the Environmental Impact Statement (EIS) for the Project to meet the Secretary's Environmental Assessment Requirements (SEARs) for the Project. This ACHA has been prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (April 2011) (the Guide); the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, April 2010) (the ACHCRs), and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (September 2010) (the Code of Practice). It details the results of the archaeological assessment completed in accordance with the Code of Practice and the consultation undertaken with the Aboriginal community in accordance with the ACHCRs.

A total of nine Aboriginal people and organisations registered an interest in being consulted for the Project. The following list comprises the registered Aboriginal parties (RAPs) for the Project:

- Aragung Aboriginal Cultural Heritage Site Assessments
- Dharug Custodian Aboriginal Corporation
- Didge Ngunawal Clan
- Ginninderra Aboriginal Corporation
- Guntawang Aboriginal Resources Incorporated
- Ngambaa Cultural Connections
- Thomas Dahlstrom
- Long Gully Cultural Services
- Pearl Depoma

Consultation with the RAPs has been conducted in accordance with the ACHCRs.

No previous archaeological investigations have been conducted within the site, however, many have taken place within the broader Sydney region.

An archaeological survey was conducted on 22 November 2024 with Leigh Bate of Apex Archaeology, assisted by Raymond Adams of Aragung Aboriginal Cultural Heritage Site Assessments.



No surface artefact sites were identified within the Project Area during the walkover survey. No areas of sub-surface archaeological potential were identified within the study area. Ground disturbance was extremely high within the entirety of the study area. Evidence of disturbance relating to the Mason Park Sub-Transmission Switching Station (STSS) construction, along with current land use and previous site disturbance factors were noted. The STSS and car park site are situated on a relatively level area. It appears the southern portion of the site was used as a car park and has been completely modified with no residual land surface left.

Based on the results of the cultural heritage and archaeological assessments, the following recommendations have been made for the Project:

RECOMMENDATION 1: NO FURTHER ARCHAEOLOGICAL ASSESSMENT REQUIRED

This report details the Aboriginal archaeological potential of the Site, which has been assessed as negligible. No further archaeological assessment is required for the site prior to the commencement of proposed development activities.

RECOMMENDATION 2: DEVELOPMENT BOUNDARIES

The proposed development must be contained within the boundaries assessed for this ACHAR. If there is any alteration to the boundaries of the proposed development to include areas not assessed as part of this ACHAR, further investigation of those areas must be undertaken.

RECOMMENDATION 3: STOP WORK PROVISION

Should unanticipated Aboriginal archaeological material be encountered during construction of the Project, all work must cease in the vicinity of the find and an archaeologist contacted to make an assessment of the find and to advise on the course of action to be taken. Further archaeological assessment and Aboriginal community consultation may be required prior to the recommencement of works. Any objects confirmed to be Aboriginal in origin must be reported to Heritage NSW.

In the unlikely event that suspected human remains are identified during construction works, all activity in the vicinity of the find must cease immediately and the find protected from harm or damage. The NSW Police and the Coroner's Office must be notified immediately. If the finds are confirmed to be human and of Aboriginal origin, further assessment by an archaeologist experienced in the assessment of human remains and consultation with both Heritage NSW and the RAPs for the project would be required.

This recommendation should be included in the Project's Construction Environmental Management Plan (CEMP).

RECOMMENDATION 4: REPORTING

One digital copy of this report should be forwarded to Heritage NSW by the consultant for inclusion on the Aboriginal Heritage Information Management System (AHIMS).

One copy of this report should be forwarded to each of the RAPs for the Project.



GLOSSARY OF TERMS

Aboriginal Object	An object relating to the Aboriginal habitation of NSW (as defined in the NPW Act), which may comprise a deposit, object or material evidence, including Aboriginal human remains.
ACHA	Aboriginal Cultural Heritage Assessment
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHCRs	<i>Aboriginal cultural heritage consultation requirements for proponents 2010</i>
AHIMS	Aboriginal Heritage Information Management System maintained by Heritage NSW, detailing known and registered Aboriginal archaeological sites within NSW
AHIP	Aboriginal Heritage Impact Permit
ASIRF	Aboriginal Site Impact Recording Form
BP	Before Present, defined as before 1 January 1950.
Code of Practice	The DECCW September 2010 <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i>
Consultation	Aboriginal community consultation in accordance with the DECCW April 2010 <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i> .
DA	Development Application
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DECCW	The Department of Environment, Climate Change and Water (now Heritage NSW)
Disturbed Land	If land has been subject to previous human activity which has changed the land's surface and are clear and observable, then that land is considered to be disturbed
EIS	Environmental Impact Statement
GIS	Geographical Information Systems
GSV	Ground Surface Visibility
the Guide	<i>Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW</i>
Harm	To destroy, deface or damage an Aboriginal object; to move an object from land on which it is situated, or to cause or permit an object to be harmed
Heritage NSW	Heritage NSW within the Department of Climate Change, Energy, the Environment and Water; responsible for overseeing heritage matters within NSW
ka	Kiloannus, a unit of time equating to 1,000 years
LALC	Local Aboriginal Land Council
LGA	Local Government Area
NPW Act	<i>NSW National Parks and Wildlife Act 1974</i>
NPWS	National Parks and Wildlife Service
OEH	The Office of Environment and Heritage (now Heritage NSW)
PAD	Potential Archaeological Deposit
Project Area	The Project Area is located within the site and comprises the area that will be physically disturbed for the construction and operation of the Project
RAPs	Registered Aboriginal Parties
SEARs	Secretary's Environmental Assessment Requirements
Site	Comprises the area of land owned by Ausgrid forming Lot 1 DP1218218
SSDA	State Significant Development Application



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1.0 INTRODUCTION

Apex Archaeology have been engaged by Ausgrid to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for proposed construction of a Battery Energy Storage System (BESS) at 10 Homebush Bay, Homebush, NSW. The project is located within the Strathfield Local Government Area (LGA).

As the Project will be determined as part of a State Significant Development Application (SSDA), preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) is required to inform the Environmental Impact Statement (EIS) for the project to meet the Secretary's Environmental Assessment Requirements (SEARs) for the project. This report comprises the ACHAR has been prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (April 2011) (the Guide); the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, April 2010) (the ACHCRs); and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (September 2010) (the Code of Practice). It details the results of the archaeological assessment completed in accordance with the Code of Practice and the consultation undertaken with the Aboriginal community in accordance with the ACHCRs.

1.1 STUDY AREA

The study area (also referred to as the site in the Project EIS) is located within Homebush, approximately 11 km northwest of Sydney in the Strathfield Local Government Area (LGA). The study area comprises approximately 2.0 hectares and is legally identified as Lot 1 DP1218218. It is bound by Homebush Bay Drive to the north and The Western Motorway (M4) to the south. The site exists within a heavily disturbed and modified urban environment, characterised by prior infrastructure development, including utility installations, car parks, and cleared vegetation (Figure 1 and Figure 2). The existing Mason Park Sub-Transmission Switching Station (STSS) is located within the central portion of the site.

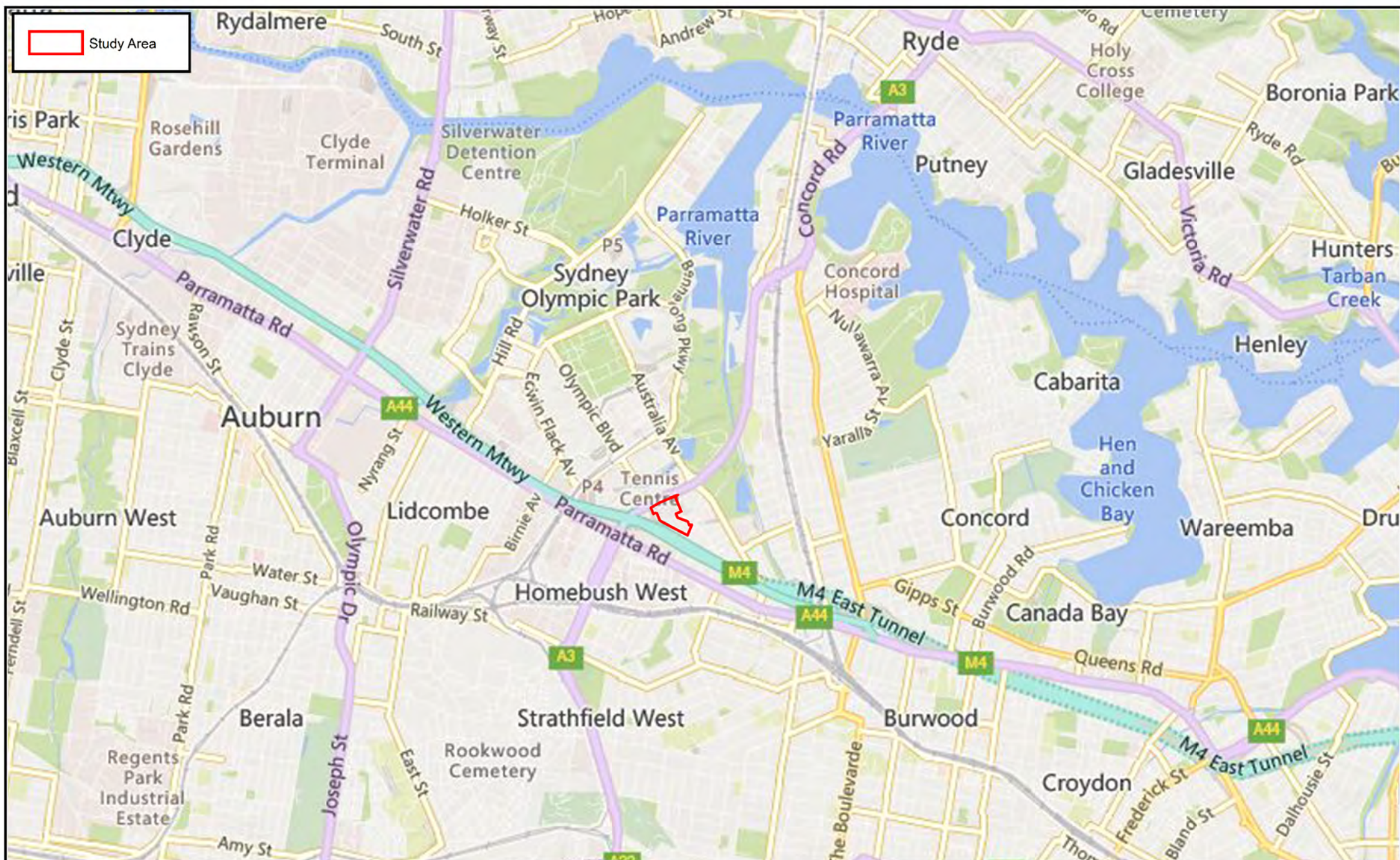
1.2 PROJECT BRIEF

The proposed BESS is critical to improving energy reliability and storage capacity within the national electricity market (NEM), aligning with state and national energy strategies. The BESS will play a significant role in supporting the transition to renewable energy, enhancing grid stability, and meeting the increasing energy demands of this industrial and urban region. The assessment will inform an SSDA under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This report has been prepared to support the EIS required for the Project and to meet the SEARs. Specifically, the SEARs require preparation of an ACHAR to describe and assess any impacts on any Aboriginal cultural heritage values on the land.

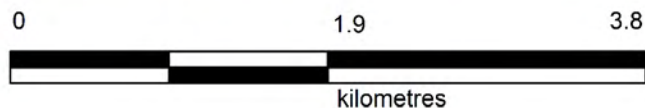
The SEARs require the following with regard to Heritage:



- [Preparation of] An Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011) and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010), identifying, describing, and assessing any impacts to any Aboriginal cultural heritage sites or values associated with the site (including impacts from any proposed earth works, construction works and road upgrades), including results of archaeological test excavations (where required), undertaken in accordance with the relevant standards and requirements;
- Evidence of adequate consultation with Aboriginal communities in determining and assessing impacts, identifying and selecting options for avoidance of Aboriginal cultural heritage and identifying appropriate mitigation measures (including the final proposed measures), having regard to the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, April 2010).



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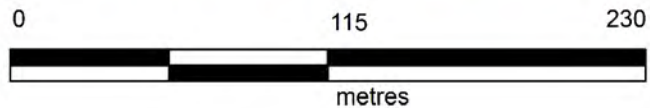
Projection:
MGA Zone 56 (GDA 94)
Base Map:
Bing Roads 2025
Final - Version 1

Figure 1: Study area in its regional context





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 NEW SOUTH WALES 2541



Projection:
 MGA Zone 56 (GDA 94)
 Base Map:
 Near Maps 2025
 Image Date: 03/04/2025
 Final - Version 1

Figure 2: General location of the study area in its local context



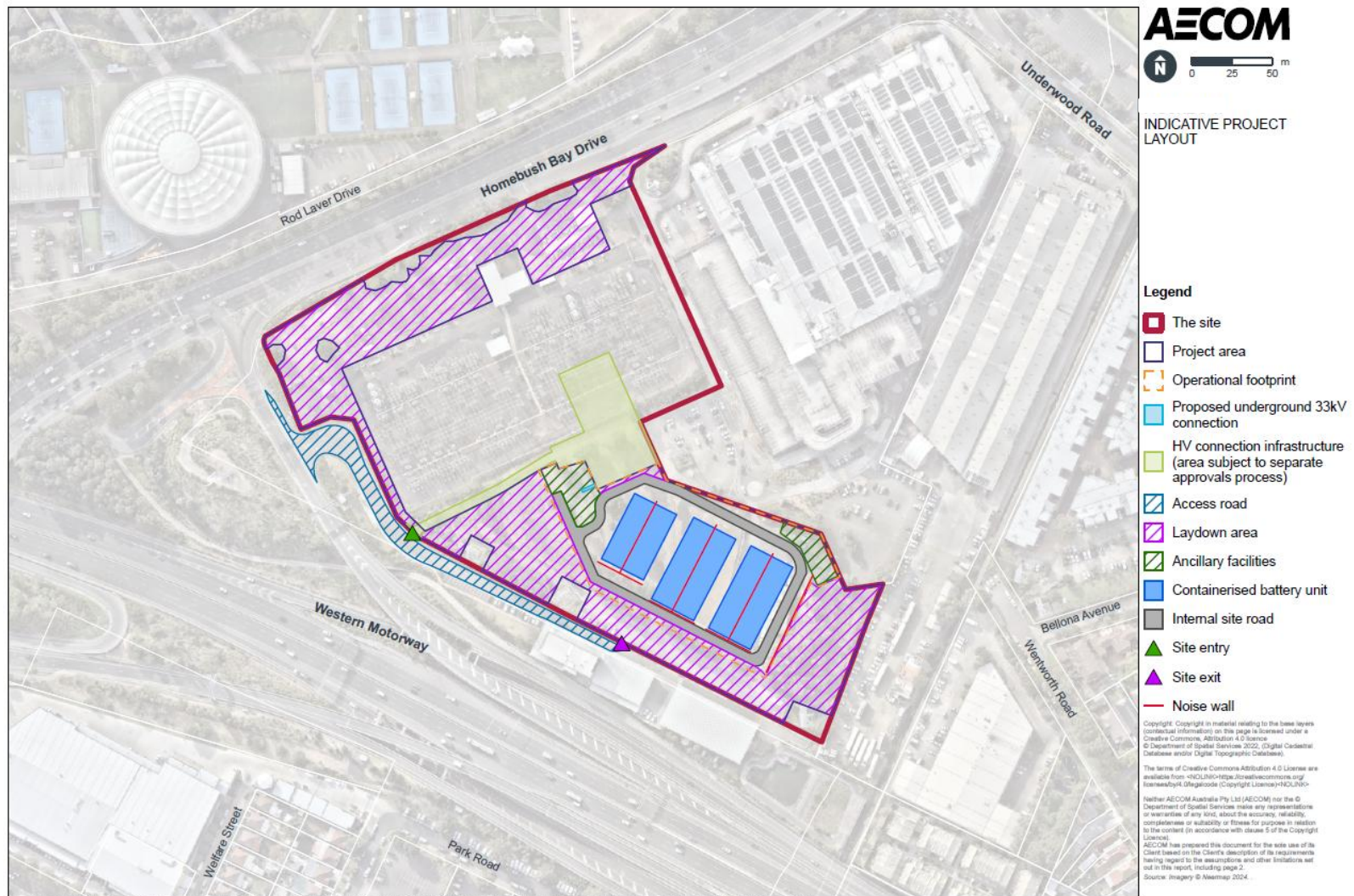


Figure 3: Indicative works layout within study area



1.3 PURPOSE OF THE ABORIGINAL CULTURAL HERITAGE ASSESSMENT

The archaeological investigation was undertaken to meet the requirements of the Code of Practice and ACHCRs, as well as the SEARs.

The purpose of the archaeological investigation is to understand and establish the potential harm the Project may have on Aboriginal cultural heritage within the study area, both tangible and intangible.

Aboriginal community consultation was undertaken for the Project with the aim of:

- Identifying the Aboriginal community members who can speak for Country within which the Project is located
- Involving the Aboriginal community in making decisions about the management of their cultural heritage
- Identifying, assessing and recording Aboriginal heritage values within the study area
- Preparing an assessment of the cultural heritage values in consultation with the Aboriginal community
- Identifying the potential impact of the proposed development on the assessed cultural heritage values
- Developing conservation and mitigation strategies for these values, with the aim of minimising impacts to cultural heritage wherever possible.

In addition, this report provides a significance assessment of the identified Aboriginal heritage values, as defined by the registered Aboriginal stakeholders (RAPs) for the Project. Aboriginal people are the primary determinants of the significance of their cultural heritage and therefore Apex Archaeology cannot make a determination on the cultural significance without the input of the RAPs.

Any development works which disturb the ground surface have the potential to impact Aboriginal archaeological deposits and therefore an assessment of whether the study area contains such deposits is required prior to the commencement of construction works. An assessment of whether the proposed development would impact these deposits (if present) is also necessary, and identification of the extent to which the deposits would be impacted is also required. The degree of impact which may be allowable is determined, in part, with consideration of the level of cultural significance attributed to the cultural values of the study area, both tangible and intangible. These factors are considered within this report.

This assessment considers existing and newly identified sites within the study area and determination of whether these could be avoided by any further works within the study area, as well as detailing consultation with the Aboriginal community in order to determine the cultural significance of the area.



1.4 PROJECT PROPONENT

The proponent for the project is Ausgrid. The project manager was Radha Rockwood.

1.5 INVESTIGATORS AND CONTRIBUTORS

This archaeological assessment was commissioned by Ausgrid. Apex Archaeology thanks Radha Rockwood of Ausgrid for her assistance with the project. Thanks are also extended to the registered Aboriginal groups for their participation and assistance with the project.

This report has been prepared by Marian Bailey, Archaeologist with Apex Archaeology and Leigh Bate, Director and Archaeologist with Apex Archaeology. The report was reviewed by Jenni Bate, Director and Archaeologist with Apex Archaeology. Marian has over seven years of archaeological research experience, including four years in archaeological consulting. Leigh and Jenni have over eighteen years of archaeological consulting experience within NSW. Project team roles and qualifications are shown in Table 1.

Table 1: Project team roles and qualifications

Name	Role	Qualifications
Leigh Bate	Project Manager; Report Author; Field Inspection; GIS	B.Archaeology; Grad. Dip. CHM
Jenni Bate	Report Review	B.Archaeology; Grad. Dip. Arch; Dip. GIS
Marian Bailey	Report Author	B. Arts, Archaeology; M.AHM, PhD

1.6 LIMITATIONS

This report relies in part on previously recorded archaeological and environmental information for the wider region. This includes information from the Aboriginal Heritage Information Management System (AHIMS), which is acknowledged to be occasionally inaccurate, due to inaccuracies in recording methods. No independent verification of the results of external reports has been made as part of this report.

Field investigations for this report included survey. The results are considered to be indicative of the nature and extent of Aboriginal archaeological remains within the study area, but it should be noted that further Aboriginal objects and sites which have not been identified as part of this assessment may be present within the wider study area.

It is recognised that Aboriginal people are the primary determinants of the significance of their cultural heritage, and as such, Apex Archaeology have relied on the Aboriginal community to provide cultural knowledge regarding the site, where they are willing and able to share such knowledge. However, there may be occasions where RAPs are unwilling or unable to share cultural knowledge regarding the site and thus our assessment of significance relies on scientific assessment only.



This report assesses Aboriginal cultural heritage matters only. No assessment of historical heritage has been made as part of this ACHA.

1.7 REPORT STRUCTURE

This report addresses the requirements of the Guide, the Code of Practice and the ACHCRs. The Guide provides guidance as to what must be contained in an ACHAR. The following outlines how the requirements of both the Guide and the Code of Practice have been addressed in this report. The report has also been prepared in accordance with Requirement 11 of the Code of Practice.

Section 1 of this report outlines the study area, project brief, details of the proponent, and investigators and contributors to this report.

Section 2 outlines the statutory context and applicable legislation to Aboriginal heritage assessment and management.

Section 3 details the consultation undertaken with the Aboriginal community in accordance with the requirements of the ACHCRs and the NPW Regulation 2019.

Section 4 reviews existing knowledge, including landscape context, previous archaeological work, and provides a predictive model of Aboriginal occupation, in accordance with Requirements 2, 3 and 4 of the Code of Practice.

Section 5 provides details of the fieldwork undertaken for the project, in accordance with Requirements 5, 7, 8, 9 and 10 of the Code of Practice.

Section 6 makes an assessment of significance for the project, in accordance with Section 3.4 of the Guide and Section 4.3 of the ACHCRs.

Section 7 details the impact assessment of the proposed works on Aboriginal cultural heritage, in accordance with Section 2.5 of the Guide.

Section 8 provides management and mitigation measures to avoid or minimise harm in accordance with Sections 2.6 and 2.7 of the Guide.

Section 9 details the recommendations made for the project.



2.0 STATUTORY CONTEXT

Heritage in Australia, including both Aboriginal and non-Aboriginal heritage, is protected and managed under several different Acts. The following section presents a summary of the applicable Acts which provide protection to cultural heritage within NSW.

2.1 COMMONWEALTH LEGISLATION

2.1.1 ABORIGINAL AND TORRES STRAIT ISLANDER HERITAGE PROTECTION ACT 1984

This Act provides for the preservation and protection of injury and/or desecration of areas and objects in Australia and its waters that are of significance to Aboriginal people, in accordance with Aboriginal tradition.

Under this Act, the responsible Minister has provision to make both temporary and/or long-term declarations, in order to provide protection to areas and objects which are at threat of injury or desecration. In some instances, this Act can override State or Territory provisions, or be invoked if State or Territory provisions are not enforced. An Aboriginal or Torres Strait Islander individual or organisation must invoke the Act.

No items within the study area are listed or protected under this Act.

2.1.2 ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The EPBC Act provides protection to items of national significance, including places with cultural heritage values that contribute to Australia's national identity. The Act aims to respect the role of Indigenous peoples in the conservation and ecologically sustainable use of Australia's biodiversity, and to enhance the protection and management of important natural and cultural places. Additionally, the Act is designed to promote the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.

The National Heritage List (NHL) provides a listing of natural, historic and Indigenous places of outstanding significance to the nation, while the Commonwealth Heritage List (CHL) details the Indigenous, historic and natural places owned or controlled by the Australian Government.

The Register of the National Estate (RNE) is a former statutory register that is no longer in force; however listings can still be searched. The listings on the RNE did not automatically transfer to the NHL.

Under the EPBC Act, approvals are required if any action is proposed that will have (or is likely to have) a significant impact on the National Heritage values of a National Heritage place. In such an event, the action must be referred to the Australian Government Minister for the Environment and Water. The Minister makes a decision as to whether the proposed action is likely to have a significant impact on any



matters of national environmental significance. If so, the action is considered a controlled action and additional assessment may be required.

A search of both the NHL and the CHL did not identify any items within the study area.

2.1.3 NATIVE TITLE ACT 1993

The *Native Title Act 1993*, as amended, provides protection and recognition for Native title. Native title is recognised where the rights and interests of over land or waters where Aboriginal and Torres Strait Islander practiced traditional laws and customs prior to the arrival of European settlers, and where these traditional laws and customs have continued to be practiced.

The National Native Title Tribunal (NNTT) was established to mediate native title claims made under this Act. Three registers are maintained by the NNTT, as follows:

- National Native Title Register
- Register of Native Title Claims
- Register of Indigenous Land Use Agreements.

Searching the NNTT registers allows identification of potential Aboriginal stakeholders who may wish to participate in consultation.

A search of all three registers via Native Title Vision did not identify any claims over the study area.

2.2 NEW SOUTH WALES LEGISLATION

2.2.1 NATIONAL PARKS AND WILDLIFE ACT 1974

The *National Parks and Wildlife Act 1974* (NPW Act) provides protection for all Aboriginal objects and places within NSW. Aboriginal objects are defined as the material evidence of the Aboriginal occupation of NSW, while Aboriginal Places are defined as areas of cultural significance to the Aboriginal community. All Aboriginal objects are protected equally under the Act, regardless of their level of significance. Aboriginal Places are gazetted if the Minister is satisfied that the location was and/or is of special significance to Aboriginal people.

Following amendments to the NPW Act in 2010, approval to impact Aboriginal cultural heritage sites is only granted under a Section 90 Aboriginal Heritage Impact Permit (AHIP), which is granted by Heritage NSW, which is part of the NSW Department of Climate Change, Energy, the Environment and Water. However, the requirement for an AHIP to permit harm to Aboriginal objects or places is 'turned off' for SSD projects, as described below.



2.2.2 NATIONAL PARKS AND WILDLIFE REGULATION 2019

Part 5, Division 2 of the *National Parks and Wildlife Regulation 2019* addresses Aboriginal objects and places in relation to the NPW Act 1974, and outlines how compliance with relevant codes of practice can be met.

Clause 58(1) outlines the defence of low impact acts or omissions to the offence of harming Aboriginal objects, which includes:

- maintenance works on existing roads and fire trails,
- farming and land management work,
- grazing of animals,
- activities on land that has been disturbed that is exempt or complying development,
- mining exploration work,
- removal of vegetation (aside from Aboriginal culturally modified trees),
- seismic surveying or groundwater monitoring bores on disturbed ground, or
- environmental rehabilitation work (aside from erosion control or soil conservation works such as contour banks).

Clause 58(4) outlines the definition of ‘disturbed land’, as land that “has been the subject of a human activity that has changed the land’s surface, being changes that remain clear and observable”.

Clause 59 relates to the notification of Aboriginal objects and sites and Clause 60 relates to the requirements for the consultation process to support an AHIP application. The regulation sets out the requirements broadly in line with those outlined in the ACHCRs.

2.2.3 ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

Under the EP&A Act, it is necessary to consider environmental impacts, including impacts to cultural heritage, as part of the development assessment process. Under this Act councils are required to maintain a list of locally significant heritage items as part of their local environment plan (LEP).

The Project will be assessed as a State Significant Development (SSD) under Part 4, Division 4.7 of the EP&A Act. The consent authority for SSD is the Minister for Planning and Public Spaces or the Independent Planning Commission (IPC).

2.2.4 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Part 4, division 4.7 of the EP&A Act 1979 outlines the requirements for assessment of State Significant Development. Section 4.41 outlines approvals and legislation that do not apply to SSD projects. This clause states:



1. The following authorisations are not required for State significant development that is authorised by a development consent granted after the commencement of this Division (and accordingly the provisions of any Act that prohibit an activity without such an authority do not apply)-
 - a) (repealed)
 - b) A permit under section 201, 205 or 219 of the *Fisheries Management Act 1994*
 - c) An approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977*
 - d) **An Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1997***
 - e) (repealed)
 - f) A bush fire safety authority under section 100B of the *Rural Fires Act 1997*
 - g) A water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the *Water Management Act 2000*.
2. Division 8 of Part 6 of the *Heritage Act 1977* does not apply to prevent or interfere with the carrying out of State significant development that is authorised by a development consent granted after the commencement of this Division.
3. A reference in this section to State significant development that is authorised by a development consent granted after the commencement of this Division includes a reference to any investigative or other activities that are required to be carried out for the purposed of complying with any environmental assessment requirements under this Part in connection with a development application for any such development.

In accordance with this act, there is no requirement to obtain consent from Heritage NSW under the provisions of s.90 of the NPW Act if impact to Aboriginal cultural heritage values cannot be avoided.

2.2.5 STRATHFIELD LOCAL ENVIRONMENTAL PLAN 2012

The Strathfield LEP 2012 is the relevant planning instrument applicable to the Strathfield Local Government Area (LGA).

Clause 5.10 of the Strathfield LEP 2012 outlines provisions for heritage conservation, including Aboriginal cultural heritage. Specifically, Clause 5.10(1) aims to conserve Aboriginal objects and Aboriginal places of heritage significance, ensuring that these values are considered during development. Clause 5.10(2) states that development consent is required for activities such as disturbing or excavating an archaeological site, erecting a building on land containing an Aboriginal object, or carrying out works within an Aboriginal place of heritage significance.

Despite these local provisions, the Project is being assessed as SSD under Part 4, Division 4.7 of the EP&A Act. Under Section 4.41 of the EP&A Act, SSD projects are

exempt from certain approvals, including the requirement for an AHIP under Section 90 of the NPW Act. This legislative provision ensures that the SSD process supersedes local controls, including the requirements of the Strathfield LEP 2012.

Although the Strathfield LEP 2012 does not directly apply to the Project due to its SSD classification, the principles of heritage conservation remain critical to the assessment process. The ACHAR prepared for this Project will address the potential impacts on Aboriginal cultural heritage and outline appropriate measures for the protection and management of cultural values within the study area. This approach ensures compliance with state-level legislation while respecting the objectives of local heritage frameworks.

There are no known items of Aboriginal heritage significance identified within the LEP that fall within the current study areas (Figure 4).

A number of general heritage items of local significance are listed in the wider vicinity of the STSS, but none are related to Aboriginal cultural heritage. Although there are no Aboriginal heritage items listed, the absence of nearby Aboriginal heritage items does not mean that the land has low Aboriginal cultural heritage significance.

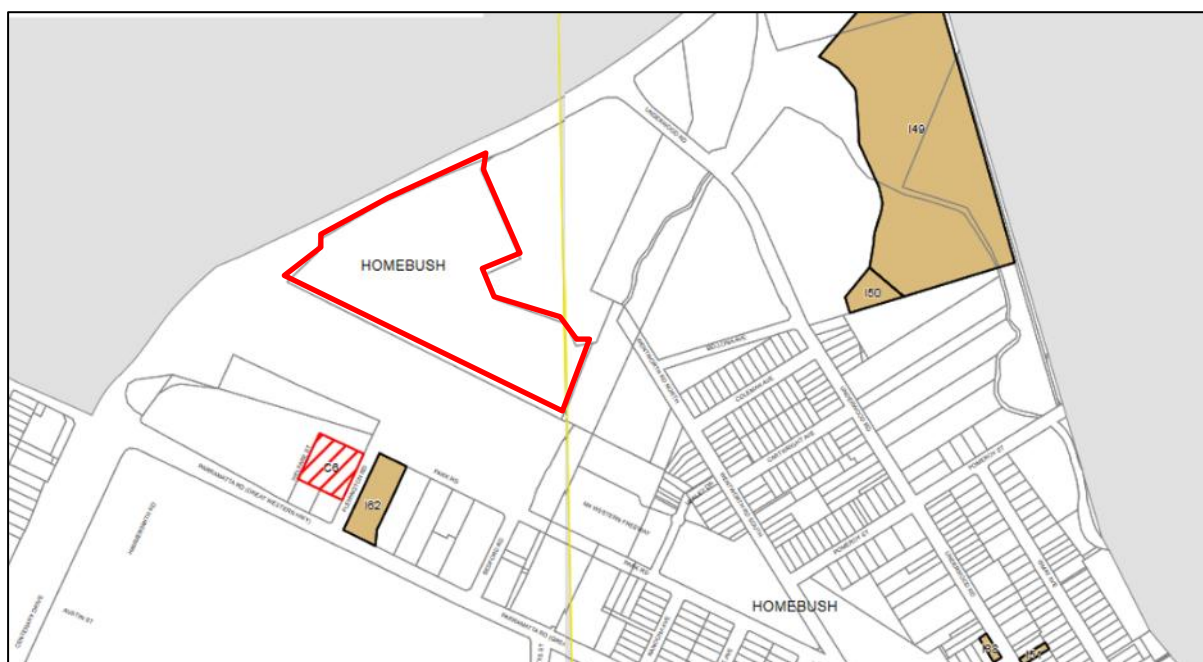


Figure 4: Heritage items within the vicinity of the Mason Park Sub-Transmission Switching Station (STSS)
(Source: Strathfield LEP 2012, NSW Planning Portal, HER_001 and HER_004).



3.0 ABORIGINAL CONSULTATION PROCESS

This section details the Aboriginal community consultation undertaken to assist in the heritage assessment of the study area. Aboriginal consultation in accordance with the ACHCRs was undertaken by Apex Archaeology for this project.

Aboriginal community consultation is a requirement in order to make assessments of Aboriginal cultural values, as Aboriginal people are the primary determinants of the significance of their cultural heritage and therefore Apex Archaeology cannot make a determination on the cultural significance without the input of the RAPs. Aboriginal people often have a strong connection to their Country, and to their ancestors, both past and present.

Material evidence of past Aboriginal occupation of an area is a tangible link to the intangible traditions, lore, customs, beliefs and history. These intangible values provide a sense of belonging for Aboriginal people, and cultural heritage and cultural practices are kept alive through being incorporated into everyday life, which helps maintain a connection to the past and to the present. It is a vital part of the identity of Aboriginal people.

Therefore, it is important that Aboriginal people are afforded the opportunity to understand, comment on and have input into projects that may impact areas which may be culturally sensitive, or damage items of cultural significance. The process of Aboriginal community consultation provides this opportunity. This ACHAR details the results of the consultation undertaken for this project.

3.1 THE CONSULTATION PROCESS

The ACHCRs provide the process for undertaking consultation with the Aboriginal community. This process includes identification, registration, engagement and consultation with those Aboriginal people who may have cultural knowledge which is relevant to determining the cultural significance of Aboriginal objects and places which may be within the study area.

The ACHCRs detail a number of stages for consultation, as follows:

- Identification of those people who should be consulted for the project
- Inviting Aboriginal people to register their interest in being consulted for the project
- Providing information regarding the nature and scope of the project to the Aboriginal people who have registered an interest in being consulted – the registered Aboriginal parties (RAPs)
- Providing opportunities for RAPs to comment on the proposed methodology for cultural heritage consultation



- Presenting information about the potential impacts of the proposed development for the RAPs to comment on
- Providing opportunities for RAPs to comment on the cultural significance of the proposed development area
- Providing opportunities for RAPs to comment on the draft reports detailing the results of the archaeological and cultural assessments for the project

A log of all correspondence undertaken as part of the assessment must be maintained. This log is attached as Appendix A.

3.2 STAGE 1 CONSULTATION: COMMENCEMENT

Stage 1 requires a list of Aboriginal people who may have cultural knowledge relevant to the area to be prepared from several sources of information. The first step requires enquiries to be made of certain statutory bodies regarding whether they are aware of Aboriginal people or organisations that may have an interest in the study area, and their contact details. Any Aboriginal people or organisations identified in this step must be contacted and invited to register an interest in the project. In addition, a notification must be placed in local print media requesting Aboriginal people or organisations to register their interest in the project. A list of those who register an interest must be compiled. A minimum of 14 days from the date of the letter or newspaper advertisement must be allowed for registrations of interest.

As a result of the Stage 1 activities, a list of Aboriginal people who wish to be consulted for the project is developed. These Aboriginal people become the registered Aboriginal parties – the RAPs – for the project.

Letters requesting the details of Aboriginal people who may hold cultural knowledge relevant to the study area and who may wish to be consulted for the project were sent to several statutory agencies on 4 September 2024. Copies of these letters and responses are attached in Appendix B. These Step 1 letters were sent to the following agencies:

- Heritage NSW
- Greater Sydney Local Land Services (LLS)
- Strathfield Council
- Metropolitan Local Aboriginal Land Council (MLALC)
- Office of the Registrar, *Aboriginal Land Rights Act 1983 (NSW)* (ORALRA)
- Native Title Services Corp (NTSCorp).

Responses were received from Heritage NSW, Greater Sydney LLS and ORALRA. Heritage NSW provided a list of Aboriginal people and organisations. LLS noted they were not a primary source of contact lists of Aboriginal Communities and referred



to Heritage NSW. ORALRA noted there were no Registered Aboriginal Owners in the study area and referred to Metropolitan LALC. These individuals and organisations identified in the above step were invited to participate in consultation for the project.

An online search of the National Native Title Tribunal (NNTT) did not result in any Native Title owners or claimants for the study area.

The Aboriginal people and organisations identified during this initial stage were contacted via letter (email if provided or via post if no email address given) on 25 September 2024, inviting them to register an interest in the project. Registrations were accepted until 9 October 2024. This is Step 2 of Stage 1 of consultation. Copies of these letters are attached in Appendix C.

In addition, an advertisement was placed in the *Daily Telegraph* on 26 September 2024, inviting registrations of interest from people who may have cultural knowledge of the study area. A copy of the ad is attached in Appendix D.

A total of nine Aboriginal people and organisations registered an interest in being consulted for the project. The following list comprises the RAPs for the project:

- Dharug Custodian Aboriginal Corporation
- Didge Ngunawal Clan
- Guntawang Aboriginal Resources Incorporated
- Ngambaa Cultural Connections
- Thomas Dahlstrom
- Long Gully Cultural Services
- Pearl Depoma
- Aragung Aboriginal Cultural Heritage Site Assessments
- Ginninderra Aboriginal Corporation

3.3 STAGE 2 & 3 CONSULTATION: PRESENTATION AND GATHERING OF INFORMATION

During Stage 2, information about the proposed project is provided to the RAPs, including location, scale, proposed development plans, timeframes, methodologies and any other relevant details relating to the project. This information can be provided in writing or at a meeting (or both), and an opportunity for the RAPs to visit the site may also be provided.

During Stage 3, RAPs are invited to share information about the cultural significance of the study area, which can assist in the assessment of the cultural significance of the Aboriginal objects and/or places within the study area. The cultural heritage assessment informs and integrates with the scientific assessment of significance and therefore can assist in the development of mitigation and management measures for the project. A methodology detailing how this information will be gathered must



be provided to the RAPs for comment and a minimum of 28 days must be allowed for responses to be received. Any feedback must be considered and implemented as appropriate into the methodology.

Stage 2 and 3 can be undertaken concurrently. The information about the project and the methodology for seeking cultural knowledge can be provided in the same written documentation or at the same meeting.

Details of the proposed project and the proposed methodology for undertaking the cultural heritage and archaeological assessments for the project were provided in writing to each of the RAPs on 15 October 2024. Comments were accepted until 13 November 2024. Two RAPS were late registrations. They were provided the documents and were advised of the deadline for comments. Responses were received from the following groups or individuals:

- Didge Ngunawal Clan
- Dharug Custodian Aboriginal Corporation
- Guntawang Aboriginal Resources Incorporated
- Ngambaa Cultural Connections
- Long Gully Cultural Services

All responses were favourable and endorsed our proposed methodology. One RAP requested that *“any artefacts identified on this property of significance to the First Peoples of this land that they are gather and placed in a safe location where they will not come to further harm.”* No alternatives to our methodology were suggested or requested. The RAP responses are attached in Appendix E and are detailed in Table 2.

Table 2: RAP responses to Information and Methodology document

RAP	RAP Comment	Apex Archaeology Response
Didge Ngunawal Clan	We are happy with everything and hopefully we can work with you soon	Noted with thanks.
Dharug Custodian Aboriginal Corporation	Dharug Custodian Aboriginal Corporation agree with the methodology set out in this report.	Noted with thanks.
Ngambaa Cultural Connections	No further comments at this stage	Noted with thanks.
Long Gully Cultural Services	I agree with the methodology for this project.	Noted with thanks.
Guntawang Aboriginal	Thanks for accepting our registration. I understand that a SSDA will take preference on this project, and a AHIP will be issued. My	Noted with thanks and



Resources Incorporated	comments are if there are any artefacts identified on this property of significance to the First Peoples of this land that they are gather and placed in a safe location where they will not come to further harm.	acknowledged this request.
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No other comments were received from any of the other RAPs for the project, and no specific cultural information pertaining to the study area was received from any of the RAPs for the project during this stage of consultation.

3.4 STAGE 4: REVIEW OF DRAFT REPORT

Stage 4 sees the preparation of the draft ACHAR, which details the results of the cultural heritage assessment. The draft is provided to the RAPs for their review and comment. A minimum of 28 days to comment on the ACHAR must be allowed. All comments must be addressed in the final document and the proponent's response to RAP comments must be included. Copies of any submissions received from RAPs must be included in the final ACHAR.

The draft report was provided to all RAPs on 29 January 2025, with comments accepted until 26 February 2025. No responses were received from any of the RAPs for the project. Consultation with the Aboriginal community for this project has been conducted in accordance with the ACHCRs. A log of all correspondence is presented in Appendix A of this ACHAR. Copies of all correspondence are included in Appendix F.



4.0 ABORIGINAL CULTURAL HERITAGE

An analysis of previous archaeological work within the study area assists in the preparation of predictive models for the area, through understanding what has been found previously. By compiling, analysing and synthesising the previous archaeological work, an indication of the nature and range of the material traces of Aboriginal land use is developed. An understanding of the context in which the archaeological assessment is vital, as development does not occur within a vacuum, but within a wider cultural landscape, and this must be considered during any archaeological assessment in order to develop appropriate mitigation and management recommendations.

This section presents information about both the physical and cultural landscape in which the study area is located, based on previous archaeological and ethnohistorical studies, to provide context and background to the existing knowledge of Aboriginal culture in the area.

4.1 EXISTING ENVIRONMENT

The study area is located within the Cumberland Plain of the Sydney Basin, a region characterised by its undulating topography, clay-rich soils, and fragmented vegetation remnants. The site lies in the Sydney Coastal Bioregion, which features a mix of alluvial plains and elevated ridges. The Cumberland Plain Woodland, once the dominant vegetation type, has been significantly altered due to urban development. The study area has been heavily disturbed by previous land-use practices, including urban infrastructure development, vegetation clearance, and the construction of car parks. These activities have significantly impacted the ground surface, reducing the potential for intact archaeological deposits.

4.1.1 GEOLOGY

The geology of the study area is defined by the Wianamatta Group shales, a sedimentary rock formation comprising Ashfield Shale and Bringelly Shale. These rocks are characterised by fine-grained siltstones, shales, and occasional sandstone lenses. The low permeability of these shale formations influences drainage patterns and soil formation. The geological characteristics of the Wianamatta Group shales provide limited natural sources of raw materials for Aboriginal stone tool production, although secondary deposits such as river gravels may have been used.

4.1.2 SOIL LANDSCAPES

The study area encompasses two primary soil landscapes: the Blacktown and Birrong soil landscapes, both of which are derived from the Wianamatta Group shales. The Blacktown soil landscape is characterized by shallow to moderately deep soils, with red and brown podzolic soils dominating the elevated and well-drained areas. In contrast, poorly drained sections of the Blacktown soil landscape exhibit yellow

podzolic soils. These soils are significant archaeologically, as their stratigraphy can preserve subsurface cultural deposits, particularly in areas with minimal historical disturbance. The Birrong soil landscape, on the other hand, comprises deep alluvial soils typically found on floodplains. These soils are clay-rich and can preserve organic materials under the right conditions, offering potential for the retention of archaeological evidence, such as artefacts or ecofacts, associated with past Aboriginal use of floodplain environments. However, the extensive historical disturbance across the study area, including land levelling and urban development, has likely compromised the integrity of these soil profiles, reducing their capacity to preserve undisturbed archaeological deposits.

4.1.3 HYDROLOGY

The study area is situated approximately 2 kilometres from Haslams Creek, a third-order watercourse, and 3.5 kilometres from the Parramatta River, a fourth-order watercourse. These waterways would have been significant for Aboriginal communities, providing essential resources such as fresh water, fish, and riparian vegetation. The Parramatta River, in particular, served as a major artery for transportation and sustenance in the pre-contact period and likely held cultural and economic importance for the Aboriginal groups of the region.

Watercourses classification ranges from first-order ephemeral creeks to fourth-order permanent rivers (Figure 5). First-order watercourses represent minor streams, while fourth-order systems, such as the Parramatta River, are larger and more permanent, supporting a greater variety of ecological resources.

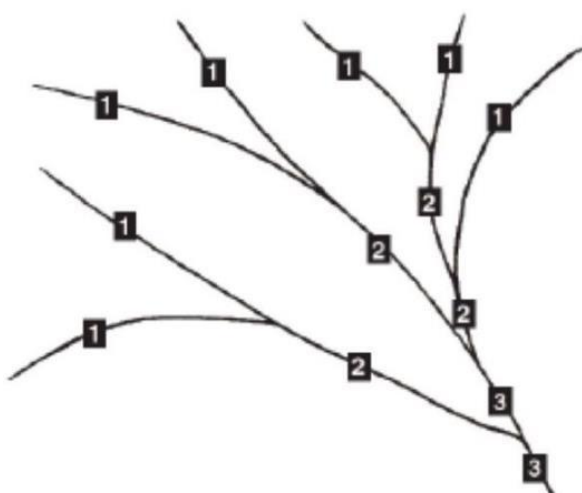


Figure 5: The Strahler system (Source: Department of Planning and Environment 2016).

The relative proximity of the study area to these water sources increases the likelihood of Aboriginal occupation or activity in the broader region. However, the



significant ground disturbance within the study area has likely disrupted or removed cultural materials associated with these hydrological features, diminishing the potential for intact archaeological deposits.

4.1.4 FLORA AND FAUNA

The current vegetation within the study area is predominantly composed of regenerated or replanted native and introduced plant species, reflecting the extensive urbanisation and land-use changes in the Homebush region. Much of the original Cumberland Plain Woodland, which once dominated the area, has been cleared or significantly altered. The existing vegetation includes scattered native trees such as Forest Red Gum (*Eucalyptus tereticornis*) and Grey Box (*Eucalyptus moluccana*), alongside patches of introduced grasses and weeds typical of disturbed environments (NSW National Parks and Wildlife Service [NPWS], 2002).

Urban landscaping has contributed to the presence of non-native species, including ornamental trees and shrubs. Groundcover vegetation is sparse in many areas, with a dominance of introduced species such as Kikuyu Grass (*Pennisetum clandestinum*) and African Lovegrass (*Eragrostis curvula*). These species reflect the disturbed nature of the site and the historical development of infrastructure (Fairfax & Fensham, 2000). The fauna in the area has adapted to the urban and modified landscape. Common species include Australian Magpies (*Gymnorhina tibicen*), Noisy Miners (*Manorina melanocephala*), and Rainbow Lorikeets (*Trichoglossus moluccanus*) (Attenbrow, 2010). Mammals are largely limited to urban-adapted species such as the Common Brushtail Possum (*Trichosurus vulpecula*) and European Red Fox (*Vulpes vulpes*).

Amphibians such as the Common Eastern Froglet (*Crinia signifera*) may inhabit wetter areas if present, while reptiles like the Eastern Water Skink (*Eulamprus quoyii*) may be found in rocky or vegetated patches (Strathfield Council, 2024). The hydrological changes and urban development have significantly reduced the diversity of native species and ecosystems. While the study area no longer supports the rich biodiversity that characterised the original Cumberland Plain Woodland, it remains an important corridor for some wildlife, particularly birds, which use the remaining native trees for feeding and nesting. These remnants serve as vital habitats amidst the surrounding urban matrix.

The vegetation within the area prior to colonisation would have consisted of Cumberland Plain Woodland species, including native grasses, shrubs, and trees such as Sydney blue gum (*Eucalyptus saligna*), forest red gum (*Eucalyptus tereticornis*), and narrow-leaved ironbark (*Eucalyptus crebra*). Many of these would have provided resources for Aboriginal people, either for dietary needs or to provide tools, or to feed fauna that were hunted. These woodland ecosystems, once widespread across the Cumberland Plain, supported a diversity of native flora that



offered materials for food, tools, and shelter. Both floral and faunal resources would have been exploited by the Aboriginal people in the area. Plants would have provided wood for tools and implements such as canoes, shields and coolamons to carry water, and the plants would have provided berries, tubers, seeds, leaves and nectar for food.

The diet of Aboriginal people also relied on the native wildlife which varied, depending on the animal resources that were available to them within their surrounding environment, or perhaps may have obtained through trade. There would have been abundant food sources, including fish from the river and creeks, as well as small animals such as wallabies, possums, small birds, amphibians and reptiles.

4.2 ETHNOHISTORY

Ethnohistorical evidence is based on the reports of colonisers and does not tend to include the Aboriginal perspective, leading to a Eurocentric view of Aboriginality. Additionally, historical records can be contradictory and incomplete regarding the exact tribal boundaries and locations of ceremonial or domiciliary activities of Aboriginal people pre-contact within the South Coast region. Boot (2002:58) notes:

The problem associated with ethnohistoric documents include their tendency to record unusual, rather than everyday events, and their focus on religious behaviour to the exclusion of woman and children (Attenbrow 1976:34; Sullivan 1983:12.4).

The study area is located in Homebush Bay, within the traditional lands of the Wangal people, a clan of the Dharug language group. The Wangal's territory extended along the southern shore of the Parramatta River, from present-day Leichhardt to Auburn, encompassing the Homebush Bay area (Attenbrow 2010). The Wangal were one of over 30 Aboriginal groups recorded as living within the broader Sydney area in 1788, each with their own country, practices, and dialects. The Dharug language group extended from the eastern suburbs of Sydney, south to Botany Bay, west to Bathurst, and north to the Hawkesbury River (Eades, 1976).

The traditional lifestyles of Aboriginal groups such as the Wangal depended largely on the environment in which they lived. The diet of Aboriginal people varied depending on the resources that were available to them and which were related to the landscape in which people lived. The study area would likely have had open woodlands prior to the arrival of colonists, and these would have supported a range of resources for food, medicine, and everyday living.

Aboriginal society was constructed of a hierarchy of social levels and groups, with fluid boundaries (Peterson 1976), with the smallest group comprising a family of a man and his wife/wives, children and some grandparents, referred to as a 'clan



(Attenbrow 2010). The next level consists of bands, which were small groups of several families who worked together for hunting and gathering purposes, also known as a 'band' (Attenbrow 2010). The third level comprised regional networks with a number of bands, and these bands generally shared a common language dialect and/or had a belief in a common ancestor. Networks would come together for specific ceremonial purposes. The highest level is described as a tribe, which is usually described as a linguistic unit with flexible territorial boundaries (Peterson 1976); although Attenbrow (2010) argues that "these groups were not tribes in the current anthropological sense of the word".

The traditional custodians of the Homebush Bay area relied heavily on the diverse ecosystems surrounding the Parramatta River. The vegetation within the region originally comprised Cumberland Plain Woodland, characterised by a canopy of *Eucalyptus moluccana* (Grey Box), *Eucalyptus tereticornis* (Forest Red Gum), and *Eucalyptus crebra* (Narrow-leaved Ironbark) (NSW NPWS, 2002). The understorey featured native grasses such as *Themeda triandra* (Kangaroo Grass) and shrubs like *Dianella revoluta* (Blue Flax Lily). These plants played an essential role in Wangal life, providing resources for food, tools, and materials.

The bark of Eucalyptus trees was used to craft canoes for fishing and transportation, as well as shields and containers. Wood was shaped into spears, digging sticks, and fire tools, while fibres from grasses like Kangaroo Grass were woven into nets and baskets. Edible plants provided berries, tubers, seeds, and nectar. For instance, the nectar from Banksia and Grevillea flowers was collected for sweet drinks, while seeds from Kangaroo Grass were ground into flour for damper.

Aboriginal people in the Homebush area also relied extensively on the fauna supported by the woodland and riparian ecosystems. Common prey species included Eastern Grey Kangaroos (*Macropus giganteus*), Swamp Wallabies (*Wallabia bicolor*), and Common Brushtail Possums (*Trichosurus vulpecula*). Birds such as Rainbow Lorikeets (*Trichoglossus moluccanus*) and Australian Magpies (*Gymnorhina tibicen*) were hunted for their meat, while Eastern Long-necked Turtles (*Chelodina longicollis*) and amphibians were caught along the water's edge (Attenbrow, 2010).

The estuarine environment of the Parramatta River provided a rich supply of aquatic resources. Fish such as Australian Bass (*Macquaria novemaculeata*) and Eels (*Anguilla australis*) were caught using spears, nets, and traps. Shellfish, including oysters, were collected along the shoreline, and crustaceans such as crabs were harvested from mangrove areas. Seasonal gatherings often coincided with fishing and foraging activities, fostering both sustenance and social exchange among groups.

Access to fresh water was essential for the people of the region, with the Parramatta River, located approximately 1 km north of the study area, serving as a primary



water source. This river not only provided drinking water but also supported a rich array of aquatic resources and held significant spiritual value. Ephemeral drainage lines and smaller watercourses within the surrounding area complemented the river, offering additional seasonal resources and habitats for flora and fauna.

The study area's diverse environments, including riparian zones and remnants of Cumberland Plain Woodland, supported a variety of plants and animals. Creek banks and gullies provided habitats for game such as kangaroos, wallabies, and reptiles, which were hunted as vital protein sources. Aquatic resources such as fish, shellfish, and crustaceans were readily available from the Parramatta River, with fishing conducted using spears and traps. Plant resources also formed a critical part of the Aboriginal diet, with tubers, seeds, berries, and nectar harvested throughout the year (Attenbrow, 2010). The vegetation communities along the creeks and gullies, primarily woodlands, would have provided shelter for numerous animal and plant species that could be eaten or used for other purposes such as providing shelter and medicines. Kangaroos, emus and reptiles were hunted as source of protein, and a range of roots, including water lily tubers, were roasted and eaten (Miller 1886). A range of other resources such as bandicoots, birds, kangaroo rats, possums, rats, snakes, lizards, fish, caterpillars, grubs, shellfish, wallabies, larvae of wasps, and other insects were used to support their diet (Fawcett 1898).

These resources sustained the local people's traditional lifestyle, reflecting their deep understanding of seasonal changes and sustainable practices. This connection to the environment highlights the significant cultural and ecological importance of the Homebush Bay area.

The Aboriginal people of the area would have utilised a range of hunting and gathering equipment, including fishing and hunting spears made of wood and barbed with shell, flaked stone blades, shark teeth, or sharpened bone; boomerangs and spear-throwers; fishing hooks made from bird talons, bone, wood and shell; ground stone axes; anvils and pounders; stone tools including blades and scrapers; shields, clubs and digging sticks made from wood; baskets made from bark; and wooden canoes (Attenbrow 2010).

Shelter is a basic need for any humans and historical records report either rockshelters or huts constructed from bark, branches and leaves were utilised for shelter. These shelters, often referred to as gunyahs, were practical and adaptable, suited to the local environment and seasonal requirements. The Wangal people likely constructed such shelters along the Parramatta River, where materials like Eucalyptus bark and other woodland resources were readily available (Attenbrow, 2010).

Unlike inland regions with sandstone escarpments providing natural rock shelters, the Homebush Bay area features relatively flat terrain, necessitating purpose-built



huts. Historical accounts from early European observers, such as Watkin Tench, describe Aboriginal huts in the Sydney region as semicircular structures, open at one end and capable of accommodating several people. These huts could be easily dismantled and transported as groups moved seasonally to access resources (Tench, 1789/1979; Attenbrow 2010; Penfold 2017). There is some discussion regarding whether Aboriginal people moved regularly from place to place, or whether they lived at one campsite for a longer period of time and ranged out for resources, returning to their home base as necessary, with Penfold providing oral histories stating that peoples tended to have multiple home bases for different seasons, and relied on gunyahs for shelter (Penfold 2017).

The Wangal people likely employed a semi-sedentary lifestyle, establishing camps near the Parramatta River while venturing further afield for hunting, fishing, and gathering. This mobility allowed them to efficiently exploit seasonal resources while maintaining strong connections to their land. Gunyahs were integral to this way of life, providing protection and comfort while reflecting the Wangal's intimate knowledge of their environment and its resources (Attenbrow, 2010; Aboriginal Heritage Office, n.d.).

4.2.1 RAW MATERIALS

A wide range of raw materials were selected by Aboriginal people for flaking to create stone implements. Material types ranged from high quality to poor quality for flaking purposes, depending on the geology of the area and readily available material types. The following is a description of a range of raw material types known to have been utilised by Aboriginal people for the creation of stone artefacts.

BRECCIA

Breccias are coarse, angular volcanic fragments cemented together by a finer grained tuffaceous matrix.

CHALCEDONY

Chalcedony is a microcrystalline, siliceous rock which is very smooth and can be glossy. Introduction of impurities can produce different coloured versions of chalcedony, including yellow/brown (referred to as carnelian), brown (sard), jasper (red/burgundy) and multicoloured agate. It flakes with a sharp edge and was a prized material type for the creation of stone artefacts in parts of Australia (Kuskie & Kamminga 2000: 186).

CHERT

Chert is a highly siliceous sedimentary rock, formed in marine sediments and also found within nodules of limestone. Accumulation of substances such as iron oxide during the formation process often results in banded materials with strong colours. Chert is found in the Illawarra Coal Measures and also as pebbles and colluvial



gravels. It flakes with durable, sharp edges and can range in colour from cream to red to brown and grey.

PETRIFIED WOOD

Petrified wood is formed following burial of dead wood by sediment and the original wood being replaced by silica. Petrified wood is a type of chert and is a brown and grey banded rock and fractures irregularly along the original grain.

QUARTZ

Pure quartz is formed of silicon dioxide, and has a glossy texture and is translucent. Introduction of traces of minerals can lead to colouration of the quartz, such as pink, grey or yellow. The crystalline nature of quartz allows for minute vacuoles to fill with gas or liquid, giving the material a milky appearance.

Often quartz exhibits internal flaws which can affect the flaking quality of the material, meaning that in general it is a low-quality flaking material (Kuskie & Kamminga 2000: 186). However, quartz is an abundant and widely available material type and therefore is one of the most common raw materials used for artefact manufacture in Australia. Flaking of quartz can produce small, very sharp flakes which can be used for activities such as cutting plant materials, butchering and skinning.

QUARTZITE

Formed from sandstone, quartzite is a metamorphic stone high in silica that has been heated or had silica infiltrate the voids found between the sand grains. Quartzite ranges in colour from grey to yellow and brown.

SILCRETE

Silcrete is a siliceous material formed by the cementing of quartz clasts with a matrix. These clasts may be very fine grained to quite large. It ranges in colour from grey to white, brown, red or yellow. Silcrete flakes with sharp edges and is quite durable, making silcrete suitable for use in heavy duty woodworking activities and also for spear barbs (Kuskie & Kamminga 2000:184).

TUFF/INDURATED MUDSTONE

There is some disagreement relating to the identification of lithic materials as tuff or indurated mudstone. The material is a finely textured, very hard yellow/orange/reddish-brown or grey rock. Kuskie and Kamminga (2000: 6, 180) describe that identification of lithic materials followed the classification developed by Hughes (1984), with indurated mudstone described as a common stone material in the area. However, Kuskie and Kamminga's analysis, which included x-ray diffraction, identified that lithics identified as 'indurated mudstone' was actually rhyolitic tuff, with significant differences in mineral composition and fracture



mechanics between the stone types. They define mudstone as rocks formed from more than 50% clay and silt with very fine grain sizes and then hardened.

The lithification of these mudstones results in shale (Kuskie & Kamminga 2000: 181) and thus 'indurated mudstone', in the opinion of Kuskie and Kamminga, do not produce stones with the properties required for lithic manufacture.

In 2011, Hughes, Hiscock and Watchman undertook an assessment of the different types of stones to determine whether tuff or indurated mudstone is the most appropriate terminology for describing this lithic material. The authors undertook thin section studies of a number of rocks and determined that the term 'indurated mudstone' is appropriate, with an acknowledgment that some of this material may have been volcanic in origin. They also acknowledge that precise interpretation of the differences between material types is difficult without detailed petrological examination, and suggest that artefacts produced on this material are labelled as 'IMT' or 'indurated mudstone/tuff'. Volcanic tuff forms from the tiny ash particles that are also released during volcanic explosions. When it cools it hardens into a fine-grained rock called 'tuff'.

BASALT

Basalt, which is commonly referred to as 'blue metal', is solidified lava that was produced by now extinct volcanoes and diatremes that are spread-out within the Sydney Basin. If the lava cools quickly it results in fine-grained basalt that is easily flaked or ground to make tools, implements or weapons.

Basalt would have been either collected from the primary deposits formed during the eruption, which would require pieces to be broken off (quarried) or it was collected in cobble-form from a creek bed or shoreline. Cobbles are referred to as secondary sources as they are formed from pieces of rock that have been dislodged from their primary source and end up in creeks and/or river systems (Petrequin 2016; Attenbrow et al. 2017). The flow of water moves them around and smooths them into water-rolled cobbles that can be transported considerable distance from the original source. Basalt was often used to make axes which were either flaked into the desired shape from quarried stone, or from cobbles which quite often only required only one end to be ground into a sharp working edge.

Basalt cobbles can be found along the banks of rivers, and in bedrock quarries within the Hunter Region. Recent research undertaken by the Australian Museum and University of New England using portable XRF technology demonstrated that a number of stone axes held at the Australian Museum from the Hunter Valley area have been traced to these sources (Attenbrow et al. 2017).



4.2.2 PROCUREMENT

Assemblage characteristics are related to and dependent on the distance of the knapping site from raw materials for artefact manufacture, and different material types were better suited for certain tasks than other material types. Considerations such as social or territorial limitations or restrictions on access to raw material sources, movement of groups across the landscape and knowledge of source locations can influence the procurement behaviour of Aboriginal people. Raw materials may also have been used for trade or special exchange between different tribes.

4.2.3 MANUFACTURE

A range of methodologies were used in the manufacture of stone artefacts and tools, through the reduction of a stone source. Stone may have been sourced from river gravels, rock outcrops, or opportunistic cobble selection. Hiscock (1988:36-40) suggests artefact manufacture comprises six stages, as follows:

1. The initial reduction of a selected stone material may have occurred at the initial source location, or once the stone had been transported to the site.
2. The initial reduction phase produced large flakes which were relatively thick and contained high percentages of cortex. Generally the blows were struck by direct percussion and would often take advantage of prominent natural ridges in the source material.
3. Some of these initial flakes would be selected for further reduction. Generally only larger flakes with a weight greater than 13-15 grams would be selected for further flaking activities.
4. Beginning of 'tranchet reduction', whereby the ventral surface of a larger flake was struck to remove smaller flakes from the dorsal surface, with this retouch applied to the lateral margins to create potential platforms, and to the distal and proximal ends to create ridges and remove any unwanted mass. These steps were alternated during further reduction of the flake.
5. Flakes were selected for further working in the form of backing.
6. Suitable flakes such as microblades were retouched along a thick margin opposite the chord to create a backed blade.

Hiscock (1986) proposed that working of stone materials followed a production line style of working, with initial reduction of cores to produce large flakes, followed by heat treatment of suitable flakes before the commencement of tranchet reduction. These steps did not necessarily have to occur at the same physical location, but instead may have been undertaken as the opportunity presented.

Although probably less common than the process of flaking stone to modify it, the grinding technique was used within the Sydney Basin. This has been documented by early settlers particularly in the manufacture of axe heads where the end of a cobble was ground to achieve a working edge (Corkill 2005).



4.3 LAND USE HISTORY

4.3.1 INDIGENOUS OCCUPATION

When Aboriginal occupation of Australia is likely to have first commenced, around 60,000 years ago (Mulvaney and Kamminga 1999; Bowdler *et al* 2003; Attenbrow 2010), sea levels were around 30-35m lower than present levels, and this further decreased to up to 130m lower than present sea levels (Attenbrow 2010). Sea levels stabilised around 7-6,500 years ago to approximately their current levels, and as a result many older coastal sites would have been inundated with increasing sea levels. It is possible that areas that are now considered “coastal” would once have limited resources available to Aboriginal people, and as such would have been less likely to have been occupied or used for repeated habitation sites.

Archaeological work at the Madjedbebe site in Arnhem Land in the Northern Territory revealed evidence confidently dated to the period before 45-46 ka and possibly up to 50-55 ka (Clarkson *et al* 2015). In NSW, there is strong evidence available to support Aboriginal occupation of the Cumberland Plain region in the Pleistocene period (approximately 40 ka) and possibly earlier. Work in Cranebrook Terrace was dated to 41,700 years BCE by Stockton and Holland (1974), and a site in Parramatta within deep sandy deposits was dated to 25-30 ka (JMcDCHM 2005). Kohen’s 1984 assessment of Shaws Creek in the Blue Mountain foothills yielded ages of 13 ka, while Loggers Shelter at Mangrove Creek was dated to 11 ka by Attenbrow (1987). Deeply stratified occupation deposits at Pitt Town were dated to 39ka (Apex Archaeology 2018). These ages are obtained from both radiocarbon and optically stimulated luminescence (OSL) dating.

Some experts have cast doubt onto the assessment of the items from Cranebrook Terrace as artefactual (Mulvaney & Kamminga 1999; McDonald 2008), although they do not doubt the results of the radiocarbon dates – it is the association of the artefacts with the dated deposits that is problematic, and Mulvaney and Kamminga (1999) consider that there are better examples of sites with more robust identification of age available. There has certainly been a great deal of research undertaken within the Sydney region in the intervening years.

Changing sea levels resulted in the ecological systems of the hinterland areas changing too, resulting in differing resources becoming available. This led to an increase in evidence of habitation of areas from around 6,500 BP, although it is unclear whether this relates to the survivability of more recent sites, or an increase in population. Hughes and Lampert (1982) suggested that a population increase is the only plausible explanation for the exponential increase in Holocene sites from 6,000 BP.



During the Holocene period around 6.5ka, sea levels increased and stabilised, which led to those groups on the coastal fringes turning inland (McDonald 2008). Around 5ka a change in archaeological assemblages can be seen, with an emphasis on the use of locally available stone for artefact production. Around 4,000 years ago people began to decrease their residential mobility and inhabit certain biogeographic zone on a permanent basis (McDonald 2008).

4.3.2 POST CONTACT OCCUPATION

Following the establishment of the first European settlement at Sydney Cove, the need for additional agricultural land was identified, as Sydney Cove was considered unsuitable for farming. By November 1788, food supplies were running low for the settlement, and an expedition led by Governor Philip set off up the Parramatta River in search of arable land. An area known as Rose Hill (now Parramatta) was settled by a small group of 11 soldiers and 10 convicts. The grain crops at Sydney Cove failed, and the settlement at Rose Hill was ordered to be used for agriculture. These crops were luckily successful, and a further settlement comprising a convict farm was established at Toongabbie.

One of the earliest land grants in the Homebush region was issued in 1793 to free settlers arriving on the ship *Bellona*. Recipients included Thomas Rose, Edward Powell, and Frederick Meredith. Powell notably established the Half-Way House Inn on Parramatta Road, which served as a critical waypoint for travellers between Sydney and Parramatta (City of Canada Bay Heritage Society, n.d.). In 1797, Samuel Haslam received a grant in what is now Homebush Bay, and the creek running through his property, Haslams Creek, bears his name (Strathfield Heritage, n.d.).

The name "Homebush" itself is attributed to the estate established by Thomas Laycock in 1794. Laycock's property grew to 318 hectares by 1803, and he named it "Home Bush" (Jones, 1985). Later, D'Arcy Wentworth acquired the estate, expanding it and establishing Australia's first horse stud. His son, William Charles Wentworth, developed the area further, building a racecourse in 1840, which became the centre of Australian racing until 1859 (City of Canada Bay Heritage Society, n.d.). By the early 19th century, Homebush Bay was dominated by two large estates: the Newington Estate to the north and the Home Bush Estate to the south. John Blaxland acquired the Newington Estate in 1807 and engaged in various enterprises, including salt production and flour milling. Newington House, built in 1832, remains a significant heritage site today within the Silverwater Correctional Complex (Jones, 1985).

The Home Bush Estate served as a hub for agricultural and equestrian activities, reflecting the area's rural character during this period (Sydney Olympic Park Authority [SOPA], n.d.-a). The late 19th and early 20th centuries saw Homebush Bay transition from a predominantly agricultural area to an industrial hub. The NSW

Government resumed parts of the Newington and Home Bush estates for public infrastructure. The State Abattoirs were established in 1907, and the State Brickworks shortly after, transforming the area into a centre of industrial activity (SOPA, n.d.-b). These developments significantly altered the natural landscape, including extensive land reclamation and the degradation of local waterways. The area's industrial heritage includes the shipwrecks of Homebush Bay, remnants of its maritime activities and land reclamation projects. These shipwrecks, visible today, provide a tangible link to the bay's past (Strathfield Heritage, n.d.).

The available aerial imagery from 1977 (Figure 6) reveals the level of urban development which has been completed to date, with a dense network of roads, industrial facilities, and residential neighbourhoods now dominating the landscape. By 1985 (Figure 7), the area has undergone further expansion and consolidation of urban and industrial development. Large-scale infrastructure projects, such as expanded roadways and rail lines, are clearly visible, reflecting the increasing connectivity of the area. The imagery from this period demonstrates the near-complete urbanisation of the landscape, with minimal remaining natural features.

Both historical aerial images demonstrate that the study area has undergone some level of disturbance across the entirety of the site.

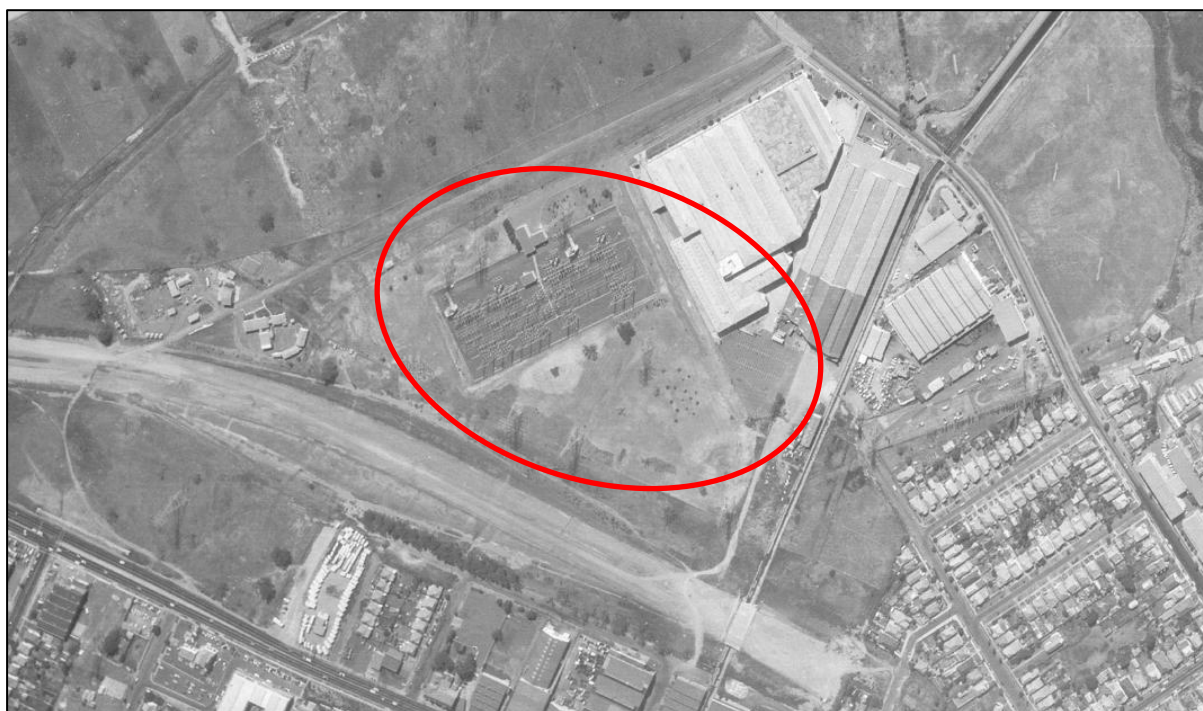


Figure 6: Detail of 1977 aerial imagery, with approx study area circled in red

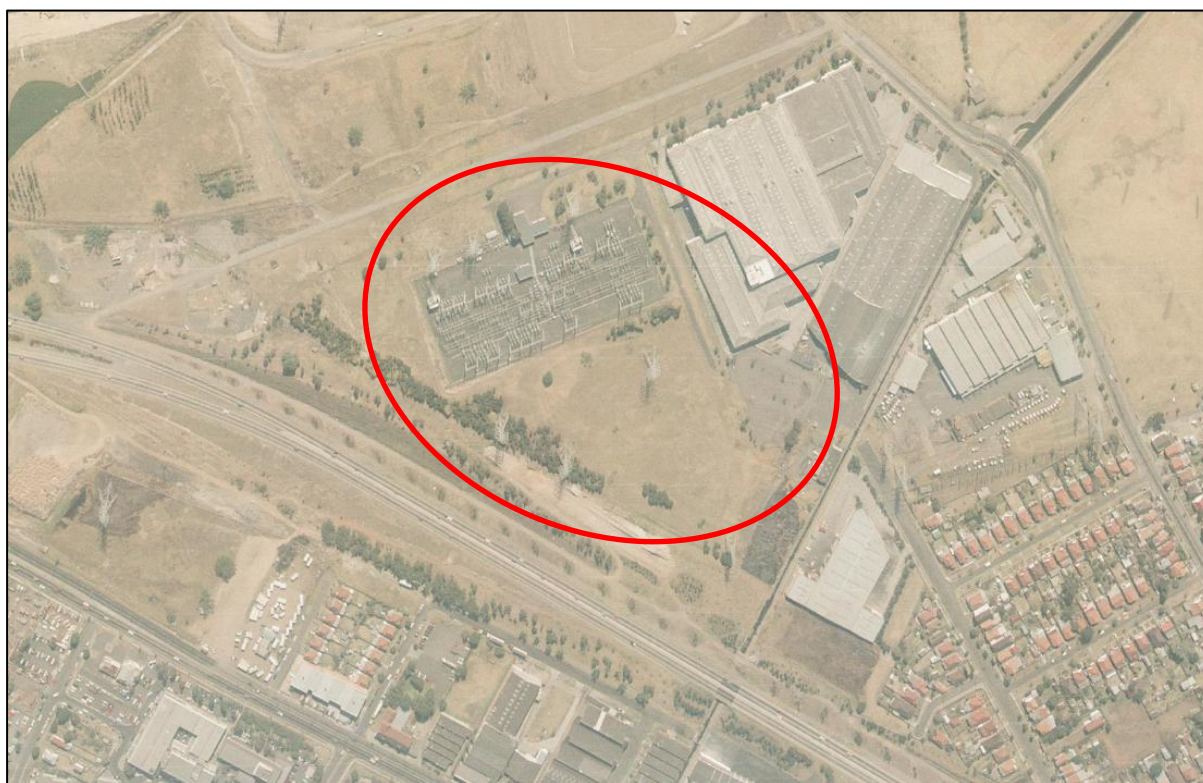


Figure 7: Detail of 1985 aerial imagery, with approx study area circled in red

4.4 ARCHAEOLOGICAL CONTEXT

Previous archaeological assessments assist in understanding the archaeological context of the area and in forming predictions for the location of Aboriginal cultural material within a landscape. This includes searching the AHIMS database for previously registered sites and a review of previously completed archaeological assessments.

4.4.1 AHIMS RESULTS

A basic search of the study area was conducted on the AHIMS register on 18 December 2024 using the Lot and DP of the property with a 1km buffer. There were no sites identified within or close to the study area. A copy of the Basic Search is attached in Appendix G.

4.5 LITERATURE REVIEW

The archaeological work previously completed within the wider region is summarised here. Although there does not appear to be a specific archaeological assessment undertaken for the current area, there have been archaeological assessments completed across the surrounding areas, including a range of academic assessments, resource management studies and development impact assessments.

All of these assist in informing the archaeological assessment of sites within the region.

A review of previous archaeological work within the surrounding region of the study area was undertaken. Few studies within Homebush itself have been undertaken, so the search was widened to the surrounding region in general. A number of reports were identified from background research and the AHIMS database and are detailed below.

Table 3: Previous assessments undertaken by archaeological consultants in the wider region

Consultant	Date	Sites Identified	Region
Attenbrow, V	1996	68 cultural lithics	Parramatta Park, Parramatta, NSW
AHMS	2003a	2 isolated artefacts, moderate subsurface archaeological potential	Castle Hill Heritage Park site, Castle Hill, NSW
AHMS	2003b	21 items recovered, 5 artefactual at minimum	Castle Hill Heritage Park site, Castle Hill, NSW
Irish, P.	2004	Reassessment of potential culturally modified trees, determined not to be CMTs, but natural scars. Identification of previously unregistered cultural lithics.	Sydney Olympic Park, Newington Nature Reserve
Corkill, T.	2005	Analysis of 326 edge-ground hatchet heads collected from region surrounding Sydney. Aim to identify original or potential source locations of hatchets.	Sydney Region
JMCHM	2005a	Salvage excavation of previously identified site; total of 4,775 cultural lithics recovered and radiocarbon date of 30,000 BP. RTA-G1 site.	Former river terrace, George Street, Parramatta, NSW
JMCHM	2005b	Salvage excavation recovered 6,500 cultural lithics with artefact density of 24/m ² at CG-1 Site	Charles St and George Street intersection, Parramatta, NSW
JMCHM	2005c	33,000 cultural lithics across 482 m ² excavation area	Caddies, Second Ponds, Smalls and Cattai Creek, Castle Hill, NSW
JMCHM	2006	Site CG3. Salvage excavation of <10,000 artefacts within a 30,000 square metre area.	101-101A George Street, Parramatta, NSW
Austral Archaeology	2007	601 complete and broken flakes identified – half the assemblage was tuff – low density scatter	95 George Street, Parramatta, NSW



Consultant	Date	Sites Identified	Region
AHMS	2009	None identified	Civic Place and Charles Street, Parramatta, NSW
Comber Consultants	2010a	350 artefacts recovered	15 Macquarie Street, Parramatta
Comber Consultants	2010b	60 artefacts recovered	140 Macquarie Street, Parramatta, NSW
GML and JMcDCHM	2012	32 sites identified comprising artefact scatters, isolated artefacts and PADs	North West Rail Link EIS
Comber Consultants	2013	59 artefacts recovered	Harris Street near Robin Thomas Reserve, Parramatta, NSW
Dominic Steele Consulting Archaeology	2013	Identified potential for subsurface Aboriginal archaeological deposits	184 – 188 George Street, Parramatta, NSW
Casey & Lowe	2014	Assessment/re-assessment of 7 archaeologically significant historic areas	Cumberland Precinct, North Parramatta, NSW
Comber Consultants	2015	High likelihood of archaeological subsurface deposits due to position with the Parramatta Terrace Sands – AHIP recommended	The Albion Hotel, Parramatta, NSW.
AECOM (WestConnex)	2015	No surface sites identified. Identified two areas of PAD outside the works corridor at Mason Park, Homebush and Queen Elizabeth Park, Concord.	Homebush Bay Drive to Parramatta Road, Haberfield, NSW.
Irish, P, T. Goward and A. Milgate	2017	Outcrops of silcrete in Homebush possibly traded around Cooks River	Cooks River, NSW
AECOM	2019	None identified	Potts Hill to Alexandria, NSW
Curio Projects	2020	Areas of PAD identified – recommended application for an AHIP for harm to #45-6-2648	Charles Street, Parramatta, NSW
Coomber Consultants	2021	No surface sites identified. Area of PAD identified; test excavation recommended	Marsden High School, Meadowbank, NSW
Artefact	2022	None identified	Paramatta Over and adjacent Station development, Paramatta, NSW



4.5.1 REGIONAL HERITAGE ASSESSMENTS

COMBER 2021

The Aboriginal Cultural Heritage Assessment Report prepared by Comber Consultants in 2021 assessed the impact of the proposed development of a new public school at 86 Chelmsford Avenue, Epping. The site, located within the Parramatta Local Government Area (LGA) and on the traditional lands of the Darug people, was subjected to both geotechnical monitoring and archaeological test excavations. The investigations revealed a grinding stone, underscoring the site's archaeological significance and its potential to yield further cultural materials. The report emphasised the importance of ongoing consultation with Registered Aboriginal Parties (RAPs) to ensure culturally appropriate management of the site. Recommendations included conducting Aboriginal archaeological salvage excavations prior to development, cataloguing and retaining recovered artefacts onsite for potential interpretative displays, and developing a comprehensive interpretation strategy in partnership with RAPs to showcase the Aboriginal history of the region.

CURIO PROJECTS 2020

The Charles Street Square Upgrade Aboriginal Cultural Heritage Assessment Report, completed in 2020 by Curio Projects, evaluated the cultural and historical significance of the proposed urban upgrade along the Parramatta River. The report identified that the area holds considerable Aboriginal cultural value, with historical records and archaeological evidence indicating prolonged use of the riverside environment by Aboriginal people. The study involved consultation with RAPs to identify key cultural concerns and ensure mitigation strategies aligned with Aboriginal perspectives. The report's recommendations included avoiding harm to any cultural heritage sites and integrating Aboriginal history into the urban design through interpretative elements such as signage and displays. This approach aimed to enhance public understanding of the Aboriginal cultural heritage of the area.

CASEY & LOWE 2014

Casey & Lowe's Baseline Archaeological Assessment for the Parramatta North Urban Renewal project in 2014 provided an in-depth evaluation of the Cumberland Precinct's archaeological potential. The report identified several areas of high heritage significance, including the Female Factory and Asylum Precinct, which were deemed of state and national importance. Key archaeological features included remnants of historical structures and mill races associated with the early colonial period. The report recommended preserving these significant sites in situ and incorporating them into future urban developments through interpretative strategies. It further emphasised the need for archaeological testing and careful planning to minimise potential impacts on cultural heritage during redevelopment.



JMcD CHM 2005

The 2005 report by Jo McDonald Cultural Heritage Management documented the salvage excavation of six Aboriginal archaeological sites in the Rouse Hill Development Area. The sites, located along Caddies, Second Ponds, Smalls, and Cattai Creeks, yielded over 33,000 artefacts, including evidence of knapping floors and backed artefact production. These findings offered significant insights into Aboriginal occupation of the Cumberland Plain, highlighting the use of local raw materials such as silcrete and silicified tuff for tool production. The report emphasised the importance of these sites in understanding Aboriginal settlement patterns, resource use, and technological practices over time. Recommendations included further conservation and management of significant sites and ongoing collaboration with Aboriginal stakeholders.

4.5.2 SUMMARY

The archaeological investigations conducted across the Sydney region, encompassing Parramatta, Homebush Bay, Castle Hill, and surrounding areas, provide a rich and detailed understanding of Aboriginal occupation and cultural heritage. These studies collectively highlight the region's significance as a focal point for settlement, resource use, and technological development, with evidence indicating continuous and dynamic occupation extending back at least 30,000 years. The RTA-G1 site on George Street, Parramatta, excavated by Jo McDonald CHM (2005a), yielded over 4,775 lithic artefacts, accompanied by a radiocarbon date of 30,000 BP, marking one of the earliest known instances of Aboriginal presence in the area. Similar studies, such as those at Caddies Creek, Second Ponds Creek, and Smalls Creek (Jo McDonald CHM, 2005c), have uncovered extensive lithic assemblages that attest to the enduring use of these landscapes, particularly along waterways.

The lithic artefacts recovered across the region, numbering in the tens of thousands, reflect the technological sophistication and adaptability of Aboriginal groups. The knapping floors identified during the excavations at Second Ponds Creek (Jo McDonald CHM, 2005c) and the detailed analysis of edge-ground hatchet heads by Corkill (2005) illustrate the strategic use of raw materials, such as silcrete and silicified sandstone, and suggest the existence of trade networks facilitating the movement of materials across the region. The artefact assemblages recovered from Parramatta Terrace Sands, as seen in studies by Comber Consultants (2010a, 2010b), reveal the potential of these deposits to yield high-density artefact scatters, including tools and flakes associated with subsistence activities.

The region's waterways, such as the Parramatta River and its tributaries, were central to Aboriginal life, serving as hubs for resource procurement and cultural activities. Investigations by Curio Projects (2020) at Charles Street Square in Parramatta identified areas of potential archaeological deposits (PADs) associated



with these environments. These findings are consistent with broader studies of riverine contexts, including Irish et al. (2017), who identified outcrops of silcrete along the Cooks River that were likely traded across the Sydney Basin. Fire-scarred tree remains and grinding stones identified at Sydney Olympic Park (Irish, 2004) and Parramatta Park (Attenbrow, 1996) further reflect Aboriginal landscape management practices, including fire-stick farming and the use of grinding technology for food preparation.

Culturally significant features, such as isolated artefacts, culturally modified trees, and ceremonial items, highlight the spiritual and social dimensions of these landscapes. Irish's reassessment of culturally modified trees at Newington Nature Reserve (2004) revealed the importance of such features in Aboriginal heritage, even when some scars were determined to be non-cultural in origin. Similarly, Attenbrow's 1996 work at Parramatta Park documented 68 cultural lithics, emphasising the site's archaeological and cultural value. These findings underscore the enduring significance of these areas as places of spiritual, ceremonial, and practical importance.

The impacts of urbanisation on Aboriginal heritage are a recurring theme across the studies. Urban expansion and industrial development have resulted in the destruction or burial of archaeological deposits, as seen in AHMS's (2009) assessment of Civic Place and Charles Street in Parramatta, which identified no surviving artefacts due to significant ground disturbance. Nevertheless, salvage excavations conducted by Austral Archaeology (2007) and Jo McDonald CHM (2005b) continue to reveal artefact-rich contexts in less disturbed areas, demonstrating the resilience of Aboriginal cultural materials in certain settings.

Conservation efforts and Aboriginal community consultation are consistently emphasised across the reports. Salvage excavations, such as those at George Street by Jo McDonald CHM (2005a), and mitigation strategies proposed by Curio Projects (2020) and Comber Consultants (2021), highlight the importance of cataloguing artefacts and integrating Aboriginal perspectives into heritage management. Furthermore, urban projects like the Charles Street Square upgrade incorporate interpretive strategies to educate the public about Aboriginal history, demonstrating a growing recognition of the cultural heritage of these landscapes.

Together, these studies paint a vivid picture of the Sydney region's archaeological and cultural heritage. The findings emphasise the long-standing and dynamic relationship between Aboriginal people and their environment, showcasing their technological ingenuity, cultural practices, and deep connection to the land. The integration of Aboriginal voices in ongoing conservation efforts remains essential to preserving this legacy for future generations.

4.6 PREDICTIVE MODEL

4.6.1 REGIONAL SITE PATTERNING

As part of the many archaeological investigations undertaken within NSW, over 5,000 archaeological sites have been recorded and registered on AHIMS. In general, the dominant site types identified within the Strathfield region include rock shelters with archaeological deposit (including middens), rock shelters with art, pictographs (rock engravings), artefact concentrations in open contexts, grinding grooves and open middens. The nature and extent of individual sites is closely related to the environmental context in which they are found – for example, rockshelters are found within sandstone escarpments, while middens are generally located close to water bodies including marine, estuarine and freshwater contexts, and grinding grooves are found on flat sandstone platforms in close proximity to water sources.

In 1986, Kohen developed site location patterning predictions based on a study of archaeological investigations undertaken to date on the Cumberland Plain. Proximity to water was an important consideration in site patterning, with 65% of open artefact scatters located within 100 m of permanent fresh water sources (Kohen 1986), and only 8% of sites located more than 500 m from a permanent water source. He argued that sites increased in size, in complexity and in density with increasing proximity to water, especially permanent waterways such as creeks and rivers.

Further investigations within the Cumberland Plain have identified that Kohen's work was limited by his reliance on available surface evidence. McDonald (1997) undertook further investigations within the Cumberland Plain and identified that 28% of sites excavated had no surface expressions of artefacts prior to their excavation, with the ratio of surface to excavated artefacts being 1:25, and the nature and extent of the excavated sites could not be determined on the basis of surface expressions of artefacts alone. In summary, she found that a lack of surface evidence does not constitute a reliable estimate for subsurface archaeological potential (McDonald 1997).

These results demonstrate how test excavations can assist in the identification of the nature and extent of subsurface archaeological deposits within the Cumberland Plain.

Based on the results of previous archaeological investigations within the wider region, a number of predictions regarding Aboriginal use of the area can be made. These predictions focus on the nature, extent and integrity of the remaining evidence.

The landscape characteristics of the area influence the prediction of the nature of potential sites within the landscape itself. Site types associated with sandstone

outcrops, such as grinding grooves, rock art sites, petroglyph (rock engravings) and sandstone rockshelters with art and/or archaeological deposit are not considered likely to occur within the study area. Cultural shell middens that are predominantly found to the east of the study area along the coast and in estuaries are not likely to be found this far from the coast. The study area is not associated with sand dunes, a landscape formation known to contain Aboriginal burials. Culturally modified trees are also considered unlikely within the study area due to the high levels of historical clearing which have occurred within the landscape.

Disturbance is the predominant factor determining whether artefacts made from stone or other materials are likely to be identified within a landscape.

Surface sites are likely to have been impacted by land clearing, and the construction and demolition of buildings. Natural actions such as bioturbation are likely to have impacted at least the upper levels of archaeological deposits, as are cultural activities such as excavation, construction, demolition, ploughing, clearing and planting. Whilst these actions may impact the integrity of stratigraphy within the deposit, this does not necessarily mean associated archaeological objects will also be disturbed.

Previous archaeological investigations within the broader area suggest that the majority of archaeological material in proximity to waterways, on elevated landforms such as ridges, and within areas of preserved soil stratigraphy. Studies consistently highlight the importance of riverine and estuarine environments, such as those along the Parramatta River and Cooks River, as focal points for Aboriginal activity. These areas provided reliable access to water, abundant food resources, and raw materials, making them key locations for both temporary and long-term settlement.

In terms of the study area, the most likely archaeological material that may remain are isolated stone artefacts, and/or stone artefact scatters, which may occur anywhere across a landscape.

In general, Aboriginal use of an area is based on a number of factors, such as:

- Proximity to permanent water sources – generally permanent or areas of repeat habitation are located within approximately 200m of permanent water
- Proximity to ephemeral water sources – generally sites near ephemeral water sources were utilised for one-off occupation
- Ease of travel – ridgelines were often utilised for travel during subsistence activities



- The local relief – flatter, more level areas were more likely to be utilised for long term or repeat habitation sites than areas of greater relief, especially if the slopes are at a distance from water.

STONE ARTEFACTS

Stone artefacts can be identified on the ground surface or within subsurface deposits. Generally, artefact concentrations are representative of debris from knapping activities, which includes flakes, flake fragments, cores, and pieces likely to have been knapped but with no or inconclusive diagnostic features, referred to as flaked pieces. Modified artefacts can also be identified, including backed artefacts, scrapers, or edge ground axes, although these are generally a smaller proportion of the artefact assemblage. During excavation, very small debris (~3-5 mm) can be identified within sieved material, and is referred to as debitage. This is indicative of *in situ* knapping activities.

As the detection of stone artefacts relies on surface visibility, factors such as vegetation cover can prevent their identification. Conversely, areas of exposure can assist in their identification. Within the study area, the identification of stone artefacts is limited by extensive prior disturbance from industrial and urban development, which has significantly modified the natural landscape. Surface artefacts are unlikely to be present due to the lack of intact ground surfaces.

QUARRY AND PROCUREMENT

Exposures of stone which can be exploited for the production of lithics are referred to as quarries or procurement sites. Quarries generally have evidence of extraction visible, while procurement sites can be inferred through the presence of artefactual material made from raw material sources present within the area.

Silcrete in the form of outcrops and cobbles have been noted to be within the broader regional area. However, within the immediate study area, there is no direct evidence to suggest the presence of significant exposures of silcrete or other raw material sources used for lithic production.

MIDDENS

Middens are concentrations of shell, and may also contain stone artefacts, bone and sometimes human burials. These sites are generally recorded along coastal areas. Middens are formed through the exploitation of locally available species by humans for resources, and accumulation of the shell material within a specific location. Middens can range in size from small, discrete deposits, to deposits covering a large area.

Generally, middens reflect the species available in the local area. In estuarine regions, estuarine species will dominate the composition of the midden, while around headlands, rock platform species tend to dominate. It is very unlikely for this



site type to occur within the study area, as it has been heavily modified and is unlikely to preserve such deposits. However undisturbed or less-modified areas closer to the shoreline or along Haslams Creek may retain evidence of midden sites.

BURIALS

Aboriginal people across Australia utilised a range of burial forms, which depended on the customs of the individual tribes. Common burial practices included inhumation, cremation, desiccation and exposure. Burials are known to occur within sandy contexts in the wider region. These are generally found within coastal Holocene sand bodies, and generally are not identified during field survey as there is usually minimal surface expression of this type of site.

The extensive modification of the site through industrial development and land reclamation has significantly altered the natural landscape, including any original soil profiles. This disturbance significantly reduces the likelihood of burial sites being present within the study area. There remains potential for this site type to occur outside of the study area in less-disturbed locations closer to Haslams Creek or along the Parramatta River, where natural soil profiles may be better preserved.

ROCK SHELTERS

Rock shelters are formed by rock overhangs which would have provided shelter to Aboriginal people in the past. Often, evidence of this occupation can be found in the form of art and/or artefacts. Shell, midden material, grinding grooves, pictographs (rock engravings), artworks including stencils and paintings, and potential archaeological deposits (PAD) are common features of rock shelter sites.

To date, there are no records or evidence of rock shelters within the study area and the geology of the area does not support their formation. Rock shelters typically form in natural sandstone escarpments or areas with significant rock overhangs, neither of which are present within the study area. Additionally, the site's heavily modified landscape, characterised by reclaimed land and industrial development, further precludes the possibility of rock shelters existing within this location.

GRINDING GROOVES

Grinding grooves are formed on sandstone exposures through the creation and maintenance of ground edge tools, such as axes and spears. Usually, stone was ground to form a sharp edge, although bone and shell were also ground to create sharp points.

Generally, fine grained sandstone was favoured for these maintenance activities, and the presence of a water source nearby or overflowing the sandstone was also favoured. Grinding grooves range from individual examples through to hundreds of grooves within an area, sometimes arranged in a specific pattern. Horizontal sandstone was generally preferred, although there are examples of vertical grooves.



The lack of exposed sandstone surfaces and the extensive disturbance from industrial development means the possibility of grinding grooves being present in the study area is very low.

SCARRED AND CARVED TREES

Scarred and carved trees are created during the removal of bark from a tree for a range of reasons, both domestic and ceremonial. This type of site can be identified within areas containing trees of the correct species and appropriate age. Deliberately scarred trees can be difficult to differentiate from naturally occurring damage to trees, and specific criteria must be considered when assessing a scar for a cultural origin.

The extensive clearing and modification of the landscape for industrial development and urban infrastructure have likely removed any original vegetation where such cultural markers may have existed. As such, it is highly unlikely that scarred or carved trees are present within the study area. Outside the study area, there is some potential for scarred or carved trees to be identified in areas that retain remnants of original or regrowth vegetation, particularly along waterways like Haslams Creek or in less-disturbed portions of the Homebush Bay region.

CEREMONIAL SITES

Specific places were used for ritual and ceremonial purposes, including initiation and burial practices. Secret rituals were also undertaken at specific places by specific individuals, such as at water holes and by clever men.

The landscape itself was also considered to hold significance to Aboriginal people, and the understanding of this is referred to as a sacred geography. This includes natural features which were associated with spirits or creation beings. The meaning attributed to the landscape provided Aboriginal people with legitimacy regarding their role as guardians of the places which had been created by the spiritual ancestors (Boot 2002).

Many areas within NSW are considered to be sacred to the original inhabitants. There are no known recorded areas within the study area, although this does not preclude these values from existing within this location.

CONTACT SITES

Contact sites contain evidence of Aboriginal occupation concurrent with initial colonisers in an area. This could include evidence such as flaked artefacts formed on glass, or burials containing non-Aboriginal grave goods. Often Aboriginal camps would form around newly built towns, allowing for employment (or exploitation) of the Aboriginal people by the colonists, and also for trade to exist between the two communities. Contact sites can also occur around Aboriginal mission sites, where Aboriginal children were taken from their families to raise in the European manner.



Families often camped around the mission boundaries to try to catch a glimpse of their children.

There is no known evidence of initial contact between Aboriginal people and colonists within the study area, although it may have been possible. The probability of evidence of contact sites occurring within the study area is considered low.



5.0 FIELD WORK

5.1 SAMPLING STRATEGY

A sampling strategy was developed and provided to the RAPs as part of the consultation process completed for the ACHA. The strategy included assessment of all landforms within the study area that have the potential to be impacted by the Project. Areas considered likely to have archaeological potential were closely scrutinised, although the entire study area was considered.

The survey was conducted on foot for the purposes of discovering Aboriginal objects within the study area, including areas considered to have potential for subsurface objects to be present. During the survey completed by Apex Archaeology the study area was inspected for Aboriginal archaeological evidence.

The northern portion of the study area was not directly inspected due to the visible disturbance present across the entirety of the northern portion, including disturbance from construction of Homebush Bay Drive. However, this represents a disturbed area, and a portion of similar landscape was inspected, in line with Code of Practice requirements.

5.2 SITE INSPECTION

A site survey was undertaken on 22 November 2024 by Leigh Bate of Apex Archaeology, and Raymond Adams of Aragung Aboriginal Cultural Heritage Site Assessments.

5.3 SURVEY COVERAGE

The survey was undertaken with two survey participants for the entire survey track length. Each participant was responsible for inspecting a 2 m wide portion of the study area inspected. This meant that on each pass an area covering 4 m would be observed for archaeological material. Some areas of the site were inaccessible with high grass cover and no visibility, so areas of exposure were targeted as a priority.

Table 4: Survey units

Unit name	Landform Element	Number of participants	Total Length
ATU 1	Flat, Gentle Simple Slope (GSS)	2	1,075m

An assessment of landform element and slope was made for the study area, with the results presented in Table 5.

**Table 5: Survey unit results**

Survey Area #	Landform Element	Slope	Vegetation	Detection Limiting Factors	Ground Disturbance
ATU 1	Flat, GSS	Level Gentle >1.45°- 5.45°	Cleared (Grassed/Revegetated)	Leaf litter, sediment, Exotic grasses, weeds and illegally dumped materials and soils	High

The total survey coverage (meaning the areas physically inspected for archaeological evidence) was approximately 2,104m². The total area of the development impact is approximately 26,880m². A range of factors were considered and recorded during the survey, including the surface visibility (percentage of bare ground within a survey unit); archaeological visibility (amount of bare ground within an area in which artefacts could be expected to be identified if present); exposure type (A or B soil horizon) and calculations of how effective the survey coverage was. The results of the survey coverage are presented in Table 6.

Table 6: Survey coverage results

Survey Area #	Total Area Surveyed (m ²)	Surface Visibility (%)	Arch Vis (%)	Exposure Type (A/B)	Effective Coverage (m ²)	% Total Effective Survey Coverage of Context
ATU 1	2,104	5	1	A	1.05	0.05

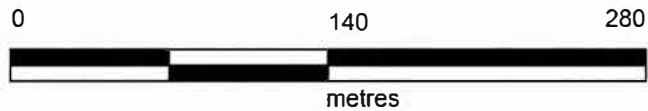
Surface visibility across the study areas was limited due to surface vegetation such as exotic pasture grasses, leaf litter and weeds. Total effective survey coverage of the survey transect was 0.05%. Total effective survey coverage for the entire study area was 0.003% (Table 7).

Table 7: Total effective survey coverage results

Survey Area #	Total Area of Study Area (m ²)	Total Area Effectively Surveyed (m ²)	Surface Visibility (%)	Arch Vis (%)	Exposure Type (A/B)	% Effective Survey Coverage of Context (Total Area)
ATU 1	26,880	1.05	5	1	A	0.003



PO Box 236
WOLFEA
NEW SOUTH WALES 2541



Projection:
MGA Zone 56 (GDA 94)
Base Map:
Bing Roads 2025
Final - Version 1

Figure 8: Survey transect within the study area.



5.4 SURVEY RESULTS

The survey did not identify any archaeological sites within the study area, nor any areas of subsurface potential archaeological deposits.

Ground disturbance was extremely high within the entirety of the study area. No surface sites were identified within the study area during the pedestrian survey. No areas of sub-surface archaeological potential were identified within the study area. Evidence of disturbance relating to the STSS construction, along with current land use and previous site disturbance factors were noted. The STSS and car park site are situated on a relatively level area. It appears the southern portion of the site was used as a car park and has been completely modified with no residual land surface left. The northern portion of the site, between Homebush Bay Drive and the existing STSS, is clearly disturbed through previous works in the area, including construction of Homebush Bay Drive itself, and is not considered to have archaeological potential.

As a result of the site inspection and pedestrian survey, test excavation was not considered to be necessary given the high levels of disturbance across the study area, along with the lack of landforms suitable for occupation or activity to occur.



Plate 1: Looking south over the central portion of the study area.



Plate 2: Looking south east over the eastern portion of the study area.



Plate 3: Looking upslope within the central portion of the site.



Plate 4: Looking west along the southern boundary of the site.



Plate 5: Looking west along the southern boundary of the site.



Plate 6: Looking west towards the existing STSS.



Plate 7: Looking north towards the DFO facility and STSS.

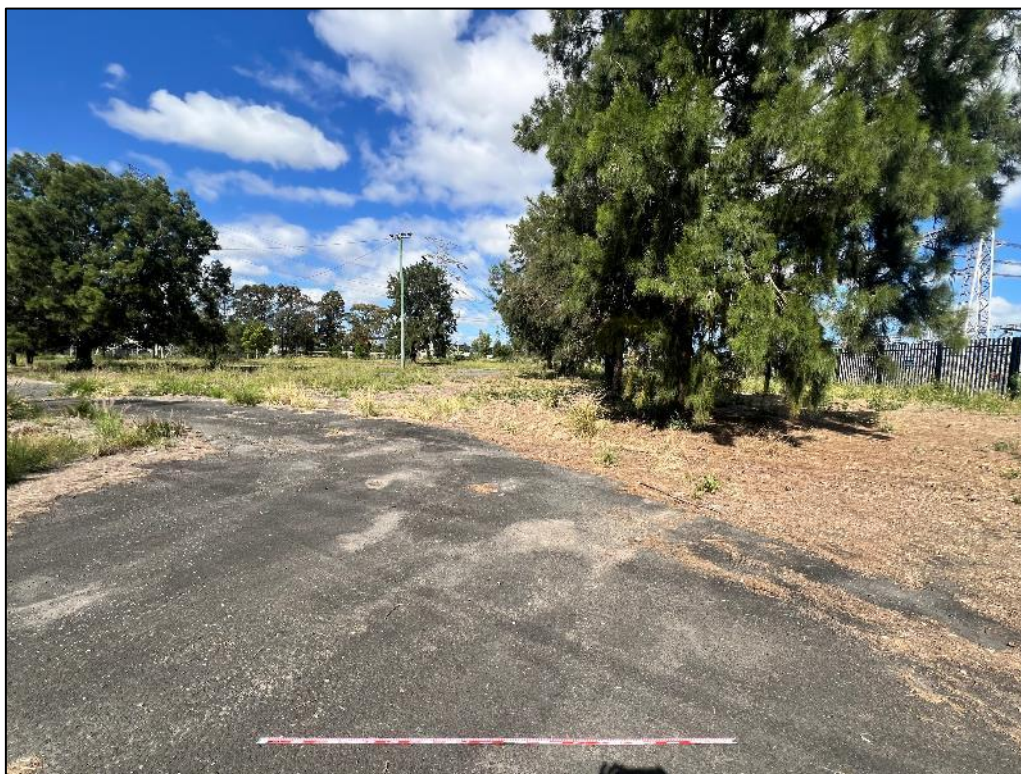


Plate 8: Looking west from the western boundary towards the STSS.



Plate 9: Looking north west at the fenceline of the STSS.



6.0 ABORIGINAL CULTURAL HERITAGE SIGNIFICANCE ASSESSMENT

6.1 INTRODUCTION

The *Aboriginal cultural heritage consultation requirements for proponents 2010* acknowledge that:

- Aboriginal people have the right to maintain their culture, language, knowledge and identity
- Aboriginal people have the right to directly participate in matters that may affect their heritage
- Aboriginal people are the primary determinants of the cultural significance of their heritage

Undertaking consultation with Aboriginal people ensures that potential harm to Aboriginal objects and places from proposed developments is identified and mitigation measures are developed early in the planning process.

6.2 CRITERIA

The Burra Charter is considered an appropriate framework for the assessment of cultural heritage, which can be made based on the following assessment criteria:

- **Social value:** Also referred to as cultural value, this criterion considers the spiritual, traditional, historical or contemporary associations an area or place has for Aboriginal people
- **Historic value:** the relationship between a place and people, events, phases or activities of importance to the Aboriginal community; specifically considering the “associations of a place with a historically important person, event, phase or activity in an Aboriginal community” (DECCW 2010)
- **Scientific value:** assessment under this criterion considered the ability of a landscape, place, area or object to inform scientific research and/or analysis and to assist in answering research questions
- **Aesthetic value:** the ability of a place, area, landscape or object to demonstrate aesthetic characteristics, or possess creative or technical values

Additionally, archaeological significance is assessed based on the archaeological or scientific values of an area. These values can be defined as the importance of the area relating to several criteria. Criteria used for determining the archaeological significance of an area are as follows:

- **Research or educational potential:** Can the site contribute to an understanding of the area/region and/or the state’s natural and cultural history? Is the site able to provide information that no other site or resource is able to do?

- **Representativeness:** is the site representative of this type of site? Is there variability both inside and outside the study area? Are similar site types conserved?
- **Rarity:** is the subject area a rare site type? Does it contain rare archaeological material or demonstrate cultural activities that no other site can demonstrate? Is this type of site in danger of being lost?
- **Integrity/Intactness:** Has the site been subject to significant disturbance? Is the site likely to contain deposits which may possess intact stratigraphy?

Further, an assessment of the grade of significance is made, based on how well the item fulfils the assessment criteria. The Heritage Branch of the Department of Planning (now Heritage NSW of the Department of Climate Change, Energy, the Environment and Water) 2009 guideline *Assessing Significance for Historical Archaeological Sites and 'Relics'* defines the grading of significance as follows:

Table 8: Grading of significance, from Heritage Branch 2009

Grading	Justification
Exceptional (E)	Rare or outstanding item of local or State significance. High degree of intactness. Item can be interpreted relatively easily.
High (H)	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.
Moderate (M)	Altered or modified elements. Elements with little heritage value but which contribute to the overall significance of the item.
Little (L)	Alterations detract from significance. Difficult to interpret.
Intrusive (I)	Damaging to the item's heritage significance.

Whilst this was developed for the assessment of significance of historical items, the criteria are applicable to Aboriginal significance assessments as well. It is important to note that the below assessment is specific to Aboriginal cultural heritage and does not consider the non-Aboriginal significance of the site.

6.3 SIGNIFICANCE ASSESSMENT

No sites were located within the study area, and the archaeological significance of the study area is considered to be low. Discussion around the significance assessment for the study area as a whole is outlined below.

SOCIAL VALUE

The Aboriginal community are best placed to make a determination of the social or cultural value of the study areas. No specific comments regarding the social value of the areas to Aboriginal people have been received from the RAPs to date, although it is noted that all areas with evidence of Aboriginal occupation hold significance to Aboriginal people and can be considered cultural landscapes.



HISTORIC VALUE

The study area is not known to be associated with any specific Aboriginal individuals or historical events and thus is considered to have limited significance under this criterion.

SCIENTIFIC VALUE

The study area itself is considered to have low scientific value. No evidence of Aboriginal cultural material, such as artefacts or objects, was identified during the survey. The site is highly disturbed due to past land use, including infrastructure development, and as such, the likelihood of intact subsurface archaeological deposits is minimal. This lack of potential for intact deposits further reduces the scientific value of the study area.

AESTHETIC VALUE

Generally, aesthetic value is determined by the response evoked by a setting. The study area is located within a heavily modified urban landscape, limiting its ability to evoke significant aesthetic responses. While the broader region may have held aesthetic value to Aboriginal communities in the past, the study area itself has been altered extensively, and its aesthetic value is therefore considered low in its current context.

RESEARCH POTENTIAL

The study area is assessed as having limited research potential due to the extensive ground disturbances and the absence of identified artefacts or cultural materials. Although the surrounding region may have broader archaeological importance, the lack of evidence within the site itself diminishes its potential to contribute to a greater understanding of Aboriginal heritage.

REPRESENTATIVENESS

The study area is representative of a highly disturbed urban environment. It does not showcase undisturbed examples of Aboriginal cultural heritage or archaeological deposits. As such, its representative value for Aboriginal cultural values or practices is considered low.

RARITY

The study area does not contain any identified rare or unique Aboriginal artefacts, objects, or undisturbed cultural deposits. Archaeological sites with intact deposits are uncommon within the Sydney Basin; however, this site's extensive disturbance results in it being assessed as having low rarity in the context of Aboriginal heritage.

INTEGRITY/INTACTNESS

The study area has been subject to significant disturbance due to historical and current land use. As a result, it lacks intact stratigraphy or deposits of archaeological



significance. The integrity of the site is considered low, reflecting its highly modified condition.

6.4 CULTURAL SIGNIFICANCE ASSESSMENT

Generally, all Aboriginal sites are of high significance and importance to the Aboriginal community, both locally and more broadly. The Aboriginal social or cultural value of the study area can only be determined by the Aboriginal community and to date, no comments have been received from the RAPs regarding the specific social significance of the study area.

It is acknowledged that the overall significance of a site is determined by both the cultural and scientific values of the area; with cultural values potentially extending beyond a specific study area and incorporating cultural landscapes in many cases. The cultural significance of an area can only be determined by the Traditional Owners of that area. Generally, all sites with evidence of Aboriginal occupation are considered significant to Aboriginal people as part of a larger cultural landscape. While no specific evidence of Aboriginal cultural heritage was found in the study area, the significance of the broader cultural landscape in connecting people to their heritage remains acknowledged.

6.5 STATEMENT OF ARCHAEOLOGICAL SIGNIFICANCE

The study area is assessed as having negligible archaeological significance due to the absence of identified artefacts, low research potential, limited representativeness, lack of rarity, and poor integrity. The high levels of disturbance within the site reduce its potential to provide meaningful contributions to the archaeological record. No areas within the site are considered to hold potential for significant subsurface archaeological deposits. Consequently, the site's overall archaeological significance is considered to be low.



7.0 IMPACT ASSESSMENT

7.1 PROPOSED DEVELOPMENT

It is proposed to construct a BESS and associated infrastructure within the site at 10 Homebush Bay Drive, Homebush, within a site that is currently occupied by infrastructure and modified surfaces, including areas levelled for car parking. The works include the following:

- Construction, operation, and maintenance of a BESS with a 200 MW maximum power output capacity with 2-hour duration (i.e. 400 MWh)
- Containerised battery units (112 Megapacks) and associated infrastructure, including inverters and 56 medium voltage transformers
- 33kV underground cable connection from the battery units to the Mason Park Sub-Transmission Switching Station infrastructure
- Combined switch room and control room building
- Eight Ring Main Units (RMU)
- Onsite workshop facility
- Two auxiliary transformers
- Backup diesel generator
- Two spaces for onsite car parking
- Other ancillary infrastructure including fire suppression, stormwater management, 2.4m high boundary security chain wire fencing, lighting and CCTV.

These activities are confined to an area that has been heavily modified through historical industrial development, minimising the likelihood of impacting any significant cultural or natural features.

7.2 POTENTIAL IMPACT

No known or potential Aboriginal sites are considered likely to be impacted by the proposed development.

7.3 JUSTIFICATION

The Project is considered essential to meet growing energy demand, stabilise the electricity grid, and support the integration of renewable energy sources into the NEM. This infrastructure is vital to ensuring energy reliability and addressing the increasing need for sustainable energy solutions within the Hunter Region and beyond. The site has been strategically selected for its proximity to existing energy infrastructure, reducing the need for extensive new network connections and minimising the environmental footprint. The development will support state and national renewable energy targets, contributing to a reduction in greenhouse gas emissions and facilitating the transition towards cleaner energy sources.



7.4 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)

It is a requirement of Section 2A(2) of the NPW Act to apply the principles of ESD when considering any impact to Aboriginal objects and places. ESD integrates economic and environmental considerations, which includes cultural heritage, into decision-making processes. In general, ESD can be achieved through consideration and implementation of two key principles, being intergenerational equity and the precautionary principle.

Intergenerational equity refers to the present generation having consideration for the health, diversity and productivity of the environment for those generations to come. In terms of Aboriginal cultural heritage, this relates to cumulative impacts to Aboriginal objects and places within a region. Intergenerational equity therefore relies on the understanding that a reduction in the number of Aboriginal objects and places within a region results in fewer opportunities for Aboriginal people to access their cultural heritage in the future. Thus, it is essential to understand what comprises the Aboriginal heritage resource, both known and potential, when assessing intergenerational equity within a region.

The precautionary principle relates to threats of serious or irreversible environmental damage, and that lack of scientific certainty regarding the degree of potential damage should not be a reason to postpone adequate reasonable measures to prevent harm to the environment. Regarding Aboriginal cultural heritage, the precautionary principle relates to where a proposed development may seriously or irreversibly impact Aboriginal objects or places, or their significance; and where there may be uncertainty relating to the integrity, rarity or representativeness of Aboriginal cultural values.

The Code of Practice also outlines that a precautionary approach should be taken to avoid or reduce damage to Aboriginal objects or places, with cost-effective measures implemented wherever possible. Additionally, a cumulative impact assessment should be completed to determine how the proposed development would impact the cultural resource in the wider region (see below).

Consideration should be given to the significance of the sites present within an area, and whether they are able to transmit cultural information to future generations, or to act as teaching aids.

7.4.1 INTERGENERATIONAL EQUITY

As no Aboriginal cultural material was identified within the study area, it is considered that the impact of the development of this site would be negligible with regards to the ongoing transmission of cultural knowledge to future generations, and thus would not result on future generations accessing Aboriginal objects and places. The proposal is not considered to impact on intergenerational equity.



7.4.2 CUMULATIVE IMPACTS

The cumulative impact of the project on the Aboriginal cultural resource must be considered as part of an assessment, and managed appropriately and sensitively. Avoidance of impact is the best practice approach wherever possible, particularly for sites that are intact, contain high numbers of artefacts, or are considered significant to the community.

In terms of cumulative impact, the site does not contain evidence of Aboriginal occupation in a disturbed context, with low identified cultural significance.

Given the industrialised and heavily modified nature of the landscape, there is a low likelihood of encountering unrecorded Aboriginal cultural heritage during the construction and operation of the Project. As such, it is considered that the cumulative impact of the proposed Project on Aboriginal cultural heritage would be minimal.

7.5 ABORIGINAL COMMUNITY INPUT

Consultation with the Aboriginal community has been undertaken for this Project in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010*. The input of the RAPs has been integral to ensuring the ACHA is comprehensive, respectful, and inclusive. All RAPs identified through statutory notifications and consultation processes were invited to contribute to the Project assessment. The RAPs were provided with relevant information about the Project, the study area, and the methodologies used in the assessment, and their feedback, where received, has been incorporated into the report as appropriate.



8.0 MANAGEMENT, MITIGATION AND RECOMMENDATIONS

8.1 GUIDING PRINCIPLES

Wherever possible and practicable, it is preferred to avoid impact to Aboriginal archaeological sites. In situations where conservation is not possible or practicable, mitigation measures must be implemented.

The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013 (The Burra Charter) provides guidance for the management of culturally sensitive places. The Burra Charter is predominantly focussed on places of built heritage significance, but the principles are applicable to other places of significance as well.

The first guiding principle for management of culturally significant sites states that “places of cultural significance should be conserved” (Article 2.1). A cautious approach should be adopted, whereby only “as much as necessary but as little as possible” (Article 3.1) should be changed or impacted.

The nature and detail of mitigation measures depend on the significance assessment for the site. Cultural significance of sites should also be considered in consultation with the Aboriginal community during community consultation.

8.2 HARM AVOIDANCE

The study area does not contain any previously registered Aboriginal sites and none were found during the investigation. As such, no harm avoidance or mitigation measures for this site are necessary.

8.3 RESTRICTED INFORMATION AND CONFIDENTIALITY

Aboriginal stakeholders for the project have not identified any restricted, confidential or culturally sensitive information related to the Project.

It is noted that all AHIMS data and Aboriginal site specific information, along with associated mapped information, must be treated as confidential and not shared with the general public. As such, an unredacted version of this report should not be uploaded to any publicly accessible forums.



9.0 RECOMMENDATIONS

The following recommendations are made on the basis of:

- The statutory requirements of the NP&W Act 1974
- The requirements of Heritage NSW
- The Project SEARs
- The results of the cultural and archaeological assessment
- An assessment of the likely impacts of the proposed development
- The interests of the registered Aboriginal stakeholders and the cultural heritage record.

It was found that:

- There were no previously registered sites within the study area
- No surface artefacts were identified during the survey
- No areas considered to have potential for subsurface archaeological deposits were identified within the study area
- The area was considered to be disturbed throughout due to historical clearance, land reclamation, land use practices and ongoing disturbance factors
- The site is not considered to contain potential for Aboriginal cultural material to be present

Based on the results of the cultural heritage and archaeological assessments, the following recommendations have been made for the Project:

RECOMMENDATION 1: NO FURTHER ARCHAEOLOGICAL ASSESSMENT REQUIRED

This report details the Aboriginal archaeological potential of the Site, which has been assessed as negligible. No further archaeological assessment is required for the site prior to the commencement of proposed development activities.

RECOMMENDATION 2: DEVELOPMENT BOUNDARIES

The proposed development must be contained within the boundaries assessed for this ACHAR. If there is any alteration to the boundaries of the proposed development to include areas not assessed as part of this ACHAR, further investigation of those areas must be undertaken.

RECOMMENDATION 3: STOP WORK PROVISION

Should unanticipated Aboriginal archaeological material be encountered during construction of the Project, all work must cease in the vicinity of the find and an archaeologist contacted to make an assessment of the find and to advise on the course of action to be taken. Further archaeological assessment and Aboriginal



community consultation may be required prior to the recommencement of works. Any objects confirmed to be Aboriginal in origin must be reported to Heritage NSW.

In the unlikely event that suspected human remains are identified during construction works, all activity in the vicinity of the find must cease immediately and the find protected from harm or damage. The NSW Police and the Coroner's Office must be notified immediately. If the finds are confirmed to be human and of Aboriginal origin, further assessment by an archaeologist experienced in the assessment of human remains and consultation with both Heritage NSW and the RAPs for the project would be required.

This recommendation should be included in the Project's Construction Environmental Management Plan (CEMP).

RECOMMENDATION 4: REPORTING

One digital copy of this report should be forwarded to Heritage NSW by the consultant for inclusion on the Aboriginal Heritage Information Management System (AHIMS).

One copy of this report should be forwarded to each of the RAPs for the project.



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